Federal Trade Commission v. Qualcomm Incorporated

969 F.3d 974 (9th Cir. 2020)

CALLAHAN, Circuit Judge.

This case asks us to draw the line between anticompetitive behavior, which is illegal under federal antitrust law, and hypercompetitive behavior, which is not. The Federal Trade Commission ("FTC") contends that Qualcomm Incorporated ("Qualcomm") violated the Sherman Act §§ 1, 2, by unreasonably restraining trade in, and unlawfully monopolizing, the code division multiple access ("CDMA") and premium long-term evolution ("LTE") cellular modem chip markets. After a ten-day bench trial, the district court agreed and ordered a permanent, worldwide injunction prohibiting several of Qualcomm's core business practices. We granted Qualcomm's request for a stay of the district court's injunction pending appeal. FTC v. Qualcomm Inc., 935 F.3d 752 (9th Cir. 2019). At that time, we characterized the district court's order and injunction as either "a trailblazing application of the antitrust laws" or "an improper excursion beyond the outer limits of the Sherman Act." We now hold that the district court went beyond the scope of the Sherman Act, and we reverse.

I A

Founded in 1985, Qualcomm dubs itself "the world's leading cellular technology company." Over the past several decades, the company has made significant contributions to the technological innovations underlying modern cellular systems, including . . . the standards practiced in most modern cellphones and "smartphones." Qualcomm protects and profits from its technological innovations through its patents, which it licenses to original equipment manufacturers ("OEMs") whose products (usually cellphones, but also smart cars and other products with cellular applications) practice one or more of Qualcomm's patented technologies.

Qualcomm's patents include cellular standard essential patents ("SEPs"), non-cellular SEPs, and non-SEPs. Cellular SEPs are patents on technologies that international standard-setting organizations ("SSOs") choose to include in technical standards practiced by each new generation of cellular technology. SSOs—also referred to as standards development organizations ("SDOs")—are global collaborations of industry participants that establish technical specifications to ensure that products from different manufacturers are compatible with each other. Cellular SEPs are necessary to practice a particular cellular standard. Because SEP holders could prevent industry participants from implementing a standard by selectively refusing to license, SSOs require patent holders to commit to license their SEPs on fair, reasonable, and nondiscriminatory ("FRAND") terms before their patents are incorporated into standards.

... Rather than license its patents individually, Qualcomm generally offers its customers various "patent portfolio" options, whereby the customer/licensee pays for and receives the right to practice all three types of Qualcomm patents ([cellular] SEPs, non-cellular SEPs, and non-SEPs).

Qualcomm's patent licensing business is very profitable. . . . But Qualcomm is no one-trick pony. The company also manufactures and sells cellular modem chips, the hardware that enables cellular devices to practice [advanced cellular] technologies and thereby communicate with each other across cellular networks. This makes Qualcomm somewhat unique in the broader cellular services

industry. Companies [that] have comparable SEP portfolios . . . do not compete with Qualcomm in the modem chip markets. On the other hand, Qualcomm's main competitors in the modem chip markets . . . do not hold or have not held comparable SEP portfolios. [In other words, Qualcomm vertically integrates technology (patent rights) and chip manufacturing. This vertical integration is an advantage that Qualcomm's rivals in technology and manufacturing markets do not have].

Like its licensing business, Qualcomm's modem chip business has been very successful. From 2006 to 2016, Qualcomm possessed monopoly power in the CDMA modem chip market, including over 90% of market share. From 2011 to 2016, Qualcomm possessed monopoly power in the premium LTE modem chip market, including at least 70% of market share. During these timeframes, Qualcomm leveraged its monopoly power to charge monopoly prices on its modem chips. Around 2015, however, Qualcomm's dominant position in the modem chip markets began to recede, as competitors like Intel and MediaTek found ways to successfully compete. Based on projections from 2017 to 2018, Qualcomm maintains approximately a 79% share of the CDMA modem chip market and a 64% share of the premium LTE modem chip market.

В

Qualcomm licenses its patent portfolios exclusively at the OEM level, setting the royalty rates on its CDMA and LTE patent portfolios as a percentage of the end-product sales price. This practice is not unique to Qualcomm. [Other SEP licensors followed Qualcomm's lead and adopted similar licensing practices]. OEM-level licensing allows these companies to obtain the maximum value for their patented technologies while avoiding the problem of patent exhaustion, whereby the initial authorized or licensed sale of a patented item terminates all patent rights to that item.* . . . Due to patent exhaustion, if Qualcomm licensed its SEPs further "upstream" in the manufacturing process to competing chip suppliers, then its patent rights would be exhausted when these rivals sold their products to OEMs. OEMs would then have little incentive to pay Qualcomm for patent licenses, as they could instead become "downstream" recipients of the already exhausted patents embodied in these rivals' products.

Because rival chip manufacturers practice many of Qualcomm's SEPs by necessity, Qualcomm offers these companies what it terms "... ASIC Agreements," wherein Qualcomm promises not to assert its patents in exchange for the company promising not to sell its chips to unlicensed OEMs. These agreements, which essentially function as patent-infringement indemnifications, include reporting requirements that allow Qualcomm to know the details of its rivals' chip supply agreements with various OEMs. But they also allow Qualcomm's competitors to practice Qualcomm's SEPs royalty-free.

Qualcomm reinforces these practices with its so-called "no license, no chips" policy, under which Qualcomm refuses to sell modem chips to OEMs that do not take licenses to practice Qualcomm's SEPs. Otherwise, because of patent exhaustion, OEMs could decline to take licenses, arguing instead that their purchase of chips from Qualcomm extinguished Qualcomm's patent rights. . . . with respect to any [Qualcomm's] technologies embodied in the chips. This would not only prevent Qualcomm from obtaining the maximum value for its patents, it would result in OEMs having to pay more money (in licensing royalties) to purchase and use a competitor's chips, which are

^{* [}Under the patent exhaustion doctrine, once an authorized sale of a patented article occurs, the patent holder's exclusive rights to control the use and sale of that article are said to be "exhausted," and the purchaser is free to use or resell that article without further restraint from patent law].

^{** [}ASIC stands for "Application Specific Integrated Circuits"].

unlicensed. Instead, Qualcomm's practices, taken together, are "chip supplier neutral"—that is, OEMs are required to pay a per-unit licensing royalty to Qualcomm for its patent portfolios regardless of which company they choose to source their chips from.

[Qualcomm]... is not an OEM. That is, Qualcomm does not manufacture and sell cellphones and other end-use products (like smart cars) that consumers purchase and use. Thus, it does not "compete"—in the antitrust sense—against OEMs like Apple and Samsung in these product markets. Instead, these OEMs are Qualcomm's *customers*.

C

Over the past several decades, as Qualcomm's licensing and modem chip businesses thrived and the company gained more and more market share, its OEM customers and rival chipmakers grew frustrated with the company's business practices. . . . Qualcomm's customers occasionally attempted to "discipline" its pricing through arbitration claims, negotiations, threatening to change chip suppliers, and litigation. These maneuvers generally resulted in settlements and renegotiated licensing and chip-supply agreements with Qualcomm, even as OEMs continued to look elsewhere for less expensive modem chip options.

Qualcomm's competitors in the modem chip markets contend that Qualcomm's business practices, in particular its refusal to license them, have hampered or slowed their ability to develop and retain OEM customer bases, limited their growth, delayed or prevented their entry into the market, and in some cases forced them out of the market entirely. These competitors contend that this result is not just anticompetitive, but a violation of Qualcomm's contractual commitments to two cellular SSOs—the Telecommunications Industry Association ("TIA") and Alliance for Telecommunications Industry Solutions ("ATIS")—to license its SEPs "to all applicants" on FRAND terms. Qualcomm argues that it has no antitrust duty to deal with its rivals, and in any case OEM-level licensing is consistent with Qualcomm's SSO commitments because only OEM products (*i.e.*, cellphones, tablets, etc.) "practice" or "implement" the standards embodied in Qualcomm's SEPs. Furthermore, Qualcomm argues that it substantially complies with the TIA and ATIS requirements by not asserting its patents against rival chipmakers.

In 2011 and 2013, Qualcomm signed agreements with Apple under which Qualcomm offered Apple billions of dollars in incentive payments contingent on Apple sourcing its iPhone modem chips exclusively from Qualcomm and committing to purchase certain quantities of chips each year. Again, rivals such as Intel—as well as Apple itself, which was interested in using Intel as an alternative chip supplier—complained that Qualcomm was engaging in anticompetitive business practices designed to maintain its monopolies in the CDMA and premium LTE modem chip markets while making it impossible for rivals to compete. In 2014, Apple decided to terminate these agreements and source its modem chips from Intel for its 2016 model iPhone.

 \mathbf{D}

In January 2017, the FTC sued Qualcomm for equitable relief, alleging that Qualcomm's interrelated policies and practices excluded competitors and harmed competition in the modem chip markets, in violation § 5(a) of the FTC Act and §§ 1 and 2 of the Sherman Act. After a ten-day bench trial, the district court concluded that "Qualcomm's licensing practices are an unreasonable restraint of trade under § 1 of the Sherman Act and exclusionary conduct under § 2 of the Sherman Act." The district court ordered a permanent, worldwide injunction prohibiting Qualcomm's core business practices.

The district court's decision consists of essentially five mixed findings of fact and law: (1) Qualcomm's "no license, no chips" policy amounts to "anticompetitive conduct against OEMs" and an "anticompetitive practice[] in patent license negotiations"; (2) Qualcomm's refusal to license rival chipmakers violates both its FRAND commitments and an antitrust duty to deal under § 2 of the Sherman Act; (3) Qualcomm's "exclusive deals" with Apple "foreclosed a 'substantial share' of the modem chip market" in violation of both Sherman Act provisions; (4) Qualcomm's royalty rates are "unreasonably high" because they are improperly based on its market share and handset price instead of the value of its patents; and (5) Qualcomm's royalties, in conjunction with its "no license, no chips" policy, "impose an artificial and anticompetitive surcharge" on its rivals' sales, "increas[ing] the effective price of rivals' modem chips" and resulting in anticompetitive exclusivity. "Collectively," the district court found, these policies and practices "create insurmountable and artificial barriers for Qualcomm's rivals, and thus do not further competition on the merits."

The district court ... held that the FTC met its burden under the Sherman Act of proving "market power plus some evidence that the challenged restraint harms competition." Furthermore, the district court held that it could "infer" a causal connection between Qualcomm's conduct and anticompetitive harm because that conduct "reasonably appears capable of making a significant contribution to ... maintaining monopoly power."

Qualcomm timely appealed. . . . [W]e vacate that order as moot without reaching its merits.

II

Antitrust law, like patent law, is "aimed at encouraging innovation, industry and competition." Atari Games Corp. v. Nintendo of Am., Inc., 897 F.2d 1572, 1576 (Fed. Cir. 1990). "Despite the opportunities for conflict ... a central goal of both patent and antitrust law is the promotion of the public benefit through a competitive economy." Int'l Wood Processors v. Power Dry, Inc., 792 F.2d 416, 427 (4th Cir. 1986). . . .

Enacted in 1890, when the emergence of trusts and monopolies with the power to suppress competition and completely control markets had become a matter of great public concern,

[t]he Sherman Act was designed to be a comprehensive charter of economic liberty aimed at preserving free and unfettered competition as the rule of trade. It rests on the premise that the unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress, while at the same time providing an environment conducive to the preservation of our democratic political and social institutions. N. Pac. Ry. Co. v. United States, 356 U.S. 1, 4 (1958).

In pursuit of these goals, the Sherman Act protects "the freedom guaranteed each and every business ... to compete—to assert with vigor, imagination, devotion, and ingenuity whatever economic muscle it can muster." *United States v. Topco Assocs., Inc.*, 405 U.S. 596, 610 (1972).

A

Section 1 of the Sherman Act prohibits "[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States." 15 U.S.C. § 1. The Supreme Court has long recognized that, in view of the common law and the law in this country when the Sherman Act was passed, the phrase 'restraint of trade' is best read to mean 'undue restraint.' Thus, "[t]o establish liability under § 1, a plaintiff must prove (1) the existence of an agreement, and

(2) that the agreement was in unreasonable restraint of trade." Aerotec Int'l, Inc. v. Honeywell Int'l, Inc., 836 F.3d 1171, 1178 (9th Cir. 2016).

Restraints that are not unreasonable *per se* are judged under the 'rule of reason.' A plaintiff may prove that a restraint has anticompetitive effect either directly or indirectly. Direct evidence includes proof of actual detrimental effects on competition, such as reduced output, increased prices, or decreased quality in the relevant market. Indirect evidence involves proof of market power plus some evidence that the challenged restraint harms competition.

Whereas § 1 of the Sherman Act targets concerted anticompetitive conduct, § 2 targets independent anticompetitive conduct. . . . To establish liability under § 2, a plaintiff must show: "(a) the possession of monopoly power in the relevant market; (b) the willful acquisition or maintenance of that power; and (c) causal antitrust injury." *Somers v. Apple, Inc.*, 729 F.3d 953, 963 (9th Cir. 2013). "The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not [itself] unlawful; [instead,] it is an important element of the free-market system." *Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 407 (2004). "The opportunity to charge monopoly prices—at least for a short period—is what attracts 'business acumen' in the first place; it induces risk taking that produces innovation and economic growth." *Id*.

"To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful [under § 2] unless it is accompanied by an element of anticompetitive conduct." *Id.* Accordingly, plaintiffs are required to prove anticompetitive abuse or leverage of monopoly power, or a predatory or exclusionary means of attempting to monopolize the relevant market. . . .

[I]n order to prove a violation of the Sherman Act, the plaintiff must show that diminished consumer choices and increased prices are the result of a less competitive market due to either artificial restraints or predatory and exclusionary conduct. See *Ohio v. Am. Express Co.*, — U.S. —, 138 S. Ct. 2274, 2288 (2018)).

Furthermore, novel business practices—especially in technology markets—should not be "conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use." *United States v. Microsoft Corp.*, 253 F.3d 34, 91 (D.C. Cir. 2001). . . .

Regardless of whether the alleged antitrust violation involves concerted anticompetitive conduct under § 1 or independent anticompetitive conduct under § 2, the three-part burden-shifting test under the rule of reason is essentially the same. . . .

The similarity of the burden-shifting tests under §§ 1 and 2 means that courts often review claims under each section simultaneously. If, in reviewing an alleged Sherman Act violation, a court finds that the conduct in question is not anticompetitive under § 1, the court need not separately analyze the conduct under § 2. . . . However, although the tests are largely similar, a plaintiff may not use indirect evidence to prove unlawful monopoly maintenance via anticompetitive conduct under § 2. See *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297, 307–08 (3d Cir. 2007) (distinguishing between proving the existence of monopoly power through indirect evidence and proving anticompetitive conduct itself, the second element of a § 2 claim). In this respect, proving an antitrust violation under § 2 of the Sherman Act is more exacting than proving a § 1 violation, although courts have also held that the third element of a § 2 claim, the causation element, may be inferred. See *Microsoft*, 253 F.3d at 79.

В

A threshold step in any antitrust case is to accurately define the relevant market, which refers to "the area of effective competition." Am. Express, 138 S. Ct. at 2285; see also Image Tech. Servs., Inc. v. Eastman Kodak Co., 125 F.3d 1195, 1202 (9th Cir. 1997) ("The relevant market is the field in which meaningful competition is said to exist."). "[C]ourts usually cannot properly apply the rule of reason without an accurate definition of the relevant market." Am. Express, 138 S. Ct. at 2285. Otherwise, "there is no way to measure [the defendant's] ability to lessen or destroy competition." Id. Furthermore, in assessing alleged antitrust injuries, courts must focus on anticompetitive effects in the market where competition is allegedly being restrained. . . .

Here, the district court correctly defined the relevant markets as "the market for CDMA modem chips and the market for premium LTE modem chips." Nevertheless, its analysis of Qualcomm's business practices and their anticompetitive impact looked beyond these markets to the much larger market of cellular services generally. Thus, a substantial portion of the district court's ruling considered alleged economic harms to OEMs—who are Qualcomm's customers, not its competitors—resulting in higher prices to consumers. These harms, even if real, are not "anticompetitive" in the antitrust sense—at least not directly—because they do not involve restraints on trade or exclusionary conduct in "the area of effective competition." . . .

Moreover, throughout its analysis, the district court failed to distinguish between Qualcomm's licensing practices (which primarily impacted OEMs) and its practices relating to modem chip sales (the relevant antitrust market). This was, no doubt, intentional: the district court characterized Qualcomm's various business practices as "interrelated" and mutually reinforcing, and it described their anticompetitive effects as "compounding" and "cycl[ical]." But even if Qualcomm's practices are interrelated, actual or alleged harms to customers and consumers outside the relevant markets are beyond the scope of antitrust law.

III

Accordingly, we reframe the issues to focus on the impact, if any, of Qualcomm's practices in the area of effective competition: the markets for CDMA and premium LTE modem chips. Thus, we begin by examining the district court's conclusion that Qualcomm has an antitrust duty to license its SEPs to its direct competitors in the modem chip markets. We then consider Qualcomm's royalty rates, its "no license, no chips" policy, and its agreements with Apple. . . .

A

[Under antitrust law, there is no duty to deal with competitors]. "The Sherman Act 'does not restrict the long recognized right of [a] trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal." Trinko, 540 U.S. at 408 (quoting United States v. Colgate & Co., 250 U.S. 300, 307 (1919)); see Pac. Bell Tel. Co. v. Linkline Comme'ns, Inc., 555 U.S. 438, 448 (2009) ("As a general rule, businesses are free to choose the parties with whom they will deal, as well as the prices, terms, and conditions of that dealing." . . . Or, as we recently put it, in a bit more colorful terms: "Competitors are not required to engage in a lovefest." Aerotec Int'l, Inc. v. Honeywell Int'l, Inc., 836 F.3d 1171, 1184 (9th Cir. 2016).

The one, limited exception to this general rule that there is no antitrust duty to deal comes under the Supreme Court's decision in *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985). There, the Court held that a company engages in prohibited, anticompetitive conduct when [(1) it unilaterally terminates a voluntary and profitable course of dealing; (2) the only conceivable rationale of the termination is to sacrifice short-term benefits in order to obtain higher profits in the

long run from the exclusion of competition; and (3) the refusal to deal involves products that the defendant already sells in the existing market to other similarly situated customers]. The Supreme Court later characterized the *Aspen Skiing* exception as "at or near the outer boundary of § 2 liability." *Trinko*, 540 U.S. at 409.

The district court's conclusion that Qualcomm's refusal to provide exhaustive SEP licenses to rival chip suppliers meets the Aspen Skiing exception ignores . . . the Supreme Court's subsequent warning in *Trinko* that the *Aspen Skiing* exception should be applied only in rare circumstances. . . .

First, the district court was incorrect that "Qualcomm terminated a 'voluntary and profitable course of dealing" with respect to its previous practice of licensing at the chip-manufacturer level. . . The FTC offered no evidence that, from the time Qualcomm first gained monopoly power in the modem chip market in 2006 until now, it ever had a practice of providing exhaustive licenses at the modem chip level rather than the OEM level.

Second, Qualcomm's rationale for "switching" to OEM-level licensing was not to sacrifice short-term benefits in order to obtain higher profits in the long run from the exclusion of competition, the second element of the *Aspen Skiing* exception. Instead, Qualcomm responded to the change in patent-exhaustion law by choosing the path that was "far more lucrative," both in the short term and the long term, regardless of any impacts on competition. . . .

Finally, unlike in Aspen Skiing, the district court found no evidence that Qualcomm singles out any specific chip supplier for anticompetitive treatment in its SEP-licensing. In Aspen Skiing, the defendant refused to [deal with a small rival to push it] out of business. Qualcomm applies its OEM-level licensing policy equally with respect to all competitors. . . . Because Qualcomm applies the latter policy neutrally with respect to all competing modem chip manufacturers, the third Aspen Skiing requirement does not apply.

As none of the required elements for the *Aspen Skiing* exception are present, let alone all of them, the district court erred in holding that Qualcomm is under an antitrust duty to license rival chip manufacturers. We hold that Qualcomm's OEM-level licensing policy, however novel, is not an anticompetitive violation of the Sherman Act.

В

. . .

We next address the district court's primary theory of anticompetitive harm: Qualcomm's imposition of an "anticompetitive surcharge" on rival chip suppliers via its licensing royalty rates. According to the district court,

Qualcomm's unreasonably high royalty rates enable Qualcomm to control rivals' prices because Qualcomm receives the royalty even when an OEM uses one of Qualcomm's rival's chips. Thus, the "all-in" price of any modem chip sold by one of Qualcomm's rivals effectively includes two components: (1) the nominal chip price; and (2) Qualcomm's royalty surcharge.

We hold that the district court's "anticompetitive surcharge" theory fails to state a cogent theory of anticompetitive harm. . . .

[C]

As with its critique of Qualcomm's royalty rates, the district court's analysis of Qualcomm's "no license, no chips" policy focuses almost exclusively on alleged "anticompetitive harms" to

OEMs—that is, impacts outside the relevant antitrust market. The district court labeled Qualcomm's policy "anticompetitive conduct against OEMs." . . . Although OEMs consistently described Qualcomm's "no license, no chips" policy as "unique in the industry," none articulated a cogent theory of anticompetitive harm. Instead, they objected to Qualcomm's licensing royalty rates, which they have to pay *regardless* of whether they chose to purchase their chips from Qualcomm or a competitor (or else risk a patent infringement suit from Qualcomm).

Furthermore, it appears that OEMs have been somewhat successful in "disciplining" Qualcomm's pricing through arbitration claims, negotiations, threatening to move to different chip suppliers, and threatened or actual antitrust litigation. These maneuvers generally resulted in settlements and renegotiated licensing and chip-supply agreements with Qualcomm, even as OEMs continued to look elsewhere for cheaper modem chip options. A good example of this is Apple's 2014 decision to switch to Intel as its main chip supplier, demonstrating that Qualcomm's "no license, no chips" policy did not foreclose competition in the modem chip markets. . . .

The district court stopped short of holding that the "no license, no chips" policy itself violates antitrust law. For good reason: neither the Sherman Act nor any other law prohibits companies like Qualcomm from (1) licensing their SEPs independently from their chip sales and collecting royalties, and/or (2) limiting their chip customer base to licensed OEMs. As we have noted, "[a]s a general rule, businesses are free to choose the parties with whom they will deal, as well as the prices, terms, and conditions of that dealing." *Linkline*, 555 U.S. at 448. . . .

This is not to say that Qualcomm's "no license, no chips" policy is not "unique in the industry" (it is), or that the policy is not designed to maximize Qualcomm's profits (Qualcomm has admitted as much). But profit-seeking behavior alone is insufficient to establish antitrust liability. As the Supreme Court stated in *Trinko*, the opportunity to charge monopoly prices "is an important element of the free-market system" and "is what attracts 'business acumen' in the first place; it induces risk taking that produces innovation and economic growth." *Trinko*, 540 U.S. at 407. [Here,] a company's novel business practice at first appeared to be anticompetitive, but in fact was disruptive in a manner that was beneficial to consumers in the long run because it forced rival . . . companies to adapt and innovate. . . . We decline to ascribe antitrust liability in these dynamic and rapidly changing technology markets without clearer proof of anticompetitive effect.

IV

Anticompetitive behavior is illegal under federal antitrust law. Hypercompetitive behavior is not. Qualcomm has exercised market dominance in the 3G and 4G cellular modem chip markets for many years, and its business practices have played a powerful and disruptive role in those markets, as well as in the broader cellular services and technology markets. The company has asserted its economic muscle "with vigor, imagination, devotion, and ingenuity." *Topco Assocs.*, 405 U.S. at 610. It has also "acted with sharp elbows—as businesses often do." *Tension Envelope Corp. v. JBM Envelope Co.*, 876 F.3d 1112, 1122 (8th Cir. 2017). Our job is not to condone or punish Qualcomm for its success, but rather to assess whether the FTC has met its burden under the rule of reason to show that Qualcomm's practices have crossed the line to conduct which unfairly tends to destroy competition itself.

First, Qualcomm's practice of licensing its SEPs exclusively at the OEM level does not amount to anticompetitive conduct in violation of § 2, as Qualcomm is under no antitrust duty to license rival chip suppliers. . . . Second, Qualcomm's patent-licensing royalties and "no license, no chips" policy do not impose an anticompetitive surcharge on rivals' modem chip sales. Instead, these aspects of Qualcomm's business model are "chip-supplier neutral" and do not undermine competition in the relevant antitrust markets. . . .

We therefore **REVERSE** the district court's judgment and **VACATE** its injunction as well as its partial grant of summary judgment.