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Monopolizing Digital Commerce

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MONOPOLIZING DIGITAL COMMERCE

HERBERT HOVENKAMP*

ABSTRACT

Section 2 of the Sherman Act condemns firms who “monopolize,” “attempt to monopolize,” or “combine or conspire” to monopolize—all without explanation. Section 2 is the antitrust law’s only provision that reaches entirely unilateral conduct, although it has often been used to reach collaborative conduct as well. In general, § 2 requires greater amounts of individually held market power than do the other antitrust statutes, but it is less categorical about conduct. With one exception, however, the statute reads so broadly that criticisms of the nature that it is outdated cannot be based on faithful readings of the text.

The one exception is competitive injuries that occur in secondary or complementary markets where they do not realistically threaten monopoly. While this problem is ubiquitous in the law of monopolization, it is particularly prominent in networks. Competition on multi-firm networks requires collaboration. As markets have become more networked a significant emergent problem is actions by dominant firms that cause competitive harm in secondary markets. For these, the United States would do better to incorporate an “abuse of dominance” standard. This approach would be far superior to many recently proposed bills that address the issue of “self-preferencing,” or dominant firm favoritism toward their own products. These bills are too narrow in that they single out a small set of firms for adverse treatment, usually without regard to market power. They are also too broad, however, to the extent that they identify a great deal of harmless and socially beneficial conduct as abusive.

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This Article additionally explores several related areas in which antitrust policy toward monopolization should take a different approach, particularly in networked markets. These include (1) Vertical Integration, Refusal to Deal, and Self-Preferencing; (2) Mergers as Exclusionary Practices; (3) Anticompetitive Product Design and Restraints on Innovation; (4) Strategic, Exclusionary Pricing; and (5) Anticompetitive Intellectual Property Practices.

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INTRODUCTION

In a single sentence, section 2 of the Sherman Act condemns firms that “monopolize,” “attempt to monopolize,” or “combine or conspire” to monopolize—all without explanation.¹ Passed a quarter century later, section 1 of the Clayton Act offered a few helpful definitions.² It defined “antitrust laws,” “commerce,” and “person” so as to include corporations.³ But the definition provision said nothing about the meaning of “monopolize.”⁴ That is, it failed to define the term that was most important and ultimately became most controversial. No other federal statute has used so few words to condemn acts that are as eclectic, diverse, and unspecified as those covered by section 2 of the Sherman Act. It should go without saying that nothing in the text of the Sherman Act, which was enacted in 1890, contemplates networks, digital markets or anticompetitive conduct that might affect them.⁵ Of course, neither did it contemplate markets for automobiles, airplanes, or televisions. One reason for antitrust’s durability has been that its broad language cuts across all technologies, past, present, and future.

As a result, criticisms that the antitrust statutes are out of date and not up to dealing with dominant digital firms today cannot be based on readings of the text.⁶ The antitrust statutes, including section 2 of the Sherman Act, are literally broad enough to reach

1. Sherman Antitrust (Sherman) Act, 15 U.S.C. § 2 (“Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty.”). On the meaning of monopolizing conduct in early interpretation of the Sherman Act, see Herbert Hovenkamp, *The Text of the Antitrust Laws* (Univ. of Pa. Inst. for L. & Econ. Rsch. Paper, Paper No. 23-01, 2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4277914 [<https://perma.cc/4QT8-FVQG>].

2. Clayton Act § 1, 15 U.S.C. § 12 (original version at ch. 323, § 1, 38 Stat. 730 (1914)).

3. *Id.*

4. *See id.*

5. *See* Sherman Act, ch. 647, 26 Stat. 209 (1890) (codified as amended at 15 U.S.C. §§ 1-38).

6. *See, e.g.,* David Streitfeld, *To Take Down Big Tech, They First Need to Reinvent the Law*, N.Y. TIMES (June 20, 2019), <https://www.nytimes.com/2019/06/20/technology/tech-giants-antitrust-law.html> [<https://perma.cc/XPF6-WL2U>]; Tara Lachapelle, BLOOMBERG, *100-Year-Old Antitrust Laws Are No Match for Big Tech*, YAHOO! (Aug. 4, 2020), <https://www.yahoo.com/now/100-old-antitrust-laws-no-110005376.html> [<https://perma.cc/3LV2-AFQF>].

nearly every threat to competition that the dominant firms pose. Rather, decades of narrow construction have led to most of the problems.

One exception is situations in which a dominant firm's conduct threatens harm falling short of monopoly in a second market. Section 2's condemnation of "monopolizing" conduct cannot literally be construed to reach such behavior. While this problem is ubiquitous in the law of monopolization, it is particularly prominent in networks. In an increasingly networked economy, the operations and fates of more firms are linked together. Although networks are socially very valuable, they can also lead to a broader range of competitive harms, including situations in which monopoly is not realistically threatened in a second, or complimentary, market. Here, the United States would do better to adopt an "abuse of dominance" standard such as the one used in the European Union (EU) and other jurisdictions, but with limitations on potential overreach.

This Article considers the problem of monopolization when firms operate in more than one market, particularly on networks. Much of the focus is on the large digital platforms that have claimed so much public attention, namely, Amazon, Apple, Meta (Facebook), and Alphabet (Google). But the problem is not limited to them. The Sherman Act itself is formally indifferent to the market in which challenged conduct occurs. For example, the statements of the law are the same for all markets regarding refusal to deal,⁷ predatory pricing,⁸ or exclusive dealing.⁹ Further, most of the law in those areas was developed in situations that did not involve either digital firms or networks.

The distinctive feature of a network is some linkage other than that which occurs between a single seller and a single buyer. A

7. See *Refusal to Deal*, FED. TRADE COMM'N, <https://www.ftc.gov/advice-guidance/competition-guidance/guide-antitrust-laws/single-firm-conduct/refusal-deal> [<https://perma.cc/UBR3-F9DH>].

8. See *Predatory or Below-Cost Pricing*, FED. TRADE COMM'N, <https://www.ftc.gov/advice-guidance/competition-guidance/guide-antitrust-laws/single-firm-conduct/predatory-or-below-cost-pricing> [<https://perma.cc/3ZVJ-C736>].

9. See *Exclusive Supply or Purchase Agreements*, FED. TRADE COMM'N, <https://www.ftc.gov/advice-guidance/competition-guidance/guide-antitrust-laws/single-firm-conduct/exclusive-supply-or-purchase-agreements> [<https://perma.cc/HCY4-YLX3>].

network may connect two or more buyers. In some cases a single owner controls the network. Often networks are “collaborative” in the sense that they are operated by multiple firms. Among these are “dominated” networks, such as Microsoft or Apple, in which one firm manages the network and issues interconnection rules or protocols that must be followed by others. Other networks, such as the phone system, are more collaborative and do not have a dominant firm. The various participants on a network operate as both competitors and as sellers of complements. For example, cellular phone sellers Apple and Nokia compete for sales, but they must also cooperate when the two are connecting a call.

To the extent that firms operate in networked markets, the need for interfirm cooperation is intensified. In particular, the current antitrust law of unilateral refusal to deal is not well designed to handle conduct that arises in multifirm networks.¹⁰ That concern is hardly limited to the largest digital firms. Further, it is even more serious in firms that might be smaller overall but have larger market shares in their respective products. For example, for purposes of assessing competitive effects, the fact that Alphabet is a very large firm is not nearly as important as the fact that Google Search, one of its products, has a dominant market share.¹¹

To the extent the digital platforms have high fixed costs and deal in information, some of the tools we use to assess exclusionary practices work poorly. This is particularly problematic for “cost based” theories of exclusion, such as those applied in the law of predatory pricing.¹² The high fixed cost problem is not universal, however. For example, Amazon deals heavily in ordinary tactile products that have conventional cost structures. By contrast, Meta’s (Facebook’s) content is almost exclusively digital, as is most of Alphabet’s. A related feature of all of the platforms is that, to one degree or another, they are “two-sided,” which typically means that customer engagement and revenue come from two different groups

10. See discussion *infra* Part IV.A.

11. See Daisuke Wakabayashi, *Google Dominates Thanks to an Unrivaled View of the Web*, N.Y. TIMES (Dec. 14, 2020), <https://www.nytimes.com/2020/12/14/technology/how-google-dominates.html> [<https://perma.cc/ELJ6-VZKB>].

12. See *infra* text accompanying note 395.

of transactions with different parties.¹³ The manager of the platform often acts as a broker, or go-between, in addition to being a seller.¹⁴

Further, many of the injuries imposed by dominant firms in networks occur in complementary or vertically related markets in which monopoly is not seriously threatened. This poses particular problems for section 2 of the Sherman Act, which requires a realistic threat of dominance in the particular market where the injury is claimed.¹⁵ For example, Apple's insistence that application sellers use its own store and pay Apple's commissions harms these sellers and consumers by denying them the benefit of a more competitive marketplace.¹⁶ However, Apple is not realistically threatening to create a monopoly in the market currently occupied by, say, Epic Games,¹⁷ where Apple has only a modest presence.¹⁸ Other jurisdictions, such as the EU, whose law defines the violation as "[a]ny abuse ... of a dominant position,"¹⁹ either do not face this problem or else face one that is seriously attenuated.²⁰ Of all the statutory reforms that antitrust law in the United States might take, switching to this "abuse" standard would be the most beneficial, particularly for networked markets, provided that the concerns are managed properly. It can also lead to harmful overuse.²¹

Finally, the digital marketplace has been highly productive, with an economic growth rate three or four times larger than that of the

13. On antitrust policy in two-sided markets, see Erik Hovenkamp, *Platform Antitrust*, 44 J. CORP. L. 713, 720-21 (2019).

14. *Id.* at 724.

15. See 15 U.S.C. § 2.

16. See Alexey Ermoshkin, *How to Determine Apple and Google Stores Commission Rates for In-App Purchases (and Why It Is Not That Easy as It Seems)*, QONVERSION, <https://qonversion.io/blog/how-to-determine-apple-google-service-fees/> [<https://perma.cc/CKC7-69JA>].

17. See *Epic Games, Inc. v. Apple Inc.*, 559 F. Supp. 3d 898, 921 (N.D. Cal. 2021) (finding that Apple did not violate antitrust laws in the relevant market of digital mobile gaming transactions in suit brought by Epic Games).

18. Measured by subscription users, the market shares of Apple Arcade, its gaming subsidiary, range from 6 percent to 18 percent, depending on the gaming device and the type of gamer. See, e.g., J. Clement, *Share of Gamers in the United States Who Subscribe to Apple Arcade as of October 2021, by Type*, STATISTA (Nov. 17, 2021), <https://www.statista.com/statistics/1276253/us-apple-arcade-subscription-rate-type/> [<https://perma.cc/G3PT-2KT5>].

19. Consolidated Version of the Treaty on the Functioning of the European Union art. 102, Oct. 12, 2012, 2012 O.J. (C 326) 47 [hereinafter TFEU].

20. See *infra* note 218 and accompanying text.

21. See discussion *infra* Part III.E.5.

economy overall.²² As a result, antitrust policy faces a problem that it has confronted in some form since its inception: how to control anticompetitive conduct without limiting innovation and technological progress unnecessarily.

None of these characteristics is limited to a few dominant digital platforms. Antitrust policy should apply to all similar situations as best it can. For example, eBay.com, Match.com, and Uber.com are all two-sided digital networks that have many of the same features as the larger platforms,²³ to say nothing of Microsoft, which is larger than three of the four firms currently under the antitrust microscope.²⁴ If legislation is to be passed under the antitrust laws, it should apply equally to similarly situated firms and circumstances.

I. THE MEANING OF “MONOPOLIZATION”

Early case law under section 1 of the Sherman Act, which prohibited agreements in restraint of trade,²⁵ relied heavily on common law precedents defining restraint of trade as agreements to restrain market output or exclude competitors.²⁶ Few such precedents

22. See, e.g., Kevin Barefoot, Dave Curtis, William Jolliff, Jessica R. Nicholson & Robert Omohundro, *Defining and Measuring the Digital Economy 12-13* (Mar. 15, 2018) (unpublished manuscript), <https://www.bea.gov/system/files/papers/WP2018-4.pdf> [<https://perma.cc/W5BR-VTF2>] (estimating GDP growth in digital economy during 2006-2016 at 5.6 percent, against a general economic growth rate of 1.5 percent).

23. See, e.g., Miranda Bogen, *Uber and “the Taking Economy”: The Dynamics of Two-Sided Markets and Algorithmic Exploitation*, MEDIUM (Mar. 16, 2017), <https://medium.com/equal-future/uber-and-the-taking-economy-b75d0b978bf8> [<https://perma.cc/J7WX-LZVV>].

24. See *Largest Tech Companies by Market Cap*, COMPANIESMARKETCAP.COM, <https://companiesmarketcap.com/tech/largest-tech-companies-by-market-cap/> [<https://perma.cc/S3RX-REAN>] (ranking the top tech firms in descending order of market cap as of October 2022 as Apple, Microsoft, Alphabet (Google), Amazon, Tesla, and Meta (Facebook)).

25. 15 U.S.C. § 1 (original version at ch. 647, § 1, 26 Stat. 209 (1890)).

26. See Book Review, 28 HARV. L. REV. 642, 644 (1915) (reviewing WILLIAM H. TAFT, *THE ANTI-TRUST ACT AND THE SUPREME COURT* (1914)) (defining common law restraint of trade as “restriction of output”). William Taft used the term “restrict production.” See WILLIAM HOWARD TAFT, *THE ANTI-TRUST ACT AND THE SUPREME COURT* 60 (1914). For additional examples of common law restraint of trade definitions, see Donald Dewey, *The Common-Law Background of Antitrust Policy*, 41 VA. L. REV. 759, 759-60, 778 (1955); Charles Grove Haines, *Efforts to Define Unfair Competition*, 29 YALE L.J. 1, 11 (1919) (“limitation of output”); Philip Marcus, *Antitrust Bugbears: Substitute Products—Oligopoly*, 105 U. PA. L. REV. 185, 195 (1956) (agreement among rivals to restrict output was in restraint of trade); William Letwin, *The First Decade of the Sherman Act: Judicial Interpretation*, 68 YALE L.J. 900, 903 (1959) (discussing the same). On historical interpretations of the Sherman Act as focusing on conduct

existed, however, for the law of single-firm monopolization. At common law, the term “monopoly” almost always referred to an exclusive grant or title from the government.²⁷ Aside from business torts and criminal law, there was no history of prohibiting purely unilateral conduct not authorized in a grant from the government.²⁸

The passage of the Sherman Act changed that perspective. Section 2 did not limit its reach to firms with exclusive government grants. In a 1905 state antitrust case, the Supreme Court observed that “the idea of monopoly is not now confined to a grant of privileges” but also includes a “condition produced by the acts of mere individuals.”²⁹ The Supreme Judicial Court of Massachusetts elaborated a few years later:

The earlier conception of a monopoly was a grant of an exclusive right from the sovereign power. This still defines with accuracy that which an inventor receives under the patent laws. But in a wider sense monopoly denotes a combination, organization or entity so extensive, exclusive and unified, that its tendency is to prevent competition in its comprehensive sense with the consequent power to control prices to the public harm.³⁰

With so little statutory guidance, the courts have wrestled for well over a century with the question of what it means to “monopolize”—more specifically, what range of firms and products are subject to it, and what kinds of conduct does it condemn? Broad agreement has emerged about two things.

First, the conduct addressed by section 2 of the Sherman Act is fundamentally unilateral, even though it is often carried out by means of a contract. Section 2 is the only substantive provision of the antitrust laws that addresses purely unilateral conduct. Section

that limits market output, see Hovenkamp, *supra* note 1.

27. See Thomas B. Nachbar, *Monopoly, Mercantilism, and the Politics of Regulation*, 91 VA. L. REV. 1313, 1322-23 (2005); Herbert Hovenkamp, *The Sherman Act and the Classical Theory of Competition*, 74 IOWA L. REV. 1019, 1025 (1989). For some of the ambiguity at the time the Sherman Act was passed, see the discussion of the Act’s legislative history in Edward A. Adler, *Monopolizing at Common Law and Under Section Two of the Sherman Act*, 31 HARV. L. REV. 246, 247-51 (1917).

28. See *infra* notes 36-40 and accompanying text.

29. Nat’l Cotton Oil Co. v. Texas, 197 U.S. 115, 129 (1905).

30. United Shoe Mach. Co. v. La Chapelle, 99 N.E. 289, 291 (Mass. 1912).

1 requires a “contract, combination ... or conspiracy” between two or more actors.³¹ Both the original section 2 of the Clayton Act and the subsequent Robinson-Patman Act amendments require a “sale,” which requires a distinct purchaser.³² The courts have been clear that intrafirm transfers, such as between a parent corporation and a wholly owned subsidiary, do not qualify as sales.³³ Section 3 of the Clayton Act prevents sales “on the condition, agreement, or understanding” of exclusive dealing or tying, which is triggered only by an agreement.³⁴ Finally, § 7, the merger statute, is triggered by one firm’s acquisition of the stock or assets of a different firm.³⁵

Dominant firms operating in multifirm networks conduct themselves almost exclusively by agreement, whether contracts or licenses, with other network participants. These agreements are essential to networks operated by multiple firms. As a result, complaints about network dominance invariably involve multilateral conduct, even though much of it is imposed by the dominant firm. This entails that antitrust complaints about network dominance invariably invoke concerns not only under section 2 of the Sherman Act but also those antitrust statutes that require some kind of agreement or transaction.

Second, the relevant actor must have some degree of dominance in its market. Beyond that, the range of things that can constitute monopolizing conduct is extremely broad and fluid, as is the range of approaches taken to evaluate it. To make matters worse, the antitrust statutes say almost nothing about remedies and never address what type of remedy is best for particular types of conduct. All of this has been left to federal judges.

As to substance, many of the earliest monopolization decisions looked to tort law, which was preoccupied with conduct but largely unconcerned about the creation or maintenance of monopoly

31. 15 U.S.C. § 1.

32. See Clayton Act, ch. 323, § 2, 38 Stat. 730 (1914) (codified as amended at 15 U.S.C. § 13 (2018)); Robinson-Patman Antidiscrimination Act, ch. 592, § 1, 49 Stat. 1526 (1936) (codified as amended at 15 U.S.C. § 13).

33. See 14 HERBERT HOVENKAMP, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION ¶ 2311, at 15 (4th ed. 2019).

34. 15 U.S.C. § 14.

35. *Id.* § 18 (making it unlawful to “acquire”).

power.³⁶ These decisions occasionally also found precedent in British statutes dating from the thirteenth century that applied mainly to agricultural products.³⁷ These statutes prevented people from buying up the produce in an area with the intention of aggregating it and then reselling at a higher price.³⁸ They were mimicked by some states and municipalities in the United States as late as the early twentieth century.³⁹ These state provisions contained no monopoly power requirement. Indeed, their focus was on a form of fringe criminal activity rather than the acts of dominant firms. For example, forestallers sometimes interrupted goods heading to market and, whether by force or by purchase, acquired them and kept them from being sold in competition.⁴⁰

The scope of antitrust law is both broader and narrower than the scope of statutory regulation. It is broader because it applies to all commerce except for a few markets that have an immunity, including express or implied federal immunities for some markets regulated by agencies,⁴¹ or the “state action” immunity for regulation by state and local governments.⁴² Beyond that, all commercial activities are covered by the antitrust laws, provided that they are within federal jurisdiction under the Commerce Clause. Further, antitrust recognizes a private right of action.⁴³ By contrast, most

36. See discussion *infra* Part III.A.

37. Adler, *supra* note 27, at 256.

38. See Wendell Herbruck, *Forestalling, Reagrating and Engrossing*, 27 MICH. L. REV. 365, 371-78 (1929); 4 WILLIAM BLACKSTONE, COMMENTARIES *149, *158 (Oxford, Clarendon Press 1769) (explaining the offense of “reagrating” as “the buying of corn, or other dead victual, in any market, and selling them again in the same market, or within four miles of the place”); see also Adler, *supra* note 27, at 254-57 (discussing these provisions).

39. See, e.g., *Dutton v. Mayor of Knoxville*, 113 S.W. 381, 382-83 (Tenn. 1908) (interpreting 1907 charter provision prohibiting forestalling of agricultural products); *City of York v. Hatterer*, 48 Pa. Super. 216, 217-18, 226 (1911) (upholding and applying municipal ordinance to defendant who had purchased onions in a city market with the intention of reselling them in her stand in the same market); *City of Louisville v. Roupe*, 45 Ky. (6 B. Mon.) 591 (1846) (affirming an ordinance that assigned penalties to forestalling).

40. See Herbruck, *supra* note 38, at 370 (citing FELIX LIEBERMANN, *DIE GESETZE DER ANGELSACHSEN* (1903)) (stating that “forstal” came to be known as “hindering a merchant on the way to the City by buying his goods”).

41. On federal and state law antitrust immunities, see 1 PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* 167-423 (5th ed. 2020).

42. *Id.* ch. 2B-3.

43. 15 U.S.C. § 15.

regulation is specific to an identified sector and does not commonly authorize private lawsuits.⁴⁴

Antitrust is also broader in the sense that it reaches a wide and unspecified range of practices, requiring only that they either “monopolize” or “restrain trade.”⁴⁵ The Clayton Act added three more particularized provisions: § 2, amended by the Robinson-Patman Act, which prohibits certain types of price differences;⁴⁶ § 3, which specifically applies to exclusive dealing and tying;⁴⁷ and § 7, which applies to mergers.⁴⁸

Finally, however, antitrust law is also narrower in the sense that many of the things compelled by regulation do not violate the antitrust laws. For example, regulation might compel firms to charge particular prices; to design products in certain ways, such as automobiles with mandatory seat belts; to avoid discrimination on the basis of race, gender, or political or social views; or to stop pedaling misinformation. On their own, these practices almost never constitute antitrust violations.

The discussion that follows is not overly concerned with questions about market definition or how monopoly power is assessed. These issues are often important, however, in the evaluation of conduct and relevant to selection of an appropriate remedy. They can also be contentious when the defendant dominates a network.⁴⁹

II. THE EXPANDING DOMAIN OF § 2

While there is considerable overlap between the coverage of § 2 and other antitrust provisions, the overlap operates in only one

44. See, e.g., WILLIAM D. EGGERS, MIKE TURLEY & PANKAJ KAMLESHKUMAR KISHNANI, *THE FUTURE OF REGULATION: PRINCIPLES FOR REGULATING EMERGING TECHNOLOGIES* 6 (2018), <https://www2.deloitte.com/us/en/insights/industry/public-sector/future-of-regulation/regulating-emerging-technology.html> [<https://perma.cc/JLE7-QDLY>] (“The US approach [to data regulation] ... focuses on sector-specific rules (such as health care, financial, and retail) and state laws.”).

45. See 15 U.S.C. §§ 1-2.

46. *Id.* § 13.

47. *Id.* § 14.

48. *Id.* § 18.

49. See, e.g., David S. Evans, *Multisided Platforms, Dynamic Competition, and the Assessment of Market Power for Internet-Based Firms* (Univ. of Chi. Coase-Sandor Inst. for L. & Econ., Working Paper No. 753, 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2746095 [<https://perma.cc/BD3E-N5AY>].

direction. That is, multilateral conduct such as tying agreements, other exclusionary contracts, or mergers can sometimes violate section 2 of the Sherman Act, but the converse is not true. A purely unilateral act cannot violate any antitrust provision other than § 2.⁵⁰

Historically, the courts have applied § 2 less aggressively than the other antitrust statutes. Section 1 usually has lower liability standards than § 2, often reaching conduct that does not threaten single-firm monopoly. As some courts have noted, “proving an antitrust violation under § 2 of the Sherman Act is more exacting than proving a § 1 violation.”⁵¹ The expansive liability provisions of the Clayton Act were passed because courts were holding that the conduct that they addressed was not unlawful under the Sherman Act.⁵² So by design, the Clayton Act is more aggressive but reaches a narrower and more clearly proscribed range of conduct. The other statutes all have less stringent market power requirements, and traditionally they have all been regarded as requiring less at the liability stage. The “restraint of trade” standard of section 1 of the Sherman Act is triggered by conduct that threatens an anti-competitive reduction in market-wide output, whether measured by quantity, quality, or innovation.⁵³

For example, in *Chicago Board of Trade v. United States*, Justice Brandeis declined to condemn the Board’s price restriction on after-hours trading after observing that the government “made no

50. See Maureen K. Ohlhausen, *The Elusive Role of Competition in the Standard-Setting Antitrust Debate*, 20 STAN. TECH. L. REV. 93, 102 (2017) (citing *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 224 (1993)).

51. *FTC v. Qualcomm Inc.*, 969 F.3d 974, 992 (9th Cir. 2020); see also *Epic Games, Inc. v. Apple Inc.*, 559 F. Supp. 3d 898, 1044 (N.D. Cal. 2021) (quoting *Qualcomm*, 969 F.3d at 992).

52. The Clayton Act was substantially a response to *Standard Oil Co. v. United States*, 221 U.S. 1, 79 (1911), which adopted a rule of reason, frightening some people as a harbinger of weak enforcement, and *Henry v. A.B. Dick Co.*, 224 U.S. 1 (1912), overruled by *Motion Picture Pats. Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 518 (1917), which expressed a very tolerant attitude toward perceived anticompetitive abuses of patents and held that a tying arrangement was not reachable under the Sherman Act. See Paul H. LaRue, *Competitive Injury—Primary Line*, 53 ANTITRUST L.J. 863 (1985) (outlining congressional dissatisfaction with *Standard Oil*); Herbert Hovenkamp, *Patent Exhaustion and Federalism: A Historical Note*, 102 VA. L. REV. ONLINE 25, 28-30 (2016) (first citing *Henry*, 224 U.S. at 25, 49; then citing *In re Op. of the Justs.*, 81 N.E. 142, 145, 147 (Mass. 1907); and then citing 15 U.S.C. § 14) (discussing the Clayton Act as response to *Henry*).

53. See 15 U.S.C. § 1.

attempt to show that the [challenged] rule was designed to or that it had the effect of limiting the amount of grain shipped.”⁵⁴ The restraint of trade standard can reach conduct that falls far short of threatening actual monopoly. In the case of per se offenses, there is no market power requirement at all.

Congress intended for both sections 3 and 7 of the Clayton Act to apply more expansive standards to conduct than the Sherman Act did. Otherwise, they would have been superfluous. Both require conduct that may “substantially lessen competition,”⁵⁵ which has historically been interpreted to reach far less than a threat of monopoly. Indeed, at its most expansive point, the Clayton Act provisions were interpreted to reach firms with market shares in the 4-5 percent range,⁵⁶ although that is no longer the case.

One startling phenomenon of the twenty-first century is the expansion of § 2 into territory previously occupied by these other antitrust statutes. In many cases, the courts have taken the initiative. For example, in 1998 the government brought claims under both § 1 and § 2 against Microsoft involving the tying of Windows and the Internet Explorer browser.⁵⁷ Although section 3 of the Clayton Act covers tying, it applies only to “goods” or “commodities,”⁵⁸ very likely not covering these digital products. In *United States v. Microsoft Corp.*, the Sherman Act section 1 tying claim was eventually remanded for further analysis under the rule of reason and subsequently abandoned.⁵⁹ However, the court condemned the

54. 246 U.S. 231, 238 (1918). Justice Brandeis would also have allowed—but did not find—that the challenged rule would have had the effect of “retarding or accelerating shipment,” “raising or depressing prices,” or “discriminating against any part of the public.” *Id.*

55. 15 U.S.C. §§ 14, 18.

56. *See, e.g.*, *Standard Oil Co. v. United States*, 337 U.S. 293, 314 (1949) (condemning exclusive dealing under Clayton Act on small foreclosure shares); *United States v. Von's Grocery Co.*, 384 U.S. 270, 278 (1966) (quoting *United States v. Phila. Nat'l Bank*, 374 U.S. 321, 362 (1963)) (first citing *Brown Shoe Co. v. United States*, 370 U.S. 294 (1962); then citing *Phila. Nat'l Bank*, 374 U.S. at 321; then citing *United States v. El Paso Gas Co.*, 376 U.S. 651 (1964); then citing *United States v. Alcoa*, 377 U.S. 271 (1964); then citing *United States v. Cont'l Can Co.*, 378 U.S. 441 (1964); and then citing *FTC v. Consolidated Foods*, 380 U.S. 592 (1965)) (condemning merger on small market shares).

57. Complaint at 1-2, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-CV-01232), 1998 WL 35241886, at *2.

58. 15 U.S.C. § 14.

59. *See* 253 F.3d 34, 84 (D.C. Cir. 2001) (en banc) (per curiam).

“commingling” of the Windows and browser code into a single program—a form of technological tie—under section 2 of the Sherman Act.⁶⁰ A few years later, the government brought an exclusive dealing case against dental services provider Dentsply, originally under sections 1 and 2 of the Sherman Act as well as section 3 of the Clayton Act.⁶¹ After the government lost in district court, it appealed only under § 2 and won.⁶² Thus, this turn to § 2 seems to have been driven in substantial part by courts’ unwillingness to accept theories that relied on agreement but to accept unilateral monopolization theories on the same facts.

More recently, the government agencies’ complaints against Facebook and Google involve a great deal of conduct that is given effect by means of agreements, but virtually all of it is challenged exclusively under § 2’s standards.⁶³ Further, the FTC’s Facebook complaint expressly challenges two mergers—with WhatsApp and Instagram—but does so under section 2 of the Sherman Act.⁶⁴

One explanation for this choice of statute may be that the conduct at its core is actually unilateral. For example, Microsoft’s “commingling” of the Windows and browser code was a design choice that Microsoft made, not a tying agreement between Microsoft and a buyer.⁶⁵ A prominent feature of so-called “tech ties” is that, unless it is a redesign by agreement, they are formally unilateral acts. The customer is forced to take two products together, not because an

60. *Id.* at 66-67.

61. *See* *United States v. Dentsply Int’l, Inc.*, 277 F. Supp. 2d 387, 390 (D. Del. 2003), *rev’d*, 399 F.3d 181 (3d Cir. 2005).

62. *Dentsply*, 399 F.3d at 181.

63. Complaint for Injunctive and Other Equitable Relief ¶ 174, at 51, *FTC v. Facebook, Inc.*, 560 F. Supp. 3d 1 (D.D.C. 2021) (No. 20-cv-03590) [hereinafter *Facebook Complaint*]; Complaint ¶ 179, at 55, *United States v. Google LLC*, No. 20-cv-03010 (D.D.C. Oct. 20, 2020) [hereinafter *Google Complaint*]. The Federal Trade Commission (FTC) does not enforce the Sherman Act directly but does so indirectly under its power to pursue “[u]nfair methods of competition.” 15 U.S.C. § 45; *see also* *FTC v. Brown Shoe Co.*, 384 U.S. 316, 321-22 (1966) (holding that the FTC Act covers everything that the Sherman Act covers plus unspecified additional practices).

64. The now dismissed but currently appealed state attorney general’s complaint challenges them under § 7. *See* *New York v. Facebook, Inc.*, 549 F. Supp. 3d 6, 13 (D.D.C. 2021) (dismissing merger challenge on grounds of laches).

65. *See* *Microsoft*, 253 F.3d at 66-67.

agreement requires it but rather because the products are available only in a format that forces them to be purchased or used together.⁶⁶

The other situations in which the agencies have moved to § 2 are not so easily explained. *United States v. Dentsply International, Inc.*, which involved exclusive dealing, could only be imposed on the independent sellers by agreement, and the conduct appears to have been reachable under either section 1 of the Sherman Act or section 3 of the Clayton Act.⁶⁷ Mergers by definition require transactions, and thus they are always within the domain of section 1 of the Sherman Act as well as section 7 of the Clayton Act. There is no such thing as a purely “unilateral” merger.

Some contractual restraints in networks are conceptually more problematic. To the extent they involve uneven bargaining power, they can be viewed as reflecting the “unilateral” policy of the larger firm. But that has always been true in cases involving such practices as tying, in which firms announce a policy that they will not sell or lease a tying product unless the buyer also takes a tied product.⁶⁸ The actual sale or lease is what causes the violation, and that is always bilateral.⁶⁹ For that reason, both the agreement requirement of the Sherman Act section 1 and the parallel “condition or understanding” requirement of the Clayton Act’s section 3 are met.⁷⁰ One important limitation is that the challenger must actually allege an agreement, and not simply a refusal to deal, unless certain practices are observed.⁷¹ In *Dentsply*, however, the court described the record as showing “incidents in which Dentsply

66. See, e.g., *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 269 (2d Cir. 1979) (explaining that camera and film were compatible only with one another); *Allied Orthopedic Appliances Inc. v. Tyco Health Care Grp. LP*, 592 F.3d 991, 998 (9th Cir. 2010) (explaining that a new monitor for measuring hospital patient vitals was compatible only with the firm’s sensors).

67. See 399 F.3d at 193, 197.

68. See Michael D. Whinston, *Tying, Foreclosure, and Exclusion*, 80 AM. ECON. REV. 837, 837 (1990).

69. See 15 U.S.C. § 14.

70. See, e.g., *N. Pac. Ry. Co. v. United States*, 356 U.S. 1, 7-12 (1958) (regarding discriminatory routing contractual provisions contained in deeds); *Jefferson Par. Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 4-5 (1984) (regarding an exclusive contract between a hospital and an anesthesiologist challenged under Sherman Act as either tying or exclusive dealing).

71. See *United States v. Colgate & Co.*, 250 U.S. 300, 305-07 (1919) (dismissing indictment that alleged only that Colgate refused to sell to dealers who did not honor its resale price policies).

required agreement by new as well as long-standing dealers not to handle competitors' teeth."⁷² The complaints in the *Facebook* and *Google* cases both involve numerous restrictive agreements involving the defendant and advertisers or some other types of suppliers.⁷³

So why the turn to § 2? Two possible answers seem minimally plausible but ultimately not very satisfactory. A third is better. The first is that although § 2 has more strenuous market power requirements, it is less categorical about the types of conduct that it prohibits. That is clearly true in some situations. For example, the law of tying arrangements has compensated for a historically weak market power requirement by adding an overlay of technical requirements such as "separate products" and "conditioning."⁷⁴ As noted above, design issues have tended to blur the line between unilateral and multilateral conduct.⁷⁵ The design itself is generally treated as a unilateral act. Eventually the redesigned product has to be sold, however, which certainly involves an agreement. Nevertheless, the courts consistently assume that § 2 is the preferred vehicle for going after allegedly anticompetitive redesigns.⁷⁶ In any event, redesigns cover only a few of the situations involved in the turn to § 2 as an enforcement vehicle.

The second reason that § 2 may be preferred is that it is seen as better calculated to yield "structural" relief. Once again, this applies only to a subset of cases. Further, the statutory case for this argument is nonexistent.⁷⁷ Nothing in any of the substantive or remedial provisions of the antitrust laws even refers to structural relief.⁷⁸ It also fails to explain the requested relief in cases such as *Dentsply*, a § 2 case in which the government never requested a breakup but

72. 399 F.3d at 190.

73. See *Facebook* Complaint, *supra* note 63; *Google* Complaint, *supra* note 63.

74. See 10 PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* ¶ 1740, at 167, ¶ 1753, at 307 (4th ed. 2018).

75. See *supra* notes 65-66 and accompanying text.

76. See, e.g., *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340 (Fed. Cir. 1998) (divided Federal Circuit affirmed § 2 liability for firm that redesigned a hypodermic biopsy gun so that it would not work with rival's generic needles).

77. See Herbert Hovenkamp, *Antitrust Harm and Causation*, 99 WASH. U. L. REV. 787, 845 (2021).

78. See *id.*

only an injunction.⁷⁹ In *Microsoft*, the government did request structural relief, but the D.C. Circuit rejected the request, even as it chose § 2 as the preferred vehicle for liability.⁸⁰ The government in *Facebook* has requested divestiture of Instagram and WhatsApp, but that amounts to the undoing of mergers, and that type of structural relief has always been available and even preferred in merger cases proceeding under section 7 of the Clayton Act, as well as section 1 of the Sherman Act.⁸¹

As a matter of statutory language, nothing in any of the substantive antitrust statutes ties any particular violation to any particular remedy.⁸² Antitrust also has enforcement provisions which permit the government to “prevent and restrain” antitrust violations without distinguishing among the statutes.⁸³ In addition, private parties can obtain treble damages under one provision⁸⁴ and “injunctive relief” under another.⁸⁵ None of these provisions stipulates the precise nature of the relief beyond that, and none makes reference to breaking up firms except to the extent that preventing or restraining an antitrust violation might require divestiture of assets or the undoing of a merger.

Nevertheless, while the government’s choice to rely on section 2 is unstated, it may indicate the government’s view that *if* a breakup is contemplated at the time a complaint is filed, any breakup other than the undoing of a merger should be based on section 2 of the Sherman Act rather than section 1. That case seems very weak.

A third reason, which has more force, is that § 2 is most appropriate for analyzing many forms of conduct in “dominated” networks, where the overall market structure is a network but most of the important decision-making is directed by a single firm. While nearly all of Microsoft’s or Facebook’s actions are carried out by agreement

79. See *United States v. Dentsply Int’l, Inc.*, 399 F.3d 181, 184 (3d Cir. 2005) (granting government’s request for injunctive relief).

80. *United States v. Microsoft Corp.*, 253 F.3d 34, 100-02 (D.C. Cir. 2001) (en banc) (per curiam) (describing but rejecting proposed plan of divestiture).

81. See *FTC v. Facebook, Inc.*, 581 F. Supp. 3d 34, 42 (D.D.C. 2022) (describing request for divestiture including but not limited to Instagram and WhatsApp; sustaining first amended complaint).

82. See Hovenkamp, *supra* note 77, at 845.

83. 15 U.S.C. § 25.

84. See *id.* § 15.

85. See *id.* § 26.

with one or more network partners, many are also reflections of the single-firm power of the firm that controls the network.

Whatever the merits of these arguments, good strategic reasons exist for antitrust complaints to include section 1 of the Sherman Act in addition to section 2. The Federal Rules of Civil Procedure not only permit the bringing of both counts in a single complaint but can also penalize those who fail to bring a second count on the same facts and later suffer dismissal.⁸⁶ Someone who has a two-count statutory claim based on the same factual allegations and who brings only one of them may be barred by *res judicata* from bringing a second action for the omitted claim.⁸⁷

Here, the *Facebook* complaint is a mystery. Market definition is certain to be a hotly contested issue—what exactly is a social networking site, how do you evaluate it apart from its individual components, and to what extent should differentiated alternatives be treated as competitors? In its original *Facebook* complaint, the FTC alleged a relevant market of “personal social networking” services.⁸⁸ The district court dismissed, finding several problems with determining what should be regarded as in the market, who were the competitors, how market shares should be measured, and the extent to which alternative measures of power might be available.⁸⁹ The FTC responded with an amended complaint that considerably bolstered the relevant market allegations but once again cited only section 2 of the Sherman Act as the source of law, not section 1.⁹⁰ The district court sustained the amended complaint.⁹¹ At this writing, that action is in discovery, and the market definition is almost certain to be contested. One can readily predict

86. See 18 CHARLES ALAN WRIGHT, ARTHUR R. MILLER & EDWARD H. COOPER, FEDERAL PRACTICE AND PROCEDURE § 4407, at 161 (3d ed. 2022); FED. R. CIV. P. 18 (on joinder of claims).

87. See 18 WRIGHT ET AL., *supra* note 86, § 4407, at 161 (explaining that *res judicata* bars not only the claims actually brought but all those previously available); see also *Arizona v. California*, 530 U.S. 392, 424 (2000) (Rehnquist, C.J., concurring) (“*Res judicata* not only bars relitigation of claims previously litigated, but also precludes claims that could have been brought in earlier proceedings.”).

88. *Facebook* Complaint, *supra* note 63, ¶¶ 172-173, at 50.

89. *FTC v. Facebook, Inc.*, 560 F. Supp. 3d 1, 4, 24-32 (D.D.C. 2021).

90. See First Amended Complaint for Injunctive and Other Equitable Relief, *FTC v. Facebook, Inc.*, 581 F. Supp. 3d 34 (D.D.C. 2022) (No. 20-cv-03590).

91. See *Facebook*, 581 F. Supp. 3d at 65.

a situation in which a court fails to find a market share significant enough to trigger § 2. It could be sufficient to invoke § 1, however, in which lower market shares on the order of 30 percent or 40 percent are typically found sufficient. The strategy was very likely driven by the FTC's wish to make the case about single-firm dominance rather than anticompetitive agreements or mergers.

III. MONOPOLIZATION AND FIRM STRUCTURE

A. *The Tort Theory of Monopolization*

Section 2 of the Sherman Act does not make it unlawful to be a monopoly. Rather, it condemns the act of “monopolizing.”⁹² Most of the pre-antitrust case law, which consisted of challenges to state-issued grants of exclusive rights, was directed against monopoly status as such.⁹³ The Patent Act cases occasionally find unlawful conduct based on claims that the patentee unlawfully expanded its monopoly “beyond the scope” of the patent.⁹⁴

Given the language of § 2, the lack of good precedent, and the absence of government grants of exclusive rights as the source of monopoly, the earliest courts considering the monopolization offense quite naturally turned to conduct. For example, Judge Rose's 1916

92. 15 U.S.C. § 2.

93. *See, e.g.*, *The Slaughter-House Cases*, 83 U.S. (16 Wall.) 36 (1872) (upholding monopoly provision in grant of right to slaughter animals); *McRee v. Wilmington & Raleigh R.R.*, 47 N.C. (2 Jones) 186 (1855) (holding that a provision in toll bridge charter giving it a six-mile exclusive right to operate did not serve to prevent construction of a competing railroad); *Omaha Horse Ry. Co. v. Cable Tramway Co.*, 30 F. 324 (C.C.D. Neb. 1887) (holding that an exclusive grant to plaintiff to operate a horse-drawn railroad in Omaha was to be strictly construed and thus was not violated by newly authorized cable car railroad); *City of Memphis v. Memphis Water Co.*, 52 Tenn. (5 Heisk.) 495 (1871) (holding that a grant of exclusive right to operate a water works did not violate state constitutional provision forbidding “perpetuities and monopolies”).

94. *See, e.g.*, *Motion Picture Pats. Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 517 (1917) (holding that tying of patented projector to unpatented film was an attempt to expand power “wholly without the scope of the patent monopoly”); *Mercoind Corp. v. Mid-Continent Inv. Co.*, 320 U.S. 661, 667-68 (1944) (holding that bundling of unpatented devices in a combination patent was an attempt to control the supply “beyond the scope of the patentee's monopoly” (quoting *Carbice Corp. of Am. v. Am. Pats. Dev. Corp.*, 283 U.S. 27, 33 (1931))); *see also* Herbert Hovenkamp, *Antitrust and the Design of Production*, 103 CORNELL L. REV. 1155, 1181 (2018) (first citing *Heaton-Peninsular Button-Fastener Co. v. Eureka Specialty Co.*, 77 F. 288, 296 (6th Cir. 1896); and then citing *Henry v. A.B. Dick Co.*, 224 U.S. 1, 31 (1912)).

opinion in *United States v. American Can Co.* reads more like a tort case.⁹⁵ It includes a litany of the defendant's conduct, from anti-competitive acquisitions,⁹⁶ including "killer" acquisitions in which the acquired assets were shut down,⁹⁷ to exclusive contracts, threats of predatory pricing, and overly broad noncompetition covenants.⁹⁸ The question whether American Can was actually a structural monopoly was addressed almost as an afterthought, with Judge Rose observing only that the company made about half of the country's cans.⁹⁹ He never considered important issues of market scope, such as whether cans competed with bottles, which were also widely used for preserving foods.¹⁰⁰

The cumbersome opinion in the Supreme Court's 1911 decision in *Standard Oil Co. v. United States* took the same approach.¹⁰¹ The Court rehearsed a litany of bad practices, including rebates and preferences negotiated with railroads that shipped Standard's products, control of pipelines, predatory price cutting, business espionage, and the payment of rebates on oil.¹⁰² Many of these allegations, including those of predatory pricing, have subsequently been examined and some have been disputed.¹⁰³ The decision contained no serious discussion of market definition, simply assuming with the government that it was "petroleum products."¹⁰⁴

Gradually, concerns about structural requirements became more prominent. The opinion in *United States v. United States Steel Corp.* was more concerned with market structure, refusing to condemn the

95. See 230 F. 859 (D. Md. 1916).

96. See *id.* at 870-73.

97. See *id.* at 877 (noting that two-thirds of the acquired plants were shut down within two years of their purchase, and many were never operated at all).

98. See *id.* at 871, 875.

99. *Id.* at 892.

100. Cf. *United States v. Cont'l Can Co.*, 378 U.S. 441, 451-52 (1964) (noting intense competition between cans and bottles and placing them within the same relevant market).

101. See 221 U.S. 1 (1911).

102. See *id.* at 42-43.

103. See John S. McGee, *Predatory Price Cutting: The Standard Oil (N.J.) Case*, 1 J.L. & ECON. 137, 143 (1958). *But see* James A. Dalton & Louis Esposito, *Predatory Price Cutting and Standard Oil: A Re-Examination of the Trial Record*, 22 RSCH. L. & ECON.: J. POL'Y 155, 158 (2007) (re-examining the trial record and finding numerous instances of predation, in conflict with McGee's conclusions); Christopher R. Leslie, *Revisiting the Revisionist History of Standard Oil*, 85 S. CAL. L. REV. 573, 573-74 (2012). See generally RON CHERNOW, *TITAN: THE LIFE OF JOHN D. ROCKEFELLER, SR.* 113-17, 144-47, 202-25, 251-58 (1998).

104. *Standard Oil*, 221 U.S. at 43.

company's formation by merger, mainly because the defendant's market share had declined to around 40 percent.¹⁰⁵ As a result, although the defendant may once have been a monopoly, it was not so anymore.¹⁰⁶ The Court noted that vertical integration from ore to finished product appeared to be efficient, although it did not dispute the lower court's conclusion that the amount was excessive.¹⁰⁷ Then, in *United States v. International Harvester Co.*, the Court refused to condemn a declining dominant firm for alleged practices that it was no longer committing or for the merger of five firms into one that had been covered by a previous 1918 consent decree.¹⁰⁸ Decisions such as *United States Steel* and *International Harvester* paved the way for a structural revolution that began to take form in the 1930s and 1940s.

B. Structuralism and the Failed Effort to Kill It

Monopolization law's heavy reliance on bad conduct eventually gave way to greater emphasis on market structure, at one point going to the other extreme and nearly making conduct irrelevant. One important source of the shift was that competition policy was increasingly capturing the attention of a new generation of economists in both Europe and the United States. During the 1910s and 1920s, a variety of economic studies focused on specific industries or individual firms, considering how their particular attributes threatened competition.¹⁰⁹ For example, the fixed-cost controversy, which

105. 251 U.S. 417, 439 n.1 (1920).

106. *See id.* at 452-53.

107. *See id.* at 458-59 (Day, J., dissenting).

108. 274 U.S. 693, 695-97, 710 (1927).

109. *See* Herbert Hovenkamp, Essay, *The Antitrust Movement and the Rise of Industrial Organization*, 68 TEX. L. REV. 105, 113-14 (1989). Among the most important of these studies were Abraham Berglund, *The United States Steel Corporation and Industrial Stabilization*, 38 Q.J. ECON. 607, 608-09 (1924) (making a case for challenging consolidation in steel industry); Abraham Berglund, *The United States Steel Corporation and Price Stabilization*, 38 Q.J. ECON. 1, 2-7 (1923) (criticizing United States Steel's pricing policy as anticompetitive); Arthur H. Cole, *A Neglected Chapter in the History of Combinations: The American Wool Manufacture*, 37 Q.J. ECON. 436, 472-74 (1923) (tracing the history of wool producers' combination); Roscoe R. Hess, *The Paper Industry in Its Relation to Conservation and the Tariff*, 25 Q.J. ECON. 650, 656-60 (1911) (following the growth of trusts in the paper industry from 1898-1908); Edward Sherwood Meade, *The Price Policy of the United States Steel Corporation*, 22 Q.J. ECON. 452, 465 (1908) (indicating the yearly demands and the impact

was a dominant feature of industrial economics prior to the mid-1930s, rose out of the idea that in industries with very high fixed costs competition would not be sustainable.¹¹⁰ Firms would compete aggressively until prices were just high enough to cover their variable costs, but without leaving enough to pay fixed costs.¹¹¹ This “ruinous competition” defense has frequently been asserted in antitrust cases and consistently rejected.¹¹²

The Harvard University economics department, the nation’s most influential at the time, promoted this movement heavily with its “case study” approach that guided the research agendas of numerous graduate students. A principal purpose of these Harvard-published industry studies was to stress how individual markets or firms had distinct features that required particularized analysis.¹¹³ These studies were abetted by increasing attention paid to “industrial concentration,” or markets as measured by census data that

upon the growth of the steel industry through 1908); Richard Roe, *The United Shoe Machinery Company* (pts. 1 & 2), 21 J. POL. ECON. 938, 938-43 (1913) (tracing the development of the United Shoe Machinery monopoly from 1860-1911), 22 J. POL. ECON. 43, 43 (1914) (discussing specific business strategies at United Shoe); William S. Stevens, *The Powder Trust, 1872-1912*, 26 Q.J. ECON. 444, 444-69 (1912) (following the growth of the E.I. du Pont de Nemours trust from 1872-1902).

110. See Herbert Hovenkamp, *United States Competition Policy in Crisis: 1890-1955*, 94 MINN. L. REV. 311, 326-27 (2009).

111. See *id.*

112. See Herbert Hovenkamp, *The Invention of Antitrust*, 96 S. CAL. L. REV. (forthcoming 2023) (manuscript at 134), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3995502 [<https://perma.cc/QN94-Y7P8>]; HERBERT HOVENKAMP, ENTERPRISE AND AMERICAN LAW, 1836-1937, at 308-22 (1991); see also, e.g., *United States v. Trans-Mo. Freight Ass’n*, 166 U.S. 290, 368-69 (1897) (White, J., dissenting) (rejecting ruinous competition defense); *United States v. Socony-Vacuum Oil Co.*, 310 U.S. 150, 221-22 (1940) (stating that ruinous competition was not a defense to a price-fixing conspiracy); *Arizona v. Maricopa Cnty. Med. Soc’y*, 457 U.S. 332, 346 (1982) (relying on *Socony-Vacuum*); *United States v. Apple, Inc.*, 791 F.3d 290, 332 (2d Cir. 2015) (discussing the Court’s ruinous competition opinions).

113. See, e.g., MELVIN THOMAS COPELAND, THE COTTON MANUFACTURING INDUSTRY OF THE UNITED STATES 154-71 (1912); ARTHUR S. DEWING, CORPORATE PROMOTIONS AND REORGANIZATIONS 16-111, 203-26, 249-68, 305-517 (1914) (discussing leather, starch, glucose, salt, cotton, asphalt, glue, shipbuilding, and bicycle industries); WILLIAM H. PRICE, THE ENGLISH PATENTS OF MONOPOLY 49-128 (1906) (discussing mineral companies, the impact of inventions, class manufacturers, the aluminum industry, the cloth-finishing business, the iron industry, the salt industry, and the soap industry). Perhaps the best known study was ELIOT JONES, THE ANTHRACITE COAL COMBINATION IN THE UNITED STATES 40-99 (Harv. Econ. Stud. No. 11, 1914) (discussing combinations occurring between 1893 and 1898 and combinations after 1898). Others are discussed in Hovenkamp, *supra* note 109, at 113-14.

contained a small number of firms.¹¹⁴ Many economists found ominous implications for competition. Accelerating this trend was renewed interest in the theory of oligopoly, and a little later, Harvard professor Edward Chamberlin's theory of product differentiation and monopolistic competition.¹¹⁵ These forced even closer scrutiny of the differences among markets or firms.

The result was an eclectic mixture of economic theories and technical accounts emphasizing differences among industries—not a single model to describe competitive conditions across the economic landscape. Head-to-head competition focusing on price and little else appeared to occur in some markets, such as commodities.¹¹⁶ Oligopoly, with its higher price-cost margins, was a defining characteristic of others, depending mainly on the number of firms who competed with one another.¹¹⁷ Monopolistic competition—or competition by differentiating one's product—became an increasingly important mechanism for describing the performance of markets for manufactured goods where product differentiation was possible.¹¹⁸

In 1940, Columbia University economist John Maurice Clark wrote what became one of the most important consensus pieces in the development of antitrust economics: *Toward a Concept of Workable Competition*.¹¹⁹ He developed a classification system of markets based on structure and the degrees of product differentiation.¹²⁰ His categories included “[p]ure (rigorous, unmitigated) competition,” which required “standard” products and pure price-determined rivalry.¹²¹ A second category was “[i]mperfect pure competition,” which incorporated fixed costs and scale economies and thus led to deviations from marginal cost pricing as well as

114. See Hovenkamp, *supra* note 112 (manuscript at 126-31).

115. EDWARD HASTINGS CHAMBERLIN, *THE THEORY OF MONOPOLISTIC COMPETITION: A RE-ORIENTATION OF THE THEORY OF VALUE* 30-55 (1933).

116. See Hovenkamp, *supra* note 110, at 338 (first citing JOSEPH A. SCHUMPETER, *HISTORY OF ECONOMIC ANALYSIS* (Elizabeth Boody Schumpeter ed., 1954); and then citing Eliot Jones, *Is Competition in Industry Ruinous*, 34 Q.J. ECON. 473, 491-97 (1920)).

117. *Id.* at 347 (citing EDWARD CHAMBERLIN, *THE THEORY OF MONOPOLISTIC COMPETITION* 11-22, 56-70 (3d ed. 1939)).

118. *Id.* at 347-48.

119. J.M. Clark, *Toward a Concept of Workable Competition*, 30 AM. ECON. REV. 241 (1940).

120. See *id.* at 244-45.

121. *Id.*

differences among various markets.¹²² Third was “[*m*]odified, intermediate or hybrid competition,” which was characterized by standard products but considerable differentiation in prices and other terms of sale.¹²³ Clark’s final class was markets with “[*u*]nstandardized or quality products,” which accounted for significant amounts of product differentiation.¹²⁴

This classification system differed from something that an industrial economist might produce today, but the important contribution was Clark’s observation that markets differ from one another in ways that are important for antitrust policy. That is, the structure of a market is important. That idea became a guiding principle of the Harvard School’s structuralist approach to antitrust policy.¹²⁵ It guided the thinking of dominant figures in the 1950s industrial organization literature who argued that industrial economics is best focused on the study of individual markets.¹²⁶ For example, Harvard-trained economist Joe S. Bain’s pioneering studies of entry barriers in the 1950s and 1960s took issue with the almost universal assumption made by classical and early neoclassical economists that entry by new competitors would occur any time price rose above cost.¹²⁷ Rather, entry barriers could impose significant impediments to competition, but their existence, duration, and height varied from one industry to another.¹²⁸

One important attribute of structure-focused analysis is the view that structure determines the profitability and thus the significance

122. *Id.* at 245.

123. *Id.*

124. *Id.*

125. Most influentially in EDWARD S. MASON, *ECONOMIC CONCENTRATION AND THE MONOPOLY PROBLEM* (1957); Edward S. Mason, *Monopoly in Law and Economics*, 47 *YALE L.J.* 34 (1937) [hereinafter Mason, *Monopoly in Law and Economics*]; Edward S. Mason, *The Current Status of the Monopoly Problem in the United States*, 62 *HARV. L. REV.* 1265 (1949) [hereinafter Mason, *Current Status of the Monopoly Problem*].

126. See generally JOE S. BAIN, *INDUSTRIAL ORGANIZATION* (2d ed. 1968); JOE S. BAIN, *BARRIERS TO NEW COMPETITION: THEIR CHARACTER AND CONSEQUENCES IN MANUFACTURING INDUSTRIES* (1956); Richard Schmalensee, *Do Markets Differ Much?*, 75 *AM. ECON. REV.* 341, 341 (1985) (offering a qualified defense).

127. On the decline of the easy entry idea, see Hovenkamp, *supra* note 112 (manuscript at 156-57).

128. See Joe S. Bain, *Economies of Scale, Concentration, and the Condition of Entry in Twenty Manufacturing Industries*, 44 *AM. ECON. REV.* 15, 38-39 (1954) (finding large differences in scale economies, cost structures, capital requirements, and market concentration).

of certain types of conduct. Harvard industrial economist Edward S. Mason, a strong proponent of structuralism in the 1930s and 1940s, argued that the economic performance of the American rubber tire industry could be explained entirely by its structure.¹²⁹ As a result, conduct was simply not worth discussing. The extreme point in this effort to classify markets on the basis of structure was the structure-conduct-performance (SCP) paradigm.¹³⁰ “Performance” refers to the extent to which a market comes close to achieving optimal competition, with low output and higher price-cost margins indicating poor performance.¹³¹ Under the most extreme version of the SCP paradigm, as Mason and other Harvard structuralists advocated, structure dictates conduct and conduct dictates performance.¹³² As a result, conduct drops out as a variable of interest, and we can move directly from structure to performance.

For a time, the result was a massive shift in antitrust analysis of unilateral conduct away from business behavior and toward market structure and the measure of firm dominance. The extreme position was that a dominant firm monopolizes unlawfully “whenever he does business,” as Judge Wyzanski put it in 1953.¹³³ Judge Hand had come close to that position in the 1945 *United States v. Aluminum Co. of America* decision, suggesting that a monopolist monopolizes when it sells at a monopoly price and that such conduct was inherent in the definition of a monopolist.¹³⁴ Structuralism also led to very influential work by Carl Kaysen at the Massachusetts Institute of Technology and Donald F. Turner at Harvard Law School, arguing that oligopoly and poor performance are virtually

129. Recounted in Joe S. Bain, *Structure Versus Conduct as Indicators of Market Performance: The Chicago-School Attempts Revisited*, 18 ANTITRUST L. & ECON. REV. 17, 19-20 (1986). See also MASON, *supra* note 125, at 1-10; Mason, *Monopoly in Law and Economics*, *supra* note 125, at 36-37, 46-49.

130. For a brief history, see Hovenkamp, *supra* note 110, at 350-53. On its demise, see Herbert Hovenkamp, *Introduction to the Neal Report and the Crisis in Antitrust*, 5 COMPETITION POL’Y INT’L 217, 219-22 (2009).

131. See Hovenkamp, *supra* note 110, at 349-50.

132. See *id.*

133. *United States v. United Shoe Mach. Corp.*, 110 F. Supp. 295, 342 (D. Mass. 1953), *aff’d*, 347 U.S. 521 (1954) (citing *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 428 (2d Cir. 1945)).

134. 148 F.2d 416, 427-28 (2d Cir. 1945) (citing *United States v. Corn Prods. Refin. Co.*, 234 F. 964 (S.D.N.Y. 1916)).

inherent in structurally concentrated industries.¹³⁵ As a result, antitrust policy should seek to have these industries broken up.

Structuralism ultimately led to a protracted argument over “no-fault” monopolization, or the idea that certain monopolies should be broken up by the antitrust laws without any finding of anticompetitive conduct. That idea captured even the first edition of the generally centrist *Antitrust Law* treatise. Its authors, Phillip Areeda and Donald F. Turner, would have limited the breakup power to suits by the government, and then only if the monopoly had persisted for at least five years.¹³⁶ No provision for no-fault monopolization was ever enacted,¹³⁷ and today it is clear that § 2’s monopolization offense requires a showing of both substantial market power and anticompetitive conduct.

This structuralist view became a principal target of the Chicago School, whose proponents argued that markets really do not differ all that much, and perfect competition models provide the best explanation for all of them.¹³⁸ In particular, George Stigler championed the view, aided later by Milton Friedman,¹³⁹ that perfect competition, collusion, and monopoly described all of the relevant states of the economic world.¹⁴⁰

This Chicago-dominated reversion to perfect competition models had a robust life in industrial economics prior to the mid-1980s and considerable success in some American law schools after that. In the

135. See CARL KAYSSEN & DONALD F. TURNER, *ANTITRUST POLICY: AN ECONOMIC AND LEGAL ANALYSIS* 3-23 (1959); see also Donald F. Turner, *The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals to Deal*, 75 HARV. L. REV. 655, 661-73 (1962).

136. 3 PHILLIP AREEDA & DONALD F. TURNER, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* ¶¶ 618-623 (4th ed. 1978). I have preserved this section from the original edition largely intact, although with some brief commentary. See 3 PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* ¶¶ 630-638 (5th ed. 2022).

137. See William E. Kovacic, *Failed Expectations: The Troubled Past and Uncertain Future of the Sherman Act as a Tool for Deconcentration*, 74 IOWA L. REV. 1105, 1127, 1137-39, 1149-50 (1989).

138. Frank H. Easterbrook, *Workable Antitrust Policy*, 84 MICH. L. REV. 1696, 1696-99 (1986); Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 U. PA. L. REV. 925, 931 (1979) (criticizing structuralism as “derived from observation, unsystematic and often superficial, of business behavior”).

139. See Herbert Hovenkamp, *Antitrust Error Costs*, 24 U. PA. J. BUS. L. 293, 318-20 (2022).

140. See GEORGE J. STIGLER, *THE ORGANIZATION OF INDUSTRY* 5-6, 319-20 (1968); Hovenkamp, *supra* note 139, at 309-10.

main, however, it faltered under an empirical revolution among industrial economists that has served to restore theories of oligopoly and imperfect competition to dominance at least as strong as it was in the 1940s and 1950s.¹⁴¹ In antitrust, the Chicago School succeeded mainly in taking the edge off several fantastic and unjustified theories that had migrated into antitrust policy, particularly in the 1950s and 1960s.¹⁴² Its more pointed contributions faltered. For example, George Stigler's definition of entry barriers, which would have considerably narrowed the scope of perceived barriers to entry, was never widely adopted by antitrust policymakers or tribunals.¹⁴³ Harold Demsetz's influential view that bidding for natural monopoly markets could displace regulation never took hold as a substitute for regulation, although it did make policymakers more aware of the possibilities of potential competition.¹⁴⁴ The Chicago School view that vertical restraints, such as resale price maintenance, could be fully explained by free rider concerns ended up describing only a small subset of the total.¹⁴⁵ Robert Bork's view that only mergers to near monopoly should be challenged¹⁴⁶ never took hold, and even the merger guidelines at their most neoliberal point permitted pursuit of mergers that created postmerger market shares of around 30 percent.¹⁴⁷

The two government antitrust policy documents that came closest to expressing Chicago School neoliberal views were the *1982 Merger*

141. See, e.g., Timothy F. Bresnahan & Richard Schmalensee, *The Empirical Renaissance in Industrial Economics: An Overview*, 35 J. INDUS. ECON. 371, 372-73 (1987).

142. See Herbert Hovenkamp & Fiona Scott Morton, *Framing the Chicago School of Antitrust Analysis*, 168 U. PA. L. REV. 1843, 1855-56 (2020) (first citing Turner, *supra* note 135, at 671; then citing HERBERT HOVENKAMP, *Structuralism in Competition Policy*, in THE OPENING OF AMERICAN LAW 206-19 (2015); and then citing STIGLER, *supra* note 140, at 309-21).

143. See Hovenkamp, *supra* note 139, at 332 (“[A]n entry barrier is ‘a cost of producing (at some or every rate of output) which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry.’” (quoting STIGLER, *supra* note 140, at 67)).

144. See *id.* at 334 (discussing the impact of Demsetz's view). See generally Harold Demsetz, *Why Regulate Utilities?*, 11 J.L. & ECON. 55 (1968).

145. See HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE § 11.3a, at 591 (6th ed. 2020) (discussing Lester G. Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J.L. & ECON. 86 (1960)).

146. ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 198-224 (1978).

147. See *infra* note 161 and accompanying text.

Guidelines,¹⁴⁸ written as Chicago School antitrust dominance was first being asserted, and the short-lived 2008 statement on monopolistic practices written at its end. It was published under the title *Competition and Monopoly: Single-Firm Conduct Under Section 2 of the Sherman Act*.¹⁴⁹ The FTC refused to sign the 2008 statement, which was already economically obsolete at the time it was issued. The statement was withdrawn only one year later.¹⁵⁰ The statement was much more concerned with errors of overenforcement than with actually identifying exclusionary practices.¹⁵¹ The exceedingly short life of the section 2 statement indicates that by the time it was produced, its ideas had lost most of their support outside of purely political circles.

The merger guidelines issued in 1982 spoke of the problem of horizontal mergers as concerned with “monopolists and groups of colluding firms.”¹⁵² The guidelines acknowledged no theory of oligopoly other than recognition that in markets with a small number of firms, those firms might be able to “coordinate, explicitly or implicitly, their actions in order to approximate the performance of a monopolist.”¹⁵³ While the guidelines recognized that the coordination might be “implicit” rather than by express agreement, they also indicated that the result would be to approximate the performance of a monopolist. That is, the guidelines did not recognize oligopoly strategies in which firms attain equilibria at price levels below the monopoly level and varying with the number of firms in the market. As in the Stigler model, this theory of oligopoly was really nothing more than collusion by another name.¹⁵⁴

Consistent with this, the 1982 guidelines regarded product differentiation as a mitigating factor that served mainly to undermine

148. U.S. DEPT OF JUST., 1982 MERGER GUIDELINES (1982), <https://www.justice.gov/sites/default/files/atr/legacy/2007/07/11/11248.pdf> [<https://perma.cc/X3JJ-33W4>].

149. U.S. DEPT OF JUST., COMPETITION AND MONOPOLY: SINGLE-FIRM CONDUCT UNDER SECTION 2 OF THE SHERMAN ACT (2008) (withdrawn), <https://www.justice.gov/sites/default/files/atr/legacy/2009/05/11/236681.pdf> [<https://perma.cc/7WW8-8PBZ>].

150. See Press Release, U.S. Dep’t of Just., Justice Department Withdraws Report on Antitrust Monopoly Law (May 11, 2009), <https://www.justice.gov/opa/pr/justice-department-withdraws-report-antitrust-monopoly-law> [<https://perma.cc/VN6T-8Z36>].

151. See U.S. DEPT OF JUST., *supra* note 149, at 13-18.

152. U.S. DEPT OF JUST., *supra* note 148, at 21.

153. *Id.* at 2.

154. See Hovenkamp, *supra* note 139, at 309-10.

attempts at collusion. Price fixing is relatively simple in undifferentiated markets, the guidelines asserted, because the “cartel need establish only a single price.”¹⁵⁵ By contrast, under differentiation, the cartel may have to come up with a more “complex schedule of prices corresponding to gradations in actual or perceived quality attributes.”¹⁵⁶ As a result, the 1982 guidelines concluded, “when the relevant product is very heterogeneous or sold subject to complex configuration options or customized production, the Department is less likely to challenge the merger.”¹⁵⁷ By contrast, the 1992 *Horizontal Merger Guidelines*, which the Justice Department (DOJ) and the FTC issued jointly, abandoned the practice of treating product differentiation as a mitigating factor.¹⁵⁸ Further, the 1992 guidelines initially raised the idea that has now become prominent in merger analysis that under product differentiation, a firm might be able to use a merger to “unilaterally” raise its price above pre-merger levels, depending on the relative closeness of the merging firms’ products to one another.¹⁵⁹ Unilateral effects theory has effectively and properly turned product differentiation into an aggravating factor in those markets where it applies.

Market structure has remained as an essential component in the analysis of monopoly under the antitrust laws. For example, a unilateral refusal to deal with a competitor would never be an antitrust violation in a competitive market, but it might be in a market with a dominant firm. The lawfulness of exclusionary pricing practices depends heavily on the structure of the market in which the conduct occurs. In addition, analysis of mergers has retained its structural focus right up to the present day.¹⁶⁰ Even the 1982 guidelines never matched the Chicago School’s extreme tolerance. For example, the 1982 guidelines would have authorized the challenge of a merger creating a 30 percent firm—far, far short

155. U.S. DEP’T OF JUST., *supra* note 148, at 17.

156. *Id.*

157. *Id.*

158. See U.S. DEP’T OF JUST. & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES (1992), https://www.justice.gov/archive/atr/public/press_releases/1992/0270.htm [<https://perma.cc/5UGY-BRMB>].

159. *Id.* § 2.21, at 36.

160. Herbert Hovenkamp & Carl Shapiro, *Horizontal Mergers, Market Structure, and Burdens of Proof*, 127 YALE L.J. 1996, 2013-17 (2018).

of Bork's recommendations articulated only four years earlier that would have tolerated mergers creating dominant firms.¹⁶¹

Today, it is clear that the monopolization offense consists of two interdependent parts, each of which must be established. First, the structural component requires proof of a market that is sufficiently prone to monopolization.¹⁶² This is a question of the number of firms in a well-defined market subject to entry barriers, but particularly the relative size (market share) of the largest firm, and the comparative size of others.¹⁶³ Secondly, anticompetitive conduct is essential.¹⁶⁴ Third, the two elements of the monopolization offense are interdependent in that certain types of conduct acquire greater or lesser significance depending on a defendant's degree of dominance and the extent to which the market is conducive to durable monopoly.¹⁶⁵

C. *Unique Structural Presumptions for Digital Networks?*

Is antitrust consideration of networks “structural,” in the sense that the analysis in networked markets rests on a different set of assumptions or presumptions? To some degree, yes. But differentiation can be pushed too far. One excessive presumption, for example, is the suggestion that two-sided digital platforms are “winner-take-all” markets.¹⁶⁶ Monopoly is inherent in their structure. As a factual

161. Under the 1982 Merger Guidelines, the government would be “likely to challenge” a merger if the postmerger Herfindahl-Hirschman Index (HHI) exceeded 1,800 and the increase brought about by the merger exceeded 100 points. *Id.* at 12-15. This means that a 30 percent firm would be subject to a “likely” challenge. To illustrate, assume a pre-merger market of six firms with shares of 25, 20, 20, 20, 10, and 5 percent. Suppose that the 25 percent firm merged with the 5 percent firm. The postmerger HHI would be 2,200 and the increase brought about by the merger would be 250, well above the threshold for “likely” challenge. *But see* BORK, *supra* note 146, at 207 (suggesting that only mergers that near monopolies should be challenged).

162. *See* HOVENKAMP, *supra* note 145, § 6.1, at 349-50.

163. *See id.* §§ 6.2-.3, at 352-57.

164. *See id.* §§ 6.1-.3, at 349-57.

165. *See id.*

166. *See* Herbert Hovenkamp, *Antitrust and Platform Monopoly*, 130 YALE L.J. 1952, 1969-70, 1970 n.67 (2021) (first citing Daniel A. Hanley, *A Topology of the Multisided Digital Platforms*, 19 CONN. PUB. INT. L.J. 271, 289-91 (2020); then citing Thomas R. Eisenmann, *Winner-Take-All in Networked Markets*, HARV. BUS. SCH., Sept. 11, 2007, at 1, 4; and then citing Thomas Noe & Geoffrey Parker, *Winner Take All: Competitions, Strategy, and the Structure of Returns in the Internet Economy*, 14 J. ECON. & MGMT. STRATEGY 141, 141-43 (2005)).

matter, that conclusion seems categorically wrong, although digital platforms can be monopolies in a few situations.¹⁶⁷ To the extent product differentiation is possible, as is usually the case, even very large digital platforms such as Facebook can have viable digital competitors.¹⁶⁸ The relatively small number of digital platforms that are monopolies, such as Google Search, occur in situations where meaningful product differentiation is difficult to attain.¹⁶⁹

A very different and unwarranted presumption, which is implicit in some recently proposed legislation, is that absolute size is a unique competition problem in digital platform markets. This presumption seems to be what drives the proposed American Innovation and Choice Online Act (AICOA), which applies only to online firms that are above a specified absolute size.¹⁷⁰ It does not apply to traditional brick-and-mortar firms such as Walmart that are even larger.¹⁷¹ Some of the problems the statute identifies, such as self-preferencing,¹⁷² are actually more severe among traditional brick-and-mortar retailers. If self-preferencing is a competition problem at all, it exists when customers cannot easily avoid the seller's attempt to steer them to a particular product choice. By and large, however, avoiding undesired deals is easier on the internet, which requires only a mouse click, than in a traditional brick-and-mortar store.¹⁷³

One can also infer a presumption in the opposite direction: given that economic growth in digital markets is significantly greater than

167. *See id.* at 1996-2001 (discussing what makes a digital platform more or less likely to become a monopoly).

168. *See id.* at 1996.

169. *See id.* at 1999-2001.

170. American Innovation and Choice Online Act, S. 2992, 117th Cong. § 2(a)(5)(B) (as reported by S. Comm. on the Judiciary, Mar. 2, 2022); *see also* Herbert Hovenkamp, *Gatekeeper Competition Policy* (Univ. of Pa. Inst. for L. & Econ. Rsch. Paper, Paper No. 23-08, 2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4347768 [<https://perma.cc/HK3J-FBTR>].

171. *See* S. 2992 § 2(a)(5)(B).

172. *See id.* § 3(a) (making it unlawful for a person operating a covered platform to “prefer the products, services, or lines of business of the covered platform operator over those of another business user on the covered platform in a manner that would materially harm competition”).

173. *See* Herbert Hovenkamp, *Antitrust Interoperability Remedies*, 123 COLUM. L. REV. F. 1, 2 (2023).

in traditional markets,¹⁷⁴ perhaps we should make it more difficult to find antitrust liability in high-tech digital networks. But that presumption seems inappropriate as well. A finding of better market performance overall need not justify a different attitude toward restraints imposed by a particular platform, provided they are properly defined as anticompetitive. While the jury may not completely be out on this issue, for the time being, the best approach seems to be not having any special structural presumption at all for digital networks.

D. Market Structure and Attempts

Section 2 of the Sherman Act explicitly recognizes two distinct offenses: monopolization and attempt.¹⁷⁵ Nothing in the statute distinguishes the two offenses substantively, but in 1905, Justice Holmes offered a formulation that has proven to be durable. As he borrowed it from the common law of attempted crimes, an attempt requires (1) specific intent to create a monopoly; (2) at least one instance of anticompetitive conduct; and (3) a “dangerous probability” that the conduct, if permitted to run its course, would succeed.¹⁷⁶

Beginning with the sensible premise that the result of an attempt must be something less than the completed offense, the courts have sometimes lost sight of what “attempt” really means as an actionable offense. Attempt should not turn business torts into monopolization offenses. Rather, as with common law attempts generally,

174. See *Study Finds Internet Economy Grows Seven Times Faster than Total U.S. Economy, Created over 7 Million Jobs in the Last Four Years*, IAB (Oct. 18, 2021), <https://www.iab.com/news/study-finds-internet-economy-grew-seven-times-faster/> [<https://perma.cc/3Z84-5YBV>].

175. 15 U.S.C. § 2 (imposing criminal punishment on those “who shall monopolize, or attempt to monopolize”). The statute also recognizes a third offense of conspiracy to monopolize, but that offense has been rendered largely irrelevant to the extent that anything that can be a conspiracy to monopolize would also be a conspiracy to restrain trade under the more aggressive case law governing section 1 of the Sherman Act. See 3 AREEDA & HOVENKAMP, *supra* note 136, ¶ 809, at 515.

176. *Swift & Co. v. United States*, 196 U.S. 375, 396 (1905) (first citing *Aikens v. Wisconsin*, 195 U.S. 194, 206 (1904); and then citing *Commonwealth v. Peaslee*, 59 N.E. 55, 56 (Mass. 1901)). Justice Holmes explicitly found the source of his formulation in the common law, citing one of his own earlier decisions from when he was Chief Justice of the Supreme Judicial Court of Massachusetts. *Commonwealth v. Peaslee*, 59 N.E. 55 (Mass. 1901) (adjudicating attempted arson).

there must be a realistic likelihood of success, even though the conduct in the particular case either failed or was intercepted before it had completed its mission.

Noteworthy here is the fact that both monopolization and the attempt offense have the same remedy when the plaintiff is a competitor. For consumers, the remedies differ to the extent that an unsuccessful attempt to create a monopoly will not result in a monopoly overcharge, and thus there will not be purchaser actions based on monopoly prices. For competitors injured by some form of market exclusion, however, it makes no difference whether the conduct has been labeled unlawful monopolization or unlawful attempt. The private plaintiff can recover all damages, trebled, that are attributable to the antitrust violation. For example, if predatory pricing is found to have ruined the plaintiff's competing business, the damages will be the same whether or not the predation succeeded in creating a monopoly.

One good example of overreaching under the law of attempt is *Tops Markets, Inc. v. Quality Markets, Inc.*, in which the defendant was accused of monopolizing the market for retail grocery sites by buying up numerous suitable sites in the geographic area.¹⁷⁷ The court dismissed the monopolization claim after observing that defendant Quality Markets did not have the power because new entrants could "readily enter the ... market at any number of available sites and successfully compete for supermarket sales."¹⁷⁸

Then, however, the court went on to sustain a claim of attempt to monopolize, based on the purchase of a site that the plaintiff was negotiating to buy.¹⁷⁹ The court explained that "a lesser degree of market power may establish an attempted monopolization claim" than a claim for completed monopolization.¹⁸⁰ In this case, the

177. 142 F.3d 90, 93-94 (2d Cir. 1998).

178. *Id.* at 99. The court elaborated:

On this record we can draw no reasonable inference other than that Quality lacks monopoly power. Despite its high market share, no other evidence—such as barriers to entry, the elasticity of demand, or the nature of defendant's conduct—supports the conclusion that Quality can control prices or exclude competition and in fact, Wegmans' quick garnishment of such high market share dispositively refutes such a conclusion.

Id.

179. *See id.* at 99-102.

180. *Id.* at 100.

plaintiff's injury was caused by the fact that the defendant bought a parcel of land out from under the plaintiff, who was planning to build a store in competition with the defendant.¹⁸¹ That certainly may have been a breach of contract or perhaps tortious interference. Given the court's observations about new entry, however, monopoly was never a realistic possibility.¹⁸² Nevertheless, the plaintiff's damages would be based on the lost business opportunity contemplated by the sale, and that would not depend on whether the antitrust offense was monopolization or attempt, nor on whether it had succeeded in creating a monopoly.

The logical disconnect in the *Tops* case was that in dismissing the complaint, the court had already concluded that the market in question was not capable of being monopolized. If the conduct could not possibly have succeeded in creating a monopoly, then the attempt offense could not occur either. The *Tops* story is the equivalent of pointing a banana at someone and saying "bang, you're dead." That conduct could not possibly be a murder, and it could not be an attempt either, no matter the defendant's state of mind.

The grandparent of the Second Circuit's approach was the Ninth Circuit's decision in *Lessig v. Tidewater Oil Co.*, which had held that the attempt to monopolize offense could be satisfied by a showing of *either* specific intent to create a monopoly or a dangerous probability that the conduct would have done so.¹⁸³ Tidewater Oil Company, which owned several gasoline stations, was not a dominant firm, and the conduct being challenged was exclusive dealing, or a requirement that Tidewater's leased gasoline station operators purchase all of their gasoline needs from itself.¹⁸⁴ There were also somewhat looser allegations of resale price maintenance as well as a tying requirement that the stations purchase their tires, batteries, and automotive accessories from Tidewater.¹⁸⁵ While there was no realistic probability that a firm of Tidewater's size could use any of these practices to monopolize a market, the court held that such a

181. *See id.*

182. *See id.* at 99.

183. 327 F.2d 459, 474 (9th Cir. 1964).

184. *See id.* at 467.

185. *Id.*

showing was unnecessary.¹⁸⁶ Rather, “specific intent itself is the only evidence of dangerous probability the statute requires.”¹⁸⁷

The Supreme Court’s unanimous decision in *Spectrum Sports, Inc. v. McQuillan* overruled the *Lessig* line of cases, turning the focus back to the “dangerous probability” requirement itself and requiring proof of a relevant market to establish a “realistic probability that the defendants could achieve monopoly power in that market.”¹⁸⁸ The *Spectrum* holding is quite defensible for conduct occurring within a single market, as was true in that case. That holding does leave behind one distressing situation, however, which is when a monopolist, whose position is clearly established by the criteria that the *Spectrum* decision approved, uses that position to injure rivals in a related market.

E. Secondary Leverage and Abuse of Dominance

1. Dominated Networks: Monopolists and Secondary Markets

One common feature of dominant digital platforms is that a single firm may have significant power over the platform itself, but not in the individual segments in which it operates or the products that it sells. Amazon is a good example. While Amazon dominates as a platform, it nevertheless has only modest positions in many of the individual products that it offers, save ebooks and perhaps a few other products.¹⁸⁹ Meta’s Facebook platform is also a dominant social networking site, but not in the individual markets for posted videos, photos, messaging, and the like.¹⁹⁰ Alphabet may be a dominant network. It also has a dominant position in Google Search, its general consumer search engine,¹⁹¹ and a substantial position in its

186. *See id.* at 474.

187. *Id.*

188. 506 U.S. 447, 459 (1993).

189. *See, e.g.,* Kinga Jentetics, *Amazon Ebooks Market Share 2019-2020*, PUBLISHDRIVE (Jan. 28, 2019), <https://publishdrive.com/amazon-ebook-market-share.html> [<https://perma.cc/L42G-GBKJ>].

190. *See* Simon Kemp, *Reels Grew by 220M Users in Last 3 Months (and Other Jaw-Dropping Stats)*, HOOTSUITE (Oct. 26, 2022), <https://blog.hootsuite.com/simon-kemp-social-media/> [<https://perma.cc/L8SL-A3XG>] (discussing Facebook’s and Facebook Messenger’s various market shares and growth figures).

191. *See* STATISTA RSCH. DEP’T, *Global Market Share of Search Engines 2010-2022*,

office suite of products.¹⁹² Alphabet has much smaller shares in its email client Gmail, Waymo, and many of the other products that it sells.¹⁹³ Whatever dominance Apple may enjoy for the iPhone does not extend to the markets for most of the individual apps that it sells on the iPhone platform.¹⁹⁴ To what extent should these firms be held accountable for competitive injuries in these individual markets even when there is not a realistic prospect of monopoly in them?

Relatedly, should it matter whether the injury results from “exclusion” of a rival product or “extraction” of higher returns? As most courts interpret it, to monopolize means to exclude actual or potential rivals.¹⁹⁵ By contrast, an abuse of a dominant position can be something that results in higher prices or reduced innovation in a secondary market. When properly interpreted, both harm consumers.

This Subsection briefly makes a case for an abuse of dominance standard under § 2, a position that United States courts initially embraced, although under a different name, but subsequently rejected. Today, it would very likely require a statutory amendment.

STATISTA (2022), <https://www.statista.com/statistics/216573/worldwide-market-share-of-search-engines/> [<https://perma.cc/QEC6-LVQK>] (showing Google Search with an 86.6 percent market share as of September 2021).

192. See Lionel Sujay Vailshery, *Office Suites Market Share in U.S. 2020*, STATISTA (Mar. 17, 2022), <https://www.statista.com/statistics/961105/japan-market-share-of-office-suites-tech-nologies/> [<https://perma.cc/U53W-4SYS>] (showing G Suite as the market leader of office suites with a share of 59.41 percent as of October 2020).

193. See, e.g., STATISTA RSCH. DEP’T, *Global Email Client Market Share 2021*, STATISTA (July 7, 2022), <https://www.statista.com/statistics/265816/most-used-e-mail-service-by-market-share/> [<https://perma.cc/PT2L-42H3>] (showing Google with a 36.5 percent market share for email clients).

194. See L. Ceci, *Leading Non-Gaming iPhone App Publishers in the United States in September 2022, by Revenue*, STATISTA (Oct. 6, 2022), <https://www.statista.com/statistics/697042/leading-iphone-non-gaming-app-publishers-by-revenue-in-the-us/> [<https://perma.cc/9PQK-P6VX>] (showing Apple was not one of the top ten non-gaming iPhone app publishers in September 2022); see also J. Clement, *Leading iPhone Gaming App Publishers in the United States in September 2022, by Revenue*, STATISTA (Oct. 21, 2022), <https://www.statista.com/statistics/691547/leading-iphone-games-publishers-us-revenue/> [<https://perma.cc/E9T4-ADGK>] (showing Apple was not one of the top ten gaming iPhone app publishers in September 2022).

195. On the definition of monopolizing conduct, see 3 AREEDA & HOVENKAMP, *supra* note 136, ¶ 651, at 98-133.

2. "Leveraging" Under U.S. Law: Recognition and Rejection

In *United States v. Griffith*, the defendant owned a chain of movie theaters in several towns in Texas, Oklahoma, and New Mexico.¹⁹⁶ In some towns, it held a dominant position while other towns were more competitive.¹⁹⁷ Griffith acquired its position by building modern, well-equipped theaters in contrast to the converted store-rooms that individual operators often used.¹⁹⁸ The industry practice for multi-theater chains was that one agent for the company would travel to New York to negotiate exhibition contracts for the entire chain.¹⁹⁹ That practice alone seems unexceptional and quite efficient. The problem was that Griffith's group of theaters was large and included both the monopoly towns where Griffith dominated as well as competitive towns.²⁰⁰ By negotiating for all of the towns together, Griffith was able to obtain more favorable terms than its smaller rivals who operated only one or a few theaters in the competitive towns.²⁰¹

The assumption of the government's antitrust challenge was that monopoly was not threatened in the competitive towns but that the defendant obtained a competitive advantage in them because it was able to consolidate its bargaining over all of the towns in which it operated theaters.²⁰² No attempt was made to distinguish undesirable "forcing" of the licensors to accept lower prices in the competitive towns, from the simple fact that economies of scale could inhere in bargaining over a larger group of theaters at a time.²⁰³ Indeed, the complaint focused almost entirely on the injury suffered by competitors who were unable to obtain the same terms that the defendant did.²⁰⁴

196. 334 U.S. 100, 101-02 (1948).

197. *See id.*

198. The district court's opinion recounts the facts. *See United States v. Griffith Amusement Co.*, 68 F. Supp. 180, 182-85 (W.D. Okla. 1946), *rev'd sub. nom. United States v. Griffith*, 334 U.S. 100 (1948).

199. *Id.* at 186.

200. *See id.* at 182-85.

201. *See Griffith*, 334 U.S. at 106-08.

202. *See id.* at 103-04.

203. *See id.*

204. *Id.*

Justice Douglas's opinion for the Court concluded that it is "not always necessary to find a specific intent to restrain trade or to build a monopoly in order to find that the anti-trust laws have been violated."²⁰⁵ Rather, "[i]t is sufficient that a restraint of trade or monopoly results as the consequence of a defendant's conduct or business arrangements."²⁰⁶ Then, Justice Douglas concluded, "the use of monopoly power, however lawfully acquired, to foreclose competition, to gain a competitive advantage, or to destroy a competitor, is unlawful."²⁰⁷

The most controversial part of Justice Douglas's statement was its conclusion that the use of monopoly power to gain a "competitive advantage" is an act of unlawful monopolization. Thirty years later, dicta in the Second Circuit's *Berkey Photo, Inc. v. Eastman Kodak Co.* decision put a finer point on it: "[T]he use of monopoly power attained in one market to gain a competitive advantage in another is a violation of § 2, *even if there has not been an attempt to monopolize the second market*. It is the use of economic power that creates the liability."²⁰⁸ Stated this way, the monopoly leveraging theory pushes the law of § 2 beyond acts of "monopolization," or attempting to create or preserve a monopoly. The harm is the use of a monopoly position to harm a rival in a related market where the monopolist also operates, and even if monopoly in the rival's market is not in prospect. The secondary markets can be vertically related markets, markets for complementary products, or even secondary markets covering different geographic territories, as in *Griffith*.²⁰⁹ The problem is common among networks, which usually operate over multiple interrelated markets exhibiting significant interdependence.

205. *Id.* at 105.

206. *Id.* (first citing *United States v. Patten*, 226 U.S. 525, 543 (1913); and then citing *United States v. Masonite Corp.*, 316 U.S. 265, 275 (1942)).

207. *Id.* at 107.

208. 603 F.2d 263, 276 (2d Cir. 1979) (emphasis added).

209. *See supra* notes 197-201 and accompanying text. For another example, the Court relied on leveraging theory to condemn vertical integration in the motion picture industry. *United States v. Paramount Pictures, Inc.*, 334 U.S. 131, 173-75 (1948) ("Likewise bearing on the question whether monopoly power is created by the vertical integration, is ... the leverage on the market which the particular vertical integration creates or makes possible." (citation omitted)).

In 1993 the Supreme Court appeared to rule out claims of non-monopolistic leveraging. Section 2 “makes the conduct of a single firm unlawful only when it actually monopolizes or dangerously threatens to do so.”²¹⁰ Further, those concerns were “not met by inquiring only whether the defendant has engaged in ‘unfair’ or ‘predatory’ tactics.”²¹¹ While that statement seems very strong, not all of the lower courts interpreted it that way.²¹² In any event, in a footnote in *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, Justice Scalia’s opinion for the Court clearly laid the *Griffith* doctrine to rest.²¹³ Speaking of the lower court’s opinion, Justice Scalia said:

The Court of Appeals also thought that respondent’s complaint might state a claim under a “monopoly leveraging” theory (a theory barely discussed by respondent). We disagree. *To the extent the Court of Appeals dispensed with a requirement that there be a “dangerous probability of success” in monopolizing a second market, it erred.*²¹⁴

This issue and its resolution can be decisive in antitrust litigation against large digital platforms, all of which operate in multiple markets. For example, Amazon neither has nor realistically threatens to have a monopoly in most of the products that it sells, with the exception of ebooks.²¹⁵ Even there, publishers’ control makes monopoly unlikely. *Epic Games, Inc. v. Apple Inc.* was a monopolization case, but the court declined to find Apple liable, mainly on market power grounds.²¹⁶ Once again, however, Epic competed in a downstream market—electronic games—where Apple was unlikely to threaten dominance. Nevertheless, Apple’s practice of requiring makers of games or other apps to sell exclusively through its own

210. *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 459 (1993) (citing *Copperweld Corp. v. Indep. Tube Corp.*, 467 U.S. 752, 767 (1984)).

211. *Id.*

212. *E.g.*, *Zschaler v. Claneil Enters., Inc.*, 958 F. Supp. 929, 946, 946 n.7 (D. Vt. 1997) (accepting monopoly leveraging theory for summary judgment purposes; noting Second Circuit law).

213. 540 U.S. 398, 415 (2004).

214. *Id.* at 415 n.4 (emphasis added).

215. *See supra* note 189 and accompanying text.

216. *See* 559 F. Supp. 3d 898, 1043 (N.D. Cal. 2021).

store and requiring payment of a high commission very likely resulted in higher prices.²¹⁷

While the secondary markets in these cases are typically more competitive, they can also be more dependent on the primary market.²¹⁸ Whether the platform is a monopolist in the primary market, the platform itself, is a question of fact. In any event, in many situations no realistic threat of monopoly in the secondary market exists.

3. *Agreements and Secondary Market Harm*

Claims of linking dominant markets with nondominant secondary products are common when an agreement covers the challenged practice. One important example is the law of tying arrangements,²¹⁹ although it is also relevant to vertical mergers.²²⁰ In tying, the owner of a dominant product forces purchasers to take its own secondary product. In fact, the law of unlawful tying requires “conditioning,” or coercion, in the sense that buyers are forced to take the second product as a condition of obtaining the first.²²¹ A well-known example is *International Salt Co. v. United States*, in which a manufacturer of salt injection machinery for canners required users of the machine to purchase its own salt.²²² In that case, the two products were complements—they were used together, which did not necessarily mean that they must be purchased from the same seller. The law of vertical mergers usually presumes that the vertically integrated postmerger firm will deal exclusively or predominantly with itself.²²³

217. At this writing the EU is pursuing the claim, and the Dutch antitrust authority has concluded that Apple’s policy constitutes an abuse of a dominant position with respect to dating sites. See Murco Mijnlief, *ACM Obliges Apple to Adjust Unreasonable Conditions for Its App Store*, AUTH. CONSUMERS & MKTS. (Dec. 24, 2021), <https://www.acm.nl/en/publications/acm-obliges-apple-adjust-unreasonable-conditions-its-app-store> [<https://perma.cc/EHS4-R5GE>].

218. See Erik Hovenkamp, *The Antitrust Duty to Deal in the Age of Big Tech*, 131 YALE L.J. 1483, 1529 (2021).

219. See HOVENKAMP, *supra* note 145, § 10.2, at 519-20.

220. *Id.* § 9.4, at 505-10.

221. On the conditioning requirement in tying law, see 10 AREEDA & HOVENKAMP, *supra* note 74, ¶ 1752.

222. 332 U.S. 392, 393 (1947).

223. See 4A AREEDA & HOVENKAMP, *supra* note 74, ¶¶ 1003-1004.

The easier cases are when a contractual constraint “ties” the platform and the secondary product together, as in *International Salt*.²²⁴ That does not cover the situation in which the platform merely offers the secondary product, making no real effort to force sales through its own platform. For example, Amazon sells Duracell batteries together with batteries made by other manufacturers and its own AmazonBasics brand.²²⁵ However, a customer is free to purchase Duracell batteries from numerous competing outlets, both online and traditional. Further, Amazon does not “tie”—that is, it does not require its battery customers to purchase its AmazonBasics brand. Amazon carries the leading brands, and the customer is free to choose. Any forcing must be more subtle—perhaps a lower price for the AmazonBasics alternative, or perhaps more favorable display on Amazon’s website.²²⁶ If unilateral, neither of these practices violates United States antitrust law. By contrast, as in the *Epic Games* decision,²²⁷ the “forcing” claim with respect to Apple’s App Store has more traction: one who wants to purchase a game for an iPhone is effectively forced to use the App Store for the purchase. That shifts the focus of the offense from conduct to power.

4. *The Case for Abuse of Dominance?*

The European Union’s position on nonmonopolistic effects in secondary markets is more aggressive than the U.S. position. Article 102 of the Treaty on the Functioning of the European Union (TFEU) prohibits an “abuse ... of a dominant position” within a member state or “as it may affect trade between Member States.”²²⁸ That language imposes a broader conduct standard than does section 2 of the Sherman Act and may reach situations where a firm is dominant in one market but is found to have abused its power in a

224. 332 U.S. at 393-95.

225. See *Amazon Best Sellers: Best Sellers in Household Batteries*, AMAZON, <https://www.amazon.com/Best-Sellers-Household-Batteries/zgbs/hpc/15745581> [<https://perma.cc/X86A-J9JX>] (last updated Nov. 8, 2022).

226. See, e.g., *id.* (placing AmazonBasics brand batteries first on Amazon’s “Best Selling Household Batteries” list while placing Duracell batteries eighth).

227. See *Epic Games, Inc. v. Apple Inc.*, 559 F. Supp. 3d 898 (N.D. Cal. 2021).

228. Treaty on the Functioning of the European Union art. 102, cl. 1, Mar. 30, 2010, 2010 O.J. (C 83) 47.

second market without threatening monopoly.²²⁹ This can be decisive in digital platform markets when a firm has a degree of dominance there, but then refuses to deal, discriminates against, or otherwise disfavors sellers in a secondary market. While there is not a realistic threat of monopoly in the secondary market, prices may be higher.²³⁰ Notably, however, even the EU's approach would not permit pursuing a dominant firm simply because it sold in a more competitive secondary market. The language requires an "abuse" of a dominant position. Defining "abuse" is the hard part.

Fidelity to the text very likely would not permit "abuse of a dominant position" to be read into section 2 of the Sherman Act. As noted above, however, there is clear—although now overruled—Supreme Court precedent for a leveraging theory, which is close to the same thing.²³¹ Unless monopoly either exists in the secondary market or there is a dangerous probability that it will exist, the conduct appears not to fall within the literal language of § 2.

The abuse of dominance standard is better suited to networks and other information technology markets than is the monopolization standard—provided that the "abuse" requirement is taken seriously and kept within bounds. The underlying premise that drives § 2 analysis in cases involving practices such as refusal to deal is that each firm must stand on its own bottom. While the Supreme Court's *Trinko* decision declining to expand dealing duties arose in a networked industry, the decision's network analysis was thin to nonexistent.²³² Rather, the Court's decision was quite correctly

229. See James Keyte, *Why the Atlantic Divide on Monopoly/Dominance Law and Enforcement Is So Difficult to Bridge*, 33 ANTITRUST 113, 117 (2018) ("In the EU ... leveraging has settled in as a standard theory of exclusion and harm."); Commission Decision 94/19 of Dec. 21, 1993, 1994 O.J. (L 15); General Court of the European Union Press Release No 197/21, *The General Court Largely Dismisses Google's Action Against the Decision of the Commission Finding that Google Abused Its Dominant Position by Favouring Its Own Comparison Shopping Service over Competing Comparison Shopping Services* (Nov. 10, 2021), <https://curia.europa.eu/jcms/upload/docs/application/pdf/2021-11/cp210197en.pdf> [<https://perma.cc/BE5L-J5UW>]. For the full text of the Commission's decision, see Commission Decision 1/2003 of June 27, 2017 in Case AT-39740—*Google Search (Shopping)*, 2017 O.J. (EC), https://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_14996_3.pdf [<https://perma.cc/4EKG-EV9Z>].

230. See Paul Lugard & Lee Roach, *The Era of "Big Data" and EU/U.S. Divergence for Refusals to Deal*, 31 ANTITRUST 58 (2017).

231. See discussion *supra* text accompanying notes 196-214.

232. See *Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP*, 540 U.S. 398, 415-16

driven by the fact that in *Trinko*, a regulatory provision in the 1996 Telecommunications Act already required interconnection.²³³ Further, the regulator had already disciplined the defendant for violating its interconnection obligations.²³⁴ However, the regulatory provision did not permit private lawsuits, and certainly not antitrust law's treble damages.²³⁵ The most relevant holding in *Trinko* was that the antitrust laws should not be used to graft a private remedy onto a regulatory statute that did not contain one.²³⁶

Networks have requirements for interfirm cooperation. Here, structures of dominance vary. Some networks are dominated by a single firm over clearly subordinate partners. Others have a more equal, collaborative structure. In general, nondominant firms in networked markets have a strong incentive to participate in the network. By contrast, dominant firms have an incentive to keep control to themselves.²³⁷ This is basically the *FTC v. Qualcomm Inc.* story, in which Qualcomm made FRAND commitments to participate in the network by making its patents available to all participants on a fair, reasonable, and nondiscriminatory basis.²³⁸ However, once Qualcomm had acquired a dominant position in a particular technology, it refused to honor those obligations in order to limit competition for sales to Apple, a large purchaser of the types of chips that Qualcomm was making.²³⁹ For that reason, the Ninth Circuit's decision against the FTC was an important opportunity lost.²⁴⁰ The facts of *Qualcomm* clearly established both market exclusion and competitive harm, including higher prices.²⁴¹

Amending § 2 to cover abuses of dominant positions is a superior alternative to the various proposals pending before Congress to

(2004).

233. *See id.* at 401-07.

234. *See id.* at 413 (noting that the Federal Communications Commission (FCC) had imposed a "substantial fine" and begun monitoring Verizon's interconnection practices).

235. *See id.* at 405-07.

236. *See id.*

237. *See* Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 AM. ECON. REV. 424, 425 (1985).

238. 969 F.3d 974, 983 (9th Cir. 2020).

239. *See id.* at 986.

240. *See id.* at 986 n.9.

241. For analysis, see Herbert Hovenkamp, *FRAND and Antitrust*, 105 CORNELL L. REV. 1683, 1685-88 (2020).

legislate sharing or abuse standards.²⁴² First, the proposed provisions are too narrow in that they apply to the major digital platforms measured by absolute size, but leave out many other firms whose conduct could be just as harmful.²⁴³ Second, they can impose seriously counterproductive outcomes, particularly when anticompetitive abuse is not present. Depending on the text that emerges, this could effectively become a species of public utility regulation or, worse yet, special interest legislation favoring small business over consumers, labor,²⁴⁴ and others who benefit from more competitive markets.

5. Abuses of the “Abuse” Standard

“Abuse of dominance” language would give courts a chance to develop legal rules that are better designed to control dominant platforms’ nonmonopolistic but anticompetitive abuses. Courts could increase competition in some market situations, particularly network industries that require competitor collaboration over multiple products or that involve dominant distribution platforms.

The danger of an overly aggressive abuse of dominance standard is that it can limit harmless and even beneficial behavior. That is, “abuse” must be properly limited to competitive harm, and antitrust should not incorporate the law of business torts by giving it another name.²⁴⁵ For example, Amazon is not “abusing” a dominant position if it selects two or three among dozens of rivals’ products for inclusion on its website or an elevated search ranking, even as it limits others. If Amazon decides to sell its own kitchen cutting board, must it also carry and give equal display results to the cutting boards of the other 165 American firms that sell them?²⁴⁶

242. None of the big tech bills made it through Congress in 2022, although they or similar ones may be reintroduced. See Rebecca Klar, *Big Tech Bills Left Out of Sweeping Government Spending Bill*, THE HILL (Dec. 20, 2022, 12:35 PM), <https://thehill.com/policy/technology/3782237-big-tech-bills-left-out-of-sweeping-government-spending-bill/> [<https://perma.cc/SP35-E8ED>].

243. See *id.*

244. On labor’s interest in competitive product markets, see Herbert Hovenkamp, *Worker Welfare and Antitrust*, 90 U. CHI. L. REV. 511 (2023).

245. See discussion *infra* Part III.E.6.

246. See Herbert Hovenkamp, *Congress’ Antitrust War on China and American Consumers*, PROMARKET (June 25, 2021), <https://promarket.org/2021/06/25/congress-antitrust-china-con>

Nor is it an abuse for Amazon to sell its own products, such as AmazonBasics AAA batteries, at a lower price than rivals such as Duracell or Eveready are offering. And it should not be an abuse for a firm to take advantage of efficiencies that occur when it offers products in combination or at a lower price when combined with others. At a minimum, there must be an inference of higher prices, lower market output, or reduced innovation in the secondary market. Even the law of explicit tying arrangements requires competitive harm, and for that reason most ties are properly found to be lawful.

Other situations in which an abuse standard could improve competition occur when the abuse of a dominant position consists in harmful extraction rather than exclusion. Unlike section 1, section 2 of the Sherman Act is triggered by “exclusionary” conduct, not merely by conduct that results in higher prices.²⁴⁷ A good illustration of the difference is the *Rambus Inc. v. FTC* litigation.²⁴⁸ The D.C. Circuit rejected the FTC’s claim that Rambus violated § 2 by participating in standard-setting organizations while surreptitiously developing patents to cover the very technology for which it was approving standards.²⁴⁹ After the standard was adopted, Rambus surprised other firms that had implemented its technology with these patents.²⁵⁰ The appellate court held that even though this conduct resulted in higher prices, it was merely deceptive, not exclusionary.²⁵¹ “But an otherwise lawful monopolist’s use of deception simply to obtain higher prices normally has no particular tendency to exclude rivals and thus to diminish competition.”²⁵² The “abuse” standard would have seen the issue differently—not whether the conduct threatened additional monopoly but rather whether it threatened competitive harm at all, and in this case it clearly did.

sumers-merger/ [https://perma.cc/MH4M-YTXM].

247. 15 U.S.C. § 2.

248. 522 F.3d 456 (D.C. Cir. 2008); see also *In re Qualcomm Antitrust Litig.*, No. 17-md-02773, 2023 WL 121983, at *16-18 (N.D. Cal. Jan. 6, 2023) (finding that while Qualcomm’s “no license, no chips” policy—attacked as an unlawful tying arrangement—may have facilitated supranormal royalties, it was not an unlawful tie because Qualcomm already had a monopoly in the patented chips to begin with).

249. See *Rambus*, 552 F.3d at 459-62.

250. See *id.* at 460-61.

251. See *id.* at 464.

252. *Id.*

New York legislation that appears close to passage at this writing²⁵³ creates serious risks of these problems. New York's current antitrust law, the Donnelley Act, does not contain a monopolization provision.²⁵⁴ The state is overdue for legislation against unilateral conduct by dominant firms. The proposed bill incorporates both language that emulates section 2 of the Sherman Act and an abuse of dominance provision.²⁵⁵ It also creates a presumption that a market seller's share of 40 percent is a dominant position,²⁵⁶ as well as permitting market power to be addressed by direct evidence.²⁵⁷ It then defines abuse of dominance as including, but not being limited to:

conduct that tends to foreclose or limit the ability or incentive of one or more actual or potential competitors to compete, such as leveraging a dominant position in one market to limit competition in a separate market, or refusing to deal with another person with the effect of unnecessarily excluding or handicapping actual or potential competitors. In labor markets, abuse may include, but is not limited to, imposing contracts by which any person is restrained from engaging in a lawful profession, trade, or business of any kind, or by restricting the freedom of workers and independent contractors to disclose wage and benefit information.²⁵⁸

253. See Twenty-First Century Antitrust Act, S. 933C, 2021-2022 State Assemb., Reg. Sess. (N.Y. 2021) [hereinafter S. 933C].

254. See N.Y. GEN. BUS. LAW § 340 (McKinney 2022).

255. The most recent version of the proposed bill, S. 933C, proposes amending § 340 by adding, in part:

2. (a) It shall be unlawful for any person or persons to monopolize or monopsonize, or attempt to monopolize or monopsonize, or combine or conspire with any other person or persons to monopolize or monopsonize any business, trade or commerce or the furnishing of any service in this state.

(b) It shall be unlawful for any person or persons with a dominant position in the conduct of any business, trade or commerce, in any labor market, or in the furnishing of any service in this state to abuse that dominant position.

S. 933C § 3.

256. *Id.* The statute lowers the threshold to 30 percent for buyers. *Id.*

257. *Id.*

258. *Id.*

Finally, the bill provides that “[e]vidence of pro-competitive effects shall not be a defense to abuse of dominance and shall not offset or cure competitive harm.”²⁵⁹

Much depends, of course, on what the courts end up doing with this legislation, and the New York Attorney General is authorized to issue guidelines for its enforcement.²⁶⁰ Nevertheless, the current language recreates the problems that illustrate what went wrong with monopoly leveraging theory under the Sherman Act. The explicit rejection of evidence of procompetitive effects raises the possibility that this statute could force serious economic harm onto the New York economy and the economies of other states that could be affected. The proposed legislation is properly concerned about employer restraints in labor markets but oblivious of the harm to labor that reduced productivity and output cause, and those harms could be far larger.²⁶¹

Older American antitrust decisions that accepted nonmonopolistic abuse as a theory of harm were often excessive because they equated “abuse” with almost any kind of harm to a competitor. *Griffith* itself is an example.²⁶² Using a single buying or selling agent to represent a firm’s multiple outlets is hardly a suspicious or undesirable practice. It saves distribution costs for the same reason that any activity subject to economies of scale may be beneficial as a firm produces more. In the process, it may also harm smaller rivals who are dealing in smaller quantities or fewer markets.

The problem with the *Griffith* decision is that it did not explore these alternatives but just assumed that a negotiator who bargained for a number of outlets was obtaining an anticompetitive advantage over single-theater firms who could not match that scale.²⁶³ Inadequately restrained, an overly aggressive rule can serve to condemn competitively beneficial practices.

The “leveraging” statement in *Berkey Photo* presents a similar threat, although in that case the court declined to condemn the conduct.²⁶⁴ After accepting the leverage theory in principle, the court

259. *Id.*

260. *Id.*

261. On this point, see Hovenkamp, *supra* note 244.

262. See *United States v. Griffith*, 334 U.S. 100 (1948).

263. See *supra* notes 196-207 and accompanying text.

264. *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 275 (2d Cir. 1979).

explained that an “integrated business” does not violate the Sherman Act merely because one department “benefits from association with a division possessing a monopoly in its own market.”²⁶⁵ That court explained:

So long as we allow a firm to compete in several fields, we must expect it to seek the competitive advantages of its broad-based activity more efficient production, greater ability to develop complementary products, reduced transaction costs, and so forth. These are gains that accrue to any integrated firm, regardless of its market share, and they cannot by themselves be considered uses of monopoly power.²⁶⁶

The principal *Berkey Photo* leveraging claim had been made in reference to Kodak’s introduction of a new camera/film format that displaced its previous Brownie line of cameras.²⁶⁷ That change in technology also made operations more costly for the independent but competitively structured photofinishing market.²⁶⁸ In order to develop the new film, photofinishers required more specialized equipment, but the evidence suggested that rivals could obtain this.²⁶⁹ As a result, there was never any serious probability that Kodak’s new film format was going to create a monopoly in photofinishing.²⁷⁰

Kodak’s introduction of its new camera was a clear technical advance that consumers embraced, in no small part because it employed a film cartridge that was easier to use and more resistant to user error. But the technological advance in question occurred because it involved interrelated developments in two markets for complements—cameras and film—both of which Kodak dominated.²⁷¹ *Berkey*, which made cameras and provided photofinishing services,²⁷² claimed that processing film for the new Instamatic required proprietary information about the film developing process

265. *Id.* at 276.

266. *Id.*

267. *See id.* at 269-70, 275.

268. *See id.* at 267-69.

269. *See id.* at 282-84.

270. *Id.* at 275.

271. *See id.* at 269.

272. *See id.* at 267.

as well as some specialized equipment.²⁷³ Berkey's theory of harm was that Kodak provided this information in advance to photofinishers that it owned, namely Kodak's own "Color Print and Processing" division (CP&P), but not to independent photofinishers such as Berkey.²⁷⁴ As a result, Berkey had to play catch-up in the photofinishing market until it got its own equipment and technical knowledge up to speed.

That claim directly countered Kodak's objection, supported by the Court of Appeals, that a dominant firm innovating a new product or process has no duty to predisclose it to rivals beyond the disclosure requirements contained in the patent laws.²⁷⁵ Berkey's claim would have placed antitrust law in a head-on collision with patent law, which specifies the disclosure that must be placed in the patent application.²⁷⁶ Further, trade secret law provides protection only if covered processes are *not* disclosed. In any event, quite aside from the concern whether predisclosure might benefit a smaller competitor—we can assume that it would—that it would further either competition or innovation in the longer run is hardly clear.

In situations involving distribution, such as *Griffith*, economies of scale or scope or transaction cost savings can fully explain harm to the competitor. As a result, nonmonopoly explanations typically dominate. Even a multistore operator with a small market share may be able to obtain a lower price, better terms, or coordinated delivery by negotiating for the business of numerous stores at once.

6. *Competitive vs. Dominated Networks*

The litigation in *Alaska Airlines, Inc. v. United Airlines, Inc.*, stated a more likely abuse of dominance claim.²⁷⁷ This case also occurred on a network, but one that was operated by a single firm.²⁷⁸ The defendant, a large legacy carrier, controlled a computerized

273. The facts are recounted in the district court's opinion. See *Berkey Photo, Inc. v. Eastman Kodak Co.*, 457 F. Supp. 404, 418-20 (S.D.N.Y. 1978), *aff'd in part, rev'd in part*, 603 F.2d 263 (2d Cir. 1979).

274. See *id.* at 418.

275. See *Berkey Photo*, 603 F.2d at 281.

276. 35 U.S.C. § 112(a).

277. 948 F.2d 536 (9th Cir. 1991).

278. See *id.* at 538-46.

airline reservation system (CRS) and licensed other airlines to use it for scheduling.²⁷⁹ It discriminated against smaller, lower-price airlines such as the plaintiffs.²⁸⁰ In this case, if the CRS had been jointly operated as a competitive network, the refusal to share would have been reachable under section 1 of the Sherman Act as concerted action—much like the claim in the *United States v. Terminal Railroad Ass’n* case.²⁸¹ There, a consortium of transportation companies controlled bridges and loading terminals strategically located on and across the Mississippi River and were thus able to limit rail traffic across the river.²⁸² In that case, the Supreme Court ordered the association to offer nondiscriminatory access to outsiders.²⁸³ In *Alaska Airlines*, the Ninth Circuit distinguished *Terminal Railroad*, pointing out that under the CRS system in this case, a single firm controlled the system and the other airlines were merely licensees.²⁸⁴ As a result, the conduct was unilateral.

That answer is a good description of the differences between unilateral and collaborative conduct, but it does not set our minds at ease that the defendant’s conduct was competitively harmless. *Alaska Airlines* exposes an important difficulty in the antitrust treatment of networks. Some are operated collaboratively by multiple parties and their anticompetitive actions toward outsiders can be addressed under the relatively aggressive standards of section 1 of the Sherman Act. If a network is operated by a single firm and other participating firms are merely licensees or authorized users, then § 1 may not apply. Section 2 does not offer comparable relief even though the competition issue is the same.

One clear historical example of this is the telephone system, which migrated from a dominated network controlled by a single firm to ownership by thousands of individual participants. For example, MCI Communications successfully sued AT&T for refusal to interconnect with MCI’s wireless services, almost entirely under

279. *Id.* at 538.

280. *See id.* at 538-39.

281. 224 U.S. 383, 391 (1912).

282. *Id.* at 391-97.

283. *Id.* at 411-12.

284. *Alaska Airlines*, 948 F.2d at 542 (citing *Terminal R.R.*, 224 U.S. at 397, 401, 411-12) (noting that *Terminal Railroad* involved concerted conduct while the present case did not).

section 2 of the Sherman Act.²⁸⁵ The Seventh Circuit's decision that a denial of interconnection was unlawful under the essential facility doctrine may not have survived the Supreme Court's *Trinko* decision, particularly given the fact that interconnection is now mandated by statute.²⁸⁶ However, today the network itself is operated by multiple firms and collaborative actions are challengeable under § 1.²⁸⁷

On the one hand, accepting an abuse of dominance theory might lead to significant competitive improvement in networked markets. On the other, it could easily threaten anticompetitive overuse if not kept within proper boundaries.

One promising approach is to use the important limitations that the Clayton Act places on the conduct that it governs. The three liability-creating provisions in the Clayton Act are sections 2, 3, and 7, which reach a form of price discrimination,²⁸⁸ tying and exclusive dealing,²⁸⁹ and mergers.²⁹⁰ In all three provisions, the reach of liability is limited by language requiring conduct whose effect "may be substantially to lessen competition or tend to create a monopoly."²⁹¹ That language still requires a showing of competitive harm but reaches a broader range of behavior than current § 2 standing alone.

A statute that prohibited an "abuse of a dominant position where the effect may be substantially to lessen competition or tend to create a monopoly" would accomplish this purpose.²⁹² The second portion would be a moderate expansion of the law of attempt while

285. See *MCI Commc'ns Corp. v. AT&T Co.*, 708 F.2d 1081, 1092-93 (7th Cir. 1983). The antitrust claim also included some allegations of conspiracy in restraint of trade, but these § 1 claims were eliminated on a directed verdict. See *id.*

286. See *Verizon Commc'ns, Inc. v. Law Offs. of Curtis V. Trinko, LLP*, 540 U.S. 398 (2004); see also *supra* notes 232-36 and accompanying text.

287. For example, the Supreme Court's decision in *Bell Atlantic Corp. v. Twombly*, dismissed the antitrust complaint for inadequate proof of agreement, but the Court clearly assumed that a proven agreement could be challenged under section 1 of the Sherman Act. 550 U.S. 544, 570 (2007).

288. 15 U.S.C. § 13.

289. *Id.* § 14.

290. *Id.* § 18.

291. *Id.* §§ 13(a), 14, 18.

292. For example, such a statute might provide that a dominant firm abusing its dominant position in a secondary market where the effect of that abuse may be to substantially lessen competition or tend to create a monopoly is unlawful.

the first portion would reach nonmonopolistic abuses that threaten to harm competition in the secondary market.

IV. EXCLUSIONARY PRACTICES ON DIGITAL PLATFORMS

The following discussion does not address every exclusionary practice that has been challenged as a Sherman Act section 2 violation.²⁹³ Rather, it focuses on particular practices that are in need of rethinking, particularly for networked markets. Part of the problem is the lingering effects of many years of Chicago School rigidity that continues to stifle progress in § 2 jurisprudence. Much of existing § 2 doctrine was developed in the context of free-standing dominant firms where the need for collaboration or interoperability was minimal or not recognized. As firms are more networked and interactive, exclusionary behavior can be more threatening to competition. We should begin with the premise that even highly networked markets can be made to work competitively and antitrust has an important role in facilitating that outcome.

The existing language of the antitrust laws should not interfere with this result. Their highly general language embraces all anticompetitive practices with the only qualification that they be part of “commerce.”²⁹⁴ So, existing law should readily accommodate changes in technology. One irony is that the very reluctance of the judiciary to be more flexible in interpretation will yield statutory changes that are likely to be much more rigid, overreaching, and badly designed. But that could be the situation we are facing.

The discussion is organized under these headings: (1) Vertical Integration: Refusal to Deal and Self-Preferencing, (2) Exclusionary Mergers, (3) Anticompetitive Technology Design and Restraints on Innovation, and (4) Exclusionary Patent Practices. Nothing about this division of topics is compelled or even suggested by the language of the statute. Further, many § 2 complaints allege a mixture of these practices, as well as others.

293. For that, see 3 AREEDA & HOVENKAMP, *supra* note 136, and accompanying volumes 3A and 3B or for briefer treatment, see HOVENKAMP, *supra* note 145, at 349-487.

294. See *supra* note 41 and accompanying text.

A. Vertical Integration: Refusal to Deal and “Self-Preferencing”

The antitrust doctrine of unilateral refusal to deal²⁹⁵ is typically a response to some form of vertical integration or control of complementary products.²⁹⁶ Typically, the defendant is claimed to have monopoly power in one market, such as the incumbent phone network.²⁹⁷ The defendant refuses to sell a vertically related or complementary product or else fails to share its dominant asset for purposes of distribution into the secondary market.²⁹⁸

In *Otter Tail Power Co. v. United States*, the defendant was a large utility that generated its own electricity.²⁹⁹ The injured rivals on whose behalf the government sued were small, mainly municipal utilities that lacked their own generation capacity.³⁰⁰ The rivals provided electricity to their own customers by purchasing it at wholesale and then having it transported or “wheeled” to their own territories.³⁰¹ Otter Tail refused to wheel power to small utilities adjacent to its own system, at least partly in a bid to force them to sell out to Otter Tail.³⁰² The government’s complaint did not request that the small utilities share Otter Tail’s generation facilities directly but rather that Otter Tail be required to wheel power to them so that they could resell it to their own customers.³⁰³ That is, the refusal occurred in the downstream and networked distribution market rather than Otter Tail’s primary market for generation.

In the Court’s next big refusal to deal case, *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, the plaintiff owned a single skiing

295. By contrast, collaborative refusals to deal, or “boycotts,” are addressed more aggressively under section 1 of the Sherman Act. On platform refusals as instances of discrimination, see Erik Hovenkamp, *Platform Discrimination Against Rivals: An Economic Framework for Antitrust Enforcement*, J. CORP. L. (forthcoming), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4323207 [<https://perma.cc/3V97-UFL8>].

296. See 3B AREEDA & HOVENKAMP, *supra* note 136, ¶ 771a, at 204-06.

297. See, e.g., *Verizon Commc’ns Inc. v. Law Offs. of Curtis V. Trinko, LLP*, 540 U.S. 398 (2004); see also *supra* notes 232-36 and accompanying text.

298. On the distinction between these two practices, see Hovenkamp, *supra* note 218, at 1507.

299. 410 U.S. 366, 368 (1973).

300. See *id.* at 369-70, 370 n.3.

301. *Id.* at 370.

302. See *id.* at 370-71.

303. See *id.* at 368-69. The injunction also prevented Otter Tail from entering into any contract that forbade sharing power with adjacent utilities. See *id.*

mountain and had been participating in a joint marketing venture with the defendant, who owned three.³⁰⁴ Under the “All Aspen” ticket that they sold, skiers could use lifts and slopes on any of the four mountains.³⁰⁵ The dispute arose when the defendant reneged on the venture agreement without a good business justification.³⁰⁶ The plaintiff was not requesting to operate on the defendant’s three mountains or to share any of its facilities.³⁰⁷ Under the venture operation, each firm operated these things separately.³⁰⁸ Rather, the plaintiff requested continuation of the joint marketing arrangement³⁰⁹ as well as treble damages for loss of business.³¹⁰

Antitrust challenges to refusals to deal in secondary markets often get blurred into the antitrust law of tying or exclusive dealing, although often they do not meet all of the technical requirements of those doctrines.³¹¹ For example, so-called tech ties, in which a defendant unites two products by technological design, may not satisfy the requirements for tying, but they can then be attacked under § 2.³¹² Some contractual ties can operate the same way when the defendant refuses to sell a good unless the purchaser also takes a second good.

A good illustration of this blurring of legal doctrine is *Eastman Kodak Co. v. Image Technical Services, Inc.*, in which the defendant, a nondominant manufacturer of high-speed photocopiers, refused to sell repair parts except through its own contract maintenance personnel.³¹³ The plaintiffs were independent service organizations unable to obtain the parts they needed to repair Kodak machines.³¹⁴ The complaint included claims under both section 1 of the Sherman

304. 472 U.S. 585, 585 (1985).

305. *Id.* at 589-90.

306. *Id.* at 608-11.

307. *Id.* at 587-94.

308. *Id.* at 587-91, 589 n.7.

309. *Id.* at 598 n.23.

310. *Id.* at 595.

311. See Hovenkamp, *supra* note 218, at 1529-30; see also Whinston, *supra* note 68, at 837-40; Jay Pil Choi & Christodoulos Stefanadis, *Tying, Investment, and the Dynamic Leverage Theory*, 32 RAND J. ECON. 52, 54 (2001); Dennis W. Carlton & Michael Waldman, *The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries*, 33 RAND J. ECON. 194, 195 (2002).

312. See *infra* text accompanying notes 347-48.

313. 504 U.S. 451, 455 (1992).

314. *Id.* at 455-58.

Act for tying of parts and service and section 2 for the simple refusal to sell the parts to independents repair technicians.³¹⁵ The Supreme Court denied summary judgment in an opinion addressed almost exclusively to the tying claim.³¹⁶ The case was remanded, and in the subsequent litigation, the plaintiff withdrew the tying claim.³¹⁷ While the reason was not stated, it was very likely because of doubts about whether the challenged conduct was appropriately multi-lateral rather than unilateral. Notwithstanding that withdrawal, the plaintiff prevailed at trial on the § 2 unilateral refusal to deal claim, relying on the same damages study that was in the record for the tying claim.³¹⁸ The Ninth Circuit affirmed, approving jury instructions that had been taken from the *Aspen Skiing* case.³¹⁹ Once again, the plaintiffs in this case were not requesting that Kodak share its production facilities for the photocopiers themselves or even for parts; rather, they wanted access to already manufactured parts so that they could compete in the downstream markets for servicing.

Since the Supreme Court's 2004 decision in *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, the federal judiciary has been highly restrictive of § 2 claims challenging unilateral refusals to deal.³²⁰ Further, *Trinko* itself was a network case. Verizon was an incumbent local exchange telephone carrier that controlled the backbone of the phone system in its territory.³²¹ The 1996 Telecommunications Act required Verizon to interconnect seamlessly with smaller firms that wanted to operate a subset of services (CLECs, or "competitive local exchange carriers"), but that Act did not authorize private enforcement.³²² Deficiencies in the quality of interconnection provoked the dispute.³²³

Although *Trinko* arose entirely within the context of an elaborate communications network operated by numerous rival firms, the

315. *Id.* at 459.

316. *See id.* at 485-86.

317. *See* *Image Tech. Servs., Inc. v. Eastman Kodak Co.*, 125 F.3d 1195, 1201 (9th Cir. 1997).

318. *See id.*

319. *Id.* at 1209-11, 1228.

320. 540 U.S. 398 (2004).

321. *See id.* at 402.

322. *See id.* at 401-02.

323. *See id.* at 403-05.

Court's analysis of the dealing claims paid virtually no attention to that fact. Indeed, the principal reference to the network in Justice Scalia's opinion was to make the point that if sharing is legally obligatory, as it was under the 1996 Telecommunications Act, then *Aspen Skiing's* approach did not apply.³²⁴ In *Aspen Skiing* the Court had held that unjustified termination of a *voluntary* dealing agreement could be used as evidence to support an unlawful refusal to deal claim.³²⁵ That was not the case in *Trinko*, in which the dealing obligation was statutorily imposed.³²⁶

Thus, *Trinko* has little to say about voluntarily created collaborative networks, such as the FRAND system. There, one of the most significant threats to network competition results from reliance and path dependence. In order to maintain competition in a FRAND network, the firms must agree to make their technology available to one another without discrimination as between rivals and non-rivals.³²⁷ As long as the network can be made to conform to those requirements, competition can be robust. In today's economy, networks can create enormous value, and collaboratively operated networks can produce more value than dominated ones.³²⁸ In this case, unlike *Trinko*, no statute mandated sharing.

The FRAND commitment is a form of incomplete contract, enforced in the first instance by contract law.³²⁹ Enforcing contracts is not antitrust's purpose, but neither is the existence of a contract a defense if conduct falls within antitrust's reach.³³⁰ From its inception, the Sherman Act has been enforced against practices that were also covered by a contract.³³¹ Indeed, *United States v. Trans-Missouri Freight Ass'n*, the Supreme Court's first antitrust decision on the merits, was an antitrust challenge to an elaborate and written contract.³³²

324. *See id.* at 409-10.

325. *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 608-11 (1985).

326. 540 U.S. at 409-10 (distinguishing the voluntary dealing in *Aspen Skiing* from dealing under statutory compulsion).

327. *See generally* Hovenkamp, *supra* note 241.

328. *See id.*

329. *See id.* at 1689.

330. *See id.* at 1727-28.

331. *See id.*

332. 166 U.S. 290, 308 (1897); *see id.* at 293-97 (quoting the agreement).

The scope of antitrust is narrower than that of contract law. Only a few FRAND disputes raise antitrust issues.³³³ But when a practice threatens competition on a collaborative network, then antitrust has an important role. The Ninth Circuit together with the Justice Department lost sight of this in the *Qualcomm* litigation.³³⁴

One important role of antitrust in FRAND networks as well as others is to guarantee competition in the presence of path dependence and *ex post* opportunism—essentially the facts of the *Qualcomm* litigation.³³⁵ Patent owners contemplating participation on a network make obligations to license out their patents on fair, reasonable, and nondiscriminatory terms, receiving the same promises in return.³³⁶ The immediate result of a patent being declared a standard essential is an increase in value because the network itself is so critical.³³⁷ At the same time, the FRAND system can be expected to generate significant path dependence in subsequent development.³³⁸ Individual firms design their products and processes in reliance on the fact that they have access to the technology that they need, provided that technology is part of the network's FRAND portfolio.³³⁹ Voluntary inclusion in FRAND is thus a special case of bidding for monopoly status: one way to avoid excessive regulation for monopoly technology is to facilitate bidding for participation with the winning bidders promising to deliver on competitive terms.³⁴⁰

Subsequently, individual participants may be able to profit by reneging on their commitments. They may wish to license selectively to noncompetitors only, to avoid licensing at all in order to bolster their own positions, or to insist on higher royalties than the FRAND system contemplates. Any one of these things could be a breach of contract, but if it reduces output and results in higher prices, it becomes an antitrust problem as well.

333. See Hovenkamp, *supra* note 241, at 1694.

334. *FTC v. Qualcomm Inc.*, 969 F.3d 974 (9th Cir. 2020); see *supra* text accompanying notes 237-41.

335. See Hovenkamp, *supra* note 241, at 1691-94.

336. See *id.* at 1683-84.

337. See *id.* at 1690.

338. See *id.*

339. See *id.*

340. See Demsetz, *supra* note 144, at 57.

1. “Sacrifice”

The *Aspen Skiing* refusal to deal rule has been needlessly limited by a perverse “sacrifice” test that finds illegality only when the dominant firm’s termination of an earlier deal involves a sacrifice of short-term gains in prospect of long-run profits. Neither the success nor the anticompetitive effects of refusals to deal need require a “sacrifice” of short-run profits. The fact of costly commitments and subsequent extraction can produce gains to the dominant firm immediately just as it is harming competition.

In *Aspen Skiing* itself, the Court concluded that the jury was entitled to find such a sacrifice, although it did not make illegality hinge on that fact.³⁴¹ Further, whether there was an actual sacrifice is doubtful. The plaintiff’s market position declined immediately after the refusal and the defendant’s market position increased.³⁴² That is what one would expect in most cases in which a joint venture had been more valuable to the terminated firm than to the other. Upon terminating the joint enterprise, the plaintiff’s harm would be almost immediate. Overall market output very likely declined as well because the attractive joint package was no longer available. As a result, market revenue may have gone down, but the defendant’s share of it would have increased. This appears to be what happened in *Aspen Skiing*. That is, the refusal worked just like exclusive dealing: to the extent it removed an attractive customer option and perhaps raised prices, it reduced overall market revenues, but at the same time, it increased the defendant’s share of those revenues.³⁴³ The refusal would be profitable immediately if the gains from the higher share offset the losses from the reduced size of the overall market.

Indeed, such refusals are *less* likely to occur when they promise immediate losses, followed by perhaps uncertain gains. They are more likely when the expected gains are immediate and certain. As a result, a “sacrifice” test is perverse. It condemns refusals in situations in which they are less likely to occur and gives a pass to those that produce a bigger threat.

341. See *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 610-11 (1985).

342. See Hovenkamp, *supra* note 241, at 1714.

343. See *Aspen Skiing*, 472 U.S. at 610-11.

The “sacrifice” test is particularly harmful in cases that involve reliance and path dependence. This is a particular problem in dynamic networked markets, in which firms are coaxed onto the network by commitments that are vulnerable to being subsequently withdrawn. For this reason, the Ninth Circuit lost an important opportunity to prevent Qualcomm from undermining the FRAND patent licensing program in ways that harmed competition.

2. Refusal to Deal, “Self-Preferencing,” and Copying

One additional refusal to deal question concerns conduct when there is neither a statutory duty to deal, as in *Trinko*,³⁴⁴ or a previous voluntary dealing agreement that the defendant repudiated, as in *Aspen Skiing*.³⁴⁵ For example, should a firm such as Facebook or Amazon have a duty to share platform access or information with interconnected rivals?

“Self-preferencing” addresses concerns that fall into antitrust refusal to deal law although it can also reach anticompetitive agreements. Indeed, a fair amount of current antitrust law already addresses forms of self-preferencing. For example, the law of tying and exclusive dealing limits the ability of manufacturers to insist that dealers limit sales to the manufacturer’s own brands.³⁴⁶ Other practices that are sometimes termed “quasi” exclusive dealing include discounts conditioned on dealers taking a minimum share of their needs from that supplier or if a dealer agrees to purchase a seller’s entire bundle of products.³⁴⁷ “Tech ties,” or technological ties, generate self-preferencing by making the manufacturer’s secondary

344. See *Verizon Commc’ns Inc. v. Law Offs. of Curtis V. Trinko, LLP*, 540 U.S. 398, 401 (2004).

345. See 472 U.S. at 589-95.

346. *E.g.*, *Krehl v. Baskin-Robbins Ice Cream Co.*, 664 F.2d 1348, 1350 (9th Cir. 1982) (rejecting claim that franchisor’s requirement that franchisees sell its ice cream exclusively was unlawful tying); *Roy B. Taylor Sales, Inc. v. Hollymatic Corp.*, 28 F.3d 1379, 1381-82 (5th Cir. 1994) (similar); *Blanton Enters., Inc. v. Burger King Corp.*, 680 F. Supp. 753, 758 (D.S.C. 1988) (similar requirement treated as exclusive dealing); see Hovenkamp, *supra* note 295.

347. *LePage’s Inc. v. 3M*, 324 F.3d 141, 144 (3d Cir. 2003) (en banc) (upholding jury verdict that defendant unlawfully offered discounts conditioned on purchase of a bundle of its products).

good compatible only with its own primary devices. For example, Keurig, a maker of coffee brewing machines, unsuccessfully attempted to reengineer its popular pod-style coffee maker so that it was compatible only with Keurig's own proprietary coffee pods. These had previously been sold competitively by numerous firms. Not only did the experiment fail in the market, it also embroiled Keurig in antitrust litigation which is ongoing at this writing.³⁴⁸ In addition, antitrust policy limits the use of most-favored-nation agreements (MFNs), which require a firm's suppliers to charge higher prices to competing firms.³⁴⁹

So antitrust law already has a toolbox for dealing with anti-competitive self-preferencing. Legislation under consideration at this writing would go further. Depending on what emerges, proposed legislation could address situations where a firm:

- Charges lower prices on its website for its own products than third parties do for their competing products;

348. See *In re Keurig Green Mountain Single-Serve Coffee Antitrust Litig.*, 383 F. Supp. 3d 187 (S.D.N.Y. 2019); see also *In re Keurig Green Mountain Single-Serve Coffee Antitrust Litig.*, No. 14-md-2542, 2021 WL 1393336, at *1 (S.D.N.Y. Apr. 13, 2021) (granting Illinois and Florida right to intervene on behalf of indirect purchasers); *In re Keurig Green Mountain Single-Serve Coffee Antitrust Litig.*, 341 F.R.D. 474, 491, 526-27 (S.D.N.Y. 2022) (case management order also finding that Keurig had engaged in some spoliation of evidence).

349. See Jonathan B. Baker & Fiona Scott Morton, *Antitrust Enforcement Against Platform MFNs*, 127 YALE L.J. 2176, 2181-86 (2018). Amazon formerly used them but has subsequently eliminated at least some of them. See Makena Kelly, *Amazon Silently Ends Controversial Pricing Agreements with Sellers*, THE VERGE (Mar. 11, 2019, 5:55 PM), <https://www.theverge.com/2019/3/11/18260700/amazon-anti-competitive-pricing-agreements-3rd-party-sellers-end> [<https://perma.cc/X5JZ-BHV5>]. But see Complaint, *District of Columbia v. Amazon.com, Inc.*, No. 2021-CA-001775-B (D.D.C. May 25, 2021) (complaining about remaining MFNs). At paragraph 30, the complaint references an Amazon "Fair Pricing Policy" as requiring Amazon's third party sellers to set a price on Amazon's platform that is equal to or lower than the price it sets on any competing platform. See *Amazon Marketplace Fair Pricing Policy*, AMAZON, https://sellercentral.amazon.ca/help/hub/reference/external/G5TUVJKZHUVMN77V?ref=efph_G5TUVJKZHUVMN77V_cont_521&locale=en-CA [<https://perma.cc/YPA8-3UVE>]; cf. *De Coster v. Amazon.com, Inc.*, No. C21-693, 2022 WL 168405, at *1-2 (W.D. Wash. Jan. 19, 2022) (refusing to consolidate two antitrust actions against Amazon involving slightly different MFN allegations). One complaint alleged that Amazon required an MFN clause as a condition of having one's goods placed into the Amazon "buy box." See *De Coster*, 2022 WL 168405. The other complaint alleged that Amazon required an MFN in order for a seller to take advantage of Amazon Fulfillment Services. See *id.*

- Gives its own products an advantaged position in a product search or in a tool, such as Amazon’s “buy box,” which gives alternative results for a particular product search;³⁵⁰
- Simply sells its own products in competition with third-party products or selects some but not all of the third-party makers of a particular product; and
- Reverse engineers and copies products that it is selling for a third party.³⁵¹

Depending on what emerges, some of these provisions could conflict with long-established policies developed under the antitrust law. For example, the law of exclusive dealing has traditionally favored “multi-branding,” or sellers who sell multiple brands from the same dealer or store.³⁵² Major retailers from Walmart to Macy’s have always dealt in multiple brands, frequently displayed side by side on the same shelves. Amazon in particular is an anti-exclusive dealing platform; it generally carries numerous brands of the same product, including rivals’ brands in addition to its own. This forces individual suppliers to set competitive prices and maximizes consumer choice. By contrast, strong self-preferencing legislation may force a firm such as Amazon to single brand—that is, to make a choice between selling its own goods or the competing goods of rivals on its website, but not both. In effect, depending on what if anything is passed, it could exclude products by making it more difficult for either Amazon itself or else for other firms to sell them in competition on the same site.

One particularly troublesome feature of proposed legislation such as AICOA is that it designates a small number of digital firms for its coverage, without reaching equally large but more traditional firms, or firms that have larger shares of particular products.³⁵³

350. See Hovenkamp, *supra* note 218, at 1546-47.

351. See SUBCOMM. ON ANTITRUST, COM. & ADMIN. L. OF THE COMM. ON THE JUDICIARY, 116TH CONG., INVESTIGATION OF COMPETITION IN DIGITAL MARKETS 281 (Comm. Print 2020).

352. *E.g.*, *Standard Oil Co. v. United States*, 337 U.S. 293, 296, 309-10, 314 (1949) (condemning defendant’s imposition of exclusive branding on its gasoline stations); *United States v. Dentsply Int’l, Inc.*, 399 F.3d 181, 185 (3d Cir. 2005) (condemning defendant’s rules that required dealers to sell its product exclusively).

353. See *supra* notes 242-43 and accompanying text.

Problematically, consumers' switching costs are higher in traditional stores than on digital platforms. For example, a customer at Walmart who is unhappy because the store has featured its own label and excluded a rival's can switch by traveling to a different store. An Amazon customer in that situation can visit another seller with a mouse click.

As explained above, an "abuse of dominance" standard could address these issues far more effectively than these specific statutory proposals, provided that it does not cause harmful overreach.³⁵⁴ Such a standard must be interpreted so as to identify abuses that harm competition in a meaningful way. First, it would apply to all dominant platforms, with dominance measured by established economic criteria. That would certainly reach more firms than Amazon, Apple, Alphabet, and Meta. Second, the "abuse" requirement would enable judges to identify abuse in the particular situation before it and avoid problems of undercoverage or overdeterrance.

The reverse engineering or copying problem noted above sounds more in intellectual property (IP) than antitrust, including the law of utility and design patents, copyright, and trademark. The IP laws permit—indeed, even encourage—firms to copy and compete freely in public domain goods or technology.³⁵⁵ Exclusive IP rights incentivize innovation while copying incentivizes dissemination. Technological progress requires both, and we rely on IP law to determine the appropriate boundary between them. So in the first instance, this issue seems best handled as a matter of IP policy.

The real bite of any congressional self-preferencing provision must occur for some set of products that do not have relevant IP protection and when we think copying by a firm such as Amazon is unjust for some other reason. Assuming that monopoly is not threatened in the secondary market, the antitrust legality of copying a public domain product might still be examined under an abuse of

354. See discussion *supra* Part I.3.B.

355. *E.g.*, *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146, 148-49 (1989) (limitations in Patent Act intended to protect competition in the public domain); see also *id.* at 160-61 (noting the extent to which IP law encourages reverse engineering); *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 65 (1998) ("The patent laws ... seek both to protect the public's right to retain knowledge already in the public domain and the inventor's right to control whether and when he may patent his invention.").

dominance standard. However, a court would have to tread carefully in order to avoid conflict with the IP laws.³⁵⁶

Limiting a firm's power to copy things that are in the public domain requires a justification. Important organizations such as Creative Commons,³⁵⁷ the Open Source Initiative,³⁵⁸ and the Center for the Study of the Public Domain³⁵⁹ are only a few of those dedicated to the proposition that a great deal of the dissemination of valuable things comes from the existence of a robust public domain. For example, this impulse shows up powerfully in our treatment of patent pharmaceutical drugs, in which we have a strong policy, enacted in the Hatch-Waxman Act,³⁶⁰ of encouraging copying of drugs whose patents have expired.³⁶¹ In sum, we should not jump too nimbly from the well-established premise that copying of things in the public domain should be encouraged to the conclusion that such behavior becomes bad if Amazon does it.

Another danger of thoughtless self-preferencing rules is that they will harm the very interests they are intended to protect. A case in point is *Standard Oil Co. v. United States* ("Standard Stations").³⁶² The Supreme Court condemned Standard Oil's policy requiring its retail services stations to sell its own gasoline exclusively.³⁶³ The practice that the Court condemned, sometimes called "single branding,"³⁶⁴ forbade a franchised gasoline station holding itself out as a Standard station from selling a second brand of gasoline.³⁶⁵ Justice Douglas wrote a strong dissent—nothing less than shocking, given

356. See, e.g., *TraFFix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23, 25-30 (2001) (protecting a particular functional design feature in the guise of trade dress would hinder competition).

357. See CREATIVE COMMONS, <https://creativecommons.org/> [<https://perma.cc/8C5K-KJSX>].

358. See OPEN SOURCE INITIATIVE, <https://opensource.org/> [<https://perma.cc/THD7-A5N7>].

359. See *Center for the Study of the Public Domain*, DUKE L., <https://web.law.duke.edu/cspd/> [<https://perma.cc/KZ2S-5BWS>].

360. Hatch-Waxman Act, Pub. L. No. 98-417, 98 Stat. 1585 (1984) (codified as amended in scattered sections of 21 U.S.C. and 35 U.S.C.).

361. E.g., *FTC v. Actavis, Inc.*, 570 U.S. 136, 141 (2013) (limiting power of pharmaceutical patentees to use pay-for-delay settlements to restrain third party development of generic drugs).

362. 337 U.S. 293 (1949).

363. See *id.* at 314.

364. Particularly in EU law. See, e.g., Frank Wijckmans, Pozuelo 4: *De Minimis Treatment of Exclusive Purchase (Single Branding) Obligations*, 6 J. EUR. COMPETITION L. & PRAC. 413 (2015).

365. See *Standard Oil*, 337 U.S. at 314.

that Justice Douglas was one of the most pro-enforcement Justices in the history of antitrust.³⁶⁶ In fact, Justice Douglas began his dissent reciting numerous ways in which he believed the antitrust laws were underenforced—“the teeth have largely been drawn from the Act”³⁶⁷ and the “lessons Brandeis taught on the curse of bigness have largely been forgotten in high places.”³⁶⁸

So why the dissent from an opinion that condemned a vertical restraint? It was based on his prescient prediction that eliminating exclusive dealing “sets the stage for Standard and the other oil companies to build service-station empires of their own.”³⁶⁹ Prohibited from organizing distribution in ways that maximized its output, a firm such as Amazon might just as easily comply with a statute by not dealing with third parties at all, thus removing them from the platform. That would not benefit anyone.

B. Exclusionary Mergers

For twenty-five years, the Sherman Act was the country’s only federal merger statute.³⁷⁰ Coverage was expanded in 1914 by section 7 of the Clayton Act.³⁷¹ The government’s loss in the *United States Steel* merger case, brought prior to the Clayton Act’s passage, indicates the Sherman Act’s shortcomings.³⁷² The Court concluded that the merger did not create a monopoly and was thus not unlawful.³⁷³ That was so notwithstanding that the challenge had been

366. C. Paul Rogers III, *The Antitrust Legacy of Justice William O. Douglas*, 56 CLEV. ST. L. REV. 895, 896 (2008) (noting Justice Douglas’s reputation as a “leading antitrust hawk[.]”).

367. *Standard Oil*, 337 U.S. at 317 (Douglas, J., dissenting).

368. *Id.* at 318.

369. *Id.* at 320.

370. *See, e.g.*, *N. Sec. Co. v. United States*, 193 U.S. 197, 325 (1904) (condemning a railroad merger to monopoly under sections 1 and 2 of the Sherman Act); *United States v. S. Pac. Co.*, 259 U.S. 214, 224, 232 (1922) (same; not applying the Clayton Act because the suit had been brought on February 11, 1914, eight months prior to Clayton Act’s enactment on October 15, 1914). Both of the pre-Clayton Act decisions in *Standard Oil Co. v. United States*, 221 U.S. 1, and *United States v. American Tobacco Co.*, 221 U.S. 106 (1911), included some merger challenges.

371. Clayton Act, ch. 323, § 7, 38 Stat. 731-32 (1914) (current version at 15 U.S.C. § 18).

372. *See United States v. U.S. Steel Corp.*, 223 F. 55, 178 (D.N.J. 1915) (Wooley, J., concurring) (stating that the action had been brought on October 26, 1911), *aff’d*, 251 U.S. 417, 444 (1920) (“[T]he Corporation did not achieve monopoly.”).

373. *See U.S. Steel Corp.*, 251 U.S. at 444.

brought under both sections 1 and 2 of the Sherman Act and only section 2 requires creation of monopoly.³⁷⁴ While the explanation is unclear, the best one seems to be that the industry was expanding rapidly and the acquisitions were found not to have reduced output at all.³⁷⁵

Section 7 of the Clayton Act sought to remedy that by condemning acquisitions when “the effect of such acquisition may be substantially to lessen competition” as an alternative to tending “to create a monopoly.”³⁷⁶ Two features of original § 7 limited its usefulness. First was its language addressing the lessening of competition “between” the merging firms, which largely limited its reach to horizontal mergers.³⁷⁷ Only mergers of competitors or potential competitors reduce competition between the merging partners. Second, the original § 7 applied only to stock acquisitions and firms wishing to merge avoided § 7 by engaging in acquisitions of assets—a mere transactional formality.³⁷⁸ Since its 1950s amendments, the merger statute has been interpreted much more aggressively, and today we tend to think of the Sherman Act as an inferior vehicle.

That is not clear from the statutory language. Section 1 of the Sherman Act reaches “combinations” in restraint of trade, and that was how early merger cases used it.³⁷⁹ Further, the most generally understood meaning of “restraint of trade” at common law was

374. See *U.S. Steel Corp.*, 223 F. at 58. Justice Day’s dissent from the Supreme Court’s affirmance protested that the acquisitions did, in fact, restrain trade even though they may have been unsuccessful in creating a monopoly. *U.S. Steel Corp.*, 251 U.S. at 458 (Day, J., dissenting).

375. See *U.S. Steel Corp.*, 223 F. at 67.

376. 15 U.S.C. § 18.

377. As originally enacted, § 7 provided:

That no corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce, where the effect of such acquisition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce.

Clayton Act, ch. 323, § 7, 38 Stat. 731-32 (1914) (current version at 15 U.S.C. § 18).

378. See, e.g., *FTC v. W. Meat Co.*, 272 U.S. 554, 561 (1926) (holding that § 7 did not apply to asset acquisitions).

379. See *N. Sec. Co. v. United States*, 193 U.S. 197, 327 (1904) (“This combination is, within the meaning of the act, a ‘trust;’ but if not, it is a *combination in restraint of interstate and international commerce*; and that is enough to bring it under the condemnation of the act.”).

practices that threatened anticompetitive output reductions.³⁸⁰ Literally, a merger that threatened an anticompetitive output decrease and corresponding increase in price would have satisfied that definition, and those are largely the criteria we use to evaluate mergers today.³⁸¹ The underlying theory of the merger did not matter—whether collusion-facilitating, unilateral output-reducing effects, or merger to monopoly.³⁸² All would be covered. In this instance, as in so many others, the meaning of the Sherman Act evolved so as to reflect the case law rather than the literal language of the statutes. Here, the insistence in early decisions such as *United States Steel* that the Sherman Act reaches only mergers to monopoly was a departure. In any event, in the relatively few cases that continue to apply the Sherman Act today, the courts treat the reach of the two statutes as the same.³⁸³

Attacking a merger as a combination in restraint of trade is an interpretation of section 1 of the Sherman Act, not section 2.³⁸⁴ Here, § 2 would appear to reach more narrowly because it challenges only monopolizing conduct. A merger that merely facilitated a price increase in the collusion sense would not be “monopolizing.” In any event, application of either section 2 of the Sherman Act or section 7 of the Clayton Act is clearer when the purpose of the acquisition is to keep a competitive firm off the market entirely—at least in

380. See Hovenkamp, *supra* note 77, at 794.

381. See *id.* at 794 & n.27 (first citing *NCAA v. Alston*, 141 S. Ct. 2141, 2155 (2021); then citing *NCAA v. Bd. of Regents*, 468 U.S. 85, 99 (1984); and then citing *Cont'l TV, Inc. v. GTE Sylvania, Inc.*, 433 U.S. 36, 70 (1977) (White, J., concurring)).

382. See *id.* at 794.

383. See generally *United States v. Rockford Mem'l Corp.*, 898 F.2d 1278 (7th Cir. 1990), *cert. denied*, 498 U.S. 920 (1990) (finding that although § 7 may not have covered merger for jurisdictional reasons, the Clayton and Sherman Acts condemn mergers under the same standards). The court observed:

We doubt whether there is a substantive difference today between the standard for judging the lawfulness of a merger challenged under section 1 of the Sherman Act and the standard for judging the same merger challenged under section 7 of the Clayton Act.... A transaction violates section 1 of the Sherman Act if it restrains trade; it violates the Clayton Act if its effect may be substantially to lessen competition. But both statutory formulas require, and have received, judicial interpretation; and the interpretations have, after three quarters of a century, converged.

Id. at 1281-82.

384. *E.g., id.* at 1281.

those circumstances when dominance is realistically threatened or prolonged.

The FTC's complaint against Facebook challenges Facebook's acquisitions of Instagram and WhatsApp, but under section 2 of the Sherman Act rather than either Sherman Act section 1 or section 7 of the Clayton Act.³⁸⁵ At this writing, whether omitting a § 7 claim was a good litigation strategy remains to be seen. Much depends on the market definition that the court is willing to accept. A merger challenged on traditional § 7 grounds might require a market share no greater than 30 percent or so. That would very likely not be enough to support a Sherman Act section 2 challenge.

Section 2 of the Sherman Act condemns "exclusionary" practices. By contrast, today nearly all enforcement of the merger law under the government's Horizontal Merger Guidelines addresses concerns more properly likened to collusion.³⁸⁶ That is, they harm competition by reducing competition between the merging firms or else among all of the competitors in the market in which the merger is challenged. The reach of private merger enforcement can be broader, reaching exclusionary conduct such as dealer terminations resulting from a merger.³⁸⁷

President Biden's executive order on competitiveness encouraged the antitrust agencies to consider revising the Merger Guidelines, and they are in the process of doing so.³⁸⁸ One thing new guidelines should consider is adding a section addressing mergers such as the numerous acquisitions of small firms made by the large digital platforms. Here, the more realistic threat is not collusion-like behavior but rather removal of potential competitors before they have had a chance to grow to maturity. That is to say, these mergers should be treated as a form of monopolizing conduct.

In addition, so-called "killer" acquisitions are best analyzed as exclusionary rather than collusive practices.³⁸⁹ Killer acquisitions

385. See *supra* note 64 and accompanying text.

386. See generally U.S. DEP'T OF JUST., *supra* note 148, at 19.

387. *E.g.*, *Steves & Sons, Inc. v. JELD-WEN, Inc.*, 988 F.3d 690, 701-02 (4th Cir. 2021) (a successful merger challenge by terminated dealer).

388. Exec. Order No. 14,036, 86 Fed. Reg. 36,987, 36,991 § 5(c) (July 9, 2021) ("[T]he Attorney General and the Chair of the FTC are encouraged to review the horizontal and vertical merger guidelines and consider whether to revise those guidelines.").

389. Facebook's acquisitions of WhatsApp and Instagram are not killer acquisitions—both

have a long history, going back to the 1911 *United States v. American Tobacco Co.* case prior to the passage of the Clayton Act.³⁹⁰ The defendant was condemned in part for engaging in the “persistent expenditure of millions upon millions of dollars in buying out plants, not for the purpose of utilizing them, but in order to close them up and render them useless.”³⁹¹

A merger plus shutdown of the acquired assets deserves harsh treatment because such acquisitions virtually never produce plausible cost savings. The only reason we subject mergers of competitors to something less than per se scrutiny is the belief that there might be offsetting efficiencies that make the merger productive on balance.³⁹² However, the only realistic effect of a killer acquisition is removal of the rival’s acquired assets from the market. That makes it very little different from a cartel, which we routinely condemn without examining its effects.³⁹³

However, the enforcement treatment should be based on ex ante rather than ex post analysis. Not all mergers work out. As a result, some failed acquisitions must subsequently be spun off.³⁹⁴ A firm should not be condemned if it realistically planned on putting the acquired assets to productive use but things subsequently did not go as planned. Here, the best approach would be to inquire whether an acquisition was made in good faith with production in mind or whether the plan from the beginning was to shut it down.

assets are still in active production.

390. 221 U.S. 106, 183 (1911).

391. *Id.*; see also *id.* at 164 n.1 (including a list of firms that were closed as soon as they were purchased); *United States v. Am. Can Co.*, 230 F. 859, 875 (D. Md. 1916) (noting the defendant’s purchase and shutdown of rival can companies); *United States v. Keystone Watch Case Co.*, 218 F. 502, 519 (E.D. Pa. 1915) (condemning defendant in part for acquiring interests in firms and shutting them down).

392. See Hovenkamp, *supra* note 166, at 2046 (first citing 1 AREEDA & HOVENKAMP, *supra* note 41, ¶¶ 970-976; and then citing Herbert Hovenkamp, *Apprising Merger Efficiencies*, 24 GEO. MASON L. REV. 703, 704 (2017)).

393. See *id.* at 2045-48.

394. Most notably, Time-Warner/AT&T, which beat a Justice Department vertical merger challenge but later spun the acquired assets off as an acquisition failure. See *United States v. AT&T, Inc.*, 916 F.3d 1029, 1031-32 (D.C. Cir. 2019); see also Jon Brodtkin, *AT&T to Spin Off WarnerMedia, Basically Admitting Giant Merger Was a Mistake*, ARSTECHNICA (May 17, 2021, 12:53 PM), <https://arstechnica.com/tech-policy/2021/05/att-to-spin-off-warnermedia-will-try-to-act-like-a-telecom-company-again/> [<https://perma.cc/9A8P-PMRW>].

C. Anticompetitive Technology Design and Restraints on Innovation

The successful introduction of a new or significantly modified product often injures rivals committed to prior technologies. Major innovations, such as the automobile, the plain paper copier, or the handheld electronic calculator often wipe out entire markets for products such as horses and buggies, mimeograph machines, and slide rules that subsequently became obsolete. Nonetheless, virtually no antitrust case law approves “direct,” primary market challenges to innovation as anticompetitive.³⁹⁵

Today the consensus is very robust that a design improvement in and of itself is protected from antitrust challenge. Arguably a tradeoff worth measuring exists between the amount of benefit that an innovation confers on consumers and others and the amount of harm it causes to rivals, but the courts consistently reject any claims challenging innovation caused by product designs on that basis.³⁹⁶

One Ninth Circuit decision rejected as speculative a smaller rival’s claim that IBM’s introduction of new computer models had to consider “impact costs,” or a reduction in profits on the old line resulting from its obsolescence.³⁹⁷ The theory was presented as a form of predatory pricing: even though the new model was sold at a fully profitable price, that might not be true if one subtracted the unrealized revenue that might have been earned on the old model had the new one not been introduced.³⁹⁸ The plaintiff was saying, in effect, that in considering the impact of a new product one had to

395. As the Ninth Circuit once put it in a decision challenging an IBM redesign as anticompetitive: “To accept CalComp’s [the plaintiff competitor’s] position would be to hold that IBM could not compete if competition would result in injury to its competitors, an ill-advised reversal of the Supreme Court’s pronouncement that the Sherman Act is meant to protect the competitive process, not competitors.” *Cal. Comput. Prods., Inc. v. IBM Corp.*, 613 F.2d 727, 741-44 (9th Cir. 1979) (rejecting the competitor’s claim that IBM’s introduction of smaller and faster computers “at a ‘much cheaper’ cost of design and manufacture” was “technological manipulation”).

396. *See, e.g., Allied Orthopedic Appliances, Inc. v. Tyco Health Care Grp. LP*, 592 F.3d 991, 1000 (9th Cir. 2010) (“There is no room in this analysis for balancing the benefits or worth of a product improvement against its anticompetitive effects.”).

397. *See Transam. Comput. Co. v. IBM Corp.*, 698 F.2d 1377, 1383 n.3 (9th Cir. 1983).

398. *See id.*

subtract all the unrealized profits that would have been earned on older versions that had now become obsolete. In addition to being a measurement nightmare, such a theory would impose tremendous threats to innovation. If automobiles had not been invented, we might have continued using horses and buggies for centuries.

The successful challenges to product changes claimed to be innovations occur in markets for complementary or vertically related products. The challenge is not to harm caused by innovation of a primary product but rather to unreasonably exclusionary behavior in a complementary, or secondary, product. As a result, even dominant firms are free to innovate in their primary market without antitrust concern about harm to rivals. However, cognizable injuries in related markets are possible, although they are usually analyzed as technological ties, which borrows at least some doctrine from the law of tying arrangements.³⁹⁹

For a time, the academic literature toyed with the idea of “predatory product innovation,”⁴⁰⁰ but it never took hold in the case law. Even in that literature, nearly all identified instances of predatory product innovation involved modification of secondary products so as to make them incompatible with rivals’ complementary products.⁴⁰¹

For example, Berkey Photo challenged Kodak’s simultaneous introduction of a new camera and new film format that was compatible only with the camera.⁴⁰² The Federal Circuit’s decision in *C.R. Bard, Inc. v. M3 Systems, Inc.* was concerned with Bard’s introduction of a redesigned hypodermic gun for taking skin biopsies together with its redesigned disposable needles that eliminated the generic and competitive market for needles.⁴⁰³ The principal challenge in the *Microsoft* case was not Windows’s dominance as such in

399. See *supra* text accompanying note 74; see also Hovenkamp, *supra* note 218, at 1521-23.

400. See, e.g., Janusz A. Ordover & Robert D. Willig, *An Economic Definition of Predation: Pricing and Product Innovation*, 91 YALE L.J. 8 (1981).

401. For a critique of the Ordover-Willig model, see Joseph Gregory Sidak, *Debunking Predatory Innovation*, 83 COLUM. L. REV. 1121, 1122 (1983), noting that it involved firms who made complementary products in order to leverage sales in the secondary product. See *id.* at 1122, 1130.

402. See *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 267 (2d Cir. 1979). See the discussion on “leveraging” claims in the same decision, *supra* text accompanying notes 276-86.

403. 157 F.3d 1340, 1346 (Fed. Cir. 1998).

its primary market, which might exclude rival operating systems.⁴⁰⁴ Rather, it focused on the harm to a complementary product, namely Netscape's internet browser, and Microsoft's various efforts to bind Internet Explorer, its own browser, to Windows.⁴⁰⁵

These harms can occur in the secondary market even if the conduct falls short of creating a monopoly there. That is why the tying analogy has proven so useful: tying requires market power in the tying product but not the creation of monopoly in the secondary product.⁴⁰⁶ For example, if a redesign of product *A* transforms the complementary *B* market from a highly competitive generic to one in which the defendant acquires 40 percent of the secondary product, then it could do enormous harm to rivals, consumers, and others. It could be treated analytically as a tech tie but not realistically as monopolization of the secondary market.

In *Microsoft*, the defendant dominated the operating system market (with Windows), but the court found that a browser market was never properly defined.⁴⁰⁷ As a result, the attempt to monopolize claim faltered because it required a market definition of the market in which the attempt occurred.⁴⁰⁸ There was also a tying claim involving the operating system and the browser that the court remanded under the rule of reason, which was subsequently dropped.⁴⁰⁹ The court did condemn a tech tie on the theory that Microsoft "commingled" the Windows and browser code into the same program, making it impossible to acquire one without the other.⁴¹⁰ The tech tie claim under § 2 requires dominance in the primary product and foreclosure, a form of exclusion, in the secondary product. But it does not require monopoly in the second product.

Once again, defining the monopolization offense as "abuse of dominance" could go far toward addressing these problems when the

404. See *United States v. Microsoft Corp.*, 253 F.3d 34, 47 (D.C. Cir. 2001) (en banc) (per curiam).

405. See *id.*

406. See 10 AREEDA & HOVENKAMP, *supra* note 74, ¶¶ 1731-1733.

407. See 253 F.3d at 81-82.

408. See *id.*; see also *supra* text accompanying notes 57-62; *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 455-56 (1993) (citing *Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172, 177 (1965)).

409. See *Microsoft*, 253 F.3d at 84-91 (remanding the tying claim for analysis under rule of reason).

410. *Id.* at 65-67.

conduct falls short of realizing monopoly in the secondary market.⁴¹¹ The danger is that under such a standard, “abuse” could be interpreted to include many tort-like injuries that do not amount to injuries to competition or, worse yet, are actually procompetitive. Nevertheless, an abuse of dominance standard can be a useful tool for examining product changes that cause unnecessary harm to complementary products—particularly those that threaten generic competition in secondary markets.

In addressing design changes as monopolization, the courts have generally imposed a “no benefit” rule. A dominant firm’s product redesign that alters a complementary product can be challenged if it is not in any way superior but serves only to make rival complementary products incompatible. Liability is limited to situations where (1) the product change was not an improvement and (2) the defendant never intended for it to be an improvement, but only to commandeer the market for the complementary product.

The presence of government regulation can cause some complicating issues when the regulation itself limits consumer choice. One troublesome example is pharmaceutical “product hopping,” which has found recognition in the case law.⁴¹² This practice involves the maker of a popular drug who, with patent expiration looming, makes small modifications and yanks regulatory approval from the older version in order to force doctors and their patients to migrate to the new one.⁴¹³ The result is to prolong effective patent or regulatory exclusivity.⁴¹⁴ The strategy is entirely a consequence of the

411. See *supra* Part III.E.4.

412. *E.g.*, *New York ex rel. Schneiderman v. Actavis PLC*, 787 F.3d 638, 651-59 (2d Cir. 2015) (recognizing product hopping as a § 2 theory of harm).

413. The Second Circuit rejected the argument that limiting product hopping in this case would restrain innovation:

Defendants have presented no evidence to support their argument that antitrust scrutiny of the pharmaceutical industry will meaningfully deter innovation. To the contrary, as the American Antitrust Institute *amici* argue, immunizing product hopping from antitrust scrutiny may deter significant innovation by encouraging manufacturers to focus on switching the market to trivial or minor product reformulations rather than investing in the research and development necessary to develop riskier, but medically significant innovations.

Id. at 659.

414. See HERBERT HOVENKAMP, MARK D. JANIS, MARK A. LEMLEY, CHRISTOPHER R. LESLIE & MICHAEL A. CARRIER, *IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW* § 15.03(B)(1) (3d ed. 2018).

defendant's ability to manipulate a regulatory regime. In the absence of regulation, there is no obvious way that a producer could "hop" customers from the older version to a more expensive but no more desirable new one.

Some primary product redesigns, such as the proverbial Ford Edsel, are failures.⁴¹⁵ Even in the case of altered complementary products, failed redesigns should not be a strict liability offense. The question is not whether ex post the design ends up not being an improvement. Rather, it is whether the defendant ever intended the design to be an improvement or simply wished to make a complementary product incompatible. For example, in the *Keurig* litigation the defendant modified its product by placing a barcode on each K-Cup that was rationalized as a way that consumers could identify the particular cup's recipe.⁴¹⁶ In fact, however, according to the plaintiff's claims, the only thing that the modification did was prevent the redesigned Keurig machine from operating when the cup did not contain the proprietary barcode.⁴¹⁷ As a result, rivals' generic K-Cups, which were extremely popular, could no longer be used.⁴¹⁸

In sharp contrast to allegedly anticompetitive innovations, exclusionary *restraints* on innovation are conceptually easier to address because no countervailing policy favors them. They are harmful, pure and simple, provided that they are properly identified. For example, in *Microsoft* the defendant was found to have used its monopoly power to force Intel to stop development of a "Java-enabled" processor chip, which would have been able to process instructions

415. See Chris Perkins, *The Edsel Proved Why You Should Never Design a Car by Committee*, RD. & TRACK (Jan. 23, 2017), <https://www.roadandtrack.com/car-culture/classic-cars/a32380/ford-edsel-history/> [<https://perma.cc/2EX9-SH5Z>].

416. See Amended and Supplemental Complaint and Demand for Jury Trial ¶ 408, *In re Keurig Green Mountain Single-Serve Antitrust Litig.*, No. 14-cv-00905, 2014 WL 7250107 (S.D.N.Y. Dec. 2, 2014); see also *In re Keurig Green Mountain Single-Serve Antitrust Litig.*, No. 14-CV-4242, 2014 WL 12778832, at *2 (S.D.N.Y. Sept. 19, 2014).

417. *In re Keurig Green Mountain Single-Serve Antitrust Litig.*, 2014 WL 12778832, at *2 n.6.

418. See *id.* at *1, *2 & n.6 (denying a preliminary injunction and finding a likely "factual dispute over whether the technology serves a purpose in addition to preventing the use of unlicensed portion packs"); see also *United States v. Microsoft Corp.*, 253 F.3d 34, 66-67 (D.C. Cir. 2001) (en banc) (per curiam) (holding that while commingling of Windows and browser code increased the browser's user share, "Microsoft failed to meet its burden of showing that its conduct serves a purpose other than protecting its operating system monopoly").

across different platforms.⁴¹⁹ Microsoft worried that this chip would increase the level of compatibility between the Windows platform and non-Windows computers and thus make alternative platforms more viable.⁴²⁰ In this case, Microsoft was not able to offer any justification.⁴²¹

D. Exclusionary Patent Practices

The antitrust community today is deeply divided about the appropriate relationship between antitrust law and IP rights, particularly patents. Those on the right tend to favor strong patents and would generally resolve conflicts in favor of protection even in cases of fairly clear consumer harm in the short run.⁴²² In part this may be driven by a difference in perspective. Those on the right tend to be more sympathetic with long-run concerns and are more willing to trade off short-term losses, including high consumer prices, for the prospect of long-term gains that are by no means assured. To this end, moderates tend to cling closer to the text of the Patent Act, limiting antitrust only when the statute warrants doing so.⁴²³ By contrast, conservatives tend to draw more inferences in favor of patents and against antitrust enforcement.⁴²⁴

This position was reflected in the Trump administration Justice Department's announcement of its "New Madison" doctrine, declaring that antitrust law should generally stay out of patent licensing disputes regarding standard essential patents.⁴²⁵ The DOJ

419. See 253 F.3d at 77-78.

420. See *id.* at 77.

421. See *id.*; see also Herbert Hovenkamp, *Restraints on Innovation*, 29 CARDOZO L. REV. 247, 249-52 (2007).

422. One example is the dissenting opinion in *FTC v. Actavis, Inc.*, 570 U.S. 136, 160-61 (2013) (Roberts, C.J., dissenting) (stating that the goal of antitrust laws is to promote "consumer welfare" but then voting to approve a patent settlement that would have led to enormous price increases in drugs based on doubtful patents).

423. *E.g., id.* at 151 (majority opinion) (speaking of pay-for-delay settlement, Justice Breyer stated: "The dissent does not identify any patent statute that it understands to grant such a right to a patentee, whether expressly or by fair implication").

424. *E.g., id.* at 169 (Roberts, C.J., dissenting) (inferring the right to enter a pay-for-delay agreement from the right to settle).

425. See MAKAN DELRAHIM, U.S. DEP'T OF JUST., THE "NEW MADISON" APPROACH TO ANTITRUST AND INTELLECTUAL PROPERTY LAW (2018), <https://www.justice.gov/opa/speech/file/1044316/download> [<https://perma.cc/NQ35-8YXC>]. For a critique, see Herbert Hovenkamp,

chose to side with Qualcomm and against the FTC in an important decision in which both exclusion of rivals and higher prices were largely undisputed.⁴²⁶

Such disputes cannot properly be characterized as being about the importance of innovation. Most people presumably believe that innovation is important and that both patent policy and antitrust policy should operate to facilitate innovation rather than undermine it. The dispute lies in a different place, which has to do with two things. First is the role of patents in furthering innovation in different technologies. Second is the value of antitrust as a tool for identifying restraints that limit innovation unnecessarily or else that limit competition without doing anything to further innovation. The New Madison doctrine says, in essence, that antitrust has no role here.

Patents are granted in a largely *ex parte* proceeding involving the applicant and an examiner. The result has been severe overissuance, which is strongly indicated by the fact that when these patents are subject to even the very limited adversarial review conducted through the Patent Trial and Appeal Board (PTAB) *inter partes* reexamination process, a majority of them fail in whole or in part.⁴²⁷ Furthermore, the PTAB process does not even cover questions of infringement, as opposed to validity. Depending on the technology, determining a patent's scope, and thus the extent of liability for infringement, can be just as difficult as determining its validity. While patents enjoy a statutory presumption of validity when they are challenged in court, the presumption is defeated for at least some claims in most of the cases.

A doctrine like "New Madison" constitutes serious overreaching in favor of patent protection at the expense not only of competition policy but also of innovation. That is clearly the case with respect to

The DOJ's "New Madison" Doctrine Disregards Both the Economics and the Law of Innovation, PROMARKET (Sept. 8, 2021), <https://promarket.org/2021/09/08/doj-madison-doctrine-antitrust-innovation/> [<https://perma.cc/D8DV-2S9E>].

426. See *FTC v. Qualcomm Inc.*, 969 F.3d 974 (9th Cir. 2020); see also discussion *supra* text accompanying notes 238-41.

427. See, e.g., Christian Helmers & Brian J. Love, *Patent Validity and Litigation: Evidence from U.S. Inter Partes Review*, 65 J.L. & ECON. (forthcoming 2023); Erik Hovenkamp & Jorge Lemus, *Delayed Entry Settlements at the Patent Office*, 54 INT'L REV. L. & ECON. 30 (2018); Arti K. Rai, Saurabh Vishnubhakat, Jorge Lemus & Erik Hovenkamp, *Post-Grant Adjudication of Drug Patents: Agency and/or Court*, 37 BERKELEY TECH. L.J. 139 (2022).

information technologies that were the focus of the New Madison doctrine and when the rate of patent failure is high. For that reason, the Biden Justice Department was wise to issue new guidance for the licensing of standard-essential patents that decisively rejects the doctrine.⁴²⁸

That the patent system does not work equally well in every industry is also no secret. It performs best in traditional technologies including mechanical devices, chemicals, and other durable products. As it moves into information technologies, however, particularly computers and the internet, cellular phones, nearly any type of electronics or any field in which digital networking is a dominant feature, its performance falters. Indeed, some studies indicate that its value in many of these technologies is actually negative.⁴²⁹ Aside from statutory recognition of design patents⁴³⁰ and plant protection,⁴³¹ however, the statutory system is unitary.

Antitrust law is linguistically uniform in this sense as well. Nevertheless, the very sparse language of the antitrust laws has invited courts to make case law that is highly practice and market specific. For example, some markets are simply incapable of being monopolized because there are many firms and entry is easy. Some are more conducive than others to predatory pricing or anticompetitive exclusionary agreements. Some, such as industries with high fixed costs, are more prone to collusion. When addressing antitrust cases under the rule of reason, courts often confront the question whether a practice limits market competition. In very sharp contrast, patent law tends to focus on validity and scope, ignoring or at least downplaying the role of market structure or

428. At this writing, the statement is in draft form. See U.S. DEP'T OF JUST., U.S. PAT. & TRADEMARK OFF. & NAT'L INST. OF STANDARDS & TECH., DRAFT POLICY STATEMENT ON LICENSING NEGOTIATIONS AND REMEDIES FOR STANDARDS-ESSENTIAL PATENTS SUBJECT TO VOLUNTARY F/RAND COMMITMENTS (2021), <https://www.justice.gov/atr/page/file/1453471/download> [<https://perma.cc/4M9Q-EU5M>].

429. JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK 25-27, 151-61, 187-88, 246-57 (2008) (ebook). On the range of differential applications in different industries, see generally John R. Allison, Mark A. Lemley & David L. Schwartz, *Our Divided Patent System*, 82 U. CHI. L. REV. 1073, 1073 (2015).

430. 35 U.S.C. § 171.

431. *Id.* § 161.

actual impact on innovation or economic progress.⁴³² This greater ability to apply different rules to different technologies gives anti-trust law an enormous application advantage over IP law.

In any event, antitrust challenges to patent practices are virtually never simple challenges to basic patent validity or coverage. The Patent Act and PTAB validity challenges determine those issues. They do not implicate the antitrust laws except in a few cases involving such things as fraudulent procurement and enforcement.⁴³³ Most of the challenges are to licensing or acquisition practices that are not addressed by the Patent Act itself, which states only that patents are to be treated as personal property and then provides for licensing.⁴³⁴

One thing that has made FRAND so valuable is that it has enabled recognition of the differences between information technology patents and more traditional patents—something that the Patent Act itself does not recognize. FRAND is a voluntary mechanism through which participants in informational and networked technologies have agreed to a patent regime which is “weaker” than the one that we generally apply via the Patent Act. None of the provisions of these agreements are inconsistent with the Patent Act; they merely involve patentees who voluntarily forego rights that they are entitled to bargain away. They have done so in exchange for similar promises from others whose technology they may wish to use. In particular, they have agreed that they will not refuse to license other participants regardless of competitive relationship and that they will accede to royalty determinations guided by impartial tribunals.

By contrast, the now-defunct “New Madison” doctrine was a heavy-handed approach to force FRAND patents arising in some of the most innovative industries into the same mold that has guided more traditional patent law and produced much weaker results.⁴³⁵

432. *E.g.*, *Trebro Mfg., Inc. v. Firefly Equip., LLC*, 748 F.3d 1159, 1161 (Fed. Cir. 2014) (permitting patentee to obtain injunction on unpracticed patent because the rival was a competitor in the product market).

433. *E.g.*, *Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172, 173-74 (1965) (filing of patent infringement action by one who knew the patent to be invalid could meet the conduct requirement for a § 2 violation).

434. *See* 35 U.S.C. § 261.

435. *See* DELRAHIM, *supra* note 425.

The *Qualcomm* decision in the Ninth Circuit, as well as the Justice Department's participation in it, illustrate what can happen when courts fail to acknowledge these differences.⁴³⁶ Antitrust could have been a valuable tool for permitting the law to embrace the problem of voluntary collaborative networks, which are enormously valuable but also have a great potential for abuse. The New Madison declaration that antitrust should stay out of FRAND disputes has destabilizing effects that threaten innovation as well as competition.

CONCLUSION

Because of its relative isolation from common law doctrine and lack of specificity, section 2 of the Sherman Act has left courts more interpretive freedom than any other antitrust statute—or for that matter, more than almost any other provision in the United States Code. A very simple model of economics has been its predominant, although not exclusive, guide. Whether one agrees with or appreciates that assessment, one thing that seems clear is that antitrust policy respecting dominant firms cannot be coherent without understanding the likely consequences of the practices that it is evaluating.

Lack of specificity is also key to § 2's flexibility, however, both as to the range of markets and firms to which it applies and its ability to adapt frameworks for analyzing practices. In general, this language will accommodate virtually everything it needs to, with one important limitation. A fair reading of the "monopolizing" provision is that it does not prohibit conduct that is anticompetitive but that falls short of threatening monopoly in a complementary or other related market. This has become a much bigger problem than it was decades ago because networking and the interlinking of products and markets has become a much more prominent feature of the economy. For that, a properly constrained "abuse of dominance" standard would be superior.

436. See *FTC v. Qualcomm Inc.*, 969 F.3d 974 (9th Cir. 2020); see also *supra* text accompanying notes 237-41.