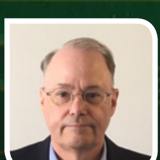
FTC v. QUALCOMM: THE SKY IS NOT FALLING

BY GREGORY J. WERDEN[1]



1 The author retired in 2019 from his position as Senior Economic Counsel, Antitrust Division, U.S. Department of Justice. The Department supported Qualcomm in the Ninth Circuit. Since retirement, the author has not acted on behalf of any interested party.

The majority staff of the House Subcommittee on Antitrust, Commercial and Administrative Law recently published detailed allegations of anticompetitive conduct against four tech giants — Amazon, Apple, Facebook, and Google.[2] The antitrust cognoscenti might be reminded of the 50th Congress, when the House Committee on Manufacturers published hearings on four industrial giants — the Cotton Bagging Trust, the Standard Oil Trust, the Sugar Trust, and the Whisky Trust. Senator John Sherman followed up with his anti-trust bill on the first day of next Congress, and after extensive revision, the Sherman Act became law on July 2, 1890.[3]

Many of the reforms suggested by the majority staff would be difficult to legislate, and no bill will be ready when the next Congress convenes. Moreover, the meaning of new antitrust legislation could take generations to work out and might not end up as intended. The full impact of the Foreign Trade Antitrust Improvements Act of 1982 is not yet known, but it has been read to strip federal antitrust law of a damages remedy when a foreign cartel fixes prices on a component of a consumer product assembled abroad.[4] Adding the offense of abuse of dominance, as the staff suggests, would have a totally unpredictable impact.

The majority staff aspires to negate many antitrust rules articulated by Supreme Court over the past half century, but the staff does not acknowledge the intractable problem that a judge always can find a way to stymie antitrust plaintiffs. To many, the Ninth Circuit's *Qualcomm* decision fit that troubling pattern,[5] but I think not. The court kept antitrust in its lane when the FTC sought to reduce Qualcomm's patent royalties,[6] and the court reasonably held that the FTC failed to demonstrate harm to competition.

Before trial, Judge Lucy H. Koh effectively held that one of Qualcomm's licensing practices was in breach of contract.[7] After trial, Judge Koh issued an antitrust liability opinion containing a section titled "Qualcomm's Royalty Rates Are Unreasonably High"[8] and referring to Qualcomm's "unreasonably high royalty" 70 times. But antitrust law neither derogates patent rights nor regulates patent royalties: "The patent laws . . . are *in pari materia* with the antitrust laws and modify them *pro tanto*,"[9] and the patent laws say a "patentee may grant a license to make, use and vend articles under the specifications of his patent for any royalty."[10]

Qualcomm pioneered cellular technology and contributed to each subsequent generation. Qualcomm now holds over 100,000 cellular-related patents and derives much of its revenue from licensing its patents, which include standard essential patents subject to FRAND commitments. Qualcomm also is a highly successful supplier of "modem chips," which cellular phones and similar devices use to transmit and receive data. Qualcomm pledged not to assert its patents against rival suppliers of modem chips, but did not grant them licenses. Qualcomm instead licensed makers of cellular devices, enforcing a "no license, no chips" policy, under which it sold its modem chips only to licensed makers of cellular devices.

Qualcomm's licensing policies responded to a feature of patent law and to a quirk. The feature is the exhaustion doctrine, which "limits a patentee's right to control what others can do with an article embodying or containing an invention."[11] If modem chips practiced all of Qualcomm's cellular technology patents, the exhaustion doctrine potentially could mean that cellular device makers would not require licenses from Qualcomm. But Qualcomm contended that many of its patents were practiced by cellular devices and not by modem chips,[12] and Judge Koh made no contrary finding. One must presume, therefore, that cellular device makers needed Qualcomm licenses even if chip suppliers had exhaustive licenses.

The quirk is the way courts approach reasonable royalties under FRAND commitments. Royalties usually are computed by

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2 Investigation of Competition in Digital Markets: Majority Staff Report and Recommendations (2020).

3 On congressional action leading to the Sherman Act, see Gregory J. Werden, The Foundations of Antitrust: Events, Ideas, and Doctrines 20–38 (2020).

4 See *Motorola Mobility LLC v. AU Optronics Corp.*, 775 F.3d 816 (7th Cir. 2015).

5 See Brief of 46 Amici Curiae Law and Economics Scholars in Support of Petition for Rehearing en Banc, *FTC v. Qualcomm Inc.* (No. 19-16122).

6 I take no position on Qualcomm's conduct apart from the challenged licensing practices.

7 Order Granting FTC's Motion for Partial Summary Judgment, *FTC v. Qualcomm, Inc.* (No. 17-CV-00220 Nov. 6, 2018). In reversing on the antitrust merits, the Ninth Circuit held that the breach of contract issue was moot. *FTC v. Qualcomm Inc.* (No. 19-16122 Aug. 11, 2020) 19 n.12, 20 & n.13 (hereinafter Slip Op.).

8 *FTC v. Qualcomm Inc.,* 411 F. Supp. 3d 658, 773 (N.D. Cal. 2019).

9 *Simpson v. Union Oil Co. of Cal.,* 377 U.S. 13, 24 (1964).

10 *United States v. General Electric Co.*, 272 U.S. 476, 489 (1926).

11 *Bowman v. Monsanto Co.*, 569 U.S. 278, 283 (2013).

12 Opening Brief for Appellant Qualcomm Incorporated, *FTC v. Qualcomm Inc.* (No. 19-16122) 2, 11–13.

multiplying a royalty rate by a royalty base, and the base usually is licensee sales revenue for articles practicing the licensed invention. In determining whether a royalty is reasonable, courts tend to focus on the percentage rate. Consequently, a licensin g deal that paid Qualcomm $10 per cellphone could be deemed to have a reasonable royalty if the base were the sales revenue for cellular devices, but an unreasonable royalty if the base were the sales revenue for modem chips. A payment of $10 per device works out to a low percentage rate in the former case but a very high percentage rate in the latter.

Before trial, Judge Koh granted an FTC motion seeking a declaration that Qualcomm's FRAND commitments required it to license rival suppliers of modem chips. Her liability opinion reaffirmed that determination and further held that Qualcomm's failure to license rival chip suppliers violated an antitrust duty to deal under the standards of *Aspen Skiing*.[13] The Ninth Circuit reversed Judge Koh's duty-to-deal holding because her application of *Aspen Skiing* was seriously flawed and the FTC declined to defend it.[14]

On appeal the FTC took the position that Qualcomm had no antitrust duty to license rival modem chip suppliers, but Qualcomm nevertheless violated antitrust law by refusing to license them. The FTC argued that the refusal breached a FRAND commitment and that such a breach violates Section 2 of the Sherman Act when it has "the effect of substantially contributing to the acquisition or maintenance of monopoly power in the relevant market."[15] The Ninth Circuit was dismissive of the argument[16] and was persuaded by commentators who "expressed caution about using the antitrust laws to remedy what are essentially contractual disputes between private parties engaged in the pursuit of technological innovation."[17]

The main focus of the case and of Judge Koh's opinion was Qualcomm's "no license, no chips" policy. The FTC alleged that Qualcomm possessed monopoly power in modem chips and that the "no license, no chips" policy materially contributed to the maintenance of Qualcomm's modem chip monopoly. The FTC's theory had two parts: First, the "no license, no chips" policy allowed Qualcomm to obtain higher royalties from makers of cellular devices. Second, the higher royalty payments undermined competition among modem chip suppliers.

Unsurprisingly, Judge Koh found that Qualcomm's licensing policies that were "more lucrative" than alternative policies,[18] and she cited ample evidence that the "no license, no chips" policy affected Qualcomm's license negotiations with makers of cellular devices.[19] In particular, she found that the "no license, no chips" policy kept cellular device makers from seeking a judicial determination of a reasonable royalty.[20] As noted above, Judge Koh found that Qualcomm collected an "unreasonably high royalty" on its patent portfolio, and she followed the FTC's lead in labeling the "abnormal" part of the royalty a "surcharge," which she evidently believed to be substantial. As the FTC phrased Judge Koh's conclusion, "the surcharge reflected Qualcomm's chip monopoly, not the value of its patents."[21]

Judge Koh held that Qualcomm "raised its rivals' costs" by imposing the "surcharge,"[22] but that holding was not sound economics.[23] As Judge Koh indicated, a "surcharge" would increase the amount consumers pay for cellular devices and decrease the quantity sold.[24] But any "surcharge" was paid by cellular device makers, so it neither directly nor indirectly raised chip-suppliers' costs. In contrast, Qualcomm would have raised its rivals' costs had it done as Judge Koh found that it should have done by licensing rival chip-suppliers at the FRAND rate.[25]

Judge Koh opined that "Qualcomm's unreasonably high royalty rates enable[d] Qualcomm to control rivals' prices because Qualcomm receives the royalty even when [a maker of cellular

13 *Qualcomm*, 411 F. Supp. 3d at 758–62, citing *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.,* 472 U.S. 585 (1985).

14 Slip Op. 31–36.

15 Brief of the Federal Trade Commission, *FTC v. Qualcomm Inc.* (No. 19-16122) 69 (hereinafter FTC Br.).

16 Slip Op. 36–40.

17 Slip Op. 39.

18 *Qualcomm,* 411 F. Supp. 3d at 751–56.

19 *Id.* at 697–744.

20 *Id.* at 786–90.

21 FTC Br. 45.

22 *Qualcomm*, 411 F. Supp. 3d at 791.

23 Amici supporting rehearing insist that the "case is about raising rivals' costs." Brief, *supra* note 5, at 15 n.7.

24 *Qualcomm*, 411 F. Supp. 3d at 792.

25 *Id.* at 744–63.

devices] uses one of Qualcomm's rival's chips."[26] In defense of this conclusion, the FTC asserted that the "surcharge" effected "the same mechanism of anticompetitive harm" as Microsoft's per-processor license in *Caldera*.[27] The *Caldera* license required a PC maker to pay the full MS DOS license fee on each PC it produced. Installing a rival operating system, therefore, meant paying the full price for two operating systems.

Qualcomm's "surcharge" could not have "the same" effect as the *Caldera* license because paying the "surcharge" on a cellular device did not entitle the device maker to get a Qualcomm modem chip at no extra charge. For each cellular device produced, the maker had to pay either the nominal price of Qualcomm's chip or the price of a rival's chip, and Judge Koh found that Qualcomm's nominal prices were "monopoly prices" that generated substantial operating margins.[28] Therefore, the "surcharge" in the *Qualcomm* case could not distort choice in "the same" way as the per-processor license in the *Caldera* case.

The FTC argued as a general matter that Qualcomm "harmed competition by imposing a surcharge on rivals' chips," and the FTC evidently contended that any "surcharge" was "anticompetitive."[29] Apart from analogizing to the *Caldera* case, however, the FTC did not indicate how the "surcharge" harmed competition. The Ninth Circuit cannot be faulted for holding that: "[I]n order to make out a § 2 violation, the anticompetitive harm identified must be to *competition itself,* not merely to competitors. . . . The FTC identifie[d] no such harm to *competition*."[30] The court added that the FTC had no "cogent theory of anticompetitive harm" but rather "conflate[d] antitrust liability and patent law liability."[31]

An amicus brief supporting the FTC on appeal purported to explain through an example how the "surcharge" harmed competition.[32] The example posited a $20 "all-in" monopoly price for modem chips, which Qualcomm collected by charging a $10 nominal price for its chip plus a $10 license fee composed of a $2 FRAND royalty and an $8 "surcharge." The example further posited that Qualcomm's modem chip rivals had marginal production costs of $11, so Qualcomm could earn the full monopoly profit from the sale of modem chips while nominally pricing its chips below its rivals' costs.

With no contrary finding from Judge Koh, one must attribute much of Qualcomm's royalty to patents not practiced by modem chips, so let half of the $10 fee be for patents practiced by modem chips. With that modification, the example can be squared with Judge Koh's findings on Qualcomm's nominal prices and margins. The nominal monopoly price is now $15 — the $20 "all-in" monopoly price less the $5 royalty for patents practiced by modem chips. As modified, the example does not illustrate Qualcomm excluding higher-cost modem chip rivals; rather, it illustrates Qualcomm holding a monopoly pricing umbrella over them, with the "surcharge" controlling its height. If, contrary to Judge Koh's findings, Qualcomm faced intense competition from rival modem chip suppliers, the nominal competitive price would be the rivals' $11 marginal cost, and the "surcharge" would not affect nominal prices.

The FTC's economic expert, Carl Shapiro, had testified at trial that the "surcharge" harmed competition, but he only explained how it harmed competitors, and neither Judge Koh's opinion nor the FTC's appeal brief recounted his analysis. Professor Shapiro presented a simple example of bargaining between a single cellular device maker and one of Qualcomm's rival modem chip suppliers. In a bilateral bargaining problem, the Nash solution, assumed by Shapiro, equally divides the joint gain from reaching agreement.

Bargaining models can be very useful in understanding patent licensing scenarios. Indeed, a bargaining model could be used to determine how much of the profits from the sale of cellular devices should go to the owners of the patents they practice. A considerable challenge is presented in properly calibrating the model because there are so many inventions and implementors, and different solution concepts could yield different predictions. But a bargaining model plausibly would indicate that inventors are under-compensated.

Using purely illustrative numerical values, Professor Shapiro posited that a cellular device maker derived $40 in value from incorporating a modem chip. He also posited that the marginal cost of producing a modem chip was $5 and that both the FRAND royalty and the "surcharge" were $10. The Nash bargaining solution predicted that the chip price would equally divide the remaining $15 gain from trade, resulting in the rival

26 *Id.* at 791.

27 FTC Br. 36–44, citing *Caldera, Inc v. Microsoft Corp.*, 87 F. Supp. 2d 1244 (D. Utah 1999).

28 *Qualcomm*, 411 F. Supp. 3d at 692, 696, 772, 800.

29 FTC Br. 34 (capitalization altered), 41.

30 Slip Op. 37.

31 Slip Op. 41.

32 Brief of Curiae Law and Economics Scholars in Support of Appellee and *Affirmance, FTC v. Qualcomm Inc.* (No. 19-16122) 7–9.

modem chip supplier earning a margin of $7.50. Absent the "surcharge," bargaining would equally divide $25, resulting in a margin of $12.50 for the rival modem chip supplier.

Judge Koh might have declined to adopt Professor Shapiro's analysis for doctrinal reasons: The Supreme Court's *linkLine* decision had rendered a margin-squeeze theory untenable.[33] Alternatively, Judge Koh might have declined to adopt Shapiro's analysis for substantive reasons: She might have thought that Shapiro provided no convincing reason to conclude that the "surcharge" harmed competition, rather than just competitors, because a "surcharge" as large as $10 only reduced the rival's margin to a still-very-healthy 150 percent.

On appeal, the FTC argued that it had not advanced a margin squeeze theory because it had not focused on the adequacy of the rivals' margins.[34] And the FTC contended that Judge Koh correctly relied on the "uncontroversial proposition" that Section 2 of the Sherman Act prohibits the "use of [a] monopoly to impose a financial penalty on . . . customers' use of rivals' products."[35] But the Ninth Circuit declined "to adopt a theory of antitrust liability that would presume anticompetitive conduct any time a company could not prove that the 'fair value' of its [patent] portfolios corresponds to the prices the market appears willing to pay for those [patents] in the form of licensing royalty rates."[36]

In attacking Qualcomm's licensing practices, the FTC asserted four highly controversial propositions: (1) that a patent holder can violate Section 2 of the Sherman Act simply by refusing to sell its goods to anyone infringing its patents; (2) that Section 2 provides a club the government should use to beat down the royalties on standard essential patents; (3) that lowering a monopoly pricing umbrella can be the anticompetitive conduct supporting the monopoly maintenance offense; and implicitly, (4) that all of the developers of cellular technologies should divide just a few dollars on every cellphone sold.

On September 25, the FTC petitioned for rehearing *en banc*, but the petition does not demonstrate the unlawfulness of Qualcomm's patent licensing practices under established doctrine. Nor does it explain how the "surcharge" harmed competition. At the highest level, the petition argues that something must be amiss because the panel "acknowledged that a monopolist acts anticompetitively if it requires customers to pay a tax when they buy from its rivals," yet the panel also held that the FTC had no "cogent theory of anticompetitive harm."[37] But there was no inconsistency. The panel correctly held that the district court's findings on Qualcomm's licensing differed materially from the facts of the *Caldera* case on which the FTC relied,[38] and while the facts in *Caldera* established harm to competition, Judge Koh's findings established only harm to competitors.

On rehearing, the FTC relies on the first case filed by the Department of Justice under the Clayton Act.[39] The petition does not mention that the trial court emphasized the different standards of Section 3 of the Clayton Act and Section 2 of the Sherman Act.[40] Nor does the petition mention that the court did not enjoin the fee that the FTC analogizes to Qualcomm's "surcharge," but rather modified the clause containing the fee by striking a rebate proviso.[41] The petition asserts that, in affirming, the Supreme Court "condemned the fee as exclusionary,"[42] but the Court did not separately condemn the fee; rather, it opined that all seven "clauses enjoined" collectively effected "tying."[43] Moreover, the Supreme Court also stressed the difference in standards between the Clayton and Sherman Acts.[44]

The petition contends that the panel "flout[ed] the Supreme Court's instruction that courts must apply the antitrust laws based on economic substance, not formal labels,"[45] but the FTC defended Judge Koh's judgment with labels rather than economic substance. Rather than rely economic analysis of the "surcharge," the FTC relied easily distinguishable precedent. The petition contends that the panel "contradicts" the Supreme

33 See *Pac. Bell Tel. Co. v. linkLine Commc'ns, Inc.*, 555 U.S. 438 (2009).

34 FTC Br. 67.

35 *Id.*

36 Slip Op. 44.

37 Petition of the Federal Trade Commission for Rehearing *en banc, FTC v. Qualcomm Inc.* (No. 19-16122) 2 (hereinafter Petition)

38 Slip Op. 45–47.

39 Petition 13–14, citing *United States v. United Shoe Mach. Co.*, 234 F. 127, 134 (E.D. Mo. 1916).

40 *United States v. United Shoe Mach. Co.*, 264 F. 138, 161–63 (E.D. Mo. 1920).

41 *Id.* at 168.

42 Petition 14, citing *United States v. United Shoe Mach. Co.*, 258 U.S. 451, 456–58 (1922).

43 *United Shoe Mach. Co.,* 258 U.S. at 457–58.

44 *Id.* at 458–62.

45 Petition 2.

Court's "holdings that patent-related agreements are not exempt from antitrust scrutiny,"[46] but the panel did scrutinize Qualcomm's conduct, and the panel contradicted no Supreme Court holding in demanding a clear demonstration of harm to competition. Judge Koh found that Qualcomm's licensing practices harmed its modem chip rivals, but the Supreme Court has not held that a monopolist violates Section 2 whenever it harms rivals.

More specifically, the petition contends that the panel committed three errors of law. First, the petition contends that the panel gave Qualcomm's "surcharge" a free pass because it was styled as a royalty, but that is not a fair reading of the opinion, which held the FTC had "not met its burden" because "clearer proof of anticompetitive effect" was required "in these dynamic and rapidly changing technology markets."[47] And the panel was right to say that whether the all-in price of modem chips was "reasonable or unreasonable is an issue that sounds in patent law, not antitrust law."[48] Even if Qualcomm's royalties were "unreasonable," the FTC did not establish that they harmed competition, as the panel held.

Second, the petition contends that the panel mistakenly held that the "surcharge" could not be anticompetitive because makers of cellular devices had to pay it no matter which modem chip they used. But the panel only held the FTC had not adequately explained why the "surcharge" should be deemed unlawful exclusionary conduct. At bottom, the FTC faults the panel for failing to see clear merit in an argument that the FTC intentionally kept vague. The petition suggests that the "surcharge" allowed Qualcomm "to insulate itself from" price competition,[49] but the panel did not err in concluding that the FTC failed to prove that.

Third, the petition attributes error to the panel's criticism of the district court's focus on harm to cellular devices makers, but the panel was right to observe that the district court focused too much on what cellular device makers paid Qualcomm and too little on how paying Qualcomm so much harmed competition in modem chips. Harm to cellular device makers was of no moment in the case unless causally related to harm to competition in modem chips. The petition reads too much into the panel's observation that the "surcharge" "had no direct impact on competition" in the relevant markets. The parentheticals in the panel's citations supporting the observation show that its point was that consumer injury does not trigger antitrust liability without harm to competition.

The rehearing petition knocks down straw men built out of short phrases in the panel opinion, but shortcomings in neither the FTC's case nor Judge Koh's analysis can be excused by flaws in the panel's prose. The panel did not rest its decision on the legal propositions the petition attributes to it, but rather demanded "clearer proof of anticompetitive effect." Even if Judge Koh was right to find that Qualcomm's conduct was actionable under contract and patent law, the FTC did not show that the effect of the conduct was to maintain a monopoly in modem chips. Antitrust law exists to protect the competitive process from private efforts to sabotage it, and the Ninth Circuit's *Qualcomm* opinion kept antitrust in its lane.

An encouraging aspect of the report by the majority staff of the House Subcommittee on Antitrust, Commercial and Administrative Law is its focus on competition. The report, however, recommends legislation "clarifying that [the antitrust laws] are designed to protect not just consumers, but also workers, entrepreneurs, independent businesses, open markets, a fair economy, and democratic ideals."[50] It would be useful to clarify that antitrust in the United States is premised on the belief that protecting competition promotes other social goals, but the report appears to favor complicating antitrust investigations and trials, and inadvertently to provide a statutory basis for *defenses* that courts now hold inadmissible.

The Subcommittee should learn from the experience of Donald F. Turner when he took charge of the Antitrust Division of the Justice Department in 1965. On August 10, seven weeks in to his 1077-day tenure, he recounted arguments that he had heard in support of proposed mergers:

> I have had proponents defend a contemplated merger on the grounds that it would promote the national defense, assist in solving the balance of payments problem, reduce unemployment and contribute to the Administration's anti-poverty program. I fully expect to hear before long that a merger should be allowed because it will contribute to the President's program for making America beautiful.[51]

46 *Id.*

47 Slip Op. 51, 56.

48 Slip Op. 49.

49 Petition 15.

50 Report, *supra* note 2, at 391.

51 Donald F. Turner, *Antitrust Enforcement Policy,* 29 A.B.A. Antitrust Section 187, 191 (1965).

Turner went on to champion a highly restrictive merger policy and was deeply involved in the Supreme Court litigation of merger cases marking the high watermark of interventionist antitrust. But he observed at the outset that he did not think it "possible to bring very much order into antitrust law unless we can succeed in disentangling it from many policy considerations having little or nothing to do with the protection of competition."[52]

52 *Id.*