No. 16-1454

IN THE
Supreme Court of the United States

STATE OF OHIO, ET AL.,
Petitioners,
v.

AMERICAN EXPRESS COMPANY, ET AL.,
Respondents.

On Writ of Certiorari to the
United States Court of Appeals
for the Second Circuit

BRIEF OF *AMICUS CURIAE* THE COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION IN SUPPORT OF RESPONDENTS

NEAL KUMAR KATYAL
Counsel of Record
JESSICA L. ELLSWORTH
EUGENE A. SOKOLOFF
HOGAN LOVELLS US LLP
555 Thirteenth Street, N.W.
Washington, D.C. 20004
(202) 637-5600
neal.katyal@hoganlovells.com

Counsel for Amicus Curiae

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STATEMENT OF INTEREST[1]

The Computer & Communications Industry Association (CCIA) is an international nonprofit association representing a broad cross-section of computer, communications, and Internet industry firms that collectively employ nearly a million

[1] No party or counsel for a party authored this brief in whole or in part. No party, counsel for a party, or person other than the *amicus curiae,* its members or its counsel made a monetary contribution intended to fund the preparation or submission of this brief. The parties have filed blanket consents to the filing of amicus briefs in this case.

workers and generate annual revenues in excess of $540 billion. CCIA believes that open, competitive markets and original, independent, and free speech foster innovation. It regularly promotes that message through amicus briefs in this and other courts on issues including competition law, intellectual property, privacy, and cybersecurity. *See, e.g.*, *TC Heartland LLC* v. *Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514 (2017) (patents); *Petrella* v. *Metro-Goldwyn-Mayer, Inc.*, 134 S. Ct. 1962 (2014) (copyright); *Ill. Tool Works, Inc.* v. *Indep. Ink, Inc.*, 547 U.S. 28 (2006) (antitrust).

CCIA's concern is not so much with the specific policies challenged by petitioners in this case. CCIA submits this brief to draw attention to the importance of undertaking a nuanced rule-of-reason analysis such as the one the Second Circuit performed in this case. The position advanced by petitioners and the United States here threatens innovation by embracing an analytical framework in antitrust cases that ignores the significant differences between firms with one set of customers ("one-sided firms") and firms that have multiple, interrelated sets of customers ("multi-sided firms") such as many of CCIA's members. Those members offer everything from diverse virtual marketplaces to real-world services. Because the rules that petitioners and the United States advocate fail to account for the competitive realities many of its members face, CCIA urges this Court to affirm the Second Circuit and hold that courts applying the rule of reason must consider constraints on all sides of a multi-sided firm when assessing whether a plaintiff has made out a *prima facie* case of anticompetitive conduct.

INTRODUCTION AND SUMMARY OF ARGUMENT

The assumptions that underlie antitrust analysis of single-sided firms do not automatically translate to multi-sided firms. That is because firms operating in multi-sided markets[2] must often consider the effects of their pricing and output decisions to both sets of customers, as well as the interrelationship *among* the customers on each side. These complex dynamics mean that conduct that might appear anti-competitive when only one set of customers is considered may in fact be entirely consistent with—and actually promote—healthy competition when competition on both sides is considered. Acting on this appearance, without fully understanding the competitive dynamics that impact all sides of a multi-sided firm, raises the risk of enforcers and courts condemning pro-competitive conduct that benefits consumers, potentially stifling innovation.

The dispute before the Court involves only the payment-card industry, which operates under its own particular dynamics. But the question before the Court is framed broadly enough that the Court's answer could have implications for the diverse array of multi-sided business models. This Court should take care to ensure that the rule it crafts in this case is sufficiently flexible to account for the existing diversity of multi-sided business models and their respective dynamics.

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[2] "Multi-sided market" is a term of art in economics literature. It is not related to the definition of a market under the antitrust laws.

I. Multi-sided firms create value by bringing market participants together. They help reduce practical barriers and transaction costs. But because many multi-sided firms work by facilitating interactions among diverse customer sets, the demand for the services that such a firm offers to each of its "sides" depends on the demand for the services it offers to its *other* sides. This interrelated demand has significant consequences for antitrust analysis. It may lead multi-sided firms to set prices in ways that bear little resemblance to pricing by single-sided firms. And it means that seemingly small changes in demand on any side of the market could be amplified by corresponding changes on the other sides.

II. This Court has explained that "the purpose of the inquiries into market definition and market power" in antitrust cases "is to determine whether an arrangement has the potential for genuine adverse effects on competition." *FTC* v. *Ind. Fed'n of Dentists*, 476 U.S. 447, 460 (1986). In case after case, the Court has emphasized that these inquiries require a close examination of "the economic reality of the market at issue." *Eastman Kodak Co.* v. *Image Tech. Servs., Inc.*, 504 U.S. 451, 467 (1992); *see United States* v. *Sealy, Inc.*, 388 U.S. 350, 359 (1967) (rule of reason requires a focus on "the context of the particular industry"). This Court's guidance concerning the rule of reason counsels caution when courts apply tests created in the context of single-sided markets to multi-sided firms.

Multi-sided firms are constrained by the availability of substitute products, but they may also face the additional constraint of interrelated demand from multiple sets of customers. One effect of such

interrelated demand is to limit a multi-sided firm's ability to unilaterally raise prices or reduce output. If the tests of market definition and market power fail to account for these additional constraints, they may cause multi-sided firms to *appear* to enjoy power over price and output when they are, in fact, engaged in vigorous competition.

Without considering the actual effects of multi-sidedness, courts may not be able to reliably determine whether a Sherman Act plaintiff has carried its *prima facie* burden to establish "the potential for genuine adverse effects on competition." *Ind. Fed'n of Dentists*, 476 U.S. at 460.

III. This Court has warned against ignoring "[t]he cost of false positives" when crafting antitrust rules. *Verizon Commc'ns Inc.* v. *Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 414 (2004). Ignoring the competitive realities of multi-sided firms would raise the risk of false positives and "interminable litigation," *id.*, stifling pro-competitive conduct and pro-consumer innovation. It would allow plaintiffs to base a *prima facie* case on little more than a caricature of a multi-sided firm's competitive position, penalizing healthy competition and deterring the development of valuable new products and services that benefit both competition and consumers.

ARGUMENT

I. MULTI-SIDED FIRMS FACE THE CONSTRAINT OF INTERRELATED DEMAND

Buyers and sellers often transact directly. Sometimes, though, that may be impractical or costly. A person may want to sell a rare stamp, for example, but lack the means to identify, let alone to contact, collectors halfway around the world who may be interested in buying it. Or it may simply be that buyers or sellers—or both—would be better off if they could access as many of their counterparts as possible at once. Without some intermediary, buyers and sellers in such cases may connect inefficiently or not at all.

Economists have developed the concept of "multi-sided firms" as a way to describe business models designed to solve these problems, whether they are familiar examples such as newspapers or shopping malls, or innovative new services like dating websites. *See, e.g.*, David S. Evans & Richard Schmalensee, *The Antitrust Analysis of Multisided Platform Businesses*, *in* 1 Oxford Handbook of International Antitrust Economics 404, 404-405 (Roger D. Blair & D. Daniel Sokol, eds., 2015). Multi-sided firms reduce or eliminate the practical barriers, or transaction costs, that would prevent a stamp seller in one place from connecting with a stamp collector in another. *See id.* In doing so, they create value "that would not exist (or would be much smaller) in [their] absence." *Id.* at 409.

Companies at the leading edge of technological innovation, including many of CCIA's members, have harnessed technologies to serve multiple,

interrelated sets of customers and offer valuable products and services to businesses and consumers alike. Indeed, this case highlights the wide range of business models that could be thought of as "multi-sided," from Internet search engines, to video game platforms, to shopping malls—each with its own economic dynamics.

Because many multi-sided firms generate value by facilitating transactions among their various customer sets, the demand for the services that a multi-sided firm offers to any one "side" depends not only on the characteristics of those services, but also on demand for the services offered to the *other* sides. *See*, *e.g.*, Lapo Filistrucchi et al., *Market Definition in Two-Sided Markets: Theory and Practice*, 10 J. Competition L. & Econ. 293, 296-297 (2014). Thus, such firms must not only cater to the individual needs of their various customers, but also manage the interrelationships between those needs.

The interrelatedness of demand among sides of a multi-sided firm can have consequences that are particularly significant for antitrust analysis. First, multi-sided firms may set prices in ways that defy the expectations of an economic analysis grounded in single-sided markets. For example, they may give valuable services away for free to build an audience that will attract advertisers or sellers. *See id.* at 300. The second, related consequence is that multi-sided firms may face highly elastic demand, which can lead to transitory market structures that significantly constrain their ability to impact output and price. A restaurant reservation website, for example, may attract what appears to be a significant share of the market for diners. But that share is dependent on the website's ability to offer diners a sufficient

number of restaurants. If restaurants switch to a different site because of a price increase, the previously significant market share might quickly dry up. *See* Evans & Schmalensee, *supra* at 408, 410-411.

These effects can upset assumptions that ordinarily hold for single-sided firms. For example, the prices charged to each side by a multi-sided firm vary in relation to the *aggregate* variable cost of providing products or services to customers on various sides of the market and not only with the marginal cost of one product (as they would in a single-sided market). *See* David S. Evans, *The Antitrust Economics of Multi-Sided Platform Markets*, 20 Yale J. on Reg. 325, 343 (2003). Thus, "[a]n increase in marginal cost on one side [of the market] does not necessarily result in an increase in price on that side relative to price on the other side[s]." David S. Evans & Michael Noel, *Defining Antitrust Markets When Firms Operate Two-Sided Platforms*, 2005 Colum. Bus. L. Rev. 667, 681-682 (2005). And because increasing the customer base on one side of the market may make participation more valuable to participants on the other sides, price increases that stimulate participation may actually accompany an increase in consumer welfare overall. *See* Evans, *supra*, at 361.

II. ANTITRUST ANALYSIS MUST ACCOUNT FOR THE DYNAMICS OF MULTI-SIDED FIRMS

This Court's rule-of-reason cases demand careful attention to "the economic reality of the market at issue." *Kodak*, 504 U.S. at 467. Yet the most commonly used analytical tools in antitrust were

developed to analyze single-sided markets; they may fail to account for the "actual market realities" of many multi-sided firms. *Id.* at 466. These shortcomings raise the risk that courts, prompted by arguments advanced by petitioners and the United States, will ignore significant constraints on multi-sided firms and perceive anticompetitive conduct where none exists. That will encourage meritless litigation and increase the risk of false positives, deterring innovation and hindering consumer welfare.

A. Antitrust Analysis Must Reflect Competitive Realities

A crucial question in many antitrust cases is whether the defendant has market power, or whether it is effectively constrained by competitive forces. The test of "market power" aims to discern whether a firm has "the ability" to unilaterally "raise price and restrict output." *Kodak*, 504 U.S. at 464.

To answer that question, courts begin by defining the market where the relevant competition occurs. Traditionally, the scope of the "relevant market" for antitrust purposes has been "determined by the reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it." *Brown Shoe Co.* v. *United States*, 370 U.S. 294, 325 (1962).

The focus on product substitutes makes perfect sense in a one-sided market. "[W]here there are market alternatives that buyers may readily use," a firm will not have the kind of "control of price or competition" the antitrust laws are meant to prevent. *United States* v. *E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 393 (1956). Because demand elasticity is

the key competitive driver of price in such markets, the presence of "substitute products" to which "customers may turn * * * if there is a slight increase in the price of the main product" will tend to constrain a firm's influence over prices. *United States* v. *Grinnell Corp.*, 384 U.S. 563, 571 (1966).

But identifying substitutes is useful only insofar as it helps to answer the ultimate question: whether the defendant possesses sufficient market power that it could unilaterally "raise price and restrict output." *Kodak*, 504 U.S. at 464 (internal quotation marks omitted). The purpose of defining the relevant market is not, as the United States claims, simply "to identify the products that compete with the defendant's products." U.S. Br. 36. Rather, as this Court has explained, "the purpose of the inquiries into market definition and market power is to determine whether an arrangement has the potential for genuine adverse effects on competition." *Ind. Fed'n of Dentists*, 476 U.S. at 460. And that requires careful attention to "actual market realities," *Kodak*, 504 U.S. at 466, in "the context of the particular industry" at issue. *Sealy*, 388 U.S. at 359.

The judge-made tests of market definition and market power must therefore consider "market realities." In cases involving multi-sided firms, courts seeking "to determine whether an arrangement has the potential for genuine adverse effects on competition," *Ind. Fed'n of Dentists*, 476 U.S. at 460, must account for all of the competitive constraints such firms may face.

B. The Judge-Made Tests Of Market Definition And Market Power Must Account For Multi-Sidedness

Market definition "identifies the sources of demand-side and supply-side constraints that matter in assessing market power." Evans & Schmalensee, *supra*, at 420. For that reason, "market definition generally determines the result of the case." *Kodak*, 504 U.S. at 469 n.15. Multi-sided firms are constrained by the availability of substitute products. But pricing and output decisions in a multi-sided market may be also subject to constraints that arise from the phenomenon of interrelated demand. These constraints—no less than the availability of reasonable substitutes—limit a firm's ability to unilaterally raise prices or reduce output.

A growing body of economic literature explores how many tests of market definition and market power fail to account for these constraints and explains how to ensure those tests can be carefully applied to better reflect the competitive realities that multi-sided firms face.[3]

1. Multi-sidedness can have important consequences for some of the most commonly used tools of market definition. Consider the so-called "hypothetical monopolist test." Courts, the Federal

[3] Growing awareness of the importance of multi-sided dynamics has already led the European Court of Justice to hold that courts applying EU law must consider the effects that a restraint will have on all relevant sides of a multi-sided market. *See* Case C-67/13P *Groupement des Cartes Bancaires* v. *Comm'n*, 2014 E.C.R. I-, ¶¶ 78-79.

Trade Commission, and the Department of Justice often start the process of market definition by asking whether a hypothetical monopolist acting in the proposed market could profitably impose a small but significant, non-transitory increase in price (a SSNIP). *See, e.g.*, *In re Se. Milk Antitrust Litig.*, 739 F.3d 262, 277-278 (6th Cir. 2014) (applying hypothetical monopolist test to Section 1 claim); *Coastal Fuels of Puerto Rico, Inc.* v. *Caribbean Petroleum Corp.*, 79 F.3d 182, 197 (1st Cir. 1996) (same with regard to Section 2 claim); Dep't of Justice & Fed. Trade Comm'n, *Horizontal Merger Guidelines* 8-13 (2010). If a SSNIP would succeed, the proposed market is the appropriate starting point for an assessment of market power. If the SSNIP would fail, the proposed market is likely too narrow.

The hypothetical monopolist test usually looks to a single product market. But economists have pointed out that doing so risks both over- and under-estimating the true effects of a SSNIP in a multi-sided market. *See, e.g.*, Alexei Alexandrov et al., *Antitrust and Competition in Two-Sided Markets*, 7 J. Competition L. & Econ. 775, 778 (2011); *id.* at 782-785 (reviewing economic literature on the issue); Filistrucchi et al., *supra*, at 329-333.

A test that looks only at competition for potential customers on one side of the market might make a SSNIP appear profitable for a multi-sided firm. But in reality, the interrelated demand among all sides of the market might mean that a real-world price increase would fail. *See* Alexandrov et al., *supra*, at 778; Evans & Noel, *supra*, at 699-700. Ignoring the other sides of the market could lead a court to find

market power that does not actually exist. *See* Filistrucchi et al., *supra*, at 331.

Moreover, multi-sided firms can face competition from other multi-sided firms as well as from single-sided firms that cater to individual sides of the multi-sided firm's market. Competition among multi-sided firms can magnify the effects of a SSNIP even further as attrition from the first firm enhances the attractiveness of the competing firm. A hypothetical monopolist test that looks only at one side of the market when considering competing firms could therefore significantly underestimate the competitive constraints at play.[4]

Economists have proposed different means of accounting for these dynamics, and the appropriate analysis in any given case will depend on the firm and the conduct at issue, as well as the competitive dynamics that the firm faces. Regardless of the specific methodology advanced, the point is that the tests of market definition and market power applicable to single-side markets may not account for the competitive constraints that multi-sided firms face.

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[4] This Court's decision in *Kodak* is not to the contrary. The Court in that case rejected the argument that Kodak—which sold both copiers and after-sales service—could defeat summary judgment with the argument that it was constrained in the market for service by the risk that customers would purchase different copiers. *See Kodak*, 504 U.S. at 470-471. Nothing in the Court's opinion suggested such constraints were irrelevant as a matter of law. Rather, the Court stressed the importance of "examin[ing] closely the economic reality of the market at issue." *Id.* at 467.

2. Multi-sidedness also has implications for common measures of market power. Take the example of pricing above marginal cost. Because prices in perfectly competitive one-sided markets will tend towards marginal cost, courts often define market power as "the power to charge a price above cost" and maintain a profit. *In re Brand Name Prescription Drugs Antitrust Litig.*, 186 F.3d 781, 783 (7th Cir. 1999); *E. Food Servs., Inc.* v. *Pontifical Catholic Univ. Servs. Ass'n*, 357 F.3d 1, 6 (1st Cir. 2004) (similar).

But a comparison of price and marginal cost on one side of a multi-sided firm is a poor gauge of market power. Prices in multisided markets vary with the marginal costs of the firm as a whole on *all* sides of the market—"a very different result than pricing in one-sided markets." Evans, *supra*, at 343; *see* Julian Wright, *One-sided Logic in Two-sided Markets*, 3 Rev. Network Econ. 44, 47-48 (2004).

For the same reason, offering prices *below* marginal cost to one set of customers is not necessarily evidence of predatory pricing. The canonical test of predatory pricing requires proof "that the prices complained of are below an appropriate measure of [the defendant's] costs" and that "the [defendant] ha[s] a dangerous probability of recouping its investment in below-cost prices." *Weyerhaeuser Co.* v. *Ross-Simmons Hardwood Lumber Co.*, 549 U.S. 312, 318-319 (2007) (alterations omitted) (quoting *Brooke Group Ltd.* v. *Brown & Williamson Tobacco Corp.*, 509 U. S. 209, 222, 224 (1993)). That test makes little sense, however, when a firm is effectively "selling" the ability to reach users on one side of the market to the other. So a firm operating in a multi-sided market,

such as a restaurant reservation booking site, may choose to allow consumers to use the site without charge in order to stimulate demand, which would allow it to charge restaurants fees to secure reservations.

Finally, multi-sidedness can make traditional market-share measures of market power less useful. Consider a video-streaming service that lets users stream different broadcasters' content for free. The firm may acquire an large share of the market for viewers, but might have a relatively small share of the advertising side of the market where the firm earns its revenue. Value-based measures of market share are even less helpful, since users may receive services they value greatly—such as free searches—for nothing. *See* Evans & Schmalensee, *supra* at 422.

3. These nuances are features of an appropriate inquiry, not flaws, as petitioners suggest (at 18-19). This Court has stressed the importance of looking "closely [at] the economic reality of the market at issue," especially when examining the "responsiveness of the sales of one product to price changes of the other." *Kodak*, 504 U.S. at 467 (internal quotation marks omitted). And it has rejected simplifying "presumptions" that paper over "actual market realities." *Id.* at 466-467. That multi-sided markets are complex is not a reason to subject multi-sided firms to a one-sided-firm analysis that is divorced from the economic realities they face.

C. Courts Must Consider Multi-Sidedness In Assessing A Plaintiff's *Prima Facie* Case

The tests of market definition and market power are critical to a Sherman Act plaintiff's burden to

prove "the potential for genuine adverse effects on competition" as part of their *prima facie* case. *Ind. Fed'n of Dentists*, 476 U.S. at 460. Yet the foregoing discussion shows that reflexively applying the standard analytical toolkit to multi-sided firms—without taking care to assess the underlying antitrust principles—flouts this Court's repeated admonition that courts look to "actual market realities." *Kodak*, 504 U.S. at 466.

It is no answer to suggest, as the United States does (Br. 35), that defendants can invoke the economic differences between single- and multi-sided firms as part of their case for procompetive justifications. Antitrust plaintiffs, including the United States, bear the burden of proving an adverse effect on competition *before* the burden shifts to the defendants. Courts must therefore assess "the challenged restraint's impact on competitive conditions" at the *prima facie* stage—a task they cannot perform if they lack an accurate picture of those conditions. *Nat'l Soc'y of Prof'l Eng'rs* v. *United States*, 435 U.S. 679, 688 (1978). Without accounting for the effects of interrelated demand, courts examining multi-sided firms might not be able to establish the appropriate market or accurately gauge the extent of a firm's influence over price and output.

Nor does it make sense to think of those effects as "procompetitive justifications" for anti-competitive conduct. To be sure, multi-sided firms may have strong procompetitive justifications for their conduct, including that they often "enable[] a product to be marketed which might otherwise be unavailable." *NCAA* v. *Bd. of Regents of the Univ. of Okla.*, 468 U.S. 85, 102 (1984); *see* Evans & Schmalensee, *supra*,

at 409. But interrelated demand and the special relationship between prices and costs that may exist in multi-sided markets go directly to the question of whether a restraint threatens competition in the first place—that is, whether there are any anticompetitive effects to balance against the procompetitive benefits. Those considerations cannot be deferred to a later stage of litigation.

III. IGNORING THE EFFECTS OF MULTI-SIDEDNESS THREATENS INNOVATION

Without careful attention to the range of dynamics that multi-sided firms face in their operations, a decision in this case could inadvertently discourage innovation. Multi-sided firms have proliferated over the last two decades, bringing market participants together in ways that were never possible before and providing tremendous benefits to consumers and small businesses alike.

A rule that fails to account for dynamics of multi-sided firms and the interplay among the different sides of those markets would jeopardize these developments. Instead of a balanced assessment of their conduct in light of competitive realities, petitioners and the United States would subject multi-sided firms to a skewed analysis that may ignore some of the most significant competitive constraints they face.

This Court has warned that "[t]he cost of false positives" is an important consideration in crafting antitrust rules. *Trinko*, 540 U.S. at 414. A rule that deferred any consideration of multi-sidedness until after the plaintiff's *prima facie* case would dramatically increase the risk of false positives, encourage meritless litigation, penalize healthy

competition, and deter the development of valuable new products and services.

If, for example, a court could find market power based on the simple fact a multi-sided firm charges one set of customers a price that exceeds marginal cost, while providing services to another set of customers for free, it may prevent a video-streaming service (or traditional television network, for that matter) from attracting enough viewers to attract the highest quality content providers—even though the prices charged to *both* sides of the firm were reasonably related to the firm's *total* variable costs. And if a court defined the relevant market for a travel-planning firm based only on the number of free users it attracted—ignoring the firm's need to retain airlines as paying sellers—it could condemn as a monopoly a company that could not profitably adopt even a trivial increase in price.

Multi-sided firms such as some of CCIA's members exemplify these phenomena: some base pricing and output decisions on the complex interrelationships between the various sides of the markets they serve. And they compete vigorously with each other and with single-sided businesses that serve the same customers. This Court's precedents have consistently emphasized that the Sherman Act requires a focus on "actual market realities." *Kodak*, 504 U.S. at 466. That maxim should guide the Court here.

CONCLUSION

The judgment of the Second Circuit should be affirmed.

Respectfully submitted,

NEAL KUMAR KATYAL
Counsel of Record
JESSICA L. ELLSWORTH
EUGENE A. SOKOLOFF
HOGAN LOVELLS US LLP
555 Thirteenth Street, N.W.
Washington, D.C. 20004
(202) 637-5600
neal.katyal@hoganlovells.com

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