

Nos. 21-16506 & 21-16695

**IN THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT**

EPIC GAMES, INC.,
Plaintiff/counter-defendant–Appellant/cross-appellee,

v.

APPLE, INC.,
Defendant/counter-claimant–Appellee/cross-appellant.

On Appeal from Judgment of the United States District Court for the
Northern District of California (Hon. Yvonne Gonzalez Rogers)
No. 4:20-cv-05640-YGR

**BRIEF OF *AMICI CURIAE* LAW AND ECONOMICS SCHOLARS
IN SUPPORT OF THE APPELLEE AND PARTIAL
AFFIRMANCE OF THE JUDGMENT**

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**STATEMENT OF IDENTITY, INTEREST, AND AUTHORITY OF
THE *AMICI CURIAE***

Amici are the scholars of antitrust law and economics who are listed in Appendix A below. As scholars in these fields, *amici* have an interest in ensuring that United States antitrust doctrine promotes consumer welfare, the paramount goal of the antitrust laws. A ruling from this Court in favor of appellant Epic Games, Inc. would blur a distinction that is critical for ensuring that antitrust law promotes dynamic efficiency and thus benefits consumers in the long run. Condemning the conduct Epic has challenged would also produce short-run consumer harm. Accordingly, we submit this brief in support of appellee Apple, Inc.

The parties have filed a joint blanket consent to the filing of *amicus* briefs. Dkt. 33. No party's counsel authored this brief in whole or in part; no party or party's counsel contributed money that was intended to fund preparing or submitting the brief; and no person—other than the *amici curiae* or their counsel—contributed money that was intended to fund preparing or submitting the brief.

INTRODUCTION AND SUMMARY OF ARGUMENT

Having broken new innovative ground in mobile devices and the operating system for them, Apple is entitled to enjoy the fruits of its efforts. Every voluntary transaction between a buyer and seller involves the creation of surplus, which is the difference between the subjective value the buyer attaches to the thing being sold and the seller's cost of producing and selling the item. See Paul A. Samuelson & William D. Nordhaus, *Economics* 150-152 (14th ed. 1992); N. Gregory Mankiw, *Principles of Economics* 142-52 (2d ed. 2001); Richard A. Posner, *Economic Analysis of Law* 302 (5th ed. 1998). Price and other contract terms determine how that surplus is split between the buyer and seller (*i.e.*, between consumer surplus and producer surplus). Dennis W. Carlton & Ken Heyer, *Extractions vs. Extension: The Basis for Formulating Antitrust Policy Towards Single-Firm Conduct*, 4 *Compet'n Pol'y Int'l* 285, 293-97 (2008).

Antitrust law recognizes that innovators like Apple are lawfully entitled to extract whatever surplus they can derive from transactions involving their innovations as long as they do not somehow enhance their market power through those transactions. Allowing profits from

innovation serves the procompetitive policies of antitrust law by providing strong incentives for innovation by all competitors.

That principle disposes of much of this case.

Epic creates and sells a mobile version of its Fortnite game in the form of a computer application, or “app,” that runs on iOS, the operating system used in Apple’s popular iPhones and iPads. The district court found that Apple participates in the relevant market for mobile gaming transactions through “a full suite of services offered by iOS and [Apple’s proprietary] App Store,” services that draw upon (and are technologically integrated into) the iOS devices and include Apple’s proprietary In-App Purchase (IAP) system as one component. 1-ER-157. IAP comprises several software programs that together “manage transactions, payments, and commissions within the App Store.” 1-ER-68.

Epic has challenged two policies that are part of Apple’s business model for monetizing its innovative app platform. One policy requires developers to distribute iOS apps exclusively through Apple’s App Store. The other requires developers to use Apple’s IAP in conjunction with any payments app users make while using an iOS app. Apple then

retains a share (typically 30%) of the revenues from App Store sales and from app users' purchases of digital goods using IAP.

The district court found that Apple has market power in the mobile gaming transactions market owing to its "over 55%" share and its profit margins, along with "relatively high but ... plausibly decreasing" barriers to entry. 1-ER-4, 1-ER-93-97. As the district court recognized, however, "[s]uccess is not illegal," 1-ER-4, and there is no suggestion that Apple achieved its market position unlawfully.

The challenged policies provide a way for Apple to exercise its legitimately obtained market power to extract some of the surplus created by iOS app sales and in-app purchases. Yet Apple could still collect a similar level of surplus from iOS app transactions even without those two policies. For example, Apple could require app developers to pay it a portion of their revenues to obtain access to the software development tools and the 150,000 application programming interfaces (APIs) needed to produce operable iOS apps. *See* 1-ER-117.

Because the challenged policies do not foreclose competition, but only collect surplus that Apple has legitimately obtained, the policies do not extend Apple's market power by impairing the competitive

constraints of rivals to the detriment of consumers. That is critical. Antitrust law distinguishes between behavior that enables a dominant firm to *enhance* its market power by weakening competitive constraints and conduct by which the firm *exercises* that power solely to extract a greater proportion of the surplus its innovations create. While the former conduct is forbidden, the latter is not.

And for good reason. Allowing exercises of market power that merely extract surplus without enhancing or expanding power fosters dynamic efficiency in two ways: such an approach both motivates innovation with the prospect of higher profits, and enables innovation because higher returns often finance further innovative efforts in pursuit of still greater returns. Allowing surplus extraction that does not enhance market power also avoids intractable questions that would turn antitrust courts into price regulators.

Because the policies Epic has challenged do not increase or expand the scope of any market power Apple may possess, they do not give rise to antitrust liability. The Supreme Court recently warned that “antitrust law does not require businesses to use anything like the least restrictive means of achieving legitimate business purposes.” *NCAA v.*

Alston, 141 S. Ct. 2141, 2161 (2021). Counseling judicial restraint is the law of unintended consequences; intrusion may “prove counter-productive, undercutting the very economic ends [it] seek[s] to serve.” *Id.* (quoting *Barry Wright Corp. v. ITT Grinnell Corp.*, 724 F.2d 226, 234 (1st Cir. 1983) (Breyer, J.)). So it is here. Alternative approaches in which Apple simply charged developers a fee (flat or revenue-based) for the digital amenities required to produce operable iOS apps would likely reduce consumer welfare relative to the status quo. That is the opposite of what antitrust law strives to achieve.

ARGUMENT

The district court found: (1) that Apple has market power, but not monopoly power, in the relevant market for mobile gaming transactions (1-ER-142); and (2) that Apple’s product in that market is unitary rather than (as Epic contends) spread across three separate relevant markets (1-ER-130-36). Apple has not engaged in conduct deemed anticompetitive under antitrust law even under Epic’s proposed market definitions.

A. Antitrust law does not—and should not—forbid exercises of market power that extract greater surplus from transactions without preserving or enhancing market power.

“Congress designed the Sherman Act as a ‘consumer welfare prescription.’” *Reiter v. Sonotone Corp.*, 442 U.S. 330, 343 (1979). But antitrust law views consumer welfare in the context of market competition. Short-run harm to consumers is not sufficient to condemn a business practice under the Sherman Act. The challenged practice must also involve an enhancement of market power.

1. Antitrust law does not forbid merely exercising market power to extract surplus.

Two different types of market power-related business behavior may injure consumers. One is an *exercise* of market power, whereby a firm lacking competitive constraints increases its returns by constricting its output to earn higher profit margins. *See* Carlton & Heyer, *supra*, at 285. An example is an exercise of market power to increase prices and thus extract a greater proportion of the surplus created by its transactions with customers. *See generally id.* at 293-97.

The other relevant behavior is conduct by which firm *enhances* its market power by weakening competitive constraints, whether by using

its own market power to exclude rivals or raise their costs or by entering into an anticompetitive agreement (or merger) with one or more competitors. *Id.* at 285, 298.

a. Antitrust law forbids behavior that enhances market power, but permits actions that merely exercise legitimately obtained market power without somehow enhancing it. For example, simply “charging” even “monopoly prices does not violate § 2” of the Sherman Act, *Pac. Bell Tel. Co. v. linkLine Commc’ns, Inc.*, 555 U.S. 438, 447-48 (2009), even though it creates immediate consumer harm by extracting a greater share of the surplus created by the transaction. A monopolist is entitled to a monopoly price. *Verizon Comm’c’ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 407 (2004); *FTC v. Qualcomm Inc.*, 969 F.3d 974, 999-1000, 1003 (9th Cir. 2020).

The district court in the present case misapplied this governing principle in mislabeling Apple’s 30% App Store commission an “anticompetitive effect[]” of the App Store restrictions because “Apple’s maintenance of its commission rate stems from market power.” 1-ER-149. The court recognized that Apple’s lawfully obtained market power—not monopoly power (1-ER-142)—by definition gave it the

ability to set its price above marginal cost, yet the court repeatedly suggested that there was some optimum price that Apple should charge. For example, the court found significant that “Apple has provided no evidence that the rate it charges bears any quantifiable relation to the service provided,” and complained of the lack of “market forces to test [Apple’s business] proposition or motivate a change.” 1-ER-101.

Whether or not the price is actually “high,” a high price resulting from legitimately obtained market power is not unlawful.¹ Antitrust courts are not price regulators. Unless a price tends to exclude competition—and high prices attract rather than repel competitors—a price itself is not anticompetitive.

That was this Court’s conclusion when it held that an “anticompetitive surcharge’ theory fails to state a cogent theory of anticompetitive harm.” *Qualcomm*, 969 F.3d at 998. Condemning the price offered by a seller with market power by measuring the price against a product’s value in a hypothetical competitive market, or

¹ Apple adopted the 30% rate charged by other platforms when it began offering applications on the iPhone. 1-ER-94. The district court recognized that “the 30% commission is standard for other stores, including on competitive platforms.” 1-ER-100; *see also* 1-ER-77-78, 82.

against the “current, intrinsic value” of intellectual property, is not a function of antitrust law. *Id.* at 999-1000. A high price may harm consumers, though the district court found no evidence of that harm here. *See* 1-ER-102. But even a price that does harm consumers, so long as it “does so without harming competition itself, ... is beyond the antitrust laws’ reach.” *Qualcomm*, 969 F.3d at 1000 (quoting *Rambus Inc. v. FTC*, 522 F.3d 456, 464 (D.C. Cir. 2008)).

b. Although the district court’s market definition obviated any discussion of tying or leveraging theories, courts have similarly refused to condemn mere exercises of market power in cases involving surplus-extractive arrangements more complicated than simple monopoly pricing. *See generally* Thomas A. Lambert, *Appropriate Liability Rules for Tying and Bundled Discounting*, 72 Ohio St. L. J. 909, 927-34 (2011). For example, in *Illinois Tool Works, Inc. v. Independent Ink, Inc.*, 547 U.S. 28 (2006), the Supreme Court expressly declined to ban “metering” or “requirements” tie-ins. In such a tie-in, a firm sells one of its products (*e.g.*, a printer) on the condition that buyers also purchase their requirements of a complementary product (*e.g.*, ink) that consumers use in varying degrees.

Profits from the ink “meter” each buyer’s use of the printer, linking the total price to the buyer’s usage, allowing the producer to charge higher effective prices to buyers who use (and presumably value) its printer more. See Phillip Areeda & Herbert Hovenkamp, *Antitrust Law* ¶ 1711b3 (5th ed. 2020). Price discriminating in this way permits the producer to extract for itself more of the surplus generated by its transactions with consumers. *Id.*

This strategy relies on some measure of market power, as “[a] seller must generally have some market power in order to price discriminate.” Herbert Hovenkamp, *Federal Antitrust Policy* § 10.6e, p. 552 (6th ed. 2020). The arrangement, however, neither extends nor protects the producer’s market power. If anything, it renders that power more vulnerable by inviting entry by firms that are willing to extract less surplus from their customers.

As a matter of law, though, a metering tie does not even create a presumption of market power in the tying market. *Independent Ink*, 547 U.S. at 44. As the *Independent Ink* Court observed, requirements ties may be “fully consistent with a free, competitive market.” *Id.* at 45. That is, mere price discrimination and surplus extraction, even when

accomplished through a tying agreement, are not anticompetitive harms.

Similar reasoning demonstrates that Apple’s percentage commissions on its suite of mobile gaming transaction services effectively meter the value of access to its innovative app platform. Neither the conduct nor the effect is anticompetitive.

c. This Court recently confirmed in *Qualcomm* that surplus extraction by a firm with market power is not an antitrust violation unless the challenged practice preserves or enhances market power—even when the extraction is accomplished by a monopolist, and through a business practice more complicated than simple monopoly pricing. Qualcomm had refused to license its essential patents to rival chip producers, although the rivals “practice[d] many of” those technologies “by necessity.” 969 F.3d. at 984. Qualcomm instead required original equipment manufacturers (OEMs) to acquire a patent license in order to buy and use chips from any producer that incorporated Qualcomm’s patented technologies. *Id.* at 984-85. Qualcomm agreed not to enforce its patents against rival chipmakers so long as they sold only to OEMs that had obtained a patent license from Qualcomm. *Id.*

Qualcomm charged royalties based on the revenues from OEMs' high-priced finished products rather than from rival producers' chips, effectively metering the ultimate value extracted from the patents. *Id.* at 998-1000.² This strategy allowed Qualcomm to earn greater profits from its patents by increasing the revenue base for royalties. Because the policy was “chip-neutral,” however, it did not strengthen or entrench Qualcomm’s market power by impeding rival chip producers’ sales. *Id.* at 1002-03. The policies simply permitted Qualcomm to extract greater surplus in exercising the legitimate market power conferred by its patent portfolio.

This Court recognized that Qualcomm’s business model was “unique in the industry” and “was designed to maximize Qualcomm’s profits.” *Id.* at 1003. But “profit-seeking behavior alone”—even by an actor with monopoly power—“is insufficient to establish antitrust liability.” *Id.* On the contrary, the Court emphasized the innovation

² Under the patent exhaustion doctrine, had Qualcomm licensed its patents to competing chip producers, it could not have demanded a patent license (and royalties) from OEMs that bought rival chips incorporating its patents. *See id.* at 984-85.

benefits of allowing mere surplus extraction by firms that have attained market power legitimately:

[T]he 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.”

Id. (quoting *Trinko*, 540 U.S. at 407).

Because Qualcomm’s policies did not injure competition by weakening competitive constraints, they presented no antitrust concerns. As explained below, neither does Apple’s business model.

2. Permitting purely extractive exercises of market power furthers dynamic efficiency and avoids intractable administrative difficulties.

Epic’s theories would condemn purely extractive exercises of market power that further consumer welfare by promoting dynamic efficiency. Adopting those theories would likely harm rather than help consumers.

a. Purely extractive exercises of market power have broad pro-consumer benefits.

Dynamic efficiency—the welfare gain that accrues over time from the development of new and improved products and services—results from innovation, which entails costs and risks for the innovator.

Entrepreneurs are more willing to accept those costs and risks as their

potential payoff for success rises. And potential payoffs are higher when innovators—particularly those whose innovations have intellectual property protections—may earn supracompetitive profits for at least a limited time because their unique offerings do not face vigorous competition.

Allowing innovators to earn high profits also mitigates a problem resulting from the fact that “the benefits of innovation to society as a whole greatly exceed the benefits to the firms that develop the innovation.” Jonathan B. Baker, *Beyond Schumpeter vs. Arrow: How Antitrust Fosters Innovation*, 74 *Antitrust L. J.* 575, 576 (2007).

Because an innovator typically bears all the cost of its innovative efforts while capturing only a fraction of the benefits produced, innovators may not be optimally motivated to produce.

Like all producers, innovators typically do the easier, higher payoff things first, eventually transitioning to efforts that are costlier and offer less incremental benefit. Optimal production occurs at the point at which the (rising) incremental cost of an effort just equals the (falling) incremental benefit it generates. While efforts beyond that point cost more than the benefits they create, all efforts up to that point

create benefit in excess of their cost. If a producer is bearing all the cost of its efforts but capturing only a portion of the benefits created, it will stop its productive efforts too soon.

Allowing innovators to earn higher profit from their unique creations helps internalize the positive externalities (*i.e.*, benefit spillovers) resulting from innovation and therefore helps secure a closer-to-optimal level of innovative effort. That is why “the mere possession of monopoly power, and the concomitant charging of monopoly prices, . . . is an important element of the free market system.” *Trinko*, 540 U.S. at 407. “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.* Accordingly, even in cases of monopoly power not present here, the possession and exercise of that power “will not be found unlawful unless . . . accompanied by an element of anticompetitive *conduct.*” *Id.*

Profits extracted through the exercise of legitimately obtained market power not only motivate innovation, *id.*, but also help fund innovative efforts. While businesses that are forced by competition to

charge prices near their incremental cost must secure external funding for significant research and development (R&D) efforts, firms collecting supracompetitive returns can finance R&D internally.³ See Thomas A. Lambert, *The Limits of Antitrust in the 21st Century*, 68 Kan. L. Rev. 1097, 1119-20 (2020). That can be critical in dynamic markets where incumbents must anticipate the next challenge and invest in ways to meet it. Just as Apple's entry, followed by Google's, brought mobile gaming platforms into competition with console and PC gaming platforms, current gaming platforms face competition from virtual reality and augmented reality platforms (such as through the Meta (formerly Oculus) Quest devices).

³ And they do, as data on corporate R&D expenditures confirm. Of the top fifteen global spenders on R&D in 2018, eleven were either technology firms accused of possessing monopoly power (#1 Apple, #2 Alphabet/Google, #5 Intel, #6 Microsoft, #7 Apple, and #14 Facebook) or pharmaceutical companies whose patent protections insulate their products from competition and enable supracompetitive pricing (#8 Roche, #9 Johnson & Johnson, #10 Merck, #12 Novartis, and #15 Pfizer). See Barry Jaruzelski, Robert Chwalik, & Brad Goehle, *What the Top Innovators Get Right*, Strategy+Business (Oct. 13, 2018), <https://www.strategy-business.com/feature/What-the-Top-Innovators-Get-Right> (citing data from *Strategy&'s Global Innovation 1000 Study*, <https://www.strategyand.pwc.com/gx/en/insights/innovation1000.html>).

b. Restricting mere surplus extraction would harm innovation and consumers.

In addition to fostering innovation, the antitrust laws' tolerance of non-power-enhancing exercises of market power allows courts to avoid determining which instances of mere surplus extraction should be precluded. Such efforts would cause much more harm than good.

One alternative similar to Epic's proposals here would prohibit surplus extraction achieved by something apart from pricing alone—say, by a requirement that a buyer of one product also purchase or use another product or service. But condemning more complex instances of mere surplus extraction, while permitting simple monopoly pricing, would be both arbitrary and backward. “Extraction of surplus through means other than simple monopoly pricing is equally as ‘legitimate’ as monopoly pricing, based principally on its impact on dynamic efficiency.” Carlton & Heyer, *supra*, at 290. The policy would be backward because, while simple monopoly pricing always reduces overall market output, more complicated methods of extracting surplus, such as metering, often enhance market output and overall social welfare. *Id.* at 291. For example, by allowing a firm with market power to price discriminate according to consumers' willingness to pay,

metering may enable the firm to produce and sell all “tying” product units that create greater value than they cost to produce while collecting maximum profits from consumers who attach a high value to the product. *See* Hovenkamp, *supra*, § 10.6e, at 553-55.

A second alternative, forbidding all arguably supracompetitive pricing, would require impossible line-drawing. “[F]irms can exploit market power in product differentiated markets. How much is a question of degree.” Hovenkamp, *supra*, §3.3a1, at 126. Above-cost pricing by firms with niche products or effective brand differentiation is ubiquitous. Any pricing based on brand differentiation would be subject to challenge whenever a lawyer could portray the price as related to a deleterious form of market power. That alternative would result in inconsistent and unpredictable judicial price regulation.

A third option would preclude exercising market power to extract more surplus than is necessary to motivate and enable innovation. That would be pure judicial price regulation. Courts are poorly equipped for that task, and their inevitable mistakes could significantly chill entrepreneurial innovation and harm consumer welfare.

Consider, for example, a firm contemplating a \$5 million investment that might return up to \$50 million. Suppose the managers of the firm weighed expected costs and benefits and decided the risky gamble was just worth taking. If the gamble paid off but a court stepped in and capped the firm's returns at \$20 million—a seemingly generous quadrupling of the firm's investment—future firms in the same position would not make similar investments. A gamble barely worth taking when available returns were estimated at \$50 million would not receive a second look if returns could be capped at \$20 million on the specious ground that “excessive operating margins” were “anticompetitive effects.” 1-ER-166.

The best policy draws the line as the Supreme Court and this Court have done: forbidding enhancements of market power that impair the competitive process but permitting mere exercises of legitimately obtained market power to extract surplus.

B. Apple's App Store and IAP requirements do not enhance its market power.

The policies Epic has challenged do not enhance Apple's market power in any conceivable market.

1. The challenged policies do not enhance Apple’s market power in the putative markets Epic has identified.

The district court rejected Epic’s attempt to define separate markets for “iOS app distribution” and “iOS in-app payment processing” as aftermarkets from a supposed “market” for the iOS operating system. 1-ER-49-70, 130-136. Yet even if the court had accepted Epic’s proposed market definitions, Epic’s antitrust claims would fail because the challenged policies would not enhance Apple’s market power in those putative markets, let alone in the market for mobile gaming transactions that the district court adopted.

Apple’s ability to determine how and whether to license elements and uses of its iOS operating system allows it to decide which applications can run on its iPhones and iPads. Developers cannot produce operable iOS apps unless Apple grants them access to the APIs and software development kit required to enable the functionality of the operating system and hardware. In addition, Apple can require developers to obtain digital certificates that will enable their iOS apps to operate when downloaded; “no certificate means the code will not run.” 1-ER-65.

In light of this control over its intellectual property, Apple could collect the share of surplus it currently extracts from iOS app sales and in-app purchases using different, equally lawful means. Apple could simply withhold access to the APIs or digital certificates needed to run iOS apps unless developers promised to pay it 30% of their revenues from app sales and in-app purchases of digital goods. The challenged policies therefore do not enhance Apple’s market power in the markets Epic has proposed.

2. The challenged policies do not enhance Apple’s market power in broader app-related markets, including the “mobile gaming transactions” market.

Nor do the policies enhance Apple’s market power in the “mobile gaming transactions” market defined by the district court. Apple neither distributes apps to users of non-iOS platforms nor provides services for in-app payments made within non-iOS apps, so the challenged policies have no effect on any broader market relating to mobile apps and payments.

And with respect to purchases of or within iOS apps, Apple could extract surplus from those transactions even without the challenged policies. Nothing about the challenged policies enhances that power,

though it is possible that consumers prefer the benefits those policies offer, such as the privacy and security benefits recognized by the district court, *see* 1-ER-110-11. That preference might help explain why, although Apple has only a 15% share of the smartphone market, *see* 1-ER-49, Apple has a much higher share of the mobile gaming transactions market, *see* 1-ER-4. But the challenged policies do not provide Apple with any market power it does not already possess.

3. The challenged policies do not enable Apple to maintain its market power in any market.

Where (unlike here) challenged conduct occurs in a separate but adjacent market, another type of anticompetitive effect is possible. For example, a firm that is dominant in market *A* might face nascent competition from a firm participating in an adjacent *B* if the latter firm's offering in market *B* might somehow become a substitute for the offerings in market *A*. In such a situation, the first firm might exercise its power in market *A* to require its customers to buy or use a product or service it sells in market *B*, foreclosing competitors from market *B* from so much business that they could not emerge as formidable rivals in market *A*.

This was a primary theory of anticompetitive harm in *United States v. Microsoft*, 253 F.3d 34 (D.C. Cir. 2001), where the government claimed that Microsoft had integrated its Internet Explorer browser into its dominant Windows operating system to preclude rival browser producers from gaining sufficient market share to pose a threat to Microsoft in the operating systems market. *See id.* at 60.

In contrast, nothing in the record suggests that rival app stores or in-app payment service providers could plausibly evolve to challenge Apple’s market power in mobile gaming transactions, or any other relevant market in which Apple conceivably has power. That includes the single-brand “market” for Apple’s own iOS operating system, which the district court properly rejected, 1-ER-130-36, and markets for mobile devices. The only “markets” Epic identified—but the district court rejected—were limited to *iOS* app distribution and payment services, which by their very definition could not evolve into challengers to iOS itself or to the share of mobile gaming transactions that used iOS.

Even if, but for the challenged policies, rivals could reduce Apple’s market share in mobile gaming transactions or one of the ancillary

“markets” that the district court rejected, rivals could not challenge any market *power* Apple might have, which stems entirely from Apple’s ability to choose how and whether to license its intellectual property in iOS. The challenged policies therefore do not enable Apple to shore up any existing market power.⁴

In the end, Epic’s challenges seek to impair Apple’s ability to earn lawful returns from its legitimately obtained power in the market for mobile gaming transactions.

⁴ Microsoft’s amicus brief contends that policies similar to those Epic has challenged could create or maintain market power for Apple in other markets in which Apple participates, such as the markets for digital music and mobile gaming subscriptions. Dkt. 54, at 9-11. Microsoft contends that “[i]f Apple is allowed to step between any company with online services and users of iPhones, few areas of the vast mobile economy will be safe from Apple’s interference and eventual dominance.” *Id.* at 12. It is Apple’s control of iOS, however, that allows it to take this “step between.”

Microsoft apparently seeks to subject Apple to an antitrust duty to make its APIs available to its rivals—a position that Microsoft bitterly opposed when asked to do the same. *See, e.g.,* David Gow, *Microsoft gives up three-year battle to keep Windows closed to rivals*, *The Guardian* (Oct. 23, 2007), at <https://www.theguardian.com/media/2007/oct/23/digitalmedia.microsoft>. Epic did not ask for that relief.

C. Condemning the challenged policies would likely reduce consumer welfare.

Because the policies Epic has challenged are not the source of Apple's ability to extract surplus from iOS app transactions, condemning the policies would likely induce Apple to extract surplus using different means. But forcing such changes would likely leave consumers worse off than they are under the status quo. *See* 1-ER-151-53.

1. Replacing Apple's current policies with a flat fee for access to critical APIs or digital certificates would benefit Epic but harm consumers.

As an alternative to its current business model, Apple could simply charge developers a flat fee for access to the APIs and digital certifications needed to produce operable iOS apps but then allow them to use whatever app distribution and in-app payment services they preferred. If the flat fee were large enough, Apple could still earn substantial app-related revenues, while permitting competition among app stores and in-app payment service providers.

But a move to this alternative revenue model would likely injure consumers by (1) reducing the number of apps available at attractive prices, (2) increasing app developers' business risks and weakening

their incentive to innovate, (3) diminishing Apple's incentive to improve its mobile operating system and hardware, (4) driving up prices for Apple devices, and (5) impairing user security and privacy. *See* Thomas A. Lambert, *Assessing Big Tech's Market Power: A Comparative Institutional Analysis*, 75 SMU L. Rev. 73, 102-05 (2022).

Fewer Apps (Especially Free Ones). Under Apple's current policies, developers of free apps pay nothing (or a small fee for better development tools), and developers of unpopular paid apps pay little. This encourages the development of advertising-supported apps, which are particularly attractive to cost-conscious consumers, and it effectively subsidizes niche and new apps. *Id.* at 103. Charging all developers a flat fee for access to the amenities required to develop operable iOS apps would reduce the incentive to create advertising-supported apps (as doing so would no longer eliminate or diminish Apple's take) and free or niche apps (which may not generate enough revenue to cover the flat fee). Imposing a flat fee would also increase start-up costs for new app developers, which could no longer wait until their apps became popular to make a significant payment to Apple. Epic's Fortnite would make out better with a flat fee than under the

current system, but moving to a flat fee model would likely reduce overall production and consumption of iOS apps.

Greater Business Risk for Developers. A flat fee revenue model would also increase business risks for app developers and thereby diminish their incentive to innovate. *Id.* at 103-04. Producers of operating systems regularly upgrade their platforms by adding functionality. Apple or Google, for example, may include a new preinstalled app in an upgrade or subsequent version of its mobile operating system. Every third-party app developer thus faces a risk that its app's functions will be incorporated into a future version of the platform on which the app operates. *Id.*

But if the platform producer shares in the revenue from a popular third-party app, as Apple does now but would not do under an alternative flat fee revenue model, it has less incentive to incorporate the app's functionality into its platform. By reducing the risk of "app functionality expropriation," Apple's current system of extracting surplus better fosters developer innovation than would a flat fee approach. *Id.*

Reduced Investment in iOS. Apple's current app policies enable it to earn continuous profits as iOS users buy apps and make in-app purchases. That possibility gives Apple an incentive to keep users engaged with their iOS-enabled devices. *Id.* at 104. It does so by continually upgrading iOS and the mobile devices that run it. A flat fee model would soften this salutary incentive because Apple would earn revenue from an app developer only once—at most, once per operating system or application version—rather than collecting incremental revenues from sales or continued usage of apps.

Higher Prices for Mobile Devices. Apple's ability to earn continuous app-related revenue under its current rules also puts downward pressure on its hardware prices. *Id.* Because Apple enjoys incremental gains from sales and usage of iOS apps, it has an incentive to bring new users into the iOS ecosystem. It can best do that by ensuring that iPhones and iPads are favorably priced relative to their Android-based rivals. Apple's current revenue model therefore encourages it to hold down prices—relative to the counterfactual—for its mobile devices and recapture any lost profits in the form of commissions on app sales and in-app purchases. *Id.* Because a flat fee

revenue model eliminates Apple’s incremental revenue from iOS app sales and usage, that model reduces Apple’s incentive to lower its device prices to encourage greater sales and usage of iOS apps. That leads to a “deadweight loss”—squandering the gain that would result from a mutually beneficial transaction—because some consumers who value iPhones enough to purchase them at lower (but above-cost) prices would not buy them at the higher prices that would prevail if Apple could not earn additional revenue from app transactions. *Id.*

Reduced privacy and security for users. Under any business model that replaced the requirement to distribute through the App Store with a fee for necessary APIs, Apple would relinquish its role in guarding the privacy and security of iOS app users. The district court recognized both (1) that Apple’s app distribution restrictions increased security and “help ensure privacy, quality, and trustworthiness,” 1-ER-111, and (2) that “removing app distribution restrictions could reduce this effectiveness.” 1-ER-110. *See also* 1-ER-151-55.

Remarkably, one group of *amici* suggests that security and privacy should be categorically excluded from antitrust analysis altogether. *See* Dkt. 48, at 6-14. They maintain that “restrictions on

competition cannot be justified by arguments that they will improve product quality or even safety.” *Id.* at 8. Their sources for this imaginary principle are limited to cases involving *horizontal* agreements between competitors. *Id.* at 8-11.

But no horizontal restrictions are at issue here. Apple’s practices must be evaluated either as vertical restraints or single-firm conduct. And it is beyond doubt that enhancement of product quality—including an improvement in product safety—counts as a procompetitive justification for vertical restraints and unilateral business behavior. *E.g., Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 889 (2007) (vertical restraint); *Viamedia, Inc. v. Comcast Corp.*, 951 F.3d 429, 478 (7th Cir. 2020) (unilateral conduct); Areeda & Hovenkamp, *supra*, ¶ 651d, at 119 (explaining, in discussing liability for unilateral conduct, that “aggressive but nonpredatory pricing, higher output, improved product quality, energetic market penetration, successful research and development, cost-reducing innovations, and the like are welcomed by the Sherman Act”).⁵

⁵ Moreover, the Supreme Court has recognized enhancement of product quality as a procompetitive justification even for certain horizontal restraints. *E.g., Broadcast Music, Inc. v. Columbia Broadcasting Sys.*,

Indeed, showing that a challenged restraint “increased the quality of and quantity of ... transactions” may defeat an effort to show any anticompetitive effects at the threshold. *See Ohio v. Am. Express Co.*, 138 S. Ct. 2274, 2290 (2018); *Qualcomm*, 969 F.3d at 989. That is because increasing product quality in one brand increases the sales volume of that brand, stimulates responsive increases in quality in other brands, or both.

Unsurprisingly, the district court reported that the trial “witnesses [we]re unanimous that user security and privacy are valid procompetitive justifications.” 1-ER-114. Privacy and security are product features much in demand among online app users. A recent study focused on Apple’s December 2020 requirement that “all developers that publish apps on its App Store ... supply privacy labels which list the types of data being collected and how the data is used in a standardized and easily digestible format.” Bo Bian et al., *The Supply*

Inc., 441 U.S. 1, 21-22 (1979) (recognizing procompetitive nature of horizontal restraint that facilitated the creation of “a different product” with “unique characteristics”); *NCAA v. Bd. of Regents of Univ. of Okla.*, 468 U.S. 85, 102 (1984) (observing that certain horizontal restraints were necessary “to preserve the character and quality of the ‘product’” of amateur college football).

and Demand for Data Privacy: Evidence from Mobile Apps 1 (Dec. 17, 2021), available at <https://papers.ssrn.com/abstract=3987541>. The study observed that, “following the release of privacy labels, .. the iOS version of any given app experiences a close to 14% decline in weekly downloads and a 15% decline in revenues” when compared to the app’s “Android counterpart” that had not disclosed its data collection practices. *Id.* at 3. The study concluded that “consumers are averse to data collection by apps, especially when their data is collected for privacy-invasive uses.” *Id.* at 29.

Commenters on the present case recognize that “if the privacy-related justifications” form part of the “reasoning that the maintenance of data privacy and security through the restraints improves interbrand competition,” then those justifications are legitimate under the antitrust laws. Erika M. Douglas, *Data Privacy Protection as a Procompetitive Justification*, *Antitrust Mag. Online*, Dec. 2021, at 1, 12 n.82. And that was the district court’s reasoning: it explicitly found that “the app distribution restrictions promote interbrand competition” as “a corollary of the security justification.” 1-ER-148.

Consumers have responded favorably to Apple’s efforts at maintaining privacy and security through the App Store and IAP. Indeed, the district court associated those characteristics with Apple’s success in several markets including mobile gaming transactions, the relevant market here, and mobile devices. *See* 1-ER-149. Contrary to the suggestion of *amici*, then, the Apple platform’s “security and privacy have remained a competitive differentiator for Apple” since it first launched the iPhone and the App Store. 1-ER-113-114.

2. Replacing Apple’s current policies with revenue-based license fees would likely reduce consumer welfare.

A second alternative for Apple, should this Court condemn the policies Epic has challenged, would be to charge app developers a revenue-based fee for the amenities required to produce operable iOS apps. Charging developers 30% of their revenues from app transactions, while allowing them to use whatever app distribution and in-app payment services they preferred, could theoretically allow Apple to collect the surplus it currently extracts—and which antitrust law permits it to collect—while permitting competition in iOS app distribution and in-app payment services. Such a policy could also avoid many of the difficulties of a flat fee revenue model. In the end,

though, moving to a revenue-based fee model would likely reduce consumer welfare relative to Apple's current approach.

Charging a revenue-based fee for the amenities required to produce operable iOS apps would entail costs that do not exist under Apple's current system. By requiring that app sales occur through its App Store and that in-app purchases utilize IAP, Apple currently collects its revenue share immediately at the point of sale. Under a revenue-based license system, Apple would incur additional costs of collecting revenues owed and ensuring that app developers are accurately reporting their revenues. *See Areeda & Hovenkamp, supra*, ¶1711b3 (observing that “revenue-based royalties require difficult and costly monitoring”). To extract the same revenue under this model, Apple would have to raise its revenue-sharing percentage above its current commission rate to cover its added collection and auditing costs.

Apple's choice of its current policies over this alternative revenue-collection model suggests that the added collection and auditing costs of moving to the alternative approach would exceed any consumer benefit. *See* 1-ER-153 n.617 (“[A]ny alternatives to IAP ... would seemingly impose both increased monetary and time costs to both Apple and the

developers.”). Given that Apple can collect the same revenue percentage from app transactions using either means, it has an incentive to select the approach that maximizes iOS app transaction revenues. Any approach that enhanced the net value consumers receive when buying apps and making in-app purchases would raise overall app volume and revenues, boosting Apple’s bottom line. That Apple has not gone in this direction suggests that it does not believe consumers would receive greater benefit under the alternative system.

Apple might be wrong, of course. But it has every incentive to make the consumer welfare-enhancing decision here, as doing so maximizes its own profits.⁶ To judicially “second-guess degrees of reasonable necessity” in the face of such incentives is a “recipe for disaster” that could “chill the very procompetitive conduct the antitrust laws are designed to protect.” *NCAA v. Alston*, 141 S. Ct. at 2161 (cleaned up).

⁶ Because Apple’s policies do not plausibly enhance its market power in any other market, the prospect of enhanced profits in another market could not affect how it determines to extract surplus from iOS app sales and in-app payments.

CONCLUSION

The policies Epic has challenged enable Apple to extract surplus from transactions involving the unique product it created, but they do not give it any new market power or shore up its existing market power. Condemning the challenged policies and thereby inducing Apple to use alternative means to extract surplus from iOS app transactions likely would reduce consumer welfare relative to the status quo. Accordingly, this Court should affirm the district court's ruling that Apple has not violated antitrust law.

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Respectfully submitted,

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APPENDIX A

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I hereby certify that on this 31st day of March 2022, I electronically filed the foregoing brief with the Clerk of the Court of the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system. I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the appellate CM/ECF system.

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