Regulators worry about the pervasiveness of platform businesses in modern commerce and everyday life.¹ Today’s consumer increasingly fulfills every need through a well-known startup-turned-verb (“Just Google it”; “We’ll Uber there”; or “Yeah, Instagram that!”).² Internet platforms have transformed “the ways we produce, consume, work, finance, and learn.”³ Recently, commentators, such as antitrust scholars and economic journalists, have expressed concerns that traditional antitrust principles may be poor tools to contend with this new generation of technology companies.⁴ The Supreme Court’s decision in Ohio v. American Express (“AmEx”) furthered the uncertainty of what kind of antitrust liability technology platforms may face.⁵


². For a list of “matchmaker” businesses, see DAVID S. EVANS & RICHARD SCHMALENSEE, MATCHMAKERS: THE NEW ECONOMICS OF MULTISIDED PLATFORMS 1 (2016).


⁴. See, e.g., Lina M. Khan, Amazon’s Antitrust Paradox, 126 YALE L.J. 710 (2017) [hereinafter Khan, Amazon] (arguing that current antitrust law is incapable of reigning in the dominance of a business such as Amazon); see also AMERICAN TECH GIANTS ARE MAKING LIFE TOUGH FOR STARTUPS, ECONOMIST (June 2, 2018), https://www.economist.com/business/2018/06/02/americantechgiantsaremakinglifetoughfort startups [https://perma.cc/89Z9-WSYD].

Although the case focused on a traditional platform, the Court’s reasoning previewed how an antitrust claim might proceed against other businesses that create value by connecting two or more groups of consumers. Some scholars read the majority opinion to confer “de facto antitrust immunity” on multisided platforms. However, I argue that AmEx is unlikely to provide all technology businesses with broad protection from antitrust scrutiny as critics fear.

The AmEx ruling serves as a cautionary tale for courts attempting to translate cutting-edge economics into law. The majority shifted antitrust law’s rule of reason doctrine on the basis of still-disputed economic literature, potentially blunting the holding’s precedential impact. This Note considers the majority’s proposition that the relevant market for two-sided transaction platforms includes both sides of the platform and evaluates the embedded economic principles justifying this conclusion. If lower courts adopt AmEx’s market definition jurisprudence in accordance with the Court’s underlying economic justifications, then this rule should not apply in every technology platform case. Part I of the Note situates the AmEx ruling in antitrust law and explores the case itself. Part II identifies and analyzes the economic reasoning in the majority opinion. It examines whether iconic technology platforms exhibit the economic prerequisites necessary to justify applying the Court’s rule. Part III concludes that an economically-sensitive reading of the Court’s decision should not shield all powerful technology platforms from antitrust liability.

I. BACKGROUND

Antitrust law scrutinizes powerful companies that undermine the efficiency of markets. Platform companies, in turn, pique antitrust
regulators’ concern because of their tendency towards dominance. \(^9\) Undoubtedly, platform businesses have been hugely successful. By market valuations, Google, Microsoft, Facebook, and Amazon rank “among the top ten most valuable American companies of any kind.” \(^10\) Moreover, platform markets exhibit a “rich-get-richer” phenomenon: as technology companies attain success, data advantages and network effects protect them from insurgent competitors. \(^11\)

Network effects entrench incumbents as more users adopt the platform. \(^12\) Direct network effects exist when members on one side of a platform benefit from the presence of additional members on the same side. \(^13\) For example, Facebook users benefit when others join the social network as they can interact with a greater number of people. Indirect network effects make a multisided platform more valuable to one set of consumers if more of another set of consumers uses it. \(^14\) Airbnb guests benefit when more hosts list their available properties for booking on the website, for instance. These network effects serve as barriers-to-entry and heighten antitrust concerns about technology platforms’ competitive strategies.

Although the economic impact of technology companies can be easily observed, scholars struggle to define “platforms.” Technology platforms may be “online marketplaces, desktop and mobile computing environments, social networks, virtual labor exchanges, payment systems, [or] trading systems.” \(^15\) Because industries and forms vary, scholars identify platforms by

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\(^12\) See David S. Evans, Multisided Platforms, Dynamic Competition, and the Assessment of Market Power for Internet-Based Firms 7 (Coase-Sandor Institute for Law and Economics Working Paper No. 753, 2016) [hereinafter Evans, Multisided Platforms].


\(^15\) Cohen, supra note 11, at 136; see also Lobel, supra note 3, at 95 (describing the range of industries the platform economy has affected: hotels, office space, parking spaces, transportation, restaurants, used clothing, household tools, outdoor gear, capital,
their function as facilitators. Professor Julie Cohen suggests that platforms are driven by their potential to gather and translate data into insights. Professor Orly Lobel views internet platforms as fulfilling the role historically played by middlemen, or intermediaries facilitating exchanges. Both theories concur that platforms succeed by reducing transaction costs for groups seeking to interact with each other.

While academics debate how best to circumscribe platform businesses, courts must nonetheless proceed to identify them as the relevant market for platform antitrust cases. Market definition is a critical step in antitrust analysis. Because antitrust law mainly concerns itself with business entities that are dominant players, estimating a platform’s standing in the market vis-à-vis its competitors is a prerequisite to regulatory action. Therefore, antitrust law must attempt to characterize platform markets, even if scholars have yet to reach a consensus.

A. LEGAL BACKGROUND AND THE RULE OF REASON

In Ohio v. American Express, the Court explicitly considered whether multisided platforms face unique competitive constraints relative to traditional businesses. Prosecutors charged American Express with violating Section 1 of the Sherman Act, an antitrust statute that prohibits agreements “in restraint of trade.” Plaintiffs alleged that the defendant, a credit card platform, had conspired to illegally restrain trade by requiring merchants to broadcasting, legal services, medical services, academic services, everyday errands, and specialized errands).


17. See Cohen, supra note 11, at 142 (“The commercial and extractive logics that drove emergence of the platform business model success now impose their own design imperatives . . . .”).

18. Lobel, supra note 3, at 94; see also Evans, Multisided Platforms, supra note 12, at 2 (“Many online businesses operate multi-sided platforms that help different types of participants get together and enter into value-increasing exchanges.”).

19. See Lobel, supra note 3, at 106 (hypothesizing that platforms reduce three types of transaction costs: “(1) search costs; (2) bargaining and decision costs; and (3) policing and enforcement costs”); see also Evans, Multisided Platforms, supra note 12, at 6.


21. See HOVENKAMP, supra note 8, at 61, 63 (explaining how courts use market share to approximate market power).

22. See Melamed & Petit, supra note 7 (manuscript at 25).

23. 15 U.S.C. § 1 (2012); see also Melamed & Petit, supra note 7 (manuscript at 7) (“The statute is proscriptive, not prescriptive. It bans specific kinds of agreements (Section 1) and specific kinds of conduct (Section 2.”).
sign a contract agreeing not to “steer” customers to an alternate payment platform when making a sale (“the anti-steering clause”). The Court held these contracts were legal under the rule of reason framework.

Courts typically employ the rule of reason framework to analyze Section 1 violations. The rule of reason applies when a challenged agreement is “vertical” (between firms at different levels of the supply chain). The framework operates as follows:

- **First**, the plaintiff has the initial burden of proving that the vertical restraint has substantial anti-competitive effects through direct or indirect evidence of harm to consumers in a market.
- **Second**, the burden shifts to the defendant to prove a pro-competitive rationale, or “legitimate objective,” for the restraint.
- **Finally**, the plaintiff can carry the case by proving that the “legitimate objective” can be achieved through less anti-competitive or less restrictive means.

Courts show great concern when defining the relevant market because the market definition largely determines the controlling anti-competitive effects and pro-competitive efficiencies that must be balanced under the rule of reason. Market definition is often hotly contested, and the AmEx dissent even contended that the exercise was unnecessary given direct evidence of competitive harm.

In general, courts rely on “the substitution principle” to define relevant markets, which theorizes that markets include goods or services that are reasonably interchangeable for the product at issue. Substitute products constrain the price of a given good because customers can switch to a

24. See infra Section I.B for a summary of the plaintiffs’ theory of harm.
26. See id. at 2284. Under antitrust law, “horizontal” agreements (between competitors) are generally unreasonable per se. See id. at 2283–84.
27. See id. at 2284.
28. See id. at 2291 (Breyer, J., dissenting).
29. See id.
31. See HOVENKAMP, supra note 8, at 75 (criticizing the Court’s relevant market definition in United States v. Aluminum Co., 377 U.S. 271 (1965)).
competitor’s products in response to price increases. However, courts sometimes deviate from this fundamental tenet because of economic realities. For example, in United States v. Grinnell Corp., the Court combined security services into one market even though customers would not view the services as interchangeable. This “economies of scope” exception permits combining individual markets when it is much cheaper to provide products together rather than independently; the typical antitrust application is a hospital.

Despite the absence of precedent directly applicable to the modern platform economy, the Court has previously defined the market for businesses connecting groups of consumers. In Times-Picayune Publishing Co. v. United States, prosecutors alleged that a New Orleans newspaper had restrained advertisers from choosing whether to purchase space in its companion newspaper. This practice, known as “tying,” also violates Section 1 of the Sherman Act. The Court noted the multisided nature of newspaper businesses: “every newspaper is a dual trader in separate though interdependent markets,” catering to advertisers and readers, even while newspapers need advertising dollars to operate. Because the newspaper’s tie restrained advertisers, the Court decided that only market power on the advertiser side should be “decisive” in assessing the potential violation. Thus, courts have incorporated developing economic concepts in market definition, demonstrating that it is an evolving art in antitrust law. So long as the Court relies on market definition to analyze competitive injury, defining the appropriate market will be essential to deciding antitrust cases.

34. See AmEx, 138 S. Ct. at 2295 (2018) (Breyer, J., dissenting); see also Katz & Sallet, supra note 16, at 2154.
35. See HOVENKAMP, supra note 8, at 81 (criticizing the Ninth Circuit for once including complementary goods in a market). For more on the inappropriateness of including complementary goods in a relevant market, see infra Section I.D.
37. See id. at 573; see also AmEx, 138 S. Ct. at 2299 (Breyer, J., dissenting).
38. See HOVENKAMP, supra note 8, at 82.
40. 345 U.S. 594 (1953).
41. Id. at 600.
42. Id. at 610.
43. Id.
44. See Glasner & Sullivan, supra note 30, at 5 (“Part of the reason that the logic of market definition is so obscure today is that relatively little effort has been devoted to saying what shouldn’t factor into the exercise.”).
B. PROCEDURAL HISTORY OF OHIO V. AMERICAN EXPRESS

The Eastern District of New York was the first tribunal to apply the aforementioned rule of reason to AmEx. Plaintiffs, the United States and seventeen state governments, sued Visa, MasterCard, and American Express on behalf of merchants who accepted credit cards for sales. American Express remained the lone defendant after Visa and MasterCard settled. Plaintiffs challenged American Express’s anti-steering clause for preventing merchants from encouraging customers to use an alternate card at the point of purchase, despite sellers’ financial incentive to prefer non-American Express payment platforms. Under the plaintiffs’ theory of harm, American Express’s vertical restraint restricts price competition on the merchant side of the credit card market. American Express charges merchants higher fees than its competitors, reducing the profit a seller recoups from a transaction completed on the platform. On the other hand, American Express encourages customers to prefer its platform for purchases by providing better cardholder rewards than its competitors. Consequently, merchants must balance the desirability of welcoming a loyal American Express cardholder against the higher fees owed to the credit card company from any resulting transaction. The anti-steering clause limits merchants’ abilities to signal which platform they would prefer customers to use. This reduces

45. United States v. American Express, 88 F. Supp. 3d 143, 151 (E.D.N.Y. 2015), rev’d, 848 F.3d 179 (2d Cir. 2016), aff’d, 138 S. Ct. 2274 (2018). For more on the rule of reason, see supra Section I.A.
47. See id. at 2293 (Breyer, J., dissenting).
48. See id. at 2292–93.
49. See id. at 2292. Even with the steering restraint, the price charged to the customer remains the same. The dissent notes that merchants may markup all retail prices to compensate for the higher fees paid on behalf of customers who use American Express. See id. at 2294; see also Lina Khan, The Supreme Court just quietly gutted antitrust law, VOX.COM (July 3, 2018), https://www.vox.com/the-big-idea/2018/7/3/17530320/antitrust-american-express-amazon-uber-tech-monopoly-monopsony [https://perma.cc/H2D3-SHLZ] (noting that these higher retail costs entail distributive concerns because they are borne by low-income consumers, who may not have credit cards or are unlikely to be reimbursed in the form of American Express cardholder rewards).
50. AmEx, 138 S. Ct. at 2282–83 (“Amex’s business model thus focuses on cardholder spending rather than cardholder lending.”).
51. See id. at 2289–90. The majority suggests that American Express customers are more desirable for merchants to attract because they tend to be “wealthier and spend more money.” Id. at 2282–83. For the District Court’s factual findings on this point, see United States v. American Express, 88 F. Supp. 3d 143, 159 (E.D.N.Y. 2015). Economists call American Express’s high-paying customers “marquee” customers, who are highly valued by the other side of the market. See David S. Evans, Some Empirical Aspects of Multi-sided Platform Industries, 2 REV. NETWORK ECON. 197–98 (2003) [hereinafter Evans, Empirical Aspects].
the incentive for other credit card companies to offer merchants favorable terms because merchants cannot effectively translate lower fees into reallocations of market share.\textsuperscript{52}

After a seven-week bench trial, the district court concluded that American Express’s anti-steering clause violated the Sherman Act. It found that plaintiffs had shown harm suffered by merchants, and the defendant had not sufficiently demonstrated the practice’s pro-competitive effects.\textsuperscript{53} American Express had repeatedly raised fees on merchants without suffering any loss in demand, which indicated market power.\textsuperscript{54} Further, American Express’s competitors were unable to enter the market with more favorable merchant pricing models. Discover’s failure to launch a lower-fee network was direct evidence of competitive harm.\textsuperscript{55} The court also found no countervailing pro-competitive effects on the merchant-side of the market, dismissing the survival of American Express’s business model as an invalid justification for an anti-competitive restraint.\textsuperscript{56} Critically, the court’s relevant market definition enabled it to discount American Express’s pro-competitive justifications on the cardholder-side of the market.\textsuperscript{57} The trial court defined two distinct, but “inextricably linked” product markets: a “network services” market where card networks provide merchants with the capacity to complete transactions and a “card issuance market” where card networks compete to acquire cardholders.\textsuperscript{58}

The Second Circuit reversed and remanded the decision, deeming the district court’s separate market definition “fatal.”\textsuperscript{59} The appeals court concluded that the trial court had overly relied on the market definition from a previous Sherman Act case concerning card networks, United States v. Visa.\textsuperscript{60} Because the restraints at issue in AmEx affected conduct by merchants, not the card network’s horizontal competitors (like Visa or

\begin{itemize}
\item \textsuperscript{52} See AmEx, 138 S. Ct. at 2298 (Breyer, J., dissenting).
\item \textsuperscript{53} United States v. American Express, 88 F. Supp. 3d at 150–52.
\item \textsuperscript{54} See id. at 151, 196 (“Amex’s Value Recapture initiatives comprised at least twenty separate price increases accomplished through a combination of increased dis-count rates, new or increased per transaction fees, and reduced side payments to merchants.”).
\item \textsuperscript{55} See id. at 213–14.
\item \textsuperscript{56} See id. at 227–28 (“[N]o legal authority . . . support[s] the remarkable proposition that a restraint that effectively blocks interbrand competition on price across an entire market may be justified under Section 1 because the defendant firm would be less able to compete effectively in its absence.”).
\item \textsuperscript{57} See id. at 229.
\item \textsuperscript{58} See id. at 171–73.
\item \textsuperscript{59} United States v. American Express, 838 F.3d 179, 196 (2d Cir. 2016), aff’d, 138 S. Ct. 2274 (2018).
\item \textsuperscript{60} Id. at 197; see also United States v. Visa, 344 F.3d 229 (2d Cir. 2003).
\end{itemize}
MasterCard) the Second Circuit declined to extend Visa’s separate market definition. Instead, the Second Circuit accepted the defendant’s market definition: the relevant market should include cardholders and merchants—both sets of platform consumers.61 The appeals court viewed it necessary to elevate the platform’s two-sidedness into market definition to ensure that ensuing rule of reason analysis would sufficiently account for the competitive reality of platforms characterized by feedback effects between two groups of customers.62 By not including both sides of the market, the district court had incorrectly “focus[ed] entirely on the interests of merchants” while ignoring the interests of cardholders under the rule of reason.63

C. THE HOLDING OF OHIO V. AMERICAN EXPRESS

The AmEx majority, in an opinion penned by Justice Thomas, held that American Express’s vertical restraints in its merchant contracts were not anti-competitive under Section 1 of the Sherman Act.64 First, the Court affirmed the Second Circuit’s market definition. It relied on economics to justify evaluating a “two-sided market for credit card transactions” “as a whole” under the rule of reason.65 The Court specifically recognized the role of indirect network effects and interconnected pricing and demand in two-sided platforms that facilitate the joint consumption of “a single, simultaneous transaction.”66 In the case of a credit card, these characteristics produce a platform that subsidizes cardholder use of the platform through rewards while charging merchants, who are comparatively less sensitive to price, a higher fee.67

Second, the majority found no proof of harm to the relevant market, defined as both sides of the platform, from the defendant’s challenged restraint. It held that plaintiffs must show net harm to platform users to carry the burden of the first stage of the rule of reason. The majority expected

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62. See id. at 198, 200 (outlining the court’s concern that cross-platform effects might be overlooked by the District Court’s approach). Cf. Visa, 344 F.3d at 238–39 (defining the relevant market as “network services,” separate from general purpose cards).
63. United States v. American Express, 838 F.3d at 206.
65. See id. at 2287.
66. See id. at 2285–87. See infra Section II for an analysis of the economic characteristics in the Court’s definition of two-sided transaction platforms.
67. Id. at 2288; see also Rob Frieden, The Internet of Platforms and Two-Sided Markets: Implications for Competition and Consumers, 63 VILL. L. REV. 269, 274 (2018) (describing how credit card companies that provide “free” or negative priced-services to customers may convert this side of a platform into a profitable one when a customer fails to pay back their short-term loan with the company and is then subject to high interest payments).
output-based evidence of harm: an increase in the price of credit card transactions over the competitive level, a reduction in the overall number of transactions completed by credit card, or an otherwise deleterious effect on competition in the credit card market. The plaintiffs’ case, which focused solely on the increase in merchant fees, satisfied none of these options. The Court further inferred that American Express’s anti-steering practice had not unlawfully restricted output, because the number of transactions conducted by credit cards had increased overall, even if prices had risen somewhat. Finally, the Court set aside evidence from the district court about Discover’s failure to enter the market, citing heightened competition to American Express from Visa and MasterCard’s premium rewards cards and broader merchant acceptance. The majority argued that the anti-steering provision could be considered pro-competitive for preserving American Express’s “viability” as a cardholder option and encouraging inter-brand competition.

D. THE DISSENT IN OHIO V. AMERICAN EXPRESS

Justice Breyer refuted the Court’s position in a much lengthier opinion, focusing closely on the factual record from the district court. The dissent disagreed with the majority on three grounds. First, plaintiffs had sufficiently demonstrated anti-competitive effects from the anti-steering clause under stage one of the rule of reason. Second, the majority’s market definition rested on dubious economic assumptions. Third, the holding unacceptably altered the rule of reason framework.

In the dissent’s view, plaintiffs had sufficiently satisfied their burden under step one of the rule of reason. Justice Breyer chastised the majority for neglecting key facts in the case record, which proved that the anti-steering clause had inflicted anti-competitive harm. For example, Discover was unable to compete with lower merchant fees, and American Express’s

68. AmEx, 138 S. Ct. at 2287.
69. Id.
70. See id. at 2288.
71. See id. at 2289.
72. See id. at 2289–90 (discussing how American Express consumers expect “welcome acceptance” and when the card is rejected, the likelihood the cardholder continues using the card decreases). Cf. United States v. American Express, 88 F. Supp. 3d 143, 227 (E.D.N.Y. 2015). The District Court notes the important antitrust principle that antitrust law protects competition, not competitors. It recognized the inherent contradiction in the defendant’s argument that the anti-steering restraint preserved the competitive process by ensuring the viability of its business model.
73. See infra Section I.E; see also AmEx, 138 S. Ct. at 2303 (Breyer, J., dissenting).
74. AmEx, 138 S. Ct. at 2303.
repeated price increases had not reduced its market share.\textsuperscript{75} Further, plaintiffs had shown harm to the market “as a whole” because the increase in merchant fees did not equal the increase in cardholder rewards.\textsuperscript{76} The dissent argued that even under the majority’s output-based standard of harm, this imbalance was evidence that the net platform price was higher than the competitive level.

The dissent also vehemently disagreed with the Court’s new direction in market definition. As a preliminary matter, the dissent found the exercise unnecessary after plaintiffs demonstrated direct evidence of harm.\textsuperscript{77} Next, it contended that the majority overinterpreted “two-sided transaction platforms” as a term of art.\textsuperscript{78} Instead, the dissent advocated for greater deference to the substitution principle.\textsuperscript{79} The dissent viewed card services sold to merchants and cardholders as complementary goods, not substitutes.\textsuperscript{80} Therefore, the dissent preferred establishing interrelated, but separate markets for merchant and cardholder services—treating credit card platforms like the newspaper in Times-Picayune Publishing—rather than combining complementary services into one market.\textsuperscript{81}

E. THE RULE OF REASON AFTER OHIO V. AMERICAN EXPRESS

Finally, the dissent criticized the majority for altering the rule of reason analysis for two-sided platforms. The new rule asks plaintiffs to show net harm to the market “as a whole” in order to satisfy their burden under the first stage of the rule of reason.\textsuperscript{82} Such an approach requires plaintiffs to demonstrate that the anti-competitive effects of a restraint outweigh the restraint’s potential pro-competitive justifications on another side of the platform. In the dissent’s view, stage three of the rule of reason better

\begin{itemize}
\item \textsuperscript{75} Id. at 2296–97.
\item \textsuperscript{76} Id. at 2301–02.
\item \textsuperscript{77} Id. at 2296–97.
\item \textsuperscript{78} Id. at 2298–300. In section III.D.1 of the dissent, Breyer explores the similarities between a “two-sided transaction platform” and a farmers’ market, finding the economic characteristics salient to the majority’s market definition rather common.
\item \textsuperscript{79} Ohio v. American Express, 138 S. Ct. 2274, 2295 (2018) (Breyer, J., dissenting) (“The reason that substitutes are included in the relevant market is that they restrain a firm’s ability to profitably raise prices, because customers will switch to the substitutes rather than pay the higher prices.”); see also supra note 34 and accompanying text.
\item \textsuperscript{80} See id. at 2295–96. The majority disputes this characterization of platform services as product complements, arguing that complementary goods are typically consumed by the same customer. See id. at 2286 n. 8.
\item \textsuperscript{81} Id. at 2295 (describing the market definition in Times-Picayune Publishing Co. v. United States, 235 U.S. 594 (1915)); see also supra Section I.A.
\item \textsuperscript{82} See id. at 2287; see also supra Section I.C for a summary of the majority opinion.
\end{itemize}
balances these anti-competitive effects and pro-competitive efficiencies. Shifting the burden to plaintiffs under stage one makes it more difficult for plaintiffs to successfully plead Section 1 claims or for courts to arrive at the correct answer in evaluating Section 1 allegations.

Critics argue that this change to the rule of reason defies the age-old prescription against creating “The Law of the Horse.” Judge Easterbrook, who coined the phrase, warned against creating special rules for new technologies, instead preferring to approach innovation with “[t]he same principles that lawmakers have always applied.” In AmEx, government economists cautioned against developing “a specialized doctrine applicable only to multisided platforms.” The district court’s approach demonstrated that the rule of reason could accommodate “the competitive realities” of multisided platforms. If plaintiffs pleaded harm on one side of the platform, defendants could show cross-platform efficiencies on the other side and the rule of reason could net out harm through its multiple stages. However, the majority’s approach, although motivated by the desire to accurately account for the economic characteristics of two-sided platforms, ignored opportunities to factor those economic characteristics in within the existing rule of reason and created a new rule for platform defendants.

83. See id. at 2303 (Breyer, J., dissenting) (“[T]he Court of Appeals would properly consider procompetitive justifications not at step 1, but at steps 2 and 3 of the ‘rule of reason’ inquiry.”).
84. See Melamed & Petit, supra note 7 (manuscript at 29) (arguing the Court’s decision in AmEx likely increases finding false negatives).
85. See Lobel, supra note 3, at 142–43 (describing Judge Easterbrook’s famous essay on the phrase); see also Carlton, supra note 20, at 106 (“[H]aving different legal rules for promotional activity depending on whether the market is one-sided or two-sided is a mistake.”).
86. Id. at 143.
87. See Katz & Sallet, supra note 16, at 2169.
88. See United States v. American Express, 88 F. Supp. 3d 143, 175 (E.D.N.Y. 2015). One of the economic characteristics of multisided platforms the District Court specifically mentioned was interconnected price and demand. The Court agreed with the defendant that either side of the platform could serve as a “competitive constraint” on their business model.
89. The dissent noted that a normal rule of reason analysis might have resulted in a less favorable outcome for the defendant. For example, the defendant could have failed at stage two because courts typically do not accept showings of pro-competitive benefits in another market to justify an anti-competitive restraint in one market. See Ohio v. American Express, 138 S. Ct. 2274, 2302 (2018); see also infra Section II.B.4 for economists’ suggestions on analyzing separate effects within the rule of reason.
90. See, e.g., Hovenkamp, supra note 13 (manuscript at 40, 46) (summarizing the role of the rule of reason’s multiple stages in ensuring courts arrive at the correct judgment regarding competitive effects); see generally Tim Wu, The American Express Opinion, Tech Platforms & the Rule of Reason, 7 J. ANTITRUST ENFORCEMENT 104 (2019) (framing the
The *AmEx* holding could affect the fairness, efficiency, and accuracy of judgments under the rule of reason in two-sided platform antitrust cases. Some scholars are concerned that the change renders the multi-step framework moot, “collaps[ing]” all of the stages “into the plaintiff’s prima facie case.” Plaintiffs, who already face an uphill battle under the rule of reason, now bear an even greater burden. Requiring plaintiffs to investigate and balance pro-competitive efficiencies claimed by the defendant also imposes discovery costs, leading to judicial inefficiencies. Plaintiffs are less likely to accurately compare the pro-competitive efficiencies of defendants’ business models, especially without the benefit of the other side’s proprietary data. Proponents of the majority’s approach justify these costs, arguing that a rule of reason biased toward finding false positives would deter legitimate, pro-competitive conduct.

*AmEx* answered important questions about the application of antitrust law to two-sided platforms that characterize the modern economy, but the holding’s potential to effectuate wide-ranging consequences suggests the need for a cautionary approach to its scope. The decision increased the burden for plaintiffs under the rule of reason and specialized the relevant market inquiry for two-sided businesses. The following Part focuses on the implications of the latter: the Court’s new approach to market definition for two-sided transaction platforms. While the decision seems helpful to potential Sherman Act defendants, the Court left open the question of what kinds of businesses may qualify for such treatment.

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91. See Hovenkamp, *supra* note 13 (manuscript at 46).
92. See id. (manuscript at 47) (citing a study by Michael Carrier, which found that 97 percent of plaintiffs’ cases fail at step one of the rule of reason).
93. See Katz & Sallet, *supra* note 16, at 2173 (“[T]he burden should tend to fall on the side with the lower expected cost of producing the evidence . . . .”).
94. See Hovenkamp, *supra* note 13 (manuscript at 45).
95. See Brief for The Computer & Communications Industry Association, *supra* note 6, at 17–18; see also *AmEx*, 138 S. Ct. at 2287 (citing Leegin Creative Leather Products, Inc. v. PSKS, Inc., 551 U.S. 877 (2007) to acknowledge the potential efficiency loss from a decision for the plaintiffs); Melamed & Petit, *supra* note 7 (manuscript at 39) (“[Finding false negatives] might be of special importance in platform industries, at least in digital platforms, because those industries have been characterized by short innovation cycles and disruptive innovation.”).
96. See Michael L. Katz, *Platform economics and antitrust enforcement: A little knowledge is a dangerous thing*, 28 J. ECON. & MGMT. STRATEGY 138, 141 (2019) (noting that *AmEx* may provide special antitrust treatment to multisided platforms but fails to define “what it means to be multisided”).
II. ANALYSIS OF TWO-SIDED TRANSACTION PLATFORMS IN ECONOMIC THEORY AND IN PRACTICE

The key question for a technology platform after Ohio v. American Express will be whether its two-sided business model shares sufficient similarities with American Express’s two-sided business model such that the majority’s market definition method applies. The majority’s reliance on a specific set of economic characteristics to identify such businesses intuits that this inquiry should be grounded in the economic principles underlying the Court’s decision. This Part identifies these particular economic characteristics from the majority opinion, summarizes the economic literature behind them, and offers examples of them in popular platform businesses.

AmEx will not radically shift antitrust law if its application is guided by the underlying economic principles in the majority’s reasoning. Closely reading the decision through an economic lens reveals that the competitive constraints the Court sought to recognize do not characterize every online platform. Instead, the economic literature posits a spectrum of two-sidedness, where only one end meets the economic criteria the Court proposed as indicative of a “two-sided transaction platform.” Platform businesses must understand their placement on the spectrum: whether they are “more like credit cards or . . . more like newspapers.” This Part develops the Court’s three-part test for platform businesses seeking antitrust protection through the AmEx ruling and analyzes different technology platforms the decision may impact.

97. See Wright & Yun, supra note 5 (manuscript at 8) (“One area, however, that the Court did not fully address is whether the principles underlying its analysis apply, and if so, to what extent, to what it describes as ‘non-transaction platforms.’”).

98. See Katz, supra note 96, at 140 (summarizing Marc Rysman, The economics of two-sided markets, 23 J. ECON. PERSPECTIVES 127 (2009), who acknowledges that all markets can be characterized by two-sidedness, so defining two-sidedness must be tied to “determining outcomes of interest”).

99. See Matthew Perlman, AmEx Ruling Moves Ball Only Slightly on Rule of Reason, LAW360.COM (July 12, 2018), https://www.law360.com/articles/1062890/amex-ruling-moves-ball-only-slightly-on-rule-of-reason [https://perma.cc/JZB5-7FBV]. To illustrate the breadth of potential applications of two-sided platform analysis, see, for example, David Bardley and Luigi Siciliani, Nursing Homes’ Competition and Distributonal Implications when the Market is Two-Sided (Toulouse School of Economics Working Papers, No. TSE-931, 2018) (analyzing the traditional nursing home industry as a two-sided market).
A. TWO-SIDED TRANSACTION PLATFORMS IN THE MAJORITY OPINION

The AmEx holding can be read narrowly: for two-sided transaction platforms, “only one market should be defined.”\(^{100}\) In its introduction, the majority recognized that many businesses “off[e]r different products or services to two different groups who both depend on the platform to intermediate between them.”\(^{101}\) Compared to this expansive starting point, the Court’s rule only focuses on platforms that facilitate immediate interactions between groups. The Court emphasized that facilitating such a transaction entails “more pronounced indirect network effects and interconnected pricing and demand.”\(^{102}\) The Court distinguished two-sided transaction platforms from platforms where these economic effects weakly influence exchanges.\(^{103}\)

The Court identified three qualifying economic characteristics that justified defining the market as a whole for American Express: it was a platform that (1) experienced significant indirect network effects, (2) exhibited interconnected pricing and demand, and (3) facilitated a single, simultaneous transaction to promote joint consumption of one product.\(^{104}\) The dissent mischaracterized the majority’s three-part test as embracing platforms that “(1) offer different products or services, (2) to different groups of consumers, (3) whom the ‘platform’ connects, (4) in simultaneous transactions.”\(^{105}\) The majority and dissent disputed whether the platform offered the same or different goods to each side. The majority’s definition insists the platform exchanges a single product—transactions in the case of the credit card industry.\(^{106}\) The majority’s market definition is more limited than the dissent claims because its unit for measuring interactions between the two sides of the platform is narrow.

\(^{101}\) AmEx, 138 S. Ct. at 2280.
\(^{102}\) See id. at 2286.
\(^{103}\) See id.
\(^{104}\) See id. at 2285–86.
\(^{105}\) Ohio v. American Express, 138 S. Ct. 2274, 2298 (2018) (Breyer, J., dissenting). Recall the dissent notes that “two-sided transaction platform” is not a term of art or well-defined in any literature base.
\(^{106}\) See id. at 2286; see also id. at 2280 (emphasizing that transaction platforms “cannot make a sale to one side of a platform without simultaneously making a sale to the other”).
Each prong of the majority’s three-part test highlights an economic effect that the Court sought to protect from dissuasive antitrust scrutiny. First, by recognizing indirect network effects, the Court acknowledged the challenge platforms face in ensuring sufficient participation on multiple sides. Platforms may charge different customer groups different prices to attract enough users to the business to facilitate a profitable number of interactions. Accordingly, the Court recognized that pricing in a multisided market may be removed from the traditional notion of cost-based price because price accounts for varying demand elasticity across customer groups. The Court conceded that the mere presence of multiple customer groups for a business does not signify the influence of indirect network effects or interconnected pricing and demand. For example, the majority and dissent agreed that these concerns are “minor” for a newspaper. Finally, the Court extrapolated that the competitors of two-sided platforms are other similarly whole, two-sided systems.

B. TWO-SIDED TRANSACTION PLATFORMS IN ECONOMICS

Academics have long-recognized and debated the economic characteristics of two-sided transaction platforms that formed the basis of the AmEx court’s market definition. This Part contextualizes the majority’s three-part test in the economic literature on two-sided platforms. Given that each component invokes some academic controversy, the test should be modestly incorporated into antitrust law.

107. See id. at 2287 (quoting Matsushita Elec. Industrial Co. v. Zenith Radio Corp., 475 U.S. 574, 594 (1986): “[W]e must be concerned lest a rule or precedent that authorizes a search for a particular type of undesirable pricing behavior end up by discouraging legitimate price competition”).

108. See id. at 2280–81. See also infra Section II.B.1 for a discussion of the economic literature on indirect network effects.

109. See id. at 2281, 2286. See also infra Section II.B.2 for a discussion of the economic literature on interconnected pricing and demand.


111. Id. at 2286; see also infra note 81 and accompanying text. Cf. AmEx, 138 S. Ct. at 2300–01. The dissent still found the majority’s rule too absolute compared to the “flexible” approach followed by the District Court and prescribed by the economic literature.

112. See id. at 2287. Wright & Yun argue that the Court erred in this conclusion. See Wright & Yun, supra note 5 (manuscript at 12) (showing that transaction platforms such as Uber and Airbnb compete with conventional businesses); see also Wu, supra note 90 (manuscript at 10) (illustrating the potential consequences of this conclusion in the merger review context).
1. **Indirect Network Effects**

Economists define indirect network effects as an externality “that users on one side [of a platform] impose on members of the other side by virtue of using the platform.” This critical pillar of the Court’s market definition is a well-established feature of two-sided platform business models. Indirect network effects explain that demand for a platform’s product by one set of consumers is not driven independently. A given consumer’s desire to use the platform is directly influenced by the number of consumers on the other side. Economists consider this influence an externality because customers themselves do not internalize the cost or recoup the benefit of their own presence on the platform. Indirect network effects are distinct from direct network effects, which are more common to platform ecosystems.

Proponents of the Court’s view argue that indirect network effects are a competitive constraint for platform business models. Studies recognize that the need to acquire a “critical mass of users” on each side of a multisided platform poses a challenge for new platform businesses. The presence of indirect network effects can enhance competition if platforms offer favorable pricing and introduce innovative features to attract an optimal number of consumers on each side. But, the difficulty in amassing customers may also represent a “high barrier[] to entry” for competitors, depressing the likelihood that new entrants will challenge a dominant incumbent platform. Thus, indirect network effects can also explain why platforms tend toward dominance.

Even if indirect network effects play an important role in platform dynamics, some academics dispute the necessity of incorporating this economic characteristic into market definition. Recall the substitution

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113. See, e.g., Hovenkamp, supra note 13 (manuscript at 10).
114. See Evans, Multisided Platforms, supra note 12, at 2–3 (“First, the demands by the different groups of participants served by multi-sided platforms are interdependent.”).
115. See Lapo Filistrucchi et al., Market Definition in Two-Sided Markets: Theory and Practice, 10 J. COMP. L. & ECON 293, 296 (2014) (“[I]n a two-sided market . . . demand from one group of consumers depends on the demand from the other group and, possibly, vice versa.”).
116. See id. at 299.
117. See Hovenkamp, supra note 13 (manuscript at 10 n.39); see also supra note 13 and accompanying text.
118. See, e.g., Filistrucchi et al., supra note 115, at 319 (describing how indirect network effects link product differentiation effects in two-sided markets).
119. See Bamberger & Lobel, supra note 9, at 1068.
120. Id. at 1071.
121. Id.
122. Id. at 1064.
principle defended by the dissent. This school of economists argues that because a platform actually sells two different products, consumers do not “substitute” their consumption of a product with the product offered to the other side of the platform when a platform raises prices. For example, a newspaper is a two-sided platform mediating between advertisers and readers. If the newspaper increases subscription prices for readers, readers would not purchase advertising as a “substitute” for their news consumption. The majority’s reliance on indirect network effects to include both sides of a platform in the relevant market violates commonsense economics.

Still, the majority’s refusal to strictly apply the substitution principle can be reconciled by a focus on platform competition. The Court sided with economists who argue that indirect network effects constrain prices more than substitute platforms. A customer may not view rival firms as true alternatives due to the presence or absence of users on the other side of the platform. Indirect network effects may prevent other businesses in the market from amassing a critical number of customers on either side. This concern is particularly acute for platform businesses, which must reduce transaction costs to provide users value. A platform’s core function is making it easier for buyers to find sellers, riders to find drivers, or advertisers to find readers. If a platform’s business model cannot overcome indirect network effects, the platform provides no comparative benefit over non-platform alternatives and the platform cannot serve the price-constraining role that a substitute normally fulfills.

2. Interconnected Pricing and Demand

The next step in the Court’s test examines whether a two-sided platform experiences interconnected pricing and demand. Economists recognize that due to indirect network effects, two-sided platforms exhibit a non-neutral price structure. Platforms “calibrate” their prices, charging varying amounts to different user groups in an attempt to entice a sufficient number

123. See supra Section I.D.
124. See, e.g., Filistrucchi et al., supra note 115, at 294–95.
125. See Frieden, supra note 67, at 318 (“The existence of alternatives, by itself, does not evidence ample multi-homing options.”).
126. See Cohen, supra note 11, at 137 (asserting that a platform’s function is to “rende[r] users legible to those seeking to market goods and services to them”).
128. See Filistrucchi et al., supra note 115, at 299 (describing observations from Jean-Charles Rochet & Jean Tirole, Two Sided Markets: A Progress Report, 37 RAND J. ECON. 645 (2006)).
of consumers from each group to engage with the platform. The total price charged to both sides—and the ratio of how much is borne by either side—directly affects consumer welfare, measured in the volume of platform interactions. For example, AmEx cardholders paid a negative price, or received benefits, for using the platform, while merchants paid higher-than-competitive fees to transact with customers on the network. Increasing the price charged to cardholders decreases cardholder demand for the platform, in turn decreasing merchant demand. Suppose a reduction in cardholder rewards saves American Express $1 million. This reduction would be profitable only if the resulting loss in merchant fees is less than $1 million. Platforms maintain this skewed pricing structure only if they exhibit non-pass-through capability. If transaction costs do not prevent users from engaging in side payments, platforms cannot control demand through charging different prices to either side.

Recognizing interconnected pricing and demand is important to antitrust analysis because it challenges the traditional notion that competitive firms do not price below marginal cost. Even in the presence of competition, two-sided platforms may choose to subsidize participation on one side to attract paying users on another side. A view of the market that accounts for only one side may lead to two mistaken inferences: first, it may render the subsidized side of the market invisible to antitrust regulators because the group is effectively charged no price; and second, it may obscure potential competitors by focusing only on rival platforms that choose to charge the

129. Frieden, supra note 67, 278 n.33 (quoting Evans & Noel, supra note 100, at 696, who describe how the platform price factors in demand elasticity, indirect network effects, and marginal costs).
131. See Evans, Multisided Platforms, supra note 12, at 2–3.
132. See id. at 25 (proffering the example of an attention platform decreasing spending on content to attract viewers and advertisers).
133. Id.
134. See Filistrucchi et al., supra note 115, at 299.
135. See Luchetta, supra note 130, at 189; see also Ohio v. American Express, 138 S. Ct. 2274, 2294 (2018) (Breyer, J., dissenting) (suggesting that in the absence of a perfect price pass-through mechanism to users of the American Express platform, merchants raised prices overall on all consumers to accommodate American Express’s higher fees).
136. See Schmalensee, supra note 130, at 178; see also Evans, Empirical Aspects, supra note 51, at 195 (“An important characteristic of two-sided markets is that the demand on each side tends to vanish if there is no demand on the other — regardless of what the price is.”).
137. See Evans, Multisided Platforms, supra note 12, at 24.
same side. For example, it would be incorrect to presume that a newspaper, which charges readers a subscription fee, does not compete with a free periodical, which relies on advertising for revenue, simply because the latter does not charge customers on one side.

Economists argue that the Court’s emphasis on interconnected pricing and demand leads to misguided conclusions about consumer harm. The Court uses this criterion to argue that a one-sided price hike, without a correlating increase in total platform price, does not signal anti-competitive behavior. However, the Court may have overinterpreted the disassociation between one-sided price and cost. The Court’s focus on total platform price ignores that user surplus can suffer even if total platform price decreases and the volume of platform transactions increases. This effect can be seen when platforms restrict normal market mechanisms. For example, American Express’s steering clause prevented merchants from signaling preferences through price. Distortion of normal market functions taxes customers willing to pay through cheaper means than American Express, resulting in “unambiguous harm.” The Court’s emphasis on total price as output-based evidence of harm obscures differing economic effects experienced by different consumer groups.

3. Single, Simultaneous Transaction of One Product

The final distinguishing characteristic in the Court’s test for two-sided transaction platforms is whether the platform facilitates “a single, simultaneous” exchange of “only one product.” The dissent rightfully recognized that many businesses qualify as two-sided platforms if the primary identifying characteristics are indirect network effects and non-neutral price

138. See Filistrucchi et al., supra note 115, at 326 (“[W]e argue here that the choice of financing mechanism is not linked to demand substitutability.”).

139. See Bamberger & Lobel, supra note 9, at 1083 (arguing that asymmetric pricing to incentivize user growth may “create network effects that raise switching costs” on one side of a market).

140. See Katz, supra note 96, at 144 (“[R]eliance on the change in the two-sided price as a measure of the consumer-welfare effects . . . is an example of a fallacy . . . .”).


142. See Katz, supra note 96, at 147 (illustrating the conditions under which user surplus falls even while the price level decreases).

143. See Carlton, supra note 20 (manuscript at 7–8) (describing anti-competitive effects of vertical “most favored nation” restraints, such as anti-steering clauses); see also Katz, supra note 96, at 147.

144. AmEx, 138 S. Ct. at 2288.

145. See id. at 2286.
Facilitating the immediate transaction of one product drives the influences of indirect network effects and interconnecting pricing and demand on a two-sided platform. This prong of the test has two crucial implications: first, it distinguishes two-sided platforms from two-sided transaction platforms. It serves as a threshold for recognizing the importance of indirect network effects and pricing and demand; in non-transaction platforms, these economic effects weakly affect the platform’s business model. Second, this characteristic allows for the administrability of the majority’s standard for competitive harm centered on output. For example, American Express’s metric of platform success was the number of transactions completed on the platform.

Economists cited by the Court agree that requiring a single, simultaneous transaction saves the term “two-sided transaction platform” from overbroad applications. Professor Lapo Filistrucchi and others focus on the “observability” of the interaction between customer groups on the platform as a distinct characteristic of two-sided transaction platforms. A key indicator of observability is whether a platform has the ability to charge a “two-part tariff.” Two-sided transaction platforms should be able to charge a price for joining the platform and a price for each user interaction on the platform.

A single, simultaneous transaction affects competitive dynamics by introducing usage externalities to platform markets. This particular kind of indirect network effect operates by increasing the value of the platform to users on one side from the other side’s readiness to turn to the platform for every unique exchange sought. This is distinct from membership externalities, which stem simply from the presence of additional members on the other side. Dynamic platform studies suggest that users’ ongoing

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146. See id. at 2299 (Breyer, J., dissenting) (considering the presence of indirect network effects in a farmers’ market); see also id. at 2300 (criticizing the majority for “carv[ing] out a much broader exception” than the economics literature actually supports).

147. See id. at 2286 (“Thus, whenever a credit-card network sells one transaction’s worth of card-acceptance services to a merchant it also must sell one transaction’s worth of card-payment services to a cardholder.”).

148. See id.

149. See Luchetta, supra note 130, at 189.

150. See Filistrucchi et al., supra note 115, at 298.

151. See id. Note that a firm need not necessarily charge a user at both points. It must simply have the capacity to do so.

152. See id.; see also Luchetta, supra note 130, at 192 (explaining that for non-transaction platforms, the “chicken-and-egg” dilemma becomes a matter of business strategy, and not essential to platform survival, because the transaction is not the interaction facilitated by the platform).
decisions about whether to use the platform implicate both its size and success.\textsuperscript{153}

For critics of the Court’s direction, emphasis on the granularity of a platform interaction is “overstated.”\textsuperscript{154} Some think that even platforms that do not facilitate a single, simultaneous transaction sufficiently navigate the challenges of indirect network effects and interconnected pricing and demand.\textsuperscript{155} For others, this characteristic obscures that platforms actually offer different products to either side. Recall the dissent argued that the products American Express offered were complements, not substitutes. Accordingly, economists dispute that platforms offer both sides of a platform the same product because incentives on either side often diverge. Allowing platform businesses to abstract away this misalignment ignores competitive realities, potentially legitimizing anti-competitive conduct.\textsuperscript{156}

4. The Market as a Whole

In addition to criticisms leveled at each prong, economists contend that evaluating the market as a whole raises questions about the kind of harm evaluated in antitrust law. General antitrust jurisprudence holds that anti-competitive behavior cannot be defended by appeals to overall welfare.\textsuperscript{157} But, evaluating the market as a whole legitimizes harm to one side of the platform if it benefits users on another side.\textsuperscript{158} Furthermore, courts tend to shy away from judgments about consumer welfare, instead focusing on the competitive process.\textsuperscript{159} To avoid these deliberation issues caused by combining both sides of a two-sided market, economists propose defining multiple, interrelated markets. This “separate effects analysis” comports with

\begin{itemize}
  \item \textsuperscript{153} See Luís Cabral, \textit{Towards a theory of platform dynamics}, 28 J. ECON. & MGMT. STRATEGY 60, 61 (2019); see also Filistrucchi et al., \textit{supra} note 115, at 302 (noting that a two-part tariff affects consumer behavior on a platform because “customers ‘anticipate the cost’ ” of secondary transactions in the platform aftermarket).
  \item \textsuperscript{154} See Wright & Yun, \textit{supra} note 5 (manuscript at 10) (“[I]n order to understand the participation level for one side of a platform, it is still necessary to understand the participation level for the other side.”).
  \item \textsuperscript{155} Id. (manuscript at 3) (“[T]he economic principles detailed in American Express also apply to non-transaction platforms.”).
  \item \textsuperscript{156} See Katz, \textit{supra} note 96, at 144, 146.
  \item \textsuperscript{158} See, e.g., Katz & Sallet, \textit{supra} note 16, at 2165–66 (citing cases where the Supreme Court has rejected “net-welfare defenses” in favor of promoting competition as the ultimate goal of antitrust).
  \item \textsuperscript{159} See \textit{id.} at 2166 (illustrating the risks of a judicial strategy focused on achieving specific market outcomes).
\end{itemize}
the existing rule of reason and could more effectively assess the impact of a platform on competition.\textsuperscript{160}

Even though the Court’s market definition rule may seem uninformed in light of these deep academic disagreements, it represents an important attempt to incorporate economic theory into law.\textsuperscript{161} Although authors on different sides of the decision may disagree about where to draw the line between two-sided transaction platforms and platforms that behave more classically, the overlap in their scholarship suggests that two-sidedness exists in a spectrum.\textsuperscript{162} In the family of businesses that balance indirect network effects and interconnected pricing and demand to bring together two consumer groups, the Court identified a subset where these effects dominate competitive considerations—when both sides must consume one product simultaneously.\textsuperscript{163} One possible reconciliation to minimize the Court’s amplification of specific economic theories might be to apply the Court’s reasoning narrowly, only where it clearly operates. If a business does not strictly meet the criteria set forth in the majority opinion, it should still be subject to the established rule of reason. Refusing to extend the Court’s heightened antitrust protection to platform defendants merely exhibiting some degree of two-sidedness seems appropriate in light of economic literature.

A conservative application of the \textit{AmEx} decision would also not contravene the holding.\textsuperscript{164} There are points of convergence between the majority, the dissent, and the literature—the example of the newspaper. Economists and legal scholars agree that the market for newspapers, although connecting two groups of consumers, should be defined as two

\textsuperscript{160} See id. at 2169–70.

\textsuperscript{161} See Hovenkamp, supra note 13 (manuscript at 6) (“Whether or not one agrees with its holding, the AmEx decision is inarguably a watershed moment for platform antitrust.”); see also Wu, supra note 90 (manuscript at 1) (arguing that a flaw of the AmEx opinion is its “tendency to elevate theory over evidence”).

\textsuperscript{162} See, e.g., Luchetta, supra note 130, at 188 (quoting Rochet and Tirole who once summarized literature on two-sided markets as of a “‘you know a two-sided market when you see it’ flavor”); see also Hovenkamp, supra note 13 (manuscript at 9) (“[T]wo-sidedness is a matter of degree.”); Wright & Yun, supra note 5 (manuscript at 8) (“Early in the development of the economic literature on platforms, researchers recognized that not all platforms share the same features . . . .”).

\textsuperscript{163} See Ohio v. American Express, 138 S. Ct. 2274, 2286 (2018) (“But two-sided transaction platforms, like the credit-card market, are different.”).

\textsuperscript{164} See id. (“To be sure, it is not always necessary to consider both sides of a two-sided platform.”).
separate, yet interrelated markets. The majority recognized that *Times-Picayune Publishing Co.* was correctly decided because a newspaper market exhibits weak indirect network effects. Advertisers care whether a newspaper has amassed a sufficient number of readers on one side to justify their investments, but readers largely do not seek out newspapers to encounter advertisers. Thus, the Court recognized limits to its market definition rule in two-sided markets. Its economic reasoning should serve as a guide to determining when combining both sides of a two-sided platform is appropriate.

C. Hypothetical Applications of a Features-Driven Definition of Two-Sided Transaction Platforms

Applying the Court’s test for two-sided transaction platforms illuminates the limits imposed by an economically-sensitive reading of the *AmEx* decision. Lower courts may ultimately choose to construe *AmEx* liberally, without confirming the presence of all three factors when presented with a platform case. However, the preceding Part’s analysis suggests that while the Court was eager to account for modern market realities, the yet-developing doctrine should be carefully framed. If the Court’s new market definition rule is applied in adherence to the economic principles driving its decision, not all online platforms will meet the test. This Part analyzes real-world platform businesses, which may or may not qualify as two-sided transaction platforms, depending on the presence or absence of economic characteristics from the Court’s three-part test.

Examining the paradigmatic examples of Uber and Google demonstrates that the antitrust ramifications of the Court’s atypical market definition can be checked. Both of these companies merit attention because their innovative business models led massive disruptions that ushered in the modern platform economy. Google represents a generation of platforms known as “Attention Brokers,” which facilitate connections between a

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165. See, e.g., Filistrucchi et al., supra note 115, at 298, 315 (rationalizing the outcome in *Times-Picayune Publishing* because the platform facilitated no transactions); Katz & Sallet, supra note 16, at 2154 (basing its support for this decision on the substitution principle).

166. See *AmEx*, 138 S. Ct. at 2286.

167. See id.

168. See Khan, *Amazon*, supra note 4, at 790 (suggesting the need for more evaluations of antitrust as applied to internet platform markets).

169. See generally Wright & Yun, supra note 5 (arguing that the Court’s decision should also apply to non-transaction platforms).
captive audience and advertisers. On the other hand, Uber was so successful in launching a “gig economy” platform that copycat businesses pitched as “Uber but for” various industries followed in droves. The Court’s treatment of two-sided transaction platforms touches upon an existing divide in platform markets: between attention platforms, which enable off-platform exchanges, and “gig” or “sharing economy” platforms, which facilitate interactions in themselves. While both Uber and Google revolutionized traditional industries by facilitating new kinds of interactions between groups of consumers, Google is unlikely to receive deferential treatment under AmEx if closely scrutinized. This Part suggests that a single simultaneous transaction could be a critical differentiator on the spectrum of two-sidedness.

1. A Paradigmatic “Sharing Economy” Platform: Uber

Uber, an undisputedly successful platform business, is already a target of antitrust scrutiny. This is an interesting development because the platform itself was a response to a monopoly by the taxicab industry. Uber broke the stranglehold of taxicab medallions by empowering non-commercial drivers to find riders willing to travel in regular cars. It introduced innovations such as GPS tracking and cashless payments to the

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171. See Lobel, supra note 3, at 95 (citing Kate Cox, Nobody Really Knows What to Do About Regulating the Sharing Economy, CONSUMERIST (June 10, 2015), https://consumerist.com/2015/06/10/nobody-really-knows-what-to-do-about-regulating-the-sharing-economy/ [https://perma.cc/3FU2-LZ7M]).

172. See, e.g., Oliver Budzinski & Björn A. Kuchinke, Modern Industrial Organization Theory of Media Markets and Competition Policy Implications 21, 25 (Ilmenau Economics Discussion Papers, No. 115, 2018) (distinguishing peer-to-peer sharing platforms and zero-price content-based services, such as social media, messaging, search, and maps).


175. See Bamberger & Lobel, supra note 9, at 1057.

paid car ride industry.\footnote{177} At the same time, Uber demonstrated a tendency towards monopolizing the ridesharing market in a given geographic area.\footnote{178} This analysis suggests that if charged with a Sherman Act violation, Uber would likely qualify as a two-sided transaction platform under the Court’s three-part test.

First, a court would examine the platform for the presence of indirect network effects. To satisfy this criterion, Uber’s challenge must be ensuring a “critical mass” of drivers and riders use its platform.\footnote{179} Uber meets the classic definition because the presence or absence of passengers seeking rides affects the number of drivers who turn to the platform to earn money; and, the availability of drivers influences the number of riders who choose to book a ride through the platform. These are not direct network effects because the presence of more riders does not necessarily increase the value of the platform to the riders, and respectively for drivers.\footnote{180} Uber’s platform serves its intermediary function of reducing search costs for two distinct sets of consumers and internalizing “the resulting indirect network externalities.”\footnote{181}

Under the second component of the Court’s test, Uber’s platform must exhibit interconnected pricing and demand. Uber’s pricing algorithm demonstrates great concern with calibrating price in real time to coordinate demand on either side of the platform.\footnote{182} For instance, riders dread surge pricing, but its existence demonstrates that demand from one side of the market cannot be satisfied absent additional incentives to increase the number of drivers on the other side of the platform. Extreme subsidization is also a core part of Uber’s competitive strategy.\footnote{183} This practice attracts riders...
to the platform and prevents multihoming\textsuperscript{184} by drivers, who will switch to other platforms unless Uber channels a steady supply of passengers toward them. In this sense, Uber drivers may be more sensitive than American Express merchants. Overall, Uber can demonstrate that it manages interconnected pricing and demand.

Finally, the Court’s market definition rule requires that Uber facilitate the single, simultaneous transaction of one product. Like American Express, which evaluated performance through volume of transactions, Uber’s metric for success is similarly centered on the number of interactions between consumer groups: rides given and taken.\textsuperscript{185} While the English language may not always offer a unitary term for the product to reference on both sides of the market—transactions, rides—the majority’s point was that for “a credit-card network [to] sell[ ] one transaction’s worth of card-acceptance services to a merchant it also must sell one transaction’s worth of card-payment services to a cardholder.”\textsuperscript{186} Additionally, Uber satisfies this criterion in Filistrucchi’s vocabulary of observability because the platform meticulously records each interaction completed on the platform due to built-in monitoring for safety and quality.\textsuperscript{187} Uber sufficiently resembles American Express under this criterion.

Analyzing Uber’s business model under the Court’s three-part test suggests that a Sherman Act case against Uber may involve combining both sides of the platform.\textsuperscript{188} Plaintiffs would have to show net harm under the rule of reason. The Court might then extend the relevant market to include other two-sided transaction platforms, such as Didi or Lyft, which can effectively compete for both coveted customer groups of riders and

\textsuperscript{184} Multihoming occurs when a user has several platform options and can “toggle between them.” See Frieden, supra note 67, at 278; see also supra note 125 and accompanying text.


\textsuperscript{187} Lobel, supra note 3, at 152 (discussing Uber’s revolutionary dynamic rating system).

\textsuperscript{188} See Wu, supra note 90 (manuscript at 9) (providing an example of anti-competitive conduct by Uber that could be challenged).
drivers. Economists might applaud this outcome, pointing to the marked indirect network effects and interconnected pricing and demand on Uber’s platform.

2. A Paradigmatic “Attention Broker” Platform: Google Search

Google is another technology giant that could stand to gain from heightened protection from antitrust scrutiny. Like Uber, its monolithic growth is surprising—initially, Google planned to monetize its innovative PageRank algorithm by selling search technology as a product. Instead, Google attained profitability when its business strategy pivoted to selling advertisements in search. This Part does not focus on some of the other platforms Google operates as part of its parent company, Alphabet, because Google primarily maintains dominance through its search advertising business (Google Search). Google’s attempts to protect the pre-eminence of Search have drawn the ire of European competition authorities. In the United States, however, regulators have found Google’s conduct to have pro-competitive effects. Google Search is unlikely to qualify as a two-sided transaction platform if the Court’s three-part test is strictly applied.

First, the Search platform is weakly characterized by indirect network effects. Unlike Uber and American Express, Search’s “chicken-and-egg” dilemma seems diminished. The externalities from the numerosity of Google Search’s customer groups—advertisers and searchers—flow

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189. See AmEx, 138 S. Ct. at 2287; see also Lien, supra note 183 (narrating some competitive challenges Uber faces).

190. See Geoffrey A. Manne & Joshua D. Wright, Google and the Limits of Antitrust: The Case Against the Case Against Google, 34 HARV. J. L. & PUB. POL’Y 171, 190 (2011) (“Google is likely to face antitrust enforcement for several reasons.”).

191. See Giovanna Massarotto, From Standard Oil to Google: How the Role of Antitrust Law Has Changed, 41 WORLD COMPETITION no. 3, 2018, at 407–08; see also Manne & Wright, supra note 190, at 193.

192. Google also owns a website, browser, and mobile operating system, which could potentially be analyzed as platforms. See Robert Levine, Antitrust law never envisioned massive tech companies like Google, BOSTON GLOBE (June 13, 2018), https://www.bostonglobe.com/ideas/2018/06/13/google-hugely-powerful-antitrust-law-job/E1eqrIQ01g11DRM8I9FswO/story.html [https://perma.cc/K9QR-9EKX]; see also Massarotto, supra note 191, at 408.

193. See, e.g., EUROPEAN COMMISSION, ANTITRUST: COMMISSION FINES GOOGLE €2.42 BILLION FOR ABUSING DOMINANCE AS SEARCH ENGINE BY GIVING ILLEGAL ADVANTAGE TO OWN COMPARISON SHOPPING SERVICE (2017); see also John M. Yun, Understanding Google’s Search Platform and the Implications for Antitrust Analyses, 14 J. COMP. L. & ECON. 311, 313 (2018).


195. See Luchetta, supra note 130, at 195.
unidirectionally: advertisers benefit from more searchers, but searchers rarely benefit from more advertisers.\textsuperscript{196} Google Search experiences network effects more like a traditional media platform, needing “end users to have advertisers, but not vice versa.”\textsuperscript{197} These are also not direct network effects because searchers or advertisers do not necessarily benefit from more members in their respective groups using the platform.\textsuperscript{198}

The next component of the Court’s test for two-sided transaction platforms asks whether Google Search exhibits interconnected pricing and demand. Google Search administers a tell-tale sign of this characteristic: skewed price structure. Google Search’s service for searchers is free.\textsuperscript{199} Given that Google Search is profitable, Google Search must charge the advertiser side of the platform. This resembles American Express’s business model of subsidizing cardholder usage through higher fees on merchants. Google Search can influence searcher demand for its product by reducing the reward offered—for example, by decreasing the quality of search results. Reducing the searcher subsidy would be profitable only if any loss in searcher demand does not translate to a greater loss from advertising dollars.\textsuperscript{200} Google Search’s price structure has important consequences for evaluating competition. First, new entrants cannot attract coveted searcher-side customers based on price incentives because Google Search already charges these users a zero price.\textsuperscript{201} Second, Google Search’s business model of giving away valuable search content for advertising attention competes more with traditional media business models, exhibiting a relationship between customer groups more typically seen in television or radio.\textsuperscript{202}

Finally, to qualify as a “two-sided transaction platform,” Google Search must facilitate a single, simultaneous interaction promoting the joint consumption of one product. Google Search is notably different from American Express in that the platform actually facilitates two distinct

\textsuperscript{196} See id. (estimating ten percent of searches, those engaging in “transactional queries,” benefit from the presence of advertisers); see also Manne & Wright, supra note 190, at 208.

\textsuperscript{197} See Luchetta, supra note 130, at 192.

\textsuperscript{198} See Manne & Wright, supra note 190, at 211 (“Except to the limited extent that the quality of a search algorithm may be affected by the number of users over a relevant range of users, end users receive no incidental benefit from others’ use of the same search engine.”).

\textsuperscript{199} See Yun, supra note 193, 315. Cf. Luchetta, supra note 130, at 192 (noting some academics suggest that search is not free because user data collected from a query is an “in kind payment” to the platform).

\textsuperscript{200} See Yun, supra note 193, at 323–24; see also supra note 133 and accompanying text.

\textsuperscript{201} See Manne & Wright, supra note 190, at 211.

\textsuperscript{202} See Yun, supra note 193, at 315 (“Like other advertising contexts such as broadcast television and local radio, Google operates a multi-sided platform that offers users free access to its content.”).
transactions. Users identify themselves to the search engine through a query. Separately, advertisers pay for preferential placement on the search results page, bidding on relevant keywords to a potential query. The detached order of these transactions reinforces the earlier observation of minimal indirect network effects. Unlike platforms demonstrating “pronounced” indirect network effects, Google Search is concerned with attracting a sufficient number of users so that it can charge advertisers who follow; a drop-off in advertisers would not exacerbate the challenge of stimulating enough demand on the searcher side of the platform.

A court might also question whether Google sells each side of the platform a different product. Search users receive content—ideally, an answer to their query. Advertisers purchase searchers’ attention. These products are less closely linked than merchants and customers in AmEx or riders and drivers on Uber, who seek to engage in a particular exchange. Google’s business model might be better suited to the approach taken to newspapers of defining separate, but interrelated markets.

If a court determines that Google Search does not meet the AmEx test for a two-sided transaction platform, allowing Google Search to take advantage of the Court’s adjusted rule of reason could lead to an incorrect judgment in a Section 1 Sherman Act case. This finding could be consequential for the paid-side of the market: advertisers who may wish to sue Google over high fees and harsh terms, like American Express’s merchants. A “sensible starting point” for a market definition inquiry involving Google Search should begin with the side where a positive price is imposed and then factor in indirect network effects and interconnected pricing and demand, as the district court suggested in AmEx.

203. See Luchetta, supra note 130, at 194, 207.
205. See Ohio v. American Express, 138 S. Ct. 2274, 2286 (2018). This does not suggest that a platform where one side’s participation is free or negatively priced will never qualify for the Court’s market definition.
207. See supra Section II.B.4; see also Kagan, supra note 204, at 287 (suggesting that internet advertising functions similarly to traditional media outlets that offered up a captive audience).
209. See Manne & Wright, supra note 190, at 211–12.
These paradigmatic examples demonstrate that not all two-sided platforms will qualify for market definition “as a whole” under an economically-sensitive reading of the AmEx ruling. A hypothetical evaluation of Uber and Google Search’s economic characteristics reveals the importance of checking for a single, simultaneous exchange of one product. This factor filters out two-sided transaction platforms from other business models that exhibit some degree of two-sidedness. Courts should carefully analyze the interaction facilitated by a platform before requiring plaintiffs to plead net harm at stage one of the rule of reason.

A test-driven formulation of the AmEx ruling may incentivize two-sided platforms to stylize themselves as facilitating unique transactions of a single product. For instance, Google may argue that the single, simultaneous interaction enabled by Google Search is a “click.” Like Uber’s metric of rides and American Express’s metric of transactions, Google could claim that platform output should be measured in “clicks.” Internal business documents quantifying Google Search’s success in terms of “cost-per-click” support this contention. If Google succeeds, it may persuade a court to define Google Search as a two-sided transaction platform and include both sides of the platform in its relevant market. Accordingly, regulators should be wary of traditional platforms manipulating the Court’s test to appear as two-sided transaction platforms.

However, the increasing number of platforms appearing to facilitate the joint consumption of one product may not be entirely disingenuous. Trends in platform markets suggest that the divide between general two-sided platforms and two-sided transaction platforms may fade as a new generation of “sharing economy” platforms rises to prominence. Platforms continue to further efficiency by commodifying increasingly smaller units of capital, promoting customization, and replacing traditional consumption with more peer-to-peer exchanges. While the Court’s market definition may not apply to attention platforms delivering content (such as Google), the Court’s holding may be extremely consequential as “gig” or “sharing economy” platforms (such as Uber) grow. Although this Note proposes that the

210. See Filistrucchi et al., supra note 115, at 298 n. 11.
211. See Luchetta, supra note 130, at 189–90.
213. See Lobel, supra note 3, at 108–12 (describing how platforms are reducing the transactional unit of exchange).
single, simultaneous exchange of one product can limit applications of the Court’s rule, this conclusion may be challenged by changes in platform markets themselves.

III. CONCLUSION

As technology platforms amass economic power, antitrust regulators will seek to counteract platforms’ anti-competitive strategies. The Supreme Court’s recent attempt to extend traditional antitrust jurisprudence to platform markets provoked concerns that its approach may be too lenient to protect consumer welfare. Looking at the economics that drove the decision in *Ohio v. American Express*, however, suggests that there are restraints embedded in the Court’s changes to antitrust law. This Note teases out the economic justifications in the Court’s ruling, explores their validity, and applies them to commonly-known platform examples. If the principles emerging from economic literature can be maintained in applications of *AmEx*, the decision’s most severe effects may be more limited than critics fear.