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Intellectual property

Intellectual property & Competition law: An overview of EU and national case law

EXCESSIVE PRICES, INTELLECTUAL PROPERTY, INVESTIGATIONS / INQUIRIES, VERTICAL RESTRICTIONS, LICENSING, FOREWORD, MERGER (NOTION), EFFECT ON COMPETITION, ANTICOMPETITIVE OBJECT / EFFECT, FRAND, PAY-FOR-DELAY, STANDARD ESSENTIAL PATENT, COMPETITION POLICY

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1. Introduction

1. In this article, we consider some recent high-profile cases in the EU and the US where intellectual property (IP) rights and competition policy intersect, and discuss the impact of IP rights on the competitive assessment. We begin with reverse payment agreements, and consider the Court of Justice of the European Union (CJEU) judgements in *Paroxetine* and *Lundbeck*. Next, we discuss the US Court of Appeals for the Ninth Circuit judgement in *FTC v. Qualcomm* and the court's insights on how to assess the competitive effects of licensing practices. We then consider the European Commission's (the "Commission's") recent *Aspen* investigation and excessive pricing assessments. Finally, we turn to merger control, and describe the role of IP rights in vertical mergers. We conclude by noting rising concerns about transactions that may have an adverse effect on future competition.

2. Multilateral Conduct

2. One form of multilateral conduct where IP plays an important role is reverse payment agreements between branded and generic pharmaceutical manufacturers. Reverse payment agreements typically concern patent disputes that arise when regulatory exclusivity periods for originator products near their end and generic manufacturers are preparing to enter the market. The originator sues generic entrants for infringing its patent(s), while generic manufacturers make the counterclaim that the originator patent is invalid or not infringed. [*1*] Reverse payment agreements are one way of settling such patent disputes. They typically have two key features: they identify (i) the date of generic entry, which is after the settlement agreement but before expiry of the disputed patent; (ii) the amount of the value transfer from the originator to the generic firm (the "reverse payment"). [*2*]

3. Reverse payment agreements are subject to rule-of-reason assessment in the US,[*3*] which involves balancing procompetitive and anticompetitive effects. The main anticompetitive concern with reverse payment agreements is that, if the patent at issue were invalid or not infringed, reverse payment agreements may delay generic entry, resulting in decreased competition and higher prices during the delay period. [*4*] However, the mere existence of a reverse payment does not necessarily indicate that the parties "sought or brought about the anticompetitive consequences." [*5*] Value transfers that reflect a "rough approximation of the litigation expenses" or "compensation for other services that the generic has promised to perform" (e.g., distributing the patented product) may be considered as legitimate justifications. [*6*] Furthermore, the reverse payment agreement may be procompetitive if it allows earlier entry of the generic product as a result of the settlement of the patent dispute if the patent at issue were valid or infringed. [*7*] For example, in *Wellbutrin XL Antitrust Litigation*, the district court considered the patent holder's claim that the settlement agreement allowed earlier generic entry and made such earlier entry more likely than absent the agreement as a sufficient procompetitive justification. [*8*]

4. In Europe, the CJEU has recently clarified how reverse payment matters should be evaluated in rendering decisions on two disputes, *Paroxetine* and *Lundbeck*. *Paroxetine* relates to GlaxoSmithKline's (GSK's) antidepressant Seroxat. The primary patent (i.e., active pharmaceutical ingredient patent) for Seroxat expired in 1999. [*9*] As generic manufacturers were about to enter the market, GSK and generic entrants engaged in a patent dispute concerning secondary patents, which was eventually resolved by various settlement agreements between them. [*10*] In February 2016, the UK Competition and Markets Authority (CMA) concluded that these settlement agreements were anticompetitive. GSK appealed the CMA decision to the Competition Appeals Tribunal (CAT), which in March 2018 requested a formal opinion from the CJEU. [*11*] In January 2020, the CJEU provided its formal response – the first time Europe's highest court opined on reverse payment agreements. [*12*] In May 2021, after considering the CJEU opinion, the CAT upheld the CMA decision. [*13*]

5. The second case relates to Lundbeck's branded citalopram (Cipramil), another blockbuster antidepressant. The primary patent for citalopram expired in 2002. [*14*] In 2013, the Commission found that Lundbeck entered into anticompetitive reverse payment arrangements to settle litigation over secondary patents with four generic manufacturers (Merck, Arrow, Alpharma and Ranbaxy). [*15*] Lundbeck appealed unsuccessfully first in General Court (September 2016), and then in the CJEU (March 2021). [*16*]

6. The CJEU's approach was similar in both cases. First, the court clarified that generic entrants and the incumbent should be considered potential competitors if "there are real and concrete possibilities of the former joining that market." Specifically, according to the court, a generic entrant can be considered a potential competitor if it has a "firm intention and inherent ability" to enter the market and when there are no insurmountable barriers to entry. [*17*] Therefore, an agreement between potential competitors may restrict competition if it prevents entry that otherwise would occur. Second, in its decision, the CJEU clarified that reverse payment agreements should not "automatically" be considered as having an anticompetitive object. [*18*] According to the court, these agreements should be considered as "by-object" restriction if "it is plain that the transfers of value … cannot have any explanation other than the parties' common commercial interest not to engage in competition on the merits." [*19*] Specifically, this would involve considering whether the net value transfer from incumbent to generic entrant was "sufficiently significant actually to act as an incentive to … refrain from entering the market … and not to compete on the merits." [*20*]

3. Unilateral Conduct

7. If the firm holding IP rights also has market power, agencies may be concerned that exercise of these rights may be anticompetitive. Next, we discuss two examples that highlight this issue: the US Court of Appeals for the Ninth Circuit judgement in *FTC v. Qualcomm* and the court's insights on how to assess the competitive effects of licensing practices; and the Commission's recent *Aspen* investigation and excessive pricing assessments.

3.1. Licensing Practices

8. Recently, the US Court of Appeals for the Ninth Circuit reversed the district court's finding that Qualcomm engaged in anticompetitive licensing practices. The appellate court opinion provides important insights on how to assess whether licensing practices are anticompetitive.

9. Qualcomm manufactures baseband processors, i.e., "chips" used in mobile communication devices such as smartphones. Qualcomm also owns patents that enable cellular connectivity, which are used industry wide, including by Qualcomm's semiconductor rivals. The FTC alleged that Qualcomm's licensing practices were anticompetitive because Qualcomm allegedly (i) refused to license standard essential patents to its competitors on FRAND (fair, reasonable, and non-discriminatory) terms; (ii) supplied chips to smartphone manufacturers only if they agreed to Qualcomm's preferred license terms (so-called "no license, no chips" policy), which required manufacturers to pay royalties to Qualcomm; and (iii) offered reduced royalties to Apple in exchange for exclusivity. [*21*] The FTC claimed that Qualcomm's practices acted as a tax on sales of Qualcomm's rivals, raising chip prices and, therefore, the prices consumers pay for mobile devices. [*22*]

10. Initially, the US District Court for the Northern District of California ruled in favour of the FTC.[*23*] However, on appeal, the Ninth Circuit reversed the district court's decision. In relation to the three allegations, the Ninth Circuit ruled that (i) Qualcomm is not under an "antitrust duty to license rival chip suppliers," and, even if Qualcomm had hypothetically breached its FRAND commitments, this would be a matter for contract and patent law; (ii) Qualcomm's "no license, no chips" policy does not have anticompetitive effects on rival chip makers because this policy is "chip-supplier neutral," i.e., smartphone manufacturers need to pay a per-unit royalty regardless of whether they choose a Qualcomm or rival chip; and (iii) Qualcomm's agreements with Apple did not have the "actual or practical effect of substantially foreclosing competition" because, in practice, there was not a viable alternative supplier that could have supplied chips to Apple. [*24*]

3.2. Excessive Pricing

11. According to EU competition law, if an undertaking that is in a dominant position charges "a price which … has no reasonable relation to the economic value of the product," it may be abusing its position. [*25*] Assessment of excessive pricing involves two limbs: the "excessiveness" limb and the "unfairness" limb. The "excessiveness" limb assesses whether "the difference between the costs actually incurred and the price actually charged is excessive." The "unfairness" limb assesses whether the price is unfair, either in and of itself or when compared to other competing products. [*26*]

12. Excessive pricing cases attract some level of scepticism from economists because high prices may be temporary, and may self-correct in the market through increased innovation and entry. In fact, by reducing price, an intervention under excessive pricing statutes may make entry less attractive, and result in a long-run reduction in competition. [*27*] Instead, regulators may choose interventions that would facilitate new entry. For example in 2016, the FDA prioritized abbreviated new drug application (ANDA) submissions for products that are produced by a single manufacturer. The FDA's objective was facilitating entry by shortening the review period and thereby increasing competition. [*28*]

13. The dominant view in the antitrust community is that excessive pricing cases should not be brought against products under patent protection, such as branded pharmaceutical products. [*29*] This is because high prices for these products are the result of innovation policy that explicitly provides protection to inventors to compensate them for risky, lengthy, and costly research and development. [*30*] Enforcing excessive pricing statues on these products may reduce the returns for this investment and hence discourage innovation, undermining a key objective in IP policy. [*31*]

14. However, antitrust authorities have alleged excessive pricing in matters involving generic pharmaceutical products. For example, recently the Commission found that Aspen – a pharmaceutical company with a focus on generic medications – had engaged in excessive pricing. The case concerns cancer drugs that have been on the market for decades and hence are not protected by any patents, and for which many patients do not have viable alternatives. [*32*] In 2009, Aspen acquired these products from GSK. [*33*] According to the Commission, Aspen implemented sequential price increases, often by several hundred percent, beginning in 2012. When government payers resisted the price increases, Aspen responded by threatening to withdraw the products from the market. [*34*] In May 2017, the Commission opened an investigation into excessive pricing claims. [*35*] The investigation ended in February 2021, following Aspen's commitments to reduce prices by at least 73 percent (effective retrospectively from October 2019), and to maintain supply to EU member states. [*36*]

4. Merger Control

4.1. Assessing the Ability to Foreclose in Vertical Mergers

15. Vertical mergers involve firms operating at different levels of the same supply chain – for example, a manufacturer acquiring a distributor that is operating downstream. In assessing vertical mergers, authorities may consider whether input foreclosure is a relevant theory of harm, i.e., investigate whether the transaction would restrict downstream competitors' access to an important input. [*37*] This involves assessing whether the merged entity has the ability and incentive to foreclose downstream firms competing with the acquired firm and, if so, whether foreclosure would impact competition. [*38*]

16. In the assessment of vertical mergers, IP rights need to be considered in the ability to foreclose. For example, in *Google/Fitbit*, the Commission investigated whether the merger would allow Google to foreclose access to Wear OS (Google's licensable, wearable operating system used in smartwatches) by degrading Wear OS itself, by degrading Fitbit's rivals' access to Wear OS, or by no longer licensing Wear OS to Fitbit's rivals. [*39*]

17. However, having a licensable IP right does not necessarily provide the ability to foreclose, particularly if downstream firms have alternative sources of supply. [*40*] This was the case in *Google/Fitbit*, where the Commission concluded that Google does not have the ability to lessen competition in the wrist-worn wearables market by foreclosing access to Google's Wear OS, in part, because (i) Google's Wear OS accounts for only 10–20 percent of the licensable, wearable OS market; (ii) the largest smartwatch producers rely on their in-house wearable OS solutions, suggesting that a potential input foreclosure would have no impact on a large share of the market; and (iii) more smartwatch producers would develop their own wearable OS if Google adopted a potential input foreclosure strategy. [*41*]

18. Exercising control over IP rights (i.e., licensing) is not a necessary condition for an input foreclosure theory of harm. First, as discussed above, instead of refusing to license, the merged entity may prefer a more subtle strategy, such as degrading downstream firms' access, which may have a similar impact. [*42*] Second, even if the ability to foreclose is established, agencies should consider whether the merged entity has the incentive to

foreclose. This depends on the merged entity's trade-off between (i) lost profits (or royalties) at the upstream level, as a result of refusing to license its IP rights; and (ii) increased profits at the downstream level, as a result of expanding sales diverted from the foreclosed rivals. [*43*] Finally, agencies should consider whether a potential foreclosure strategy, if applied, would actually impact competition. If only a minor share of competitors are foreclosed or if the transaction leads to significant efficiencies, the transaction may not be anticompetitive. [*44*]

4.2. Future Competition

19. Transactions where the primary objective of the acquiring firm is allegedly eliminating a future competitive threat, such as an innovative product or a firm with promising research, are a rising concern in merger control. [*45*] In these cases, the alleged competitive threat is not immediate. The product either does not currently exist on the downstream market, such as a candidate drug that is still in development, or does exist but does not currently impose a competitive constraint on the incumbent, such as a recently launched app with potential to become a leading social media platform. [*46*] In these cases, the competitive concern is that once the transaction is complete the incumbent may terminate or adjust the development of the product so that it no longer presents a future competitive threat for the incumbent.

20. Elimination of future competition is not a new concern for competition authorities. For example, according to Oldale et al. (2020), the FTC challenged 82 mergers between 1995 and 2020 where one of the anticompetitive concerns was a likely elimination of future competition. [*47*] However, more recently, elimination of future competition has become a popular topic in the competition policy community. For example, according to Cunningham et al. (2021), 5.3 to 7.4 percent of mergers in the life-sciences sector could be considered "killer acquisitions" in which the acquired drug projects are later terminated. [*48*] Similarly, in the tech space, big platforms are accused of "pay[ing] to scoop [start-ups] up early to eliminate a threat." [*49*] In line with these concerns, the Commission claimed in a recent communication that traditional revenue-based filing thresholds should be supplemented with a more qualitative assessment if the acquired firm's turnover does not reflect its actual or future competitive potential. [*50*] According to the Commission, this may be the case if one of the merging parties is "an important innovator or is conducting potentially important research," or "a start-up or recent entrant with significant competitive potential." [*51*] As examples, the Commission points to transactions in the digital economy, where the size of the user base or access to data can affect entrants' potential impact on competition, or transactions in pharmaceuticals, where innovation can be an important competitive parameter. [*52*]

21. Elimination of future competition concerns played a significant role in the recent *Illumina/PacBio* case. [*53*] Illumina is a global genomics company that develops systems used for genetic analysis. PacBio similarly develops systems for genetic analysis, but primarily focuses on a sub-segment, known as "long-read," which allows a larger number of DNA molecules to be analysed. In November 2018, the parties reached a merger agreement. [*54*] Subsequently, the FTC filed a complaint in December 2019. According to the FTC, "[t]he Acquisition, if consummated, would eliminate the nascent competitive threat that an independently owned PacBio poses to Illumina's monopoly power." [*55*] In Europe, the CMA also reviewed the transaction and published its provisional findings in October 2019. Like the FTC, the CMA considered that the proposed transaction would "eliminate the threat of PacBio on Illumina (and vice versa) which is a factor that currently drives R&D and innovation." [*56*] In consideration of the uncertainty of the regulatory approval, the parties abandoned the merger in January 2020. [*57*]

22. From an economic perspective, assessing whether a transaction would lead to loss of future competition is inherently uncertain. [***58***] First, it is uncertain that absent the merger, the acquired firm would succeed in launching a competing product. Particularly in sectors like pharmaceuticals, research and development can be a risky process. For example, DiMasi et al. (2016) estimate that only 11.8 percent of the pharmaceutical products in Phase 1 clinical research successfully obtain marketing authorization. They also find that even for the products in later stages there is substantial risk: only 56.0 percent of the products in Phase 3 clinical research obtain marketing authorisation. [***59***] Second, even if the acquired firm is able to launch a product successfully, the timing of entry may be uncertain, because research and development can be a lengthy process. Consider the development of pharmaceutical products, for instance. DiMasi et al. (2016) estimate that the average durations of Phase 1, Phase 2 and Phase 3 of the development process are 19.8, 30.3 and 30.7 months respectively, for a total of 80.8 months. [***60***] They also find substantial variation in these durations between products. For example, the top 25 percent of drugs require more than 37.7 months to progress from Phase 2 to Phase 3, while the bottom 25 percent require less than 19.9 months. [***61***] Uncertainty associated with success and timing of entry warrants a careful modelling of the expected growth of the acquired party absent the merger. Notably, such a modelling exercise is challenging in industries where detailed information about upcoming products and their likelihood of success is not available.

The views expressed are solely those of the authors, who are responsible for the content, and do not necessarily represent the views of Cornerstone Research.

Note from the Editors: although the e-Competitions editors are doing their best to build a comprehensive set of the leading EU and national antitrust cases, the completeness of the database cannot be guaranteed. The present foreword seeks to provide readers with a view of the existing trends based primarily on cases reported in e-Competitions. Readers are welcome to bring any other relevant cases to the attention of the editors.

[*1*] Competition and Markets Authority Decision, *Paroxetine*, Case CE-9531/11, February 12, 2016, ¶ 3.18; European Commission Decision, *Lundbeck*, Case AT.39226, June 19, 2013, ¶ 75. See respectively ***UK Competition Authority***, *The UK Competition Authority fines £45 million to several pharmaceutical companies for pay-for-delay settlements (GlaxoSmithKline), 12 February 2016, e-Competitions February 2016, Art. N° 78295* and ***European Competition Network Brief***, *The EU Commission fines pharmaceutical companies for delaying market entry of generic medicines through pay-for-delay agreements (Lundbeck), 19 June 2013, e-Competitions June 2013, Art. N° 53279*.

[*2*] Carl Shapiro, "Antitrust Analysis of Patent Settlements between Rivals," *Antitrust Magazine*, Summer 2003, p. 71. For example in *Paroxetine*, according to agreement between GlaxoSmithKline and generic producer GUK-Merck, GlaxoSmithKline agreed to pay GUK-Merck £21.3 million over three years, in the form of marketing allowance, stock purchase or other value transfers. *See* Competition and Markets Authority Decision, *Paroxetine*, Case CE-9531/11, February 12, 2016, ¶¶ 3.308, 6.57.

[*3*] "[T]he likelihood of a reverse payment bringing about anticompetitive effects depends upon its size, its scale in relation to the payor's anticipated future litigation costs, its independence from other services for which it might represent payment, and the lack of any other convincing justification. The existence and degree of any anticompetitive consequence may also vary as among

industries. These complexities lead us to conclude that the FTC must prove its case as in other rule-of-reason cases." Opinion of the Court, *FTC v. Actavis et al.*, Case No. 12–416, Supreme Court of the United States, pp. 20–21. See, e.g. ***Michael A. Carrier***, *The US Supreme Court issues first ruling on antitrust legality of reverse-payment drug patent settlements (Actavis), 17 June 2013, e-Competitions June 2013, Art. N° 53120*.

[*4*] Federal Trade Commission, "Prepared Statement of the Federal Trade Commission on Pay-For-Delay Deals: Limiting Competition and Costing Consumers," July 23, 2013.

[*5*] Opinion of the Court, *FTC v. Actavis et al.*, Case No. 12–416, Supreme Court of the United States, p. 17.

[*6*] Opinion of the Court, *FTC v. Actavis et al.*, Case No. 12–416, Supreme Court of the United States, pp. 17–18.

[*7*] Carl Shapiro, "Antitrust Analysis of Patent Settlements Between Rivals," *Antitrust Magazine*, Summer 2003, pp. 71–72.

[*8*] Summary Judgement Opinion, *In Re: Wellbutrin XL Antitrust Litigation*, Case Nos 08-2431, 08-2433, United States District Court, Eastern District of Pennsylvania, September 23, 2015, pp. 5–6, 57–58. In the recent *Paroxetine* and *Lundbeck* cases, the defendants proposed similar arguments as either potential efficiency claims (under an Article 101(3) analysis) or objective justifications (under an abuse of dominance, Article 102, analysis). These include earlier entry of the generic product as a result of the settlement of the patent dispute, avoided litigation costs, more efficient distribution, increased investment in future product development, or defending legitimate IP rights. *See* European Commission Decision, *Lundbeck*, Case AT.39226, June 19, 2013, ¶¶ 1217–1231; Competition and Markets Authority Decision, *Paroxetine*, Case CE-9531/11, February 12, 2016, ¶¶ 8.60–8.75, 10.64–10.97.

[*9*] Data exclusivity expired in December 2000. *See* Competition and Markets Authority Decision, *Paroxetine*, Case CE-9531/11, February 12, 2016, ¶ 3.117.

[*10*] Competition and Markets Authority Decision, *Paroxetine*, Case CE-9531/11, February 12, 2016, ¶ 3.123, Table 3.1.

[*11*] Competition Appeal Tribunal Judgement, *Generics (UK) Limited v. Competition and Markets Authority*, Case Nos. 1251-1255/1/12/16, March 8, 2018, ¶ 87.

[*12*] Court of Justice of European Union Judgement, *Generics (UK) Limited v. Competition and Markets Authority*, Case C-307/18, January 30, 2020; Herbert Smith Freehills, "ECJ Rules for the First Time on 'Pay-For-Delay' Agreements," February 6, 2020. See ***Kyriakos Fountoukakos, Dafni Katrana, Ruth Allen***, *The EU Court of Justice clarifies the criteria for the pay-for-delay agreements in the pharmaceutical sector (Generics - UK / GlaxoSmithKline / Actavis / Xellia Pharmaceuticals / Merck / Alpharma), 30 January 2020, e-Competitions January 2020, Art. N° 93498*.

[*13*] Competition and Markets Authority, "CAT Upholds Infringement Decision for Pay for Delay Pharma Deals," May 10, 2021. See ***UK Competition Authority***, *The UK Competition Appeal Tribunal upholds an infringement decision for pay-for-delay pharmaceutical deals (GlaxoSmithKline), 10 May 2021, e-Competitions May 2021, Art. N° 100779*.

[*14*] European Commission Decision, *Lundbeck*, Case AT.39226, June 19, 2013, ¶ 27.

[*15*] European Commission Decision, *Lundbeck*, Case AT.39226, June 19, 2013, ¶ 218.

[*16*] European General Court Judgement, *Lundbeck et al. v. European Commission*, Case T-460/13, September 8, 2016; Court of Justice of European Union Press Release, "The Court of Justice Dismisses the Appeals of a Number of Manufacturers of Medicines Involved in an Agreement Seeking to Delay the Marketing of the Generic Antidepressant Citalopram," March 25, 2021. See respectively ***European Commission***, *The EU General Court confirms the EU Commission's decision concerning its first pharma pay-for-delay case (Lundbeck), 8 September 2016, e-Competitions September 2016, Art. N° 81274* and ***European Court of Justice***, *The EU Court of Justice dismisses the appeals of several pharmaceutical companies involved in an agreement seeking to delay the marketing of the generic antidepressant citalopram (Lundbeck), 25 March 2021, e-Competitions March 2021, Art. N° 100020*.

[*17*] Court of Justice of European Union Press Release, "The Court of Justice Dismisses the Appeals of a Number of Manufacturers of Medicines Involved in an Agreement Seeking to Delay the Marketing of the Generic Antidepressant Citalopram," March 25, 2021. See ***European Court of Justice***, *The EU Court of Justice dismisses the appeals of several pharmaceutical companies involved in an agreement seeking to delay the marketing of the generic antidepressant citalopram (Lundbeck), 25 March 2021, e-Competitions March 2021, Art. N° 100020*.

[*18*] White & Case, "The ECJ's Lundbeck Judgment Offers Little New on Patent Settlements but Gives Birth to an Interesting Principle: Sector Inquiries Give Rise to a Duty of Diligence," March 21, 2021. See ***Peter Citron, Tilman Kuhn, Assimakis Komninos, James Killick, Jérémie Jourdan*** , *The EU Court of Justice dismisses the appeals of several manufacturers of medicines involved in an agreement seeking to delay the marketing of the generic antidepressant citalopram (Lundbeck), 25 March 2021, e-Competitions March 2021, Art. N° 100020*.

[*19*] Court of Justice of European Union Press Release, "The Court of Justice Dismisses the Appeals of a Number of Manufacturers of Medicines Involved in an Agreement Seeking to Delay the Marketing of the Generic Antidepressant Citalopram," March 25, 2021; White & Case, "The ECJ's Lundbeck Judgment Offers Little New on Patent Settlements but Gives Birth to an Interesting Principle: Sector Inquiries Give Rise to a Duty of Diligence," March 21, 2021.

[*20*] Court of Justice of European Union Press Release, "The Court of Justice Dismisses the Appeals of a Number of Manufacturers of Medicines Involved in an Agreement Seeking to Delay the Marketing of the Generic Antidepressant Citalopram," March 25, 2021.

[*21*] Federal Trade Commission Press Release, "FTC Charges Qualcomm with Monopolizing Key Semiconductor Device Used in Cell Phones," January 17, 2017. Federal Trade Commission's Complaint for Equitable Relief, *Federal Trade Commission v. Qualcomm Incorporated*, Case No. 5:17-cv-00220-LHK, United States District Court, Northern District of California, February 1, 2017, ¶¶ 1–3. See ***Nicole Daniel***, *The US District Court for the Northern District of California Judge expresses possible abuses in asserting legal privilege (Qualcomm / FTC), 17 January 2017, e-Competitions January 2017, Art. N° 88609*.

[*22*] Federal Trade Commission's Complaint for Equitable Relief, *Federal Trade Commission v. Qualcomm Incorporated*, Case No. 5:17-cv-00220-LHK, United States District Court, Northern District of California, February 1, 2017, ¶¶ 1–7.

[*23*] Judgement, *Federal Trade Commission v. Qualcomm Incorporated*, Case No. 17-CV-00220-LHK, United States District Court, Northern District of California, May 21, 2019, p. 1. See ***Adam***

***Brebner, Stephen Elliott, Renata B. Hesse, Garrard R. Beeney, Marc De Leeuw**, The US District Court for the Northern District of California holds that semiconductor's company patent licensing violates the Sherman Act (Qualcomm), 21 May 2019, e-Competitions May 2019, Art. N° 96850.*

[***24***] Opinion, *Federal Trade Commission v. Qualcomm Incorporated*, Case No. 19-16122, United States Court of Appeals for the Ninth Circuit, August 11, 2020, pp. 54, 56. See ***Michael T. Renaud, Joseph M. Miller, Richard M. Gervase Jr., Tinny Song**, The US Court of Appeals for the Ninth Circuit rules that there is no antitrust violation in a multinational semiconductor company's licensing of its standard-essential patents (Qualcomm), 11 August 2020, e-Competitions August 2020, Art. N° 96446.*

[***25***] European Commission Judgement, *United Brands v Commission*, Case C-27/76, ¶¶ 248–250; European Commission, "Guidance on the Commission's Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings," *Official Journal of the European Union*, ¶ 7.

[***26***] European Commission Judgement, *United Brands v Commission*, Case C-27/76, ¶¶ 251–252; European Commission Decision, *Aspen*, Case AT.40394, February 10, 2021, ¶ 82. See ***European Commission**, The EU Commission accepts commitments made by a pharmaceutical company to reduce prices for six off-patent cancer medicines by 73% addressing excessive pricing concerns (Aspen), 10 February 2021, e-Competitions February 2021, Art. N° 99249.*

[***27***] OECD, "Excessive Prices in Pharmaceutical Markets," October 3, 2018, ¶¶ 19–24. See ***OECD**, The OECD Competition Committee publishes background materials on excessive prices in pharmaceutical markets, 3 October 2018, e-Competitions October 2018, Art. N° 88369.*

[***28***] Practical Law Life Sciences, "FDA Prioritizes ANDA Review for Sole-Source Generics," *Thomson Reuters*, March 30, 2016.

[***29***] OECD, "Excessive Prices in Pharmaceutical Markets," October 3, 2018, ¶¶ 100–101; OECD, "Summary of Discussion of the Roundtable on Excessive Pricing in Pharmaceuticals," May 14, 2019, ¶ 6. In opposition to the dominant view, Fonteijn et al. (2018) claim that excessive pricing cases may be brought even if the product involved is under patent protection. According to Fonteijn et al., there is not necessarily a tension between IP laws and competition laws. They recommend modifying the excessiveness limb to "take the incentives for innovation into account." They propose defining the costs to reflect expected losses associated with *ex-ante* probabilities of failure. *See* Chris Fonteijn et al., "Reconciling Competition and IP Law: The Case of Patented Pharmaceuticals and Dominance Abuse," *ACM Working Paper*, pp. 10–11.

[***30***] OECD, "Excessive Prices in Pharmaceutical Markets," October 3, 2018, ¶ 101. For example, Adams and Brantner (2006) estimate that the costs for developing an approved drug range between $0.5 billion and $2 billion. According to more recent estimates by DiMasi et al. (2016), this can be as high as $2.6 billion. *See* Christopher Adams and Van Brantner, "Estimating the Cost of New Drug Development: Is It Really $802 Million?," *Health Affairs* 25(2), 2006, pp. 420–428 at pp. 420–424; Joseph A. DiMasi et al., "Innovation in the Pharmaceutical Industry: New Estimates of R&D Costs," *Journal of Health Economics* 47, 2016, pp. 20–33 ("DiMasi et al. (2016)") at p. 20.

[***31***] OECD, "Excessive Prices in Pharmaceutical Markets," October 3, 2018, p. 101; OECD, "Summary of Discussion of the Roundtable on Excessive Pricing in Pharmaceuticals," May 14, 2019, ¶¶ 6–9.

[*32*] European Commission Decision, *Aspen*, Case AT.40394, February 10, 2021, ¶¶ 4, 12–13, 70.

[*33*] European Commission Decision, *Aspen*, Case AT.40394, February 10, 2021, ¶ 14.

[*34*] European Commission Decision, *Aspen*, Case AT.40394, February 10, 2021, ¶ 15.

[*35*] European Commission Decision, *Aspen*, Case AT.40394, February 10, 2021, ¶ 6.

[*36*] European Commission Decision, *Aspen*, Case AT.40394, February 10, 2021, ¶¶ 210, 211, p. 45.

[*37*] European Commission, "Guidelines on the Assessment of Non-horizontal Mergers under the Council Regulation on the Control of Concentrations between Undertakings," *Official Journal of the European Union*, October 18, 2008 ("EU Non-Horizontal Merger Guidelines"), ¶¶ 4, 30. In vertical mergers, authorities may also be concerned with "customer foreclosure," i.e., whether the transaction would limit the customer base available to upstream rivals. However, since our primary focus is IP rights, in this paper, we limit the discussion to input foreclosure.

[*38*] EU Non-Horizontal Merger Guidelines, ¶ 32.

[*39*] European Commission Decision, *Google/Fitbit*, Case M.9660, December 17, 2020, ¶¶ 532–534. See ***European Commission***, *The EU Commission clears acquisition of healthcare manufacturer by a big tech company, subject to conditions (Fitbit / Google), 17 December 2020, e-Competitions December 2020, Art. N° 98498*.

[*40*] EU Non-Horizontal Merger Guidelines, ¶ 36.

[*41*] European Commission Decision, *Google/Fitbit*, Case M.9660, December 17, 2020, ¶¶ 541–558.

[*42*] Competition and Markets Authority, "Merger Assessment Guidelines," March 18, 2021, ¶ 7.9; European Commission Decision, *Google/Fitbit*, Case M.9660, December 17, 2020, ¶ 533.

[*43*] EU Non-Horizontal Merger Guidelines, ¶ 40.

[*44*] EU Non-Horizontal Merger Guidelines, ¶¶ 48, 52–57.

[*45*] Matt Richards, "Killer Acquisitions Are a Recurring Issue, Says Vestager," *Global Competition Review*, January 17, 2019.

[*46*] The latter case is also referred to as "nascent competition." *See* C. Scott Hemphill and Tim Wu, "Nascent Competitors," *University of Pennsylvania Law Review* 168(1879), 2020, pp. 1879–1910 at pp. 1886–1889.

[*47*] Alison Oldale et al., "A Review of Cases Involving the Loss of Potential and Nascent Competition at the FTC, with Particular Reference to Vertical Mergers," *Competition Law and Policy Debate*, December 1, 2020.

[48] Colleen Cunningham et al., "Killer Acquisitions," *Journal of Political Economy* 129(3), 2021, pp. 649–702 at p. 649.

[49] " Into the Danger Zone: American Tech Giants Are Making Life Tough for Startups," *The Economist*, June 2, 2018.

[50] European Commission, "Commission Guidance on the Application of the Referral Mechanism Set Out in Article 22 of the Merger Regulation to Certain Categories of Cases," March 26, 2021 ("EU Referral Guidance"), ¶¶ 9–11. See ***European Commission**, The EU Commission announces evaluation results and follow-up measures on jurisdictional and procedural aspects of EU merger control, 26 March 2021, e-Competitions March 2021, Art. N° 99920.*

[51] EU Referral Guidance, ¶ 19.

[52] EU Referral Guidance, ¶ 9.

[53] Similarly, in other cases the CMA had considered whether the transaction would be motivated by elimination of future competition. For example, during Phase 1 in *Amazon/Deliveroo*, the CMA assessed whether Deliveroo could evolve into a logistics-enabled e-commerce marketplace and impose competitive constraint on Amazon. The CMA considered this outcome unlikely. Similarly, in *PayPal/iZettle*, the CMA considered whether, absent the merger, iZettle would have expanded into the provision of online payment services and, hence, impose competitive constraint on PayPal. The CMA considered this outcome unlikely as well. *See* Competition and Markets Authority Decision, *Amazon/Deliveroo*, December 11, 2019; Competition and Markets Authority Final Report, *PayPal/iZettle*, June 12, 2019. See ***UK Competition Authority**, The UK Competition Authority clears a merger in the online and offline payment services market (PayPal / iZettle), 12 June 2019, e-Competitions June 2019, Art. N° 90903.*

[54] Competition and Markets Authority Provisional Findings, *Illumina/PacBio*, October 24, 2019, ¶¶ 2.15, 3.1, 3.14, 4.1.

[55] Complaint, *In the Matter of Illumina, Inc. and Pacific Biosciences of California Inc.*, Docket No. 9387, Federal Trade Commission, December 17, 2019, ¶ 81.

[56] Competition and Markets Authority Provisional Findings, *Illumina/PacBio*, October 24, 2019, ¶ 8.333.

[57] Pacific Bio Press Release, "Illumina and Pacific Biosciences Announce Termination of Merger Agreement," January 2, 2020.

[58] Andrew Elzinga et al., "Economic Issues in Assessing Potential and Nascent Competition," *Competition Policy International Antitrust Chronicle*, Forthcoming.

[59] DiMasi et al. (2016), p. 23, Figure 1.

[60] DiMasi et al. (2016), p. 25, Table 4.

[61] DiMasi et al. (2016) Supplement, p. 29.