No. 16-1454

IN THE

Supreme Court of the United States

STATE OF OHIO, ET AL.

Petitioners,

v.

AMERICAN EXPRESS COMPANY & AMERICAN EXPRESS TRAVEL RELATED SERVICES COMPANY, INC.,

Respondents.

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SECOND CIRCUIT

BRIEF OF 28 PROFESSORS OF ANTITRUST LAW AS *AMICI CURIAE* SUPPORTING PETITIONERS

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INTEREST OF *AMICI*[1]

Amici are 28 antitrust scholars who write to share their disinterested perspective with the Court. Their respective backgrounds are compiled in the addendum, but it suffices to note that they include many leaders in the field, including the author of the treatise most often relied upon by this Court's antitrust opinions. *See, e.g.*, *Kimble v. Marvel Entm't*, 135 S. Ct. 2401, 2415 (2015) (Alito, J. dissenting); *F.T.C. v. Actavis*, 133 S. Ct. 2223, 2227 (2013) (Breyer, J.); *Pac. Bell Tel. Co. v. Linkline Commc'ns Inc.*, 555 U.S. 438, 453 (2009) (Roberts, C.J.); *Leegin Creative Prods. v. PSKS*, 551 U.S. 877, 894 (2007) (Kennedy, J.); *F.T.C. v. Phoebe Putney Health Sys.*, 568 U.S. 216, 228 (2013) (Sotomayor, J.); *Verizon Commc'ns v. Law Offices of Curtis V. Trinko*, 540 U.S. 398, 411 (2004) (Scalia, J.); *Novell, Inc. v. Microsoft Corp.*, 731 F.3d 1064, 1070 (10th Cir. 2013) (Gorsuch, J.) (citing Phillip Areeda & Herbert Hovenkamp, *Antitrust Law: An Analysis of Antitrust Principles and their Application* ("Areeda & Hovenkamp")).[2]

Amici's interest in this case runs deep for two reasons. First, this Court has encountered few opportunities to offer substantial guidance to the lower courts on how to apply the rule of reason. It is thus

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[1] No party's counsel authored this brief in any part and no one other than *amici* or their counsel made any contribution to the preparation or submission of this brief. All relevant parties have provided blanket consent to briefs of *amici curiae*.

[2] All citations to the treatise are to the online edition that includes the 2017 supplement, and made by ¶ number.

particularly important that the Court's opinion here make that doctrine—which already confounds many lower courts—clearer rather than murkier. Second, the ideas introduced by the Second Circuit's decision below are particularly pernicious; they are small but potentially serious fractures to important, structural bones of antitrust doctrine that will cause lasting harm if not properly set by this Court.

As the district court's careful analysis showed, existing doctrines already provide accurate answers to questions like those this case posed. And as is often true, the introduction of special rules to deal with individual cases or isolated phenomena will tend to do much more harm than good. Special rules are obviously much more harmful if they are themselves inaccurate—as the Second Circuit's were. But whether theoretically accurate or not, they also introduce occasions for lower courts to miss the forest for a tree they have misunderstood and that was never necessary to plant.

We strongly believe this is true with respect to the Second Circuit's (inaccurate) rules regarding so-called "two-sided markets."[3] These business models are certainly important to scholars of business strategy—and increasingly so as their prevalence grows in today's technological environment. But the prevail-

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[3] Because, as explained *infra* p.28-31, the language of "two-sided markets" is confounding for antitrust purposes, we believe it clearer to refer to the general phenomenon as a two-sided "platform" or "business model." The "two-sided-market" terminology having caught on below, however, we use the terms interchangeably here.

ing view among antitrust economists and scholars is that two-sidedness does not require changing the settled rules of antitrust law, which can already analyze competitive issues in such "markets" with straightforward doctrinal tools that provide accurate results.

SUMMARY OF ARGUMENT

At bottom, this case concerns two critical, related, and mistaken ideas that the Second Circuit introduced into antitrust law and economics, and that this Court should reject. One is that a "relevant market" for antitrust purposes must (or even can) include "both sides" of a two-sided platform; the other is that competitive harms and benefits must be (or even can be) "netted" across relevant markets in rule-of-reason cases. These ideas are not only wrong, but in direct tension with core principles animating antitrust law.

In contrast, the district court's opinion straightforwardly applies settled doctrine—accepting the facts as found, we believe it properly concluded that there was an antitrust violation in this case by determining that (1) American Express (Amex) had sufficient market power to successfully impose a restraint eliminating horizontal price competition among its competitors, and (2) this led, in turn, to several anticompetitive effects, including supracompetitive prices for merchant network services. While Amex was free to introduce evidence of offsetting procompetitive benefits, the district court found that it did not, in part because the "benefits" it pointed to could not be deemed legitimate or procompetitive. We believe any proper rule-of-reason analysis should reach the same outcome on the facts as found, and it is evident that the Second Circuit only did otherwise by indulging its two mistaken ideas about "two-sided" antitrust markets.

This brief thus proceeds in two parts. Part I explains certain basic tools of antitrust analysis—both how *and why* we use them in rule-of-reason cases—using the district court's legally sound analysis as a guide. Part II explains the critical errors in the Second Circuit's two-sided-market analysis: Section II.A explains briefly why multiple "sides" of a multi-sided platform or business model cannot be included in the same relevant market; Section II.B explains that the Second Circuit's "netting" exercise is unsound and ultimately antithetical to the basic purposes of the Sherman Act. Section II.B.ii also includes an explanation of how existing rule-of-reason doctrine permits courts to consider relevant arguments about two-sided platforms in a case like this one, while the Second Circuit's novel approach, even if sound, substantially increases the risk of lower-court error.

Were we to boil all that down to a few sentences, however, we would just say this. Efficient allocation of resources in the economy depends on undistorted competitive price signals. The correct "balance" between, say, merchant prices and consumer rewards in related or even interdependent markets is thus determined *by competition itself*; that role cannot be filled by a judicial scale-balancing exercise balancing different market participants' welfare because that lies well beyond any judge's (or economist's) ken. That Amex manipulated this balance through a restraint that virtually eliminated horizontal price competition is the antitrust *problem*—not a defense—because antitrust law endeavors to preserve competition on all sides of any business's operations, and let the free market's invisible hand take the wheel from there.

I. The District Court Correctly Applied Rule-Of-Reason Analysis To The Facts It Found.

A. How the rule of reason works.

The rule of reason, which is correctly laid out in petitioners' briefs, U.S. Br. 20-22; Ohio Br. 20-22, is a three-step heuristic courts have developed to determine the lawfulness of an alleged restraint with potentially ambiguous competitive effects. The plaintiff begins by showing that the restraint is plausibly anticompetitive; the defendant responds by proffering any legitimate, procompetitive justification it has for the restraint; and the plaintiff responds by attempting to prove that any proffered justifications are either factually false (*i.e.*, the restraint does not serve them) or at least available through "a substantially less restrictive alternative." Areeda & Hovenkamp ¶1502. Even if there are no less restrictive alternatives, courts may still find that the restraint is harmful on balance to competition in the relevant market—though even this in-market balancing exercise by courts is (appropriately) rare. *See, e.g.*, Michael Carrier, *The Rule of Reason: An Empirical Update For The 21st Century*, 16 Geo. Mason L. Rev. 827, 827-29 (2009) (finding balancing step reached in only 2.2% of cases from 1999 to 2009, and 4% of cases from 1977 to 1999). Below, we briefly elaborate these three steps and the tools antitrust law uses to conduct them.

1. Step one and "market power"

The first step—the plaintiff's showing that the restraint is "*prima facie* anticompetitive," *Cal. Dental*

Ass'n v. F.T.C., 526 U.S. 756, 771 (1999)—can be made in one of two ways. Both implicate, albeit differently, the critical concept of **market power**. The "direct method" involves direct proof of an actual anticompetitive effect, which proves *a fortiori* that the defendant has sufficient market power to bring that effect about. The "indirect method" involves independent proof of both market power and a restraint that plausibly harms competition.

This Court has said that "market power" is the power to get a purchaser "to do something that he would not do in a competitive market."[4] *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 464 (1992). More rigorous economic definitions are available—the most accepted being the power to profitably raise price above marginal cost, *see* William Landes & Richard Posner, *Market Power in Antitrust Cases*, 94 Harv. L. Rev. 937, 939 (1981)—and that definition is frequently helpful in contexts like merger analysis. But in a case like this, the definition from *Eastman Kodak* expresses the critical conceptual point.

Market power matters in a restraint case like this one because, in its absence, merchants themselves could fight anticompetitive contract terms like Amex's non-discrimination provisions (NDPs) by simply diverting their business to competitors. Antitrust law prefers trusting competition itself to protect the market in this way, which competition will do *in*

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[4] Notably, no coercion need be involved; the "power" comes solely from the presence (and elasticity) of consumer demand and the lack of substitute sources of supply.

the absence of market power. As Justice Scalia put it, certain potentially anticompetitive restraints "are completely without force when the participants lack market power." *Eastman Kodak*, 504 U.S. at 488 (dissent) (citing Areeda & Hovenkamp); *see also F.T.C. v. Indiana Fed'n of Dentists*, 476 U.S. 447, 460 (1986) ("[T]he purpose of the … market power [inquiry] is to determine whether an arrangement has the potential for genuine adverse effects on competition[.]"). Thus, in a restraint case, the question is whether the defendant has sufficient market power to make the alleged restraint effective.

In cases involving the "direct method," like this one, the market-power showing is effectively subsumed by the plaintiff's direct proof that the alleged restraint is causing anticompetitive effects. In that case, we know the defendant has sufficient market power to generate those effects because it *is* generating them. Thus "'proof of *actual* detrimental effects' … can 'obviate the need for an inquiry into market power.'" *Indiana Fed'n*, 476 U.S. at 460-61 (citing Areeda & Hovenkamp) (emphasis added). In fact, it can establish that the requisite market power exists more directly "than calculations of elusive market share[s]" or other indirect inquiries. *Todd v. Exxon Corp.*, 275 F.3d 191, 206 (2d Cir. 2001) (Sotomayor, J.). Notably, as the United States emphasizes, U.S. Br. 23-34, this case involved very strong proof under the direct method—especially the evidence that Amex's rules entirely suppress horizontal price competition among Amex and its competitors. *See* Pet.App. 204a-207a & n.43 (discussing Discover testimony); *id.* 197a-198a (discussing Amex's own acknowledgements of lack of pricing competition).

In "indirect method" cases, market power must be proven independently. Typically, after identifying the alleged restraint, the factfinder will define the **relevant market** in which that restraint operates (discussed *infra* pp.12-13, 17-20), and then attempt to infer market power from the defendant's estimated market share and other factors. Particularly in restraint cases, this inquiry is a rough proxy at its very best; sufficient market power to insist on some restraints can arise from a small share of a very concentrated market (like Amex has here), and can other times be absent even when market share is very high (for example, when entry is easy). *See, e.g.*, Areeda & Hovenkamp ¶515 ("A firm could have substantial market power without accounting for all or even most of a market. By the same token, the power of a firm with a dominant market share might be very high or negligible[.]"); Louis Kaplow, *Why (Ever) Define Markets?*, 124 Harv. L. Rev. 437 (2010) (expressing skepticism that market definition truly aids in assessing market power). Some restraints can also be easier to impose with less unilateral market power because (as here) they are good for one's own competitors as well, and lead to reinforcing behavior in oligopolistic settings, *see, e.g.*, Areeda & Hovenkamp ¶¶530b, 574a—as happened when Visa and MasterCard adopted their own NDPs. Pet.App. 180a. It is thus frequently preferable to look for direct proof of market power, which may include (among other things) a defendant's ability to raise prices repeatedly without losing share, very high and persistent economic profits, or ready success in thwarting counter-parties' efforts to resist the imposition of disfavored restraints. *See* Pet.App. 158a-163a (detailing considerable evidence in this regard); *accord United States v. Microsoft*, 253

F.3d 34, 58 (D.C. Cir. 2001) (pointing to Microsoft's pricing conduct and pattern of exclusionary behavior as direct evidence of monopoly power).

Before moving on, it is critical to emphasize that there is *nothing illegal about having market power*. The Sherman Act does not condemn its mere acquisition or existence; it is, in this context, only an indication that an allegedly anticompetitive restraint *might work*. Put otherwise, "[w]hile market power is a necessary condition for an anticompetitive restraint under the rule of reason, it is never a sufficient condition." Herbert Hovenkamp, *The Rule of Reason* p.17 (Fla. L. Rev. forthcoming 2018) ("*Rule of Reason*"), https://goo.gl/4CL5jx.

The Second Circuit thus erred quite seriously when it held that Amex's "cardmember insistence" could have no bearing on its market power, particularly because it derived from "cardmember satisfaction" and so couldn't be a bad thing. Pet.App. 45a-48a. In this case, it was not relevant where Amex's market power *came from*; the law cares only whether it exists, and so might make a putatively anticompetitive restraint possible. Accordingly, if merchants so wanted Amex that they felt bound to accept it, that demonstrates market power without regard to why that dynamic exists.[5] The district court was thus

[5] Relatedly, note that creating "worthwhile" products often creates market power while even a patent "monopoly" on other products would not. The patent-holder on a cure for cancer would have enormous market power; the patent-holder on a new headache remedy likely wouldn't, given competing alternatives. *See* Areeda & Hovenkamp ¶518e; *Illinois Tool Works v. Independent Ink*, 547 U.S. 28 (2006).

quite right to regard "cardholder insistence" as strong evidence of market power, and the Second Circuit quite wrong to reject it while expressly noting, several times, that "cardholder insistence is precisely what makes accepting Amex cards worthwhile for merchants to do." *See id.* That which makes "accepting Amex cards worthwhile" is *exactly* what gives Amex market power.

2. Step two

Once the plaintiff makes its *prima facie* showing under either the direct or indirect method, the burden shifts to the defendant to proffer any legitimate, procompetitive justifications it may have for the restraint. This burden shift follows from basic principles of proof that are not specific to antitrust. "The defendant, being the author of the restraints, is in a better position to explain why they are profitable and in consumers' best interests." Areeda & Hovenkamp, ¶1505.

It is important to note, however, that not every justification that generates welfare somewhere in the economy—even by lowering prices—can be deemed "legitimate" or "procompetitive." Instead, this requirement must exclude (at least) one type of justification. Because promoting competition is the goal of the antitrust laws, "defendants' expectation of profit" from a restraint must come "from something other than a restriction of competition" itself. *Rule of Reason*, p.22. Put otherwise, "[a]n effective defense must be able to show that a practice has social benefits that *do not depend on the exercise of market power*." *Id.* p.23 (emphasis added). Accordingly, at an absolute minimum, a defendant's justification cannot be that it will use a restraint to generate monopoly rents or restrict output in one aspect of its business and then reinvest that revenue elsewhere—including, of course, in its own bottom line.

As an example, this Court in *NCAA v. Board Of Regents of University of Oklahoma*, 468 U.S. 85, 116-17 (1984), did not permit the NCAA to defend a restriction on televising college football games on the theory that it would "protect live attendance." That justification rested on the view that exercising market power and restricting output (*i.e.*, limiting broadcasts) would lead to benefits elsewhere in the economy, and so was "inconsistent with the basic policy of the Sherman Act." *Id*. As this Court put it, "'the Rule of Reason does not support a defense based on the assumption that competition itself is unreasonable.'" *Id.* at 117 (quoting *Nat'l Soc'y of Prof'l Engr's v. United States*, 435 U.S. 679, 696 (1978)). In contrast, this Court explained that restrictions aimed at protecting "the integrity of [the product] as … distinct and attractive," or promoting the NCAA's non-competition-related ends (like preserving a "revered tradition of amateurism in college sports") could be legitimate, so long as they rested on evidence that the restriction pro-competitively increased output in the relevant market, rather than on the impermissible intuition that restricting output was somehow "pro-competitive." *See id.* at 116-17, 120.

3. Step three

If legitimate justifications for the restraint are offered, the burden shifts back to the plaintiff to demonstrate that a "substantially less restrictive alternative" could achieve the same benefits. Areeda & Hovenkamp ¶1502. "By this stage of the controversy, most cases will be resolved. If not—and rarely—the harms and benefits must be compared to reach a net judgment whether the challenged behavior is, on balance, reasonable." *Id.* Notably, this balancing occurs *within* the relevant market, *see infra* pp.20-27; the factfinder is not asked to balance the welfare of one set of consumers against another's somewhere else.

B. The district court's analysis

The district court applied this settled framework to the facts as it found them, which are amply described in petitioners' briefs. *See* U.S. Br. 2-12, 23-34; Ohio Br. 1-13. Without unduly revisiting those facts, the following section briefly reviews the district court's legal analysis of them to demonstrate how the rule of reason properly operates in practice.

The court began by defining the **relevant market**. Pet.App. 111a-148a. This was the appropriate first step for two reasons. First, because the plaintiffs purported to carry their *prima facie* burden through both the direct and indirect method of proof, a market definition was needed to assess Amex's market power using its market share and other factors. Second, and more important here, a basic mapping of the relevant market is necessary to set the scope of the ensuing inquiry, even under the direct method. It is true that, because 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, proof of actual detrimental effect[s]" can be "sufficient to support a finding that the challenged restraint was unreasonable even in the absence of elaborate market analysis." *Ind. Fed'n*, 476 U.S. at 461. Even then, however, courts must ultimately establish the basic boundaries of the market in which the restraint operates.[6] To both ends, market definition must be tied to the set of *substitutes* reasonably available to the market participants at issue if it is to serve its purpose. *See infra* pp.17-20 (elaborating this point); *United States v. E.I. duPont de Nemours & Co*., 351 U.S. 377, 395 (1956) ("In considering what is the relevant market … no more definite rule can be declared than that" it consists of "commodities reasonably interchangeable by consumers for the same purposes[.]").

Here, the district court engaged in rigorous market definition, looking to both well-established economic tests and a pragmatic analysis of competitive realities supported by the testimony of market participants. It found that the relevant market encompassed "general purpose credit and charge card network services" offered to merchants. That market is highly concentrated; those services are supplied by only three major players (Amex, Visa, and MasterCard) and one minor one (Discover). Among other things, the district court declined to include debit-card services within the relevant market by determining that debit- and credit-card services were not

[6] In cases that use the "direct method," it may not be necessary to *start* with market definition because "[e]vidence of competitive effects can inform market definition, just as market definition can be informative regarding competitive effects." US DOJ & FTC, *Horizontal Merger Guidelines* §4 (2010). *See also id.* (further noting that "analysis need not start with market definition" because "although evaluation of competitive alternatives available to customers is always necessary at some point in the analysis," some analytic tools "to assess competitive effects do not rely on market definition").

"reasonably interchangeable" and merchants would not substitute one for the other. Pet.App. 122a-143a.

Having defined the market, the district court undertook the market-power analysis required for at least the indirect method of establishing a *prima facie* case. After analyzing Amex's market share in combination with a set of other relevant factors including entry barriers, the high degree of industry concentration, and the "amplifying effect" of Amex's "highly insistent or loyal cardholder base," it found that Amex had market power. Pet.App. 150a-165a; *supra* pp.9-10. It also relied on direct indicia of market power, including Amex's ability to repeatedly raise prices without losing share, *id.* 165a-180a, and on-point testimony establishing that even the largest national merchants cannot drop Amex in response to its NDPs—though some have tried (and rapidly failed). *E.g.*, Pet.App. 162a-164a.

After finding that Amex had market power, the district court concluded its step-one analysis by also finding direct proof of anticompetitive effects. It found that the challenged NDPs virtually eliminated horizontal price competition for merchant network services, impeded entry by low-cost business models, stifled innovation, and raised prices for both merchants and their customers. Pet.App. 191a-214a. It thus held (correctly, on these facts) that plaintiffs had satisfied their *prima facie* burden through both the direct and indirect method. At a minimum, it is certain as a matter of antitrust law that a firm's exercise of market power to frustrate price competition among its competitors "to the point of near irrelevance," Pet.App. 195a, at least *plausibly* causes anticompetitive harm.

The district court then turned to Amex's proffered legitimate justifications at step two. Pet.App. 228a-258a. It began by carefully parsing Amex's argument that the NDPs and their restrictions on steering were necessary to sustain Amex's "spend-centric" business model. *Id.* 230a-240a. The district court determined that, at bottom, this was an argument that the high merchant discount rates sustained by the NDPs were necessary for Amex to offer more lucrative rewards to cardholders, effectively "shift[ing] the bulk of interbrand competition in the credit and charge card industry to the cardholder side of the platform." *Id*. 234a-241a. The court found this argument both factually unsupported and fundamentally incompatible with the Sherman Act. Among other things, it (correctly) cautioned that Amex seemed to be defending the viability of its own business model rather than competition as such, Pet.App. 235a, and that "the law does not permit American Express to decide on behalf of the entire market which legitimate forms of interbrand competition should be available and which should not." Pet.App. 240a; *see supra* p.10 (noting that suppression of competition is not a "legitimate" or "procompetitive" justification).

Because Amex's proffered justifications were deemed both unsupported and illegitimate, the court did not proceed to step three. Instead, it properly concluded that the profound effect that the NDPs have on horizontal price competition in the relevant market for merchant network services—and the resulting supracompetitive prices imposed on merchants by Amex *and* its competitors—constituted a violation of the Sherman Act.

In our view, this was a prototypical and straightforward application of rule-of-reason analysis that appears to have reached the correct result—at least on the facts as the district court found them. In fact, any analysis leading to a contrary result is necessarily suspicious. While vertical restraints like Amex's frequently have only limited effects on *inter*brand competition (and may promote it), *see, e.g.*, *Leegin*, 551 U.S. at 890, the district court found here that Amex's NDPs had profoundly restricted *horizontal* price competition not just between Amex and its competitors, but *among all* competing providers. With the NDPs in place and secured by Amex's market power, none of Amex's competitors had any incentive to lower price; merchants' inability to steer customers to lower-cost cards (or even give customers truthful information about the cards' merchant fees) had severed the connection between prices to merchants and their quantities of card usage. Pet.App. 228a. In fact, Discover had testified—credibly, from an economic perspective—that it simply could not gain share by cutting merchant prices, and so rapidly raised them instead. Pet.App. 206a. The court found that supracompetitive prices and other anticompetitive effects had in fact resulted. Pet.App. 191a-214a. This established a violation of the Sherman Act, and certainly sufficed for a *prima facie* case.

II. The Second Circuit's "Two-Sided-Market" Innovations Are Fundamentally Unsound.

Given the district court's sound analysis, the Second Circuit's reversal was erroneous. But the much more critical point here is that the *reasons* the Second Circuit gave for reversing—both of which sounded in the "two-sidedness" of Amex's business—

are highly problematic. Neither is logically sound and both threaten to undermine basic principles of antitrust law and economics. It is imperative the Court reject both.

A. The relevant market cannot encompass both sides of Amex's platform.

As noted above, a relevant market for antitrust purposes is defined by the identification of reasonable substitutes for the product at issue. This can be done with relatively rigorous economic analysis where necessary—including measurements of cross-elasticities of demand among putative substitutes—but it can often be done with a more practical analysis of "commercial realities" and participant behavior. *See, e.g.*, *Eastman Kodak*, 504 U.S. at 482; *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 (1962); *DuPont*, 351 U.S. at 394.

Either way, the products that Amex sells on the two "sides" of its platform do not exhibit the characteristics of "reasonably interchangeable" substitutes in any respect. Merchants do not buy and have no use for the services sold to cardholders and cardholders do not buy and have no use for the services sold to merchants. There is *zero* cross-elasticity of demand: A merchant cannot switch to purchasing cardholder services in response to an increase in the price of merchant services, and vice versa. Far from being substitutes, these services act more as complements and so cannot belong in the same relevant market. *See* Areeda & Hovenkamp ¶565 (explaining that the Court of Appeals "incorrectly conclud[ed] that the relevant market in which to consider American Express's anti-steering rules was not limited to the market for network [merchant] services but also included consumers. … [T]hose two groupings are not substitutes for one another but rather behave more as complements."). Separate markets do not become a single relevant market for antitrust purposes simply because one defendant sells two services as part of the same platform. *See id.* (Second Circuit "was apparently misled by the fact that Amex obtained revenue from two sources, … but the fact that a firm obtains its profits from two different, non-substitutable groups does not serve to place the[m] … into the same relevant market").

As the United States correctly notes, U.S. Br. 35-40, there is in fact no logical way to include two different "sides" of a company's platform or business model in one antitrust market. Among other things, they do not include the same participants—a point the district court emphasized in rejecting this argument. Pet.App. 119a. On the merchant "side," Amex competes only with Visa, MasterCard, and Discover in a highly concentrated market; on the cardholder "side," Amex competes with Discover, Chase, Capital One, Citibank, and thousands of other banks that issue credit cards. Visa has a 45% share on the merchant "side" and essentially a 0% share in issuing cards or providing cardholder rewards—the individual banks do that. Were it an important consideration here, how would Visa's "combined" share of the merchant/cardholder market be calculated? Is it 45%, 22.5%, 0% or something else altogether? There is no logical or practicable way to provide an answer.

Relatedly, but perhaps more importantly, attempting to combine these two sides of Amex's business into one antitrust relevant market (however that might be done) would undermine the very reasons for performing a market definition in the first place. We define markets in antitrust analysis to determine whether market power exists in the relationship between two sets of economic counterparties; we want to know whom the market participants facing a restraint or price increase might look to in an effort to discipline the anticompetitive behavior of a seller through competition itself. One need not measure cross-elasticity of demand to see that a merchant dissatisfied with Amex's imposition of the NDPs on anyone *accepting* Amex cards cannot respond by *taking out* a new credit card with Chase or Capital One.

Indeed, generally, the competitive dynamics that determine the effect of a restraint or price increase that a company imposes on customers in one aspect of its business are not predictably affected one way or another by the nature of competition in that company's other market relationships. This is to say that effects occurring in other, closely interrelated markets may ameliorate an anticompetitive effect in the restrained market, they may exacerbate it, or (as likely happened here) they may have no plausible effect at all because of how the restraint itself muffles competitive price signals. Thus, even if there are cases where we have good reason to believe that out-of-market effects cause "feedback" effects in the restrained market, *see infra* p.31, the solution cannot be to lump two markets for non-substitutes into the same "market."

In sum, we care about market definition in restraint cases because it sets the appropriate scope of the rule-of-reason inquiry—establishing the sphere in which the coupling of market power and an anticompetitive practice can cause the kind of distortion and welfare loss that matters to antitrust law. If competition across that relationship has been harmed or destroyed, that is sufficient to cause resources to be diverted inefficiently both within that relationship and across related parts of the economy in ways that untainted price signals would avoid. Defining the market more broadly to include other aspects of the restraining party's business will lead to overlooking those distortionary, anticompetitive effects, and ensure that market definition itself fails to answer the questions for which it is asked.

B. "Netting" or "balancing" competitive effects across both sides of a two-sided platform is fundamentally unsound.

The Second Circuit's holding that a plaintiff's *prima facie* case must also show "net" anticompetitive effects across both sides in a case involving a two-sided platform is also pernicious. Both logically and practically, this is deeply unsound. Logically, it ignores that the balance of prices across the platform's "sides" should be set *by competition*, not skewed by competitive restraints and then excused by *ad hoc* judicial balancing. And practically, it asks courts to perform complex analyses they will find confusing or impracticable, not the least of which is attempting to pin down the ill-defined phenomenon of "two-sided markets" itself.

1. The Second Circuit's "netting" exercise is erroneous.

Though hard to define, *see infra* pp.28-31, two-sided platforms are certainly a recognizable phenomenon, and increasingly important to students of business strategy and industrial organization. The district court concluded that Amex was a two-sided platform because it "sells different products or services to two separate yet interrelated groups of customers who, in turn, rely on the platform to intermediate some type of interaction between them." Pet.App. 77a-78a (citing Evans & Schmalensee, *Industrial Organization of Markets with Two–Sided Platforms*, 3 COMPETITION POL'Y INT'L 150 (2007); Rochet & Tirole, *Two–Sided Markets: A Progress Report*, 37 RAND J. Econ. 645 (2006). For now, we adopt this as a working definition.

Note, however, that it is quite broad and encompasses ubiquitous business models like newspapers (which sell to and unite readers and advertisers), brokers of all stripes (who sell to and unite buyers and sellers), cable companies (which sell to and unite content providers and viewers), and many more. From a competition-policy perspective, these industries do share certain characteristics: For example, there is the "cross-platform network effect" the district court identified, where "the number of agents or the quantity of services bought on one side … affects the value that an agent on the other side of the platform can realize." Pet.App. 79a. But these businesses also vary widely and there may be very little salience to their two-sidedness in any given case—especially relative to other traditional considerations like market concentration and barriers to entry.[7]

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[7] Indeed, the most salient aspect of two-sided platforms from an antitrust perspective may be that their network effects make entry by new platforms difficult, *increasing* the prospect of durable market power.

In any event, the ubiquity of two-sided business models means this Court has confronted them before and rejected the Second Circuit's special rule. In *Times-Picayune Publ'g Co. v. United States*, 345 U.S. 594 (1953)—which concerned the sale of advertising space by a newspaper—this Court was faced with a classic two-sided platform: The paper sells ad space to advertisers on one side and reporting to readers on the other. Recognizing that "every newspaper is a dual trader in *separate* though interdependent markets," *id*. at 610 (emphasis added), this Court held that, because the restraint at issue was applied only in one of them, the decisive question was whether the defendant had economic dominance in *that* market alone. *Id*. In other words, this Court held, in a case where the defendant operated a two-sided platform, that each side represented a "separate … market" and that injuring competition in the restrained market alone was sufficient to violate the Sherman Act. This Court's analytical approach was correct then and remains so today; it need only adhere to this precedent to correctly decide this case.

Times-Picayune aside, however, *amici* would still strenuously urge this Court not to approve of any "netting" or "balancing" analysis across relevant markets—even if they are "both sides" of a two-sided platform—because that exercise is fundamentally inconsistent with the antitrust laws' core purposes. *See* Areeda & Hovenkamp ¶1505 (criticizing Second Circuit's "conclusion that when a restraint is alleged in a two-sided market, a *prima facie* case requires the plaintiff to allege net harm aggregated across both sides"). This idea finds its most damaging expression in the Second Circuit's notion that Amex should be allowed to use its NDPs to obstruct price competition and keep merchant prices high because "a reduction in revenue that Amex earns from merchants' fees may decrease the optimal level of cardholder benefits." Pet.App. 49a-50a. Antitrust law and policy should not even indulge *arguendo* a defendant's excuse that it is robbing Peter to pay Paul; basic antitrust policy requires that "*competition* should choose the optimal mix of revenue between the two sides"—not Amex's near-total obstruction of horizontal competition among Amex and its competitors on one side or the other. *See* Areeda & Hovenkamp, ¶562e.

For this reason, while we believe this Court should reverse the Second Circuit and affirm the district court's judgment, we would urge the Court *not* to rely in any respect on the district court having already "balanced" the benefits and harms across Amex's merchant and cardholder markets, and/or having concluded that Amex still harmed competition in the market as the Second Circuit defined it. Petitioners understandably advance these alternative arguments as litigants, but we believe these analyses are ultimately unintelligible and should not be encouraged even as alternative considerations for future factfinders. Ultimately, they can only confuse the correct analysis.

Notably, Amex's putatively "procompetitive" justification that high merchant prices lead to more rewards and competition for cardholders is plainly of the illegitimate form described above, *supra* p.15—it clearly depends on the exercise of market power to work. Amex's justification for its restraint is simply that it will extract monopoly rents from merchants in order to use (some of) them to entice new cardholders to its platform. This is an unmitigated negative from an antitrust perspective. As the United States correctly explains, U.S. Br. 45-46, antitrust law must reject the distortionary effects of dictating prices through restraints rather than competition because it disrupts the "central nervous system of the economy," *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150, 226 n.59 (1940).

To put the same point differently, it is important that lower courts not confuse mere "lower prices" somewhere in the economy with a "procompetitive effect." In important respects, the reality can be the exact opposite: By "disrupt[ing] the proper functioning of the price-setting mechanism"—that is, by using a restraint to increase prices over here and lower them over there—a practice necessarily undermines the competitive process and so can violate the rule of reason "even absent proof that it resulted in higher prices." *Indiana Fed'n*, 476 U.S. at 461-62. Accordingly, this Court has made clear that "[a] restraint that has the effect of reducing the importance of consumer preference in setting price" is inconsistent "with th[e] fundamental goal of antitrust law," *NCAA*, 468 U.S. at 107 & n.30, and that conduct that "'impedes the ordinary give and take of the marketplace,' and substantially deprives the customer of 'the ability to utilize and compare prices'" adversely affects competition. *Nat'l Soc'y*, 435 U.S. at 692-93. In the end, the goal is not to ensure that *somebody* benefits from an alleged restraint; rather, it is to ensure that the challenged restraint is not disrupting competition in *its* market, causing a misallocation of resources to or from other areas of the economy.

Indeed, indulging a "netting" or "balancing" approach across two-sided platforms would immediately vitiate the rationale for the best-known rule in all of antitrust law—the *per se* proscription against price fixing. Cartelists almost always have a story as to why their price increases or output restrictions are a net positive for the economy: They alleviate a supply glut, keep failing firms in business, increase wages, or minimize waste. Antitrust law accepts none of these excuses not because they could never be true, but because we are confident that the distortionary effects on price signals are bad, even if there are (no doubt) some parties throughout the economy who benefit from the cartelists' behavior. *See Socony-Vacuum Oil*, 310 U.S. at 226 n.59. ("Whatever economic justification particular price-fixing agreements may be thought to have, the law does not permit an inquiry into their reasonableness. They are all banned because of their actual or potential threat to the central nervous system of the economy."). The law would no more accept those justifications for horizontal price fixing in the context of two-sided platforms; courts would certainly condemn the elimination of horizontal price competition the district court found here had it been created by agreement among Amex and its competitors. The distortionary effect of the cartel would be an antitrust policy problem without regard to whether fully 100% of the resulting rents are passed over to cardholders. And the very same principle explains why netting or balancing across the platform is inappropriate here, too.

Moreover, while the Second Circuit suggests that Amex passes on high merchant fees to cardholders as part of its business model, this phrasing somewhat obscures reality. Amex is a profit-maximizing firm, not a wealth-redistribution engine; to the extent it increases rewards or decreases fees to cardholders, it is only because competition for cardholders makes it so. Notably, *that* market is healthy: There are thousands of rival firms issuing cards and competing to win a share of consumers' wallets, entry is relatively easy, and there is constant innovation in offers and rewards models. In contrast, the market is quite unhealthy on the merchant "side" because it is both quite concentrated and restricted by Amex's NDPs. Eliminating the NDPs will help to heal that market and so will undoubtedly affect both Amex's and its competitors' bottom lines, because they will now have to compete for both cardholders *and* merchants. But given the robustness of existing competition over cardholders, there may be no substantial decreases in reward expenditures at all. And even if there are, antitrust policy prefers to have two healthy markets rather than one, because that leads to more efficient resource allocation as between them.

Importantly, none of this is to say that Amex should be constrained in choosing the pair of prices *it* wants to charge merchants and cardholders in its own business model. The sole point is that it should not be free to use its market power to prevent merchants from fostering price competition *among* Amex and its competing card networks and benefitting from the lower prices other competing networks might offer merchants as a result. Nor should Amex be free to choose for consumers whether they prefer to forego Amex's rewards in favor of other inducements merchants might offer them for using the merchants' favored cards. *See* Areeda & Hovenkamp ¶1505

("[*C*]*ompetition* is what determines how revenue is assessed with respect to each side. Some card issuers pursue a strategy of obtaining high market fees while offering more generous terms to customers, while others do the opposite. [Amex's] policy effectively made customers indifferent to merchant charges and to the extent those charges could be expected to be higher, restrained competition[.]"). Contrary to the Second Circuit's view, Amex cannot have "a legitimate interest" in restricting free-market forces. The interaction of those forces—not Amex's NDPs—must be allowed to determine the optimal level of both merchant prices and cardholder rewards.

2. A special "net" price or benefit rule for two-sided platforms is an unnecessary invitation to error in the lower courts.

It is widely accepted that antitrust law must be implemented by an imperfect system that forces difficult economic judgments on lay judges and juries, and that it must therefore account for the risk of errors that harm competition in its pursuit of consumer welfare. *See, e.g.*, Frank Easterbrook, *The Limits of Antitrust*, 63 Tex. L. Rev. 1 (1984). That insight applies with special force to the inauguration of a new set of rules for two-sided markets that would require courts to attempt to create "net prices" or to aggregate and balance competitive benefits and harms across a two-sided platform. Even if this were theoretically possible, it is certainly impracticable and likely to create repeated errors in the lower courts that will contribute to market-wide inefficiency.

For example, efforts to balance competitive effects across relevant markets or generate "net" prices face intractable "commensurability" problems. The district court found that Amex itself was unable to propose a workable net price measurement that accounted for prices on both sides of its platform, Pet.App. 184a, and that result is hardly surprising. Amex extracts merchant discount fees in dollars and pays out rewards in "miles," "points," progress toward status rewards, and other non-monetary benefits. Amex also charges ever-changing fees and interest rates that in part reflect the consumer "price" for card usage. There is thus no ready way to even approximate the per-transaction dollar price to cardholders for using their Amex card, let alone "balance" a cardholder's price against a merchant's price for two different services.

Creating a special rule that permits cross-market balancing of benefits and harms for "two-sided markets" will also lead to vexing questions about how even to define which markets are "two-sided." Based on various (easily confused) definitions, so-called two-sided markets might encompass anything from businesses with plain-vanilla, vertical supply chains to what Amex calls its "two-sided transaction market." *See* Pet.App. 78a. These definitions appear to us orthogonal to underlying antitrust principles, and so should not be turned into important doctrinal boxes that come with different rules and defenses. Instead, as we explain below, the underlying antitrust principles can themselves be used, through ordinary antitrust analysis, to capture whatever is special about a business model's two-sidedness in any given case.

Begin by noting that two-sidedness is ultimately a description of *a business model*, not a "market" at all. Uber, Lyft, taxi cabs, and typical livery services all compete directly in the market for riders, but their business models are different, and there may or may not be substitution among them in the driver or labor market. A rule that permits or requires cross-platform balancing for cases involving "two-sided markets" is thus inherently confusing: Does it apply whenever the *defendant* operates a two-sided platform, when its closest *competitors* are also two-sided platforms, when *some competitors* are also platforms, or on some other basis? Why can Uber try to excuse a restraint that injures its drivers based on benefits to riders when a livery or cab company could not?

Note, also, that every business has *far* more than two "sides." Apple and Google have similar platforms for selling online music, but also compete vigorously for specialized labor, real estate in Silicon Valley, mobile operating system usage, and more. Suppose Google imposes a restraint on performers selling music in the Google Play store and defends it as generating higher profits it can use to sell its Pixel phones more cheaply in competition with iPhones, or to set its salaries for programmers higher so as to be more competitive in that market. What makes these exercises in cross-market balancing—which clearly violate the Court's focus on individual markets in *Times-Picayune* and *NCAA*—any different from Amex's argument here?

Next, imagine an online consignment operation for consumer electronics that returns a discounted portion of every sale to the original owner, while offering buyers a reward for every transaction. So far as we can tell, this is a "two-sided transaction market" that mirrors Amex's business model quite precisely. Pet.App. 78a. But even from a colloquial perspective, what "market" does this consignment business occupy? Is it a consumer-electronics market? A used consumer-electronics market? A consignment-based, used consumer-electronics sales market? An online electronics resale platform market? Merely adverting to the company's two-sided business model tells us nothing about its *markets*, or whether it qualifies for a special cross-market balancing rule.

The natural answer in terms of antitrust market definition, of course, is that putting this business in a market depends on what the case is about. The *relevant* market depends on why we care: If our online consignment operation is merging with a brick-and-mortar retailer of new electronics, it may cause unacceptable concentration in the market for consumer electronic sales (where both parties compete), but probably not in the market for repurchasing used electronics from original owners (because only one operates there). It may also cause no problems at all, depending on the nature of substitution between new and used sales and online and local sales. The important point, however, is that the antitrust answer to the question of what market our consignment business occupies may lie on either side of a company's "platform" and may encompass business models with ordinary vertical supply chains or not, all depending on the case or restraint at issue. For similar reasons, there is no way to know *ex ante* whether the two-sidedness of a defendant's platform will affect market definition, market power, anticompetitive effects, or anything else antitrust law cares about. The two-sided-market category is the tail, not the dog.

That said, the United States is certainly correct that the two-sidedness of a company's business *can* be relevant in any given case. U.S. Br. 50-54. Its relevance, however, is already captured by the ordinary tools of antitrust analysis as the district court applied them. Clarifying how those tools work—rather than adding new, hard-to-implement rules for new, hard-to-define categories—is far more likely to help the lower courts avoid serious errors.

For example, it is already understood that when two aspects of a company's business model are closely related or "interdependent," that may mean that competitive effects or anticompetitive distortions on one side of its business will strongly affect the other over time, and vice versa, causing "feedback" effects that may ameliorate or exacerbate the original distortion. *See, e.g.*, Areeda & Hovenkamp ¶562e. These "dynamic" considerations or "feedback" effects may constrain *or* reinforce anticompetitive exercises of market power; it depends entirely on industry-specific context. In any case, however, a defendant is free to argue that its market power in one market is illusory in fact because the close interrelationship between that market and another disciplines its ability to raise prices or impose anticompetitive conditions in the relevant market.

But, importantly, if that argument *is* presented, it requires no special two-sided-market rules to analyze; all it needs are the conventional tools for deciding whether market power exists or not. And particularly where (as here) the proof of market power and anticompetitive effects is established through *direct evidence*, there is no reason to worry that we have incorrectly assessed a defendant's power in the relevant market by ignoring a price effect somewhere else in the economy. We know the requisite market power exists because the anticompetitive effect occurred.

Indeed, notice that Amex could not possibly make such an argument here, because the very anti-competitive effect of its restraint is to *sever* the connection between the merchant and cardholder sides of its platform. Competition for cardholder transactions does not benefit merchants (or constrain the exercise of market power over them) because merchants lack the ability to steer cardholders away from cards that charge them a higher price. The two sides of the Amex platform may be interdependent in some ways, but—given the NDPs—they are not interdependent in the important sense that competition for cardholders will (or even can) feed back into improved pricing conditions or competitive dynamics on the merchant side. The restraint itself prevents the feedback.

Defendants can also potentially argue that the feedback effect is one that improves the competitive process operating on *both* aspects of its two-sided platform at once through a conventional step-two, rule-of-reason argument. We take this to be the United States' suggestion that the defendant can show "at the second step" that the restraint is "reasonably *necessary* to achieve legitimate *pro-competitive* benefits in a closely related and *interdependent* market." U.S. Br. 52 (emphasis added).[8] This entails a frankly difficult showing that the "dynamic" effects of a restraint are ultimately good for

[8] Formally, this does not entail balancing of out-of-market "benefits" with in-market "harms"—an analysis the United States itself rejects. U.S. Br. 41, 45-46. Instead, it entails looking to out-of-market effects in interdependent markets because they may improve (or reflect improved) competition in the relevant market itself.

the restrained party in the medium-run in a way the antitrust laws can accept. Often, this requires showing that a product could not exist without the restraint. And, importantly, that showing needs to be made for the *product*—not just the defendant's version of it—to ensure that this argument does not reduce to the view that "competition should be restrained because it would hurt *my* ability to compete with my competitors (and their potentially superior business models)." That argument, of course, is the one this Court has rightly rejected as unacceptable throughout antitrust law. *See supra* pp.10-11 (discussing *NCAA*); *Brown Shoe*, 370 U.S. at 320 (antitrust law is "concern[ed] with the protection of *competition*, not *competitors*") (emphasis added).[9]

Ultimately, we believe the consideration of out-of-market benefits in cases involving two-sided platforms (or other interdependent markets) is at best an oblique way of getting to the simpler question of whether competition continues to protect or ultimately benefits the restrained parties, and while such "dynamic" analyses might theoretically prove profitable, we doubt the game is worth the several boxes of candles it will take the lower courts to play it. The "out-of-market benefit" inquiry tends in the direction of weighing the welfare of one set of consumers against the welfare of another, which is what antitrust law seeks to *avoid* in favor of reliance on compe-

[9] In any event, the general condition on this showing is the one emphasized at the beginning, *supra* pp.10-11, and that the Court *must* make clear: A legitimate justification must not depend on the existence of market power to work. *See* Areeda & Hovenkamp ¶1505.

tition itself. Meanwhile, the hypothetical causal chain that makes an out-of-market benefit procompetitive overall is typically attenuated and will be hard for lower courts to follow, so this Court should regard the risk of lower-court error as both high and very costly. Because the ultimate concern remains on the avoidance of competitive distortions within any properly defined set of market relationships—that is, within a relevant market—the better course is for this Court to simply instruct the lower courts to look for evidence of off-setting benefits solely within the relevant market itself.[10] That is particularly so because the kind of multi-step causal tracing exercise involved in the consideration of out-of-market benefits is precisely the kind of complexity this Court's antitrust rules have endeavored to avoid. *See, e.g.*, *Illinois Brick Co. v. Illinois*, 431 U.S. 720 (1977); *Hanover Shoe, Inc. v. United Shoe Machinery Corp.*, 392 U.S. 481 (1968).

Whatever the Court says in this regard, however, it should make clear that it cannot help Amex for the reasons the district court gave below. Amex's fundamental argument is that it must prevent steering away from its cards in order to keep its rewards high

[10] *Accord* Douglas H. Ginsburg & Joshua Wright, *Dynamic Analysis and the Limits of Antitrust Institutions*, 78 Antitrust L.J. 1 (2012) (concluding that courts should hesitate in incorporating "dynamic effects" analysis, even if theoretically useful, because of high risk of error); *cf. Horizontal Merger Guidelines* §10 n.14 (noting that agencies properly consider any anticompetitive effect in a relevant market sufficient to challenge a merger, and consider "efficiencies not strictly in the relevant market" only as a matter of prosecutorial discretion).

and support its business model. That argument depends on using an exercise of market power to raise prices and direct the benefits elsewhere, and imposes a restraint that ensures that those benefits *cannot* redound to merchants' benefit through the competitive process. It is thus neither legitimate nor procompetitive, and so the district court properly rejected it. Pet.App. 234a-241a. This Court should thus reverse the Second Circuit's decision and, for the sake of clarity in future cases, affirm the sound application of the rule of reason by the district court.

CONCLUSION

This Court should reverse the Court of Appeals and affirm the judgment of the district court.

Respectfully submitted,

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ADDENDUM

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Identity of *Amici Curiae*

The *amici* listed below are distinguished antitrust law professors and scholars. University affiliations are listed only for purposes of identification. Listed professors are acting only in their individual capacities and do not purport to represent the views of their universities.

- **Herbert Hovenkamp**, James G. Dinan Professor at the Law School and the Wharton School of the University of Pennsylvania. He has been the Rockefeller Foundation Fellow, Harvard Law School; Fellow of the American Council of Learned Societies, Harvard Law School; Faculty Scholar, University of Iowa; Presidential Lecturer, University of Iowa; and the recipient of the University of Iowa Collegiate Teaching Award. He is the senior surviving author of *Antitrust Law* (formerly with Phillip Areeda & Donald Turner), currently 22 volumes.

- **Harry First**, Charles L. Denison Professor of Law at New York University School of Law and Co-Director of the law school's Competition, Innovation, and Information Law Program. From 1999-2001 he served as Chief of the Antitrust Bureau of the Office of the Attorney General of the State of New York. Professor First is the co-author of the casebook *Free Enterprise and Economic Organization: Antitrust* (7th Ed. 2014). He was twice a

Fulbright Research Fellow in Japan and taught antitrust as an adjunct professor at the University of Tokyo. Professor First is a contributing editor of the *Antitrust Law* Journal, foreign antitrust editor of the *Antitrust Bulletin*, a member of the executive committee of the Antitrust Section of the New York State Bar Association, and a member of the advisory board and a Senior Fellow of the American Antitrust Institute.

- **Einer R. Elhauge**, Petrie Professor of Law at Harvard Law School, where he writes and teaches on Antitrust Law and Economics. Professor Elhauge is author of *U.S. Antitrust Law & Economics*, co-author of *Global Antitrust Law & Economic*, co-author of *Antitrust Law, Vol X* with Areeda, Elhauge & Hovenkamp, editor of the *Research Handbook on the Economics of Antitrust Law*, and the author of articles on antitrust law and economics that have won awards and appeared in peer-reviewed economics journals and top law reviews. He is also President of Legal Economics, LLC, former FTC Special Employee on Antitrust Issus, member of the editorial board for the Competition Policy International, and member of the advisory boards for the Journal of Competition Law & Economics and for the Social Sciences Research Network on Antitrust Law & Policy.

- **Eleanor M. Fox**, Walter J. Derenberg Professor of Trade Regulation at New York University School of Law. She was awarded an inaugural Lifetime Achievement Award in 2011 by the *Global Competition Review* for "substantial, lasting, and transformational impact on competition policy and practice." She received the inaugural award for outstanding contributions to the competition law community in 2015 by the Academic Society for Competition Law, the world network of academic law and economic competition experts.

- **Stephen Calkins**, Professor of Law, Wayne State University. Professor Calkins is the author of one of the seminal Antitrust text books – *Antitrust Law: Policy and Practice* (4th ed. 2008) (with C. Paul Rogers III, Mark R. Patterson and William R. Andersen). He is also the author of *Antitrust Law and Economics in a Nutshell* (5th ed. 2004) (with Ernest Gellhorn and William Kovacic) and served as a co-editor of the *ABA Antitrust Section, Consumer Protection Law Developments* (2009). Professor Calkins is a life member of the American Law Institute, a fellow of the American Bar Foundation and a member of the advisory boards for the American Antitrust Institute, Sedona Conference and National State Attorneys General Program Advisory Project at Columbia Law School. For the American Bar Association, he has served on the Councils of the Sections of Administrative Law and Regulatory Practice and the Section of Antitrust Law (two, three- year terms). He is a former chair of the Association of American Law School's Antitrust and Economic Regulation Committee.

- **Tim Wu**, Professor of Law, Columbia Law School. Professor Wu has cauthored several books, including "Network Neutrality Broadband Discrimination" (2003), Who Controls the Internet (2006), The Master Switch (2010), and The Attention Merchants (2016). Wu was a law clerk for Justice Stephen Breyer and Judge Richard Posner, and has also worked at the White House National Economic Council, at the Federal Trade Commission, for the New York Attorney General, and in the Silicon Valley telecommunications industry.

- **Barak Richman**, Edgar P. and Elizabeth C. Bartlett Professor of Law and Professor of Business Administration at Duke University. He previously served as a law clerk to Judge Bruce M. Selya of the United States Court of Appeals for the First Circuit, and from 1994-1996 he handled international trade legislation as a staff member of the United States Senate Committee on Finance. He writes regularly on issues related to economics and antitrust. Professor Richman is the author of Stateless Commerce, which was published by Harvard University Press.

- **Thomas Greany**, Visiting Professor, UC Hastings College of Law. Professor Greaney was the Chester A. Myers Professor of Law and Director of the Center for Health Law Studies at Saint Louis University School of Law. Prior to joining the SLU Law faculty, he served as an Assistant Chief in the Department of Justice, Antitrust Division, specializing in health care antitrust litigation, and completed a visiting professorship at Yale Law School.

- **Peter Carstensen**, Fred W. & Vi Miller Chair in Law Emeritus, University of Wisconsin Law School. He previously served as an attorney in the Antitrust Division of the United States Department of Justice. Professor Carstensen is also a Senior Fellow of the American Antitrust Institute.

- **Spencer Weber Waller**, Interim Associate Dean for Academic Affairs, Professor and Director for Consumer Antitrust Studies at Loyola University of Chicago, School of Law.

- **Darren Bush**, Professor of Law and Law Foundation Professor, University of Houston Law Center. Professor Bush served as a co-author with Harry First and the late John J. Flynn on the antitrust casebook FREE ENTERPRISE AND ECONOMIC ORGANIZATION: ANTITRUST (7th Ed.) with Foundation Press.

- **Chris Sagers**, James A. Thomas Distinguished Professor of Law. He is a member of the American Law Institute, a Senior Fellow of the American Antitrust Institute, and a leadership member of the ABA Antitrust Section.

- **Robert H. Lande**, Venable Professor of Law, University of Baltimore School of Law. Professor Lande is a co-founder and a Director of the American Antitrust Institute, a past chair of the AALS Antitrust Section, and has held many positions in the ABA Antitrust Section. He is also an elected member of the American Law Institute.

- **Robin Feldman**, Harry & Lillian Hastings Professor of Law & Director of the Institute for Innovation Law, U.C. Hastings College of Law. Professor Feldman previously chaired the Executive Committee of the Antitrust Section of the American Association of Law Schools and clerked for The Honorable Joseph Sneed of the U.S. Court of Appeals for the Ninth Circuit. She is also a Fellow of the American Antitrust Institute.

- **Jeffrey Harrison**, Huber C. Hurst Eminent Scholar Chair in the Levin Collage of Law at the University of Florida. He is the co-author of Understanding Antitrust and its Economic Implications, (6th ed., Matthew Bender, 2013) with E.T. Sullivan.

Professor Harrison's casebook on Law and Economics is in the third edition. His Nutshell on Law and Economics is in its sixth edition.

- **John B. Kirkwood**, Professor of Law, Seattle University School of Law. He is a Senior Fellow of the American Antitrust Institute and an Adviser to the Institute of Consumer Antitrust Studies. Professor Kirkwood previously directed the Planning Office, the Evaluation Office, and the Premerger Notification Program at the FTC's Bureau of Competition in Washington, D.C. and later managed cases and investigations at the Northwest Regional Office.

- **Joshua P. Davis**, Associate Dean for Academic Affairs, Director of the Center for Law and Ethics, Professor, and Dean's Circle Scholar, University of San Francisco, School of Law. Dean Davis is on the board for the American Antitrust Institute, and he previously served as a Fellow at the Center for Applied Legal Studies at Georgetown University Law Center and as the clerk to the Hon. Patrick E. Higginbotham on the Fifth Circuit Court of Appeals.

- **Norman W. Hawker**, Professor of Finance and Commercial Law, Western Michigan University. He is also a Senior Fellow of the American Antitrust Institute.

- **Max Huffman**, Professor of Law and Director of Corporate and Commercial Law Graduate Certificate program, University of Indiana, Rober H. McKinney School of Law.

- **Warren Grimes**, Associate Dean for Research and Irving D. and Florence Rosenberg Professor of Law, Southwestern Law School. Dean Grimes is co-author of the definitive antitrust law text for lawyers and law students, *The Law of Antitrust: An Integrated Handbook* with the late Professor Lawrence Sullivan. Dean Grimes has chaired the Los Angeles County Bar Association Antitrust and Trade Regulation Section and is a member of the Executive Committee, and he serves on the Advisory Board of the American Antitrust Institute.

- **Mark R. Patterson**, Professor of Law, Fordham University School of Law. Professor Patterson has also been a visiting professor at several law schools in the U.S. and at Bocconi University in Milan. He was a co-author of *Antitrust Law: Policy and Practice* (4th ed. 2008) (with C. Paul Rogers III, Stephen Calkins, and William R. Andersen) and is the author of the forthcoming book Antitrust Law in the New Economy: Google, Yelp, LIBOR, and the Control of Information (Harvard 2017).

- **Marina Lao**, Professor of Law, Seton Hall Law. Professor Lao was previously awarded a Fulbright Fellowship. She currently serves as a member of the advisory board of the American Antitrust Institute, and was Chair of the Section of Antitrust and Economic Regulation of the Association of American Law Schools.

- **Michael A. Carrier**, Professor of Law, Rutgers Law School. Professor Carrier is a co-author of the leading IP/antitrust treatise, *IP and Antitrust Law: An Analysis of Antitrust Principles Applied to Intellectual Property Law* (2d ed. 2009, and annual supplements, with Hovenkamp, Janis, Lemley, and Leslie). He is a member of the Board of Advisors of the American Antitrust Institute and is a past chair of the Executive Committee of the Antitrust and Economic Regulation section of the Association of American Law Schools.

- **Edward Cavanagh**, Professor of Law, St. John's University. Professor Cavanagh is currently a member of the Council of the ABA Antitrust Section. He has previously served as co-chair of the ABA Antitrust Section Public Service Committee. He has also served as co-chair of the Antitrust Section's Civil Practice and Procedure Committee. Professor Cavanagh is a past chair of the New York State Bar Association Antitrust Section and currently a member of its Executive Committee.

Professor Cavanagh is a member of the Association of the Bar of the City of New York and has served on its Antitrust and Trade Regulation Committee and its Federal Courts Committee

- **Barak Orbach**, Professor of Law and Director of the Business Law program, University of Arizona, James E. Rogers College of Law. Professor Orbach is the author of a leading casebook: *Regulation: Why and How the State Regulates* (Foundation Press, 2012). Professor Orbach previously served as an Advisor for Law & Economics to the Israeli Antitrust Commissioner.

- **Jon Baker,** Research Professor of Law at American University Washington College of Law. Professor Baker served as the Chief Economist of the Federal Communications Commission from 2009 to 2011, and as the Director of the Bureau of Economics at the Federal Trade Commission from 1995 to 1998. Previously, he worked as a Senior Economist at the President's Council of Economic Advisers, Special Assistant to the Deputy Assistant Attorney General for Economics in the Antitrust Division of the Department of Justice, an Attorney Advisor to the Acting Chairman of the Federal Trade Commission, and an antitrust lawyer in private practice. Professor Baker is the co-author of an antitrust casebook, a past Editorial Chair of Antitrust Law Journal, and a past member of the Council of the American Bar Association's Section of Antitrust Law. He has published widely in the fields of antitrust law, policy, and economics.

- **Andrew Chin**, Professor of Law, University of North Carolina School of Law. Professor Chin is the recipient of a Rhodes Scholarship and a National Foundation Graduate Fellowship. He clerked for Judge Henry H. Kennedy Jr. of the United States District Court for the District of Columbia and assisted Judge Thomas Penfield Jackson and his law clerks in the drafting of the findings of fact in United States v. Microsoft Corporation.

- **Thomas J. Horton**, Professor of Law and Heidepriem Trial Advocacy Fellow at the University of South Dakota School of Law.