



DATE DOWNLOADED: Fri Nov 12 11:23:53 2021

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Citations:

Bluebook 21st ed.

Rebecca Haw Allensworth, Antitrust's High-Tech Exceptionalism, 130 YALE L.J. F. 588 (2020-2021).

ALWD 6th ed.

Allensworth, R. ., Antitrust's High-Tech Exceptionalism, 130 Yale L.J. F. 588 (2020-2021).

APA 7th ed.

Allensworth, R. (2020-2021). Antitrust's High-Tech Exceptionalism. Yale Law Journal Forum, 130, 588-607.

Chicago 17th ed.

Rebecca Haw Allensworth, "Antitrust's High-Tech Exceptionalism," Yale Law Journal Forum 130 (2020-2021): 588-607

McGill Guide 9th ed.

Rebecca Haw Allensworth, "Antitrust's High-Tech Exceptionalism" (2020-2021) 130 Yale LJ F 588.

AGLC 4th ed.

Rebecca Haw Allensworth, 'Antitrust's High-Tech Exceptionalism' (2020-2021) 130 Yale Law Journal Forum 588.

MLA 8th ed.

Allensworth, Rebecca Haw. "Antitrust's High-Tech Exceptionalism." Yale Law Journal Forum, 130, 2020-2021, p. 588-607. HeinOnline.

OSCOLA 4th ed.

Rebecca Haw Allensworth, 'Antitrust's High-Tech Exceptionalism' (2020-2021) 130 Yale LJ F 588

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Antitrust's High-Tech Exceptionalism

Rebecca Haw Allensworth

ABSTRACT. American competition policy has four big problems: Amazon, Apple, Facebook, and Google. These companies each reign over a sector of the digital marketplace, controlling both the consumer experience and the possibility of competitive entry. This Essay argues that the conventional account of how antitrust law allowed this consolidation of market power—that it failed to evolve to address the market realities of the technology sector—is incomplete. Not only did courts fail to adapt antitrust law from its smoke-stack roots, but they gave big tech special dispensation under traditional antitrust doctrine. Swayed by prevailing utopic views about digital markets in the early 2000s—that they were uniquely dynamic, innovative, and competitive—these courts carved out special exceptions to antitrust rules about tying and the duty to deal with competitors. The tech companies have used this blank check to entrench their market power and keep start-ups from becoming what they themselves once were: the next big thing.

INTRODUCTION

American competition policy has a big problem. Actually, it has four big problems: Amazon, Apple, Facebook, and Google. What was once a dynamic pool of smaller start-ups, the high-tech sector has now coalesced around just four companies that together reported over \$773 billion of revenue in 2019.¹ Each

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1. According to publicly available tax documents provided on the Securities and Exchange Commission (SEC) website, these companies generated a combined revenue of \$773,250,000. See Alphabet Inc., Annual Report (Form 10-K) 27 (Feb. 4, 2020), <https://www.sec.gov/ix?doc=/Archives/edgar/data/1652044/000165204420000008/goog10-k2019.htm> [<https://perma.cc/2MVR-FN6V>]; Amazon.com, Inc., Annual Report (Form 10-K) 18 (Jan. 31, 2020), <https://www.sec.gov/ix?doc=/Archives/edgar/data/1018724/000101872420000004/amzn-20191231x10k.htm> [<https://perma.cc/7N3W-STHZ>]; Apple Inc., Annual Report (Form 10-K) 17 (Oct. 31, 2019), <https://www.sec.gov/ix?doc=/Archives/edgar/data/320193/000032019319000119/a10-k20199282019.htm> [<https://perma.cc/X5U7-WA4W>]; Facebook, Inc., Annual Report (Form 10-K) 42 (Jan. 30, 2020), <https://www.sec.gov/ix?doc=/Archives/edgar>

reigns over its own segment of the high-tech marketplace: Amazon controls the retail sector, Apple dominates devices and apps, Facebook owns social media, and Google virtually governs the internet itself. To the extent Silicon Valley still churns out a steady stream of startups, it is more to feed these beasts by acquisition than to produce meaningful rivals to their empires.²

Of course, not everyone agrees that this state of affairs is a problem at all. To some, the size of these firms is merely a symptom of their success. Relentless innovation, a customer-is-king mentality, network effects that benefit consumers, and economies of scale have made these firms ever larger and their products ever better for American consumers. Some even contest the idea that they are large at all by arguing that in a properly defined market, each firm faces significant rivalry and thus lacks market power. Some think that American antitrust law should pat itself on the back for fostering the competitive conditions that let these innovative companies thrive.³

However, this view is increasingly unpopular, and for good reason. Each of these companies, in its own way, holds the keys to competitive entry in many important online markets. To bring an app to market, a developer must deal with Apple; to reach online shoppers, retailers must use Amazon, and so on. Without a meaningful choice between platforms, independent sellers, developers, and websites must pass through a privately maintained bottleneck often on unfavorable terms. These restrictions on competition harm consumers by reducing the output and raising prices for goods that must pass through the bottleneck, and by reducing firms' incentives to innovate – if they know a large portion of their profits will be appropriated by the platform, they have less incentive to bring new products to market. And by controlling the throttle of technological innovation, each dominant firm can stave off the possibility that one of these nascent companies will build a rival network – a platform that can break the bottleneck itself.⁴ Long-term, stable platform dominance means consumers likely will not

/data/1326801/000132680120000013/fb-12312019x10k.htm [https://perma.cc/M3HG-VBH4].

2. See, e.g., Deepa Seetharaman, *Facebook's 'Destroy Mode'—Myth or Reality?*, WALL ST. J. (July 29, 2020, 9:10 PM ET), <https://www.wsj.com/articles/facebooks-destroy-modemyth-or-reality-11596068322> [https://perma.cc/F2E9-HQEQ].
3. For an academic treatment of this view, or at least that the innovative nature of tech firms suggests antitrust caution, see Geoffrey A. Manne & Joshua D. Wright, *Google and the Limits of Antitrust: The Case Against the Case Against Google*, 34 HARV. J.L. & PUB. POL'Y 171, 178, 244 (2011).
4. See Fiona Scott Morton, Deputy Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, Remarks as Prepared for the 2012 NYSBA Annual Antitrust Forum: Antitrust Enforcement in High-Technology Industries: Protecting Innovation and Competition 6-7 (Dec. 7, 2012),

see the kind of Schumpeterian innovation associated with great technological leaps forward.⁵ Rather, consumer welfare depends on these platforms' internal incentives to innovate, which are weakened in the absence of true rivalry.⁶ In short, there is a growing recognition that as much as these companies have innovation to thank for their success, their current tactics are making it hard for the next generation of disruptive innovators to take over. If antitrust law continues to stand by, consumers will pay the price.

Resolving this debate about whether high-tech dominance is an antitrust success story or a tragic failure of competition policy is beyond the scope of this Essay. Rather, I take as given the view – increasingly vocalized in the political and academic spheres alike – that these firms have market power, and the accumulation and stability of this market power is a problem for consumers that antitrust law should address.⁷ This Essay addresses a different question: how did antitrust law let this happen? To those who want more dynamism from high-tech markets, the question is crucial. Those who do not understand antitrust's past failures are condemned to repeat them.

<https://www.justice.gov/atr/file/518956/download> [<https://perma.cc/Q6GT-QEX7>] (“Antitrust harms can arise when incumbents take steps to frustrate adoption of a competing platform or the next generation platform.”).

5. Tim Wu, *Taking Innovation Seriously: Antitrust Enforcement if Innovation Mattered Most*, 78 ANTITRUST L.J. 313, 318 (2012) (“[E]xternal innovation is more likely to be of a ‘disruptive’ nature—a giant leap forward.”); see JOSEPH A. SCHUMPETER, *CAPITALISM, SOCIALISM AND DEMOCRACY* 81-106 (3d ed. 1950).
6. See *id.* (pointing out that incumbent firms face weaker incentives to innovate because of path dependency, the existence of revenue-producing, if outdated, technology, and “cognitive challenges in trying to imagine something different than its current course”).
7. See, e.g., TIM WU, *THE CURSE OF BIGNESS: ANTITRUST IN THE NEW GILDED AGE* 119-27 (2018) (using Facebook’s anticompetitive acquisitions as a particular example to argue that big tech poses a serious competitive threat); C. Scott Hemphill, *Disruptive Incumbents: Platform Competition in an Age of Machine Learning*, 119 COLUM. L. REV. 1973, 1973-81 (2019) (describing barriers to platform entry and suggesting antitrust fixes); Lina M. Khan, *Amazon’s Antitrust Paradox*, 126 YALE L.J. 710, 803 (2017) (arguing that taking on high-tech dominance calls for abandoning the consumer welfare paradigm in favor of rules that would preserve “competitive process and market structure”); Marina Lao, *No-Fault Digital Platform Monopolization*, 61 WM. & MARY L. REV. 755, 766, 789-91 (2020) (noting the problem of platform dominance, which calls for “stronger section 2 enforcement,” although concluding that abolishing the “bad act” requirement of monopolization would be inadvisable); John M. Newman, *Antitrust in Digital Markets*, 72 VAND. L. REV. 1497, 1502 (2019) (arguing that “digital markets require a more interventionist approach” than has been applied to date); Howard A. Shelanski, *Information, Innovation, and Competition Policy for the Internet*, 161 U. PA. L. REV. 1663, 1663-71 (2013) (considering the costs of antitrust underenforcement in digital-platform markets); Maurice E. Stucke, *Should We Be Concerned About Data-Opolies?*, 2 GEO. L. TECH. REV. 275, 277 (2018) (characterizing digital platforms as “data-opolies” that have “largely escaped antitrust scrutiny under the Obama and Bush administrations”).

The conventional wisdom for why antitrust was unable to prevent the growth of these companies is that the Sherman Act and its first century of case law was unprepared to deal with the unique challenges that tech presented.⁸ It is a statute that was written in 1890 in response to commodity cartels and monopolies;⁹ the most influential cases interpreting it involve steel,¹⁰ oil,¹¹ coal,¹² aluminum,¹³ and tobacco.¹⁴ Thus, as American antitrust law entered its second century, it had only low-tech legal tools to confront high-tech market power. It was stuck with doctrines—like market definition¹⁵ or predatory pricing¹⁶—that failed to capture the realities of an internet-based economy driven by data, network effects, “free” products, and extreme product integration. The first wave of high-tech case law, starting in 1995, has been a halting, imperfect attempt to modify these old rules to address new anticompetitive arrangements.¹⁷ Scholarly

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8. Newman, *supra* note 7, at 1499 (observing that, at the turn of the millennium, antitrust was posed with a question: “Was antitrust doctrine—developed primarily in a bygone era of smokestack industries—appropriately designed for the digital age?”).
 9. See Richard A. Posner, *Antitrust in the New Economy*, 68 ANTITRUST L.J. 925, 925-26 (2001) (noting that the “new economy” differs from “the industries in which modern antitrust doctrine emerged, and particularly from industries that manufacture traditional physical goods, such as steel, automobiles, pipe, wire, aluminum, railroad cars, roadbuilding materials, and cigarettes”).
 10. See *United States v. U.S. Steel Corp.*, 251 U.S. 417 (1920).
 11. See *Standard Oil Co. of N.J. v. United States*, 221 U.S. 1 (1911).
 12. See *Appalachian Coals, Inc., v. United States*, 288 U.S. 344 (1933).
 13. See *United States v. Aluminum Co. of Am.*, 148 F.2d 416 (2d Cir. 1945).
 14. See *United States v. Am. Tobacco Co.*, 221 U.S. 106 (1911).
 15. The market-definition doctrine instructs that a court, when determining control of price and competition, identify the relevant market by defining the range of reasonable product substitutes and geographic competitors. Market definition is relevant to determining market share, which can be probative of market power—an element in virtually any antitrust case other than naked horizontal price fixing. For a leading case on how to define a market, see *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 393-95 (1956).
 16. The predatory-pricing doctrine requires a plaintiff to prove that a competitor is pricing goods below their cost and that the competitor had a reasonable prospect—or, under section 2 of the Sherman Act, a dangerous probability—to recoup the losses from pricing below cost. See *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 222, 224 (1993). Predatory pricing is considered to be monopolization and therefore violative of section 2 of the Sherman Act when done by a firm with monopoly power. *Id.*
 17. See, e.g., Nitasha Tiku, *How to Curb Silicon Valley Power—Even with Weak Antitrust Laws*, WIRE (Jan. 5, 2018, 7:00 AM), <https://www.wired.com/story/how-to-curb-silicon-valley-power-even-with-weak-antitrust-laws> [<https://perma.cc/YTG6-EGY9>].

criticisms of antitrust's failure to adapt to the new economy are relatively common.¹⁸ Also easy to find are criticisms of the federal government's underenforcement of the antitrust laws, especially merger enforcement, against the tech sector.¹⁹

Less common are scholarly accounts of another reason why the first wave of high-tech antitrust jurisprudence failed to prevent the kind of competitive problems present in high-tech today. At a time when there was great optimism about the internet and its promise of fostering innovation and lowering barriers to competitive entry, the high-tech sector was given special treatment as a matter of substantive antitrust law. The problem, thus, was not only a failure to modify antitrust law to meet the competitive challenges of tech, but also giving tech somewhat of a free pass under some key antitrust doctrines – even as those doctrines stood at the time. This Essay aims to help fill that gap by identifying two important areas of antitrust law where courts gave tech companies special treatment, citing fears of chilling innovation. Yet today, the big-tech companies that have most benefitted from that dispensation are themselves the biggest threat to innovation in digital markets.

This Essay begins by documenting the enthusiasm many scholars and commentators exhibited for the idea that the internet was a competitive panacea – that it would lead to a more competitive, dynamic, and innovative economy. It then traces how this idea resulted in special treatment for tech companies under the antitrust laws. I focus on the D.C. Circuit's 2001 decision in *United States v. Microsoft Corp.*,²⁰ which declined to apply Supreme Court precedent to high-tech product integration even as it dealt the tech sector some significant blows with its other holdings. Then, I trace the death of the “duty-to-deal” doctrine to the Supreme Court's exceptional treatment of telecommunication networks in its 2004 opinion in *Verizon Communication's Inc. v. Law Offices of Curtis V. Trinko, LLP*.²¹ I close by sketching the ways that big tech has cashed these blank checks,

18. See, e.g., Micheal S. Gal & Daniel L. Rubinfeld, *The Hidden Costs of Free Goods*, 80 ANTITRUST L.J. 521, 524 (2016) (identifying the “limitations of existing antitrust tools in dealing with some types of free goods” and calling on antitrust to “adapt and maintain its relevance and its significance”); Lina M. Khan, *The Separation of Platforms and Commerce*, 119 COLUM. L. REV. 973, 1025 (2019) (identifying antitrust's consumer welfare as having “blind spots” to harm created by high tech platform power); John M. Newman, *The Myth of Free*, 86 GEO. WASH. L. REV. 513 (2018) (discussing the problems that antitrust's traditional focus on price poses in addressing power in markets for “free” products).

19. See, e.g., Newman, *supra* note 7, at 1548 (observing that “the orthodox antitrust enterprise has . . . opt[ed] . . . for a near-total lack of enforcement in digital markets”); WU, *supra* note 7 (observing that “for a decade and counting, [antitrust] gave the major tech players a pass,” and focusing his examples on lacking merger enforcement).

20. 253 F.3d 34 (D.C. Cir. 2001).

21. 540 U.S. 398 (2004).

pointing out the central irony of this history: tech was given leeway because it was seen as especially innovative; today, the “big four” systematically suppress technological innovation that might threaten their dominance.

I. TECHTOPIA

As President Bill Clinton started his last year in office, he began to build his legacy as high-tech's biggest champion. “In the new century,” he said in a speech in January 2000, “innovations in science and technology will be key . . . to miraculous improvements in the quality of our lives and advances in the economy.”²² In June of that year, the official White House website highlighted more than forty of his initiatives said to increase access to the internet and streamline America's transition to online commerce.²³ Similarly, Vice President Al Gore campaigned to succeed Clinton as President by emphasizing his tech record. “During my service in the United States Congress,” he told a reporter in an interview, “I took the initiative in creating the internet.”²⁴

As a politician at the turn of the twenty-first century, highlighting one's record encouraging the high-tech revolution made sense. Companies like Microsoft, Apple, Yahoo, and eBay were fueling a tremendous spike in venture-capital investments, pushing the stock market to record highs.²⁵ Household computer ownership more than doubled between 1990 and 1997²⁶ and a gold rush to build the infrastructure that would connect these computers was on. In

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22. Bill Clinton, U.S. President, State of the Union Address (Jan. 27, 2000), <https://www.presidency.ucsb.edu/documents/address-before-joint-session-the-congress-the-state-the-union-7> [<https://perma.cc/M2PJ-KKHE>].
 23. See *The Clinton-Gore Administration: A Record of Progress*, CLINTON WHITE HOUSE (June 2000), <https://clintonwhitehouse4.archives.gov/WH/Accomplishments/technology.html> [<https://perma.cc/JS6F-4B93>].
 24. Interview by Wolf Blitzer with Al Gore, U.S. Vice President, in Washington, D.C. (Mar. 9, 1999), <https://www.cnn.com/ALLPOLITICS/stories/1999/03/09/president.2000/transcript.gore> [<https://perma.cc/4LAD-23DT>].
 25. See, e.g., Jill Bebar, *Wall St.'s Record Century*, CNNMONEY: MARKETS & STOCKS (Dec. 31, 1999, 6:33 PM EST), https://money.cnn.com/1999/12/31/markets/markets_newyork [<https://perma.cc/3RVH-EWJ2>] (demonstrating Microsoft's role in the record-high stock market); Floyd Norris, *The Year in the Markets; 1999: Extraordinary Winners and More Losers*, N.Y. TIMES (Jan. 3, 2000), <https://www.nytimes.com/2000/01/03/business/the-year-in-the-markets-1999-extraordinary-winners-and-more-losers.html> [<https://perma.cc/G46L-66US>] (explaining Yahoo's remarkable ascent in the stock market).
 26. *Computer Ownership Up Sharply in the 1990s*, U.S. BUREAU L. STATS. (Apr. 5, 1999), <https://www.bls.gov/opub/ted/1999/Apr/wk1/arto1.htm> [<https://perma.cc/6623-HX9N>]; *Computer Ownership Up Sharply in the 1990s*, ISSUES L. STATS. (Mar. 1999), <https://www.bls.gov/opub/btn/archive/computer-ownership-up-sharply-in-the-1990s.pdf> [<https://perma.cc/8MF8-WNPF>].

the late 1990s, telecommunications companies—from legacies like AT&T to startups like Qualcomm—invested a total of \$500 billion in fiber-optic cable, wireless networks, and 3G spectrum to build an “information superhighway” for the next millennium.²⁷

The connectivity that came with the internet age promised more than convenience; to some it offered “nothing less than the end of scarcity.”²⁸ And that, in turn, could upend two centuries of microeconomic theory that used scarcity to explain the operations of markets.²⁹ As the marginal cost of digital products fell to zero, prices would follow, “making way for an entirely new way of organizing economic life in an age characterized by abundance.”³⁰ Indeed, the rise of “free” goods offered by a second wave of tech startups in the 2000s—companies like Facebook and Google—seemed to vindicate this prediction of an information utopia.

Theories about how high-tech firms would compete displayed some of this utopic thinking. Some economists encouraged sanguinity about highly concentrated tech markets, citing network effects.³¹ Markets where the value of a product is measured by how well it connects you to others (Facebook is a good example) tend to coalesce around a single provider.³² Further, some economists argued, dominance in these markets was fragile, meaning they lacked the power of a typical monopolist.³³ What appeared to be low barriers of entry to the tech market³⁴—at a time when it seemed like everyone was starting a “dot-com” in

27. See, e.g., Robert E. Litan, *The Telecommunications Crash: What to Do Now?*, BROOKINGS INSTITUTION (Dec. 1, 2002), <https://www.brookings.edu/research/the-telecommunications-crash-what-to-do-now> [<https://perma.cc/UT88-M34A>].

28. Newman, *supra* note 18, at 520.

29. *Id.*

30. JEREMY RIFKIN, *THE ZERO MARGINAL COST SOCIETY: THE INTERNET OF THINGS, THE COLLABORATIVE COMMONS, AND ECLIPSE OF CAPITALISM* 9 (2014).

31. See, e.g., David S. Evans & Richard Schmalensee, *A Guide to the Antitrust Economics of Networks*, ANTITRUST, Spring 1996, at 39 (arguing that “the frequency and speed with which tipping occurs in some network industries significantly reduces the value of current market shares as predictors of future competitive significance”).

32. *Id.* at 36.

33. *Id.* at 37.

34. See, e.g., Posner, *supra* note 9, at 925-26 (characterizing the “new economy” as having “quick and frequent entry and exit”).

their garage or dorm room³⁵ – ensured competition and all the benefits associated with it.³⁶

It was in this political and economic context that our antitrust institutions – primarily the antitrust enforcement agencies and the federal courts – first confronted allegations that high-tech firms were violating the Sherman Act. The firms were accused of designing their products and selectively refusing to deal with rivals in ways that reinforced consumers' dependence on dominant networks, pushing network effects beyond the point that provides benefits to the consumer, and making it hard for a better network to take over. In other words, antitrust had to reckon with the reality that technology facilitated not only communication and commerce, but also monopoly power.

II. TECH EXCEPTIONALISM IN THE “DOT-COM” ERA

The late 1990s and early 2000s saw an explosion of scholarship that addressed how competition rules should be interpreted in light of the “new economy.”³⁷ Scholars dusted off Schumpeter's 1942 theory of “creative destruction,” summarized in a 1998 law review article as the idea that “monopoly or highly concentrated markets were more conducive to innovation than smaller firms operating in fully competitive markets.”³⁸ And scholars also argued that “innovation efficiencies are the principal form of economic efficiency which ought to be protected and promoted by laws designed to maintain a competitive process.”³⁹

35. See, e.g., Drew Hendricks, *6 \$25 Billion Companies that Started in a Garage*, INC. (July 24, 2014), <https://www.inc.com/drew-hendricks/6-25-billion-companies-that-started-in-a-garage.html> [<https://perma.cc/F2LD-FPHL>] (“Apple is another insanely popular international brand, but few people realize that it was started in a California garage by three young men.”). For a discussion of the fallacy of the “garage” idea of low-entry barriers, see Fiona Scott Morton, *supra* note 4, at 8. And note that Alcoa, one of the most infamous monopolies in American antitrust case law, was apparently also started in a garage. See Newman, *supra* note 7, at 1512 n.90 (noting that Alcoa's website touts its modest beginnings thus: “Working with his sister Julia in a shed attached to the family home in Oberlin, Ohio, chemistry student Charles Martin Hall discovers away to produce aluminum through electrolysis that drastically reduces its cost” (quoting *Our History*, ALCOA (2020), <http://www.alcoa.com/global/en/who-we-are/history> [<https://perma.cc/ST36-AK3>])).

36. See, e.g., Andrew C. Hruska, *A Broad Market Approach to Antitrust Product Market Definition in Innovative Industries*, 102 YALE L.J. 305, 311 (1992) (“[B]arriers to entry, particularly in software, are low because most of the investment is in human capital.”).

37. See, e.g., John J. Flynn, *Antitrust Policy, Innovation Efficiencies, and the Suppression of Technology*, 66 ANTITRUST L.J. 487, 487-90 (1998); Abbott B. Lipsky, Jr., *To the Edge: Maintaining Incentives for Innovation After the Global Antitrust Explosions*, 35 GEO. J. INT'L L. 521, 522-23 (2004); Posner, *supra* note 9, at 925.

38. Flynn, *supra* note 37, at 487.

39. *Id.* at 509.

All this added up to the need for a light touch for antitrust enforcement against high-tech companies.⁴⁰ Richard Posner closed his article entitled “Antitrust in the New Economy” with this admonition: “[T]he byword of a prudent enforcement agency and a sensible court will be: caution.”⁴¹

Fear of chilling innovation through the threat of antitrust liability was also on the minds of the agencies responsible for enforcing the antitrust laws. The Federal Trade Commission (FTC) issued a policy report in 1996 stating that antitrust policy must take care not to dampen incentives sufficient to generate new networks and standards and not to impose remedies that may increase, rather than decrease, competitive problems. Although not novel, this set of issues is assuming great importance in an increasingly technology-driven economy.⁴² Indeed, the FTC and the Department of Justice (DOJ) identified innovation effects as a concern in forty-seven merger cases during the second half of the 1990s; in the five years prior, the agencies discussed innovation concerns in only four cases.⁴³

The resurrection of Schumpeter,⁴⁴ and the assertion that “Innovation is King”⁴⁵ in antitrust, suggested that existing laws focused on static models of competition were inadequate. Theoretically, adjusting antitrust law to defend Schumpeterian innovation could mean increasing liability in some areas and decreasing it in others.⁴⁶ And indeed, some antitrust scholars have called for aggressive enforcement against exclusionary conduct by high-tech incumbents, in the name of Schumpeterian innovation.⁴⁷ But in practice – that is, in the case

40. See Alan Devlin, *Antitrust as Regulation*, 49 *SAN DIEGO L. REV.* 823, 842 (2012) (arguing that “[t]he cost of false positives, moreover, is especially grave in technology markets, given the inestimable social benefits of innovation”).

41. Posner, *supra* note 9, at 943.

42. FED. TRADE COMM’N, *ANTICIPATING THE 21ST CENTURY: COMPETITION POLICY IN THE NEW HIGH-TECH, GLOBAL MARKETPLACE* (1996), 1996 WL 293773, at *10.

43. Richard J. Gilbert & Willard K. Tom, *Is Innovation King at the Antitrust Agencies? The Intellectual Property Guidelines Five Years Later*, 69 *ANTITRUST L.J.* 43, 44 (2001).

44. A search of Westlaw turns up 134 law-review articles using “antitrust” and “Schumpeter” for the period 1985-95, compared to 289 such articles for the period 1995-2005.

45. Gilbert & Tom, *supra* note 43, at 43.

46. For example, one article argues that future effects on innovation should lead the antitrust agencies to *block* mergers even where the merged firm is unlikely to raise price in the short term. See Flynn, *supra* note 37, at 510-13. Another scholar, for example, argued that one’s duty to deal with one’s competitors – especially in licensing intellectual property – ought to be curtailed in light of its effects on the incentive to innovate. See Lipsky, *supra* note 37, at 521-23.

47. Tim Wu, *Taking Innovation Seriously: Antitrust Enforcement if Innovation Mattered Most*, 78 *ANTITRUST L.J.* 313, 318 (2012) (explaining that antitrust policy should protect rivalry because “external innovation is more likely to be of a ‘disruptive’ nature – a giant leap forward, so to speak”).

law – the ratchet tended to only work in one direction: to loosen liability for high tech, out of fear that rigorous application of the antitrust laws as they stood would stifle innovation.

A. Microsoft and Technological Tying

The D.C. Circuit's 2001 opinion in *United States v. Microsoft*⁴⁸ is often cited as being ahead of its time in recognizing the threat that internet-based platforms might pose to competition.⁴⁹ Indeed, the opinion – which found Microsoft liable for monopolizing the operating-system market⁵⁰ – is the best legal blueprint we have for a modern-day antitrust case against big tech because it cogently explains how and why a platform will exclude rivals that threaten to undermine its dominance. But the opinion also contains a holding – and some troubling language about the relationship between innovation and antitrust law – that gets overlooked when it is held up as being tough on tech.

In a series of lawsuits that spanned a decade and produced over one hundred judicial opinions, the DOJ sued Microsoft for using its browser, Internet Explorer, to protect its formidable market power in PC operating systems in the 1990s. The DOJ alleged that Microsoft made it exceedingly difficult for Netscape, a competing browser, to reach consumers running Microsoft's operating system, Windows.⁵¹ Widespread adoption of Netscape posed a competitive threat to Windows's dominant market share by eroding its considerable "applications barrier to entry."⁵² The suit alleged that Microsoft engaged in a pattern of behavior to make using Netscape on the Windows operating system inconvenient and costly.⁵³ Netscape's share of the browser market languished, and its competitive threat to Microsoft was effectively neutralized.⁵⁴

The government made two claims. First, the government said that Microsoft's exclusion of Netscape from the browser market was an act of monopolization that violated section 2 of the Sherman Act.⁵⁵ On this count, the court agreed with the government and found that Microsoft's design features and

48. 253 F.3d 34 (D.C. Cir. 2001).

49. William H. Page & Seldon J. Childers, *Antitrust, Innovation, and Product Design in Platform Markets: Microsoft and Intel*, 78 ANTITRUST L.J. 363, 374-80 (2012) (praising the opinion for "not shrink[ing] from examining Microsoft's conduct, even on issues of product design").

50. *Microsoft*, 253 F.3d at 51.

51. *Id.* at 47-48.

52. *Id.* at 55.

53. *Id.* at 56.

54. *Id.*

55. *Id.* at 47.

some of its contractual terms with third parties were designed more to exclude Netscape than to benefit Windows users.⁵⁶ Microsoft was liable for monopolization.⁵⁷

Second, the government claimed that Microsoft's technological tie between Internet Explorer and Windows was subject to per se condemnation under the Sherman Act.⁵⁸ The Supreme Court had held in *Jefferson Parish Hospital District No. 2 v. Hyde* that ties meeting several economic criteria were per se unlawful, that is, could not be defended as better for consumers.⁵⁹ But the *Microsoft* court refused to consider the applicability of a per se rule, citing the importance of innovation in the high-tech sector. The court explained, "[t]here may also be a number of efficiencies that, although very real, have been ignored in the calculations underlying the adoption of a per se rule for tying."⁶⁰ For the court, it was the high-tech nature of the case that justified an exception: "We fear that these efficiencies are common in technologically dynamic markets where product development is especially unlikely to follow an easily foreseen linear pattern."⁶¹

Taken as a whole, *Microsoft* does not stand for the high-tech industry getting a free pass under the antitrust laws; the finding of liability on the monopolization claim was properly perceived as an important loss for the company and for the high-tech sector in general.⁶² But *Microsoft's* hawkish section 2 holding has eclipsed the strikingly dovish holding on the tying claim. The *Microsoft* court side-stepped Supreme Court precedent⁶³ because it believed "the nature of the platform software market affirmatively suggests that per se rules might stunt valuable innovation."⁶⁴ In the end, the decision to avoid the Supreme Court test for per se applicability probably did not affect the outcome, because the test itself asks economic questions that the court might have answered in the negative, resulting in rule-of-reason analysis anyway. But the decision to break with binding

56. *Id.* at 51-80.

57. *Id.* at 51.

58. *Id.* at 84.

59. *Jefferson Par. Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2 (1984).

60. *Id.* at 94.

61. *Id.*

62. See Daniel L. Rubinfeld, *Maintenance of Monopoly: U.S. v. Microsoft (2001)*, in *THE ANTITRUST REVOLUTION: ECONOMICS, COMPETITION, AND POLICY* 530, 531 (John E. Kwoka, Jr. & Lawrence J. White eds., 5th ed. 2009) (discussing the impact of the case on antitrust and Microsoft itself, concluding "in sum, there is much in the Microsoft case that is of import to the twenty-first-century competition in high technology").

63. The Supreme Court denied certiorari in the case, impliedly blessing the special exception for Microsoft to the Court's own tying rule. See *Microsoft Corp. v. United States*, 534 U.S. 952 (2001).

64. 253 F.3d 34, 92 (D.C. Cir. 2001).

precedent, invoking the innovative qualities of the defendant, enshrined in case law a powerful idea: as a dynamic sector of the economy, the high-tech industry can claim special dispensation.

B. Trinko and the Duty to Deal

Three years after *Microsoft*, the Supreme Court dealt the tech sector an even more valuable exemption. That came in *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*,⁶⁵ where the court severely curtailed antitrust's "duty-to-deal" doctrine. The suit alleged that Verizon, partial inheritors of the AT&T monopoly, were under no antitrust duty to deal with competing telecom providers, despite a 1996 federal statute requiring the company to interconnect with those very providers.⁶⁶

Under the Court's "duty-to-deal" cases, monopolists can be held liable for refusing to deal with their competitors without a legitimate justification. Leading "duty-to-deal" cases found liability where the refusal seemed more motivated by dreams of monopoly than by short-term profit motives. For example, in *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, the Court held that Aspen Ski Co. violated section 2 by refusing to sell tickets to a smaller neighboring ski area so that skiers could enjoy both mountains with a convenient "all-mountain" pass.⁶⁷ The pass was in high demand and would have been profitable for Ski Co.⁶⁸ But without the "all-mountain" pass the smaller ski area was sure to fail.⁶⁹ The Court believed causing the smaller mountain to fail was the real motive behind Ski Co.'s refusal and held it liable for monopolization.⁷⁰

Before *Trinko*, the key to the Court's duty-to-deal cases was disambiguating the defendant's motives for refusing to deal. To find liability in a duty-to-deal case, a plaintiff had to show that the defendant had a strong legitimate motive to deal with a rival, and it nevertheless refused. That behavior supported an inference that the monopolist had an even stronger *illegitimate* motive in refusing to deal with a rival—namely, creating a monopoly.⁷¹ In *Aspen*, the defendant

65. 540 U.S. 398 (2004).

66. *Id.* at 404-05.

67. 472 U.S. 585, 586 (1985).

68. *Id.* at 593 n.13.

69. *Id.* at 606.

70. *Id.* at 608-11. In another well-known case, the Supreme Court found that a vertically integrated power company monopolized the market when it refused to sell grid access to a rival electricity provider. See *Otter Tail Power Co. v. United States*, 410 U.S. 366, 377-79 (1973).

71. This inference-to-the-simplest explanation is best articulated in the "sacrifice" test for monopolization. The "sacrifice" test asks whether a monopolist's decision to refuse to deal serves a business purpose other than exclusion; if not, then the remaining motive is an intent to

would have sold more lift tickets at a profitable price if it sold the all-mountain pass; the fact that it refused to do so supported the inference that the move was really about augmenting its market power.⁷²

Under the prevailing *Aspen* rule, the plaintiffs in *Trinko* had a convincing case. The defendant, an incumbent telecom provider with monopoly power, had a strong motive to deal with rival local service providers – they were obligated to do so under a federal statute.⁷³ Despite this motive, Verizon refused to comply with its statutory obligations,⁷⁴ which should have supported an inference that Verizon’s refusal to deal was more about monopoly than anything else.

Instead, Justice Scalia, writing for the majority, found that Verizon had no antitrust obligation to deal with its competitors, a holding he said safeguarded the “incentive to innovate.”⁷⁵ In so holding, Justice Scalia ignored the fact that the balance between incentivizing innovation by limiting a competitor’s duty to share its success with rivals and incentivizing innovation by condemning a dominant firm’s exclusionary conduct had already been struck under the Court’s duty-to-deal cases like *Aspen*. Justice Scalia instead prioritized monopoly rents as the most important spur to innovate,⁷⁶ and echoed the prevailing sentiment that the high-tech sector must be maximally incentivized to invest in building networks to support the internet superhighway:

Firms may acquire monopoly power by establishing an infrastructure that renders them uniquely suited to serve their customers. Compelling such firms to share the source of their advantage . . . may lessen the incentive for the monopolist, the rival, or both to invest in those economically beneficial facilities.⁷⁷

exclude. See A. Douglas Melamed, *Exclusionary Conduct Under the Antitrust Laws: Balancing, Sacrifice, and Refusals to Deal*, 20 BERKELEY TECH. L.J. 1247, 1257 (2005) (defending the sacrifice test for monopolization because it ensures “that the antitrust laws condemn only conduct from which an anticompetitive intent can unambiguously be inferred”).

72. *Aspen*, 472 U.S. at 608-11.

73. A 1996 Telecom statute required Verizon to provide to local carriers the very services they were accused of withholding. See *Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 402 (2004).

74. *Id.* at 404.

75. *Id.* at 407.

76. For an excellent account of why this argument proves too much, see Wu, *supra* note 47, at 327, which notes that the “Justice Department’s case against Microsoft in the 1990s may well have, in a mathematical sense, reduced the incentive to be Bill Gates, but not in the sense that it measurably deterred anyone from trying to be the next platform monopolist.”

77. *Trinko*, 540 U.S. at 407-08.

The *Trinko* opinion went on to limit *Aspen* to its facts, paving the way for high-tech firms to refuse to deal with competitors even where the best reason to do so was to build or protect a monopoly.

III. CASHING THE CHECK

At the turn of the new millennium, big tech was given special treatment under our antitrust laws out of a fear that full enforcement would chill innovation. A great irony of the modern history of antitrust law is that big tech has used that grace to create powerful companies that systematically suppress innovation from rivals in the markets they control, even if they themselves continue to innovate internally.

A. Apple

Apple, a dominant player in devices and apps, has greatly benefited from the deference given to high-tech product design. Apple says the iPhone, which it launched in 2007, “redefined the mobile phone through its seamless integration of hardware and software, its effortless user experience, [and] its simplicity of design.”⁷⁸ Essential to this “seamless integration” is the closed nature of the iPhone and other Apple devices; only apps available on Apple’s own App Store may be downloaded and used on its devices.

Apple may face competition from other smart phones, such as those running the Android operating system, but their large market share – about half of U.S. smartphones⁷⁹ – means that they control a key access channel for app developers. Indeed, app developers see access to the App Store platform as essential to market their products; since 2008, third-party developers have generated more than \$120 billion of sales revenue through Apple.⁸⁰ But Apple provides access to their

78. *Online Platforms and Market Power, Part 6: Examining the Dominance of Amazon, Apple, Facebook, and Google: Hearing Before the Subcomm. on Antitrust, Commercial & Admin. Law, H. Comm. on the Judiciary*, 116th Cong. (2020) (statement of Tim Cook, Chief Executive Officer, Apple Inc.), <https://docs.house.gov/meetings/JU/JU05/20200729/110883/HHRG-116-JU05-Wstate-CookT-20200729.pdf> [<https://perma.cc/29TP-HD9W>].

79. Statista lists Apple’s share of smart phone sales at forty-six percent for Q2 2020. S. O’Dea, *Manufacturers’ Market Share of Smartphone Sales in the United States from 2016 to 2020*, STATISTA, <https://www.statista.com/statistics/620805/smartphone-sales-market-share-in-the-us-by-vendor> [<https://perma.cc/W59X-M8LB>].

80. Khan, *supra* note 18, at 1006 (citing Tripp Mickle, *With the iPhone Sputtering, Apple Bets Its Future on TV and News*, WALL ST. J. (Mar. 25, 2019), <https://www.wsj.com/articles/with-the-iphone-sputtering-apple-bets-its-future-on-tv-and-news-11553437018> [<https://perma.cc/HMU9-PNZJ>]).

platform only on discriminatory and sometimes arbitrary terms.⁸¹ Revenue from apps that compete with an Apple product are subject to a thirty percent “commission,”⁸² while Apple allows firms like Uber – who do not compete with Apple – to keep all revenue generated from iPhone transactions.⁸³ And Apple will sometimes cut off app developers altogether, without explanation or recourse, killing their business.⁸⁴

Some plaintiffs have challenged Apple’s integration of its phone and the App Store on antitrust grounds.⁸⁵ Most notably and most recently Epic, maker of the popular video game Fortnite, pulled off an orchestrated attack against Apple by first provoking the platform by refusing to pay the thirty-percent commission on Fortnite purchases. On the same day that Apple kicked Fortnite off the App Store, Epic filed an antitrust lawsuit accusing Apple of monopolization and illegal tying for their refusal to deal.⁸⁶ Also on that day, Epic released a commercial parodying Apple’s famous 1984 Superbowl ad that depicted the release of the Macintosh as a paradigm-shattering competitive move against IBM, which dominated personal computing in the early 1980s.⁸⁷ Epic’s parody ad cast Apple, once the upstart David, in the power-hungry Goliath role once held by IBM, and a Fortnite gladiator as the paradigm-smashing innovator.⁸⁸

81. See *Online Platforms and Market Power, Part 6: Examining the Dominance of Amazon, Apple, Facebook, and Google: Hearing Before the Subcomm. on Antitrust, Commercial & Admin. Law, H. Comm. on the Judiciary*, 116th Cong. (2020) (statement of Rep. Hank Johnson), transcribed in *Big Tech Antitrust Hearing Full Transcript July 29*, REV at 1:14:45 (July 29, 2020), <https://www.rev.com/blog/transcripts/big-tech-antitrust-hearing-full-transcript-july-29> [<https://perma.cc/7BNY-JF9E>] (discussing the arbitrary termination of app developers and the fact that “the rules get changed to benefit Apple at the expense of app developers”).

82. *Id.* at 1:16:56 (mentioning Apple’s thirty-percent commission and its selective application).

83. Khan, *supra* note 80, at 1007.

84. For example, Apple terminated Mobicip, a parental control app with more than 2.5 million downloads, in 2019 as part of a purge of independent apps that limited screen time and increased parental control. The head of Mobicip said the decision destroyed his business: “Suddenly we don’t have a business anymore.” Jack Nicas, *Apple Cracks Down on Apps that Fight iPhone Addiction*, N.Y. TIMES (April 27, 2019), <https://www.nytimes.com/2019/04/27/technology/apple-screen-time-trackers.html> [<https://perma.cc/4PQP-KSHH>].

85. See *In re Apple iPhone Antitrust Litig.*, No. 11-CV-06714-YGR, 2013 WL 6253147, at *1 (N.D. Cal. Dec. 2, 2013), *rev’d and remanded*, 846 F.3d 313 (9th Cir. 2017), *aff’d sub nom. Apple Inc. v. Pepper*, 139 S. Ct. 1514 (2019).

86. Complaint, *Epic Games, Inc. v. Apple, Inc.*, No. 4:20-cv-05640-YGR (N.D. Cal. Aug. 13, 2020).

87. *Nineteen Eighty-Fortnite*, YOUTUBE (Aug. 13, 2020) <https://www.youtube.com/watch?v=euiSHuaw6Q4>.

88. The competitive threat that Fortnite poses to Apple might be nascent, but it is possible to imagine a video game with a fully realized alternate reality, a devoted fan base, and an internal marketplace might be the kind of “ecosystem” that Apple would like to keep in check.

Epic's suit and ad make for high drama, but legally, Epic faces an uphill battle. *Microsoft's* special treatment for high-tech product integration has taken hold in the case law. In 2010, the Ninth Circuit rejected an antitrust claim against Allied Orthopedic, a pulse-oximeter manufacturer, alleging an unlawful technological tie. The opinion quoted the *Microsoft* opinions at length:

“As a general rule, courts are properly very skeptical about claims that competition has been harmed by a dominant firm’s product design changes.” . . . “Antitrust scholars have long recognized the undesirability of having courts oversee product design, and any dampening of technological innovation would be at cross-purposes with antitrust law.”⁸⁹

The *Allied Orthopedic* court used this language from *Microsoft* to justify its holding: that if a tie can be said to improve a high-tech product in any way, the competitive effects of its design are beyond antitrust reproach.⁹⁰

Apple defends its limited access to the App Store as a product-design decision, aimed at creating an integrated tech ecosystem worthy of the Apple brand.⁹¹ It remains to be seen whether growing disapproval of Apple’s exclusionary conduct can overcome the language in *Microsoft* and *Allied Orthopedic* suggesting that claimed product-design improvements vitiate any competition concerns.⁹²

B. Amazon

Amazon Marketplace is an open online-sales platform that accounts for 52.4% of American online-retail spending; its closest competitor has just 6.6%.⁹³ Amazon allows independent merchants to sell their goods on the Marketplace

89. *Allied Orthopedic Appliances Inc. v. Tyco Health Care Grp.*, 592 F.3d 991, 998, 1000 (9th Cir. 2010) (first quoting *United States v. Microsoft Corp.*, 253 F.3d 34, 65 (D.C. Cir. 2001), then quoting *United States v. Microsoft Corp.*, 147 F.3d 935, 948 (D.C. Cir. 1998)).

90. *Id.* at 999-1000.

91. See Jack Nicas, *Apple Cracks Down on Apps that Fight iPhone Addiction*, N.Y. TIMES (Apr. 27, 2019), <https://www.nytimes.com/2019/04/27/technology/apple-screen-time-trackers.html> [<https://perma.cc/Z4EK-WFUY>] (quoting an Apple spokeswoman as saying “[o]ur incentive is to have a vibrant app ecosystem that provides consumers access to as many quality apps as possible”).

92. Although the iPhone consumers’ class action antitrust suit against Apple reached the Supreme Court on a standing issue in *Apple v. Pepper*, 139 S. Ct. 1514 (2019), there has yet to be a decision on the merits.

93. EBay is Amazon’s next largest competitor. See Khan, *supra* note 80, at 986 n.39.

for a fee and a percentage of sales revenue. It also sells its own products, with 137 private-label brands, including Amazon Basics.⁹⁴

Not only does Amazon privilege its own products over those of independent sellers,⁹⁵ but there is evidence that Amazon uses the vast quantity of data it gathers on independent sellers to mimic their businesses. Lina Khan describes the array of information Amazon gathers about rivals' products – from searches to clicks to sales to inventory – as “microdetails that add up to a formidable – and constantly evolving – arsenal of market intelligence.”⁹⁶ Despite Amazon's insistence that it does not use the data to its competitive advantage, many see the evidence in Amazon's behavior.⁹⁷ The effect of Amazon's mimicry is often exit by the independent seller.⁹⁸

Independent sellers may prefer to sell on Amazon without opening themselves up to the risk of mimic-and-destroy tactics. But under the law of *Trinko*, Amazon has little duty to deal with Marketplace rivals at all, much less on favorable terms. Consumers lose on two fronts, one actual and one potential. With the threat of Amazon appropriating any profits from a new retail-product idea, independent producers have little incentive to bring it to market, resulting in fewer choices for consumers. And by eliminating smaller competitors by undercutting their prices, Amazon is building market power that it could someday exercise in the form of higher prices to consumers.

94. *Id.* at 987.

95. *Id.* at 988.

96. *Id.* at 992-93 n.71 (citing Allie Gray Freeland, *Inside Amazon's Approach to Data and People-Based Marketing*, LIVEINTENT (Apr. 24, 2018), <https://blog.liveintent.com/amazon-data-people-based-marketing> [<https://perma.cc/6NPM-3WGU>]).

97. Amazon's CEO, Jeff Bezos, recently told Congress that although it was his company's policy to not use the data, he could not guarantee that his employees always follow it. See *Online Platforms and Market Power, Part 6: Examining the Dominance of Amazon, Apple, Facebook, and Google: Hearing Before the Subcomm. on Antitrust, Commercial & Admin. Law, H. Comm. on the Judiciary*, 116th Cong. (2020) (statement of Jeff Bezos, CEO of Amazon), transcribed in *Big Tech Antitrust Hearing Full Transcript July 29*, REV at 1:53:07 (July 29, 2020), <https://www.rev.com/blog/transcripts/big-tech-antitrust-hearing-full-transcript-july-29> [<https://perma.cc/7BNY-JF9E>] (hedging on whether Amazon effectively enforces its policy of not using third-party data in developing competing products).

98. Feng Zhu & Qihong Liu, *Competing with Complementors: An Empirical Look at Amazon.com*, 39 STRATEGIC MGMT. J. 2618, 2634 (2018).

C. Google

Google is a dominant internet search engine that enjoys eighty-eight percent of the U.S. market.⁹⁹ It provides search for free, but its dominance in search is valuable for its revenue center: advertising, where it makes about \$161 billion of revenue annually.¹⁰⁰ Google's monopoly is buttressed by the data it scrapes from the companies, like Trip Advisor, Yelp, Hulu and Netflix, that rival its own properties like Google Maps and YouTube.¹⁰¹ It uses that data to enhance its own ecosystem, at the center of which is Google Search. The effect may be a better search engine, but this nearly unfettered access to data also creates a formidable barrier to entry for anyone trying to topple Google's empire.¹⁰²

Google obtains rivals' data by giving them a Hobson's choice: either allow us to scrape your data or face delisting on Google search.¹⁰³ *Trinko's* deference to high-tech refusals to deal presents a significant problem to plaintiffs challenging delisting as anticompetitive. For example, on its rise to dominance, Google used "blockage" – the practice of "delisting, de-indexing and censoring"¹⁰⁴ a website on its search engine – to suppress competition from a parent-oriented search product called "Kinderstart.com." When Kinderstart sued, claiming that Google violated its duty-to-deal under section 2, the court cited *Trinko* in dismissing the claim.¹⁰⁵

99. See *Search Engine Market Share United States of America Aug. 2019-Aug. 2020*, STATCOUNTER, <https://gs.statcounter.com/search-engine-market-share/all/united-states-of-america> [<https://perma.cc/J3LF-V3EH>].

100. See *Annual Revenue of Google from 2002 to 2019*, STATISTA, <https://www.statista.com/statistics/266206/googles-annual-global-revenue> [<https://perma.cc/65VE-BZWK>].

101. See Khan, *supra* note 80, at 999; cf. Newman, *supra* note 7, at 1509 (describing Google's acquisition of YouTube: "Google may have been constructing a moat around its castle").

102. Cf. Charles A. Miller, *Big Data and the Non-Horizontal Merger Guidelines*, 107 CALIF. L. REV. 309, 328 (2019) (discussing Google and similar companies, observing that "network effect entrenches incumbent networks by creating a "data" barrier to entry for potential competitors").

103. Khan, *supra* note 80, at 999-1000.

104. John M. Newman, *Antitrust in Zero-Price Markets: Applications*, 94 WASH. U. L. REV. 49, 106 (2016) (quoting *Kinderstart.com LLC v. Google, Inc.*, No. C 06-2057 JF (RS), 2006 WL 3246596, at *3 (N.D. Cal. July 13, 2006)).

105. *Kinderstart.com LLC*, 2006 WL 3246596, at *10.

D. Facebook

Although Facebook is most well-known for its anticompetitive acquisitions,¹⁰⁶ it also has maintained its dominance using tactics that might have run afoul of the antitrust laws before the dot-com era. Like Apple, Facebook selectively cuts off access to apps it believes pose a competitive threat, as it did for Twitter's video feature, Vine.¹⁰⁷ Like Amazon, it uses its access to data to mimic rivals' products and eliminate their competitive threat, as it did for Snapchat.¹⁰⁸ And like Google, Facebook conditions its dealings with rivals on receiving their data, even when that data contain the seeds of their own destruction.¹⁰⁹

Facebook may defeat an antitrust suit by citing *Microsoft* and pointing out that creating an integrated, user-friendly Facebook experience requires excluding some rivals from the platform. And it has already used the logic of *Trinko* to defeat a claim that it violated the Sherman Act when it denied competitor websites direct login access to Facebook.¹¹⁰

E. Whither Innovation?

As a theoretical matter, big tech's refusals to deal and predatory copying suppress innovation. A retailer with a new idea for a household product will be less inclined to invest in producing it if he knows Amazon can appropriate the returns. A developer with a better "app for that" will be less likely to bring it to market if she believes Apple or Facebook might someday remove it from their platforms. And if a rival search company cannot hope to keep its data private from Google, it will not invest in building a better search engine to try to take on the giant.

Whether big tech stifles innovation as an empirical matter is less clear, but there is anecdotal evidence that it does. During a recent hearing following the

106. See, e.g., C. Scott Hemphill, *Disruptive Incumbents: Platform Competition in an Age of Machine Learning*, 119 COLUM. L. REV. 1973, 1983-84 (2019) (discussing the Facebook/Instagram merger as anticompetitive).

107. Khan, *supra* note 80, at 1001-02 (discussing Facebook's refusal to interface with Twitter's Vine).

108. Michelle Castillo, *Here Are All the Ways Facebook Has Copied Snapchat*, CNBC (Mar. 9, 2017, 5:13 PM EST), <https://www.cnbc.com/2017/03/09/facebook-copies-snapchat-examples.html> [<https://perma.cc/AUR5-HY23>].

109. Khan, *supra* note 80, at 1002.

110. Facebook, Inc. v. Power Ventures, Inc., No. C 08-05780 JW, 2010 WL 3291750, at *13 (N.D. Cal. July 20, 2010) ("The Court finds that Defendants' allegations cannot support a section 2 monopolization claim. Defendants cite no authority for the proposition that Facebook is somehow obligated to allow third-party websites unfettered access to its own website . . .").

House Judiciary Committee's investigation into competition abuses among high-tech firms, Representative Cicilline read a quote that he said was typical of the entrepreneurs he interviewed: "If someone came to me with an idea for a website or a web service today, I'd tell them to run. Run as far away from the web as possible."¹¹¹ Venture capital, while booming overall,¹¹² is shy about funding projects that might compete with Big Tech. The best-case scenario for a startup is acquisition by one of the big four – a lucrative payday, for sure, but nothing compared to what could come from actually toppling a dominant firm. This puts a ceiling on the upside, and with the ever-present risk of failure, it likely leads to under-investment in new ideas. As one funder put it, "[w]e don't touch anything that comes too close to Facebook, Google or Amazon."¹¹³

CONCLUSION: "ANTITRUST IS GREEDY"

The promise that we saw in high tech during its first boom – that it would change the way we work, communicate, shop, and play – has largely been realized. Few can argue with the efficiencies that digital communication and commerce have brought to our lives and markets. But, as Professor Herbert Hovenkamp has said, "antitrust is greedy."¹¹⁴ It wants not only efficiency in end products, but efficiency in the competitive process that brings them about. During the dot-com era, American antitrust institutions became enthralled with the idea that encouraging the development of dynamic, innovative products required compromising our commitment to dynamic, innovative markets. That compromise contributed – in a way that is often overlooked – to the current competition crisis in big tech.

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111. *Online Platforms and Market Power, Part 6: Examining the Dominance of Amazon, Apple, Facebook, and Google: Hearing Before the Subcomm. on Antitrust, Commercial & Admin. Law, H. Comm. on the Judiciary*, 116th Cong. (2020) (statement of Rep. David Cicilline, Chairman, Subcomm. on Antitrust of the H. Comm. on the Judiciary), *transcribed in Big Tech Antitrust Hearing Full Transcript July 29*, REV at 1:14:45 (July 29, 2020), <https://www.rev.com/blog/transcripts/big-tech-antitrust-hearing-full-transcript-july-29> [https://perma.cc/7BNY-JF9E].
112. Khan, *supra* note 80, at 1009 ("Venture capital funding as a whole appears to be booming . . .").
113. See Elizabeth Dwoskin, *Facebook's Willingness to Copy Rivals' Apps Seen as Hurting Innovation*, WASH. POST (Aug. 10, 2017), https://www.washingtonpost.com/business/economy/facebook-willingness-to-copy-rivals-apps-seen-as-hurting-innovation/2017/08/10/ea7188ea-7df6-11e7-a669-b400c5c7e1cc_story.html [https://perma.cc/P4FY-R7HG].
114. HERBERT HOVENKAMP, *THE ANTITRUST ENTERPRISE: PRINCIPLE AND EXECUTION* 285 (2005).