No. 19-15159

IN THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

KAREN STROMBERG, et al.,
Plaintiffs-Appellees,
v.
QUALCOMM INCORPORATED,
Defendant-Appellant.

On Appeal from an Order of the Honorable Lucy H. Koh, District Judge

U.S. District Court for the Northern District of California,
No. 5:17-md-02773-LHK

BRIEF OF *AMICI CURIAE* ECONOMISTS AND PROFESSORS IN SUPPORT OF PLAINTIFFS-APPELLEES AND AFFIRMANCE

(Filed with the Consent of All Parties Under Fed. R. App. P. 29(a)(2))

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In accordance with Fed. R. App. P. 29(a)(4)(D), the following is a complete list (alphabetically) of the *amici curiae* on whose behalf this brief is submitted in their individual capacities (with institutional names provided for identification purposes only), all of whom are individuals for whom no corporate disclosure statement is required under Fed. R. App. P. 26.1:

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I. INTEREST OF *AMICI CURIAE*

The authors ("*Amici*") are practicing economists, law professors, or both, from throughout the United States, each of whom has research and teaching interests concerning the application of economics to antitrust issues.

Amici have received no payment in connection with the preparation of this brief, which we are submitting independently, and none of us have any personal interest in the outcome of this case.[1] We do, however, have an interest both as citizens and professionals in fostering the appropriate utilization of economic principles and methods in antitrust jurisprudence – which, for the reasons we discuss, the district court did here.

All parties to this appeal have consented to the filing of this brief.

II. INTRODUCTION

For the protection of competition and the maximization of both allocative efficiency (making what the consumer wants) and productive efficiency (using the least amount of resources), antitrust law frequently draws upon principles and inferences from economic analysis. In its 66-page opinion and order[2] certifying the

[1] Pursuant to Fed. R. App. 29(a)(4)(E), the undersigned certifies that no party's counsel authored this brief in whole or in part, and no party or party's counsel, or any other person besides *Amici* and their counsel, contributed money that was intended to fund preparing or submitting this brief.

[2] The district court's September 27, 2018 Order Granting Plaintiffs' Motion for Class Certification (1ER1-66) is hereinafter referred to as the "Order."

class of indirect purchasers of "Relevant Cellular Phones" (*see* 1ER66), the district court did the same – discussing well-established economic and econometric methods, including hedonic regression, employed to estimate quality-adjusted prices and the extent of pass-through of Qualcomm overcharges to consumers.

These standard and widely accepted methods, utilized by plaintiffs' economic expert Dr. Kenneth Flamm, provide a common methodology for demonstrating impact across the class (and across different cell phone models and distribution channels) in the form of higher quality-adjusted prices, as well as for estimating class-wide damages.[3] As the district court recognized, Qualcomm's preoccupation with so-called focal-point pricing (whether a cell phone model would be moved from a particular, nominal price point) is not to the contrary concerning Dr. Flamm's opinions of *common* impact on ***quality-adjusted*** prices.

Likewise, Qualcomm's argument rings hollow, from an economic perspective, that consumers who purchased Apple iPhones after October 2016 *could not have been injured* because Apple and its contract manufacturers began withholding royalty payments to Qualcomm at that time. As the district court properly explained "[w]hether or not Apple and its contract manufacturers elected to stop paying royalties does not definitively answer whether Apple *incorporated*

[3] We note that Qualcomm has not challenged on appeal the district court's determination that Dr. Flamm's opinions are admissible under *Daubert v. Merrell Dow Pharmaceutical, Inc.*, 509 U.S. 579 (1993).

potential future payments of royalties into its consumer pricing." 1ER50 (emphasis added).

Finally, Qualcomm's brief makes much of the size of the certified class here. Sheer size alone should not serve to preclude class certification when class-wide impact and damages can be demonstrated. Indeed, from an economic perspective, certification of large classes can be properly viewed as of heightened importance, when otherwise proper, both because (i) private damages actions are a statutorily contemplated component, hand-in-glove with government activity, of enforcement of the antitrust laws, and (ii) in complex cases that are expensive to litigate, individual consumer actions with relatively small individual damages otherwise might not be brought.[4]

[4] We leave other arguments on appeal for the parties or others to address. However, we briefly note that Qualcomm, relying largely on *Mazza v. Am. Honda Motor Co.*, 666 F.2d 581 (9th Cir. 2012), challenges the district court's certification of a nationwide class of consumers with claims under California law, notwithstanding that the class includes states that have not enacted statutes permitting indirect purchasers to sue for antitrust damages. In *Mazza*, the court expressed that each state is "entitled to set the proper balance and boundaries between maintaining consumer protection, on the one hand, and encouraging an attractive business climate, on the other hand." *Id.* at 592. Here, Qualcomm, an upstream supplier that elected to be based in California, does not manufacture or sell the Relevant Cell Phones purchased by consumers in their respective states, and does not control the states in which those cell phones are sold. From an *economic* perspective, then, it is difficult to perceive how an "attractive business climate" in terms of the indirect-purchaser law of a state other than California (which itself allows for indirect purchasers to recover damages) could have any weight in connection with the conduct in which Qualcomm is alleged to have engaged here.

III. ARGUMENT

A. The District Court's Order Relies Upon Textbook Economic Principles and Mainstream Techniques Employed by Dr. Flamm

As the district court summarized in its review of Dr. Flamm's report, "as a general matter, economics predicts that higher costs of manufacture will be passed on to consumers," and in particular, there is an "economic consensus, confirmed by theoretical and empirical research, that industry-wide taxes – like Qualcomm's here – are passed through to purchasers as higher prices." 1ER33. These are non-controversial as general economic concepts. More particularly, though, the district court noted that these conclusions are also supported by evidence, including Qualcomm's own internal analyses and testimony from "Qualcomm and other participants in the cellular industry (including OEMs and wireless carriers) stat[ing] that Qualcomm's royalty would be an added component to the price of the phone." 1ER34.

Such pass-throughs of costs may be reflected directly in higher prices of the cell phones themselves, but even if they are not, that does not indicate that the pass-through has not occurred. Rather, the recoupment of such industry-wide taxes imposed upstream may simply occur in an alternative fashion – *e.g.*, by offering a phone or plan with different features at the same price point (a change in "quality-adjusted" price). As a matter of economics (and common sense), this principle, too,

is unremarkable. It is not only in the mainstream, but accepted by the broad spectrum of economic thinking. In microeconomics, it is analogous to the idea of "opportunity cost" – that when an option is chosen, there is a cost incurred by not enjoying the benefit associated with the best alternative choice. Indeed, this concept has even become known to much of the general public through the title of a 1975 book by Nobel laureate economist Milton Friedman, *There's No Such Thing as a Free Lunch*.

In order to measure the class-wide impact of the added cost of Qualcomm's royalty, Dr. Flamm analyzed cell phone sales data from each step of the distribution chain using "hedonic regression, a method commonly used in economics to determine the relative importance of the variables which affect the price of a good," as the district court properly observed. 1ER34.[5] In doing so, the district court noted that Dr. Flamm examined data "from six major OEMs, including the five largest OEMs in the U.S market" (accounting for approximately 90% of total cell phone sales during the relevant period); "from six of the largest U.S. retailers" (accounting for roughly 84% of the national retailer market); and "from five wireless carriers, comprising the four major U.S. carriers (AT&T, Sprint, T-Mobile, and Verizon) as

[5] The district court stated that hedonic regression is "a method commonly used in economics to determine the relative importance of the variables which affect the price of a good," 1ER34, and Dr. Flamm cited substantial economic literature on its use. Of particular importance here, we note that hedonic methods have been ordinary tools used for years in applied microeconomics to model market pricing for goods with rapid rates of innovation, such as high-technology products.

well as one regional carrier (US Cellular)" (representing approximately 97% of the market for wireless operators). *Id.*[6] Dr. Flamm then performed a regression analysis using "prices and costs from the first period a product is observed" and controlling for the same ten quality-control characteristics (operating system, OEM, data speed, battery storage capacity, storage, design weight, screen size, camera megapixels, MHz speed, and download speed) that we understand were used by Qualcomm's own experts in a submission to the FTC. 1ER34-35.

Dr. Flamm then calculated pass-through rates for each market participant, which were positive and indicated that costs were passed through – and as the district court observed, many of the rates were "exceptionally high." 1ER35. He also calculated cumulative pass-through rates for each of 18 different primary sales channels and weighted those rates to arrive at an overall channel-weighted pass-through rate, indicating that at least 87% of Qualcomm's royalty overcharge was passed through to consumers as an increase in the quality-adjusted price. 1ER35-36.

Dr. Flamm's method described above and relied upon by the district court reflects the use of standard economic and econometric techniques to determine the effect, if any, of a change in Qualcomm's royalty rate on the price of Relevant Cell

[6] Dr. Flamm also examined data "from the largest U.S. distributor and a major contract manufacturer." 1ER34.

Phones to consumers in the class. And indeed, hedonic regression has been regularly used and relied upon by district courts in this Circuit in certifying classes of indirect purchasers, including in technology cases. *See, e.g.*, *In re Optical Disk Drive Antitrust Litig.*, No. 3:10-md-2143RS, 2016 WL 467444 (N.D. Cal. Feb. 8, 2016) (regression analysis by Dr. Flamm); *In re Cathode Ray Tube (CRT) Antitrust Litig.*, MDL No. 1917, 2013 WL 5429718 (N.D. Cal. June 20, 2013), *adopted by*, 2013 WL 5391159 (N.D. Cal. Sept. 24, 2013).

B. Qualcomm's Criticisms of the Economic Analysis Are Misplaced

We are familiar with the requirement in the Ninth Circuit (and every other circuit) that a trial court must engage in a "rigorous analysis" of the facts of a class action to ensure that it meets the requirements for certification. And from an academic standpoint, it is clear from a review of the district court's Order that substantial analytical rigor was exercised. The Order reflects a fulsome understanding and discussion of the economic and econometric techniques and, on its face, is plainly informed by substantial briefing, hundreds of pages of expert reports, and scores of exhibits. By contrast, Qualcomm appears either to engage in misdirection or to miss the point entirely in its criticisms of the class certification when it argues that Dr. Flamm's model "failed to account for important complexities." Qualcomm Br. at 25.

First, Qualcomm argues that Dr. Flamm did not account for the existence of

focal-point pricing. *Id.* This is a red herring. As we stated earlier, Dr. Flamm's hedonic regression model reflects the pass-through of upstream overcharges in the *quality-adjusted price*, which reflects both the nominal price and quality. As the district court properly understood, "even if the nominal, focal-point price would not shift in the 'but for' world where Qualcomm's overcharge is lessened or eliminated, the quality-adjusted price will change." 1ER46 (citing Dr. Flamm's reply declaration).

Qualcomm also appears to imply that Dr. Flamm's demonstration of changes in quality-adjusted price should not be accepted because, Qualcomm argues: (i) carriers and retailers "do not manufacture cellphones and, therefore, *can't* alter their quality," Qualcomm Br. at 26 (emphasis in original); and (ii) Dr. Flamm's "economic theory" of pass-through is the "thinnest of threads" in the absence of a study "capable of showing that this quality reduction actually happened in the real world." Qualcomm Br. at 27-28. As the district court observed, Dr. Flamm's "economic theory" is supported by substantial economic literature and empirical studies concerning such industry-wide taxes. *See* 1ER46.

Moreover, pass-through in quality-adjusted pricing in such circumstances is well-accepted by economists. Indeed, as we learned just this week in reviewing Plaintiffs' Brief in this appeal, the fact of such cost recoupment – one way or another, through cell phone or plan, through features or price – specifically was argued *on*

Qualcomm's behalf by Dr. Jerry Hausman, an economist with whom a number of us have worked. *See* Plaintiffs' Br. at 31 (quoting a Qualcomm submission to the International Trade Commission). Dr. Hausman put it aptly, echoing Milton Friedman's words: "*There is no free lunch*. . . . If companies such as Verizon and Sprint have to pay more for their handsets, *even if they give them away for free they have to get that money back* in the monthly service fee . . . ." *Id.* (emphasis added).

Qualcomm also argues that the class as defined includes Apple customers purchasing after Apple began withholding royalty payments to Qualcomm in 2016, which customers Qualcomm contends were uninjured. *See* Qualcomm Br. at 35-40. The district court expressly considered this issue in its opinion, not only stating that it was reasonable to conclude that Apple incorporated the potential of future royalty payments into its consumer pricing – which, as a business matter, it was – but also citing internal documents from Apple showing that the company "considered Qualcomm's royalty when pricing and designing iPhones to be sold in 2017." 1ER50.[7]

At this juncture, then, the certified class definition appears to be co-extensive with those who suffered injury from Qualcomm's conduct, based upon the district court's examination of the underlying merits evidence and the use of well-accepted

[7] The district court also posited that the effects of Qualcomm's conduct continued after the cessation of royalty payments. 1ER50. We have not specifically considered this issue here, but such a "tail" is a common effect of anticompetitive conduct.

analytical tools in order to determine the predominance of common questions. Those tools can be applied to classes numbering in the dozens or in the millions or more: very large groups may be susceptible to class-wide proof of impact, as in this case, just as relatively small groups in other cases may not be. But which experts' findings and observations (and, more generally, which parties' arguments and evidence) are most persuasive on the *merits* of the class's claims properly should be an issue for another day and for the finder-of-fact: "[t]o hold otherwise would turn class certification into a mini-trial." *Stockwell v. City & County of San Francisco*, 749 F.3d 1107, 1112 (9th Cir. 2014) (quoting *Ellis v. Costco Wholesale Corp.*, 657 F.3d 970, 983 n.7 (9th Cir. 2011)).

IV. CONCLUSION

The district court's Order certifying the indirect purchaser class is consistent with mainstream microeconomic principles and should be affirmed.

Dated: August 9, 2019

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

I hereby certify, pursuant to Fed. R. App. P. 32(a)(7) and 32(g)(1), as well as 29(a)(2) and 29(a)(4), that: (i) this brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because this brief contains 2,566 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(f); and (ii) this brief complies with the typeface requirements of Fed. R. App P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because this brief has been prepared in a proportionately spaced typeface using Times New Roman 14-point font.

Dated: August 9, 2019

Respectfully submitted,

/s/ *Scott Martin*
Scott Martin

CERTIFICATE OF SERVICE

I hereby certify that on August 10, 2019, I caused the foregoing to be electronically filed with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system. Participants in the case who are registered CM/ECF users will be served by the appellate CM/ECF system.

Dated: August 10, 2019

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