TECH GIANT EXCLUSION

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Abstract

There is no topic in regulatory policy that is more pressing and more controversial than what to do about the tech giants—Google, Facebook, Amazon, and Apple. Critics claim that these powerful platforms crush competitors, distort the political process, and elude antitrust law because the law cares only about consumer prices. The only solution, critics argue, is to break them up.

The tech giants have indeed engaged in anticompetitive conduct. They have excluded rivals selling products on their platforms by demoting them in search results, copying their products, or refusing to deal with them. While these tactics have harmed consumers, they have never been successfully challenged because they have rarely, if ever, created monopoly power or a dangerous probability of monopoly power, which the Sherman Act requires. This requirement should be eliminated.

The tech giants should not be broken up. Splitting them into smaller versions of themselves would result in higher prices or lower quality. Preventing them from selling their own products on their platforms would deprive consumers of choices they value. Nor should the goals of antitrust law be changed. The fundamental aim of antitrust law is to protect consumers and vulnerable suppliers—such as workers—from anticompetitive conduct. If courts also had to focus on preserving small business and limiting the political influence of large firms, the goals of antitrust would conflict. Courts would have no objective way of resolving the conflict, the rule of law would suffer, and consumers and workers would be hurt.

Congress should instead amend the Sherman Act to prohibit exclusionary conduct that significantly reduces competition, whether or not it results in actual or probable monopoly power. To avoid chilling procompetitive conduct, the change should apply only to the tech giants and should contain strict proof requirements. This careful expansion

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would make it much easier to deter tech giant exclusion that harms consumers or workers.

INTRODUCTION

Amazon, Apple, Facebook, Google, and Microsoft are the most valuable corporations in America and the leading suppliers of important products and services. They are so large and so critical to the economy that critics claim they are monopolies: able to exploit consumers, crush smaller competitors, and exert unacceptable levels of political power. The only solution, critics argue, is to break them up.[1]

In large part, however, these firms have attained their status by doing precisely what antitrust law encourages. They have developed products and services that enormous numbers of consumers value.[2] Facebook's social network has between two and three billion monthly active users.[3]

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1. *See, e.g.*, Chris Hughes, Opinion, *It's Time to Break Up Facebook*, N.Y. TIMES (May 15, 2019), https://www.nytimes.com/2019/05/09/opinion/sunday/chris-hughes-facebook-zuckerberg.html [https://perma.cc/3YKW-HUQB]; Jonathan Taplin, Opinion, *Is It Time to Break Up Google?*, N.Y. TIMES (Apr. 22, 2019), https://www.nytimes.com/2017/04/22/opinion/sunday/is-it-time-to-break-up-google.html [https://perma.cc/H765-J8U3]; Sean Moran, *Elizabeth Warren Proposes Breaking Up Amazon, Facebook, Google*, BREITBART (Mar. 8, 2019), https://www.breitbart.com/politics/2019/03/08/elizabeth-warren-proposes-breaking-up-amazon-facebook-google [https://perma.cc/4WFY-GSAR]; Heather Timmons, *The Tiny, Passionate Group Battling Google, Facebook, and Amazon's Grip on US Minds and Wallets*, QUARTZ (Nov. 16, 2017), https://qz.com/1129072/google-goog-facebook-fb-and-amazon-amzn-need-to-be-broken-up-before-they-destroy-america-open-markets-says/ [https://perma.cc/DN53-S2VQ] (asserting that the "tech giants need to be cut down to size, immediately," because they are "killing competitors and other industries" and are poised to "destroy . . . democracy itself" (emphasis omitted)).

2. Antitrust law encourages the development of new products and services—and other forms of superior performance—by virtually immunizing it from liability. *See, e.g.*, United States v. Aluminum Co. of Am. (*Alcoa*), 148 F.2d 416, 430 (2d Cir. 1945) (declaring that it is contrary to the "prime object" of the Sherman Act to condemn a firm that gains monopoly "merely by virtue of . . . superior skill, foresight and industry"); 21 CONG. REC. 3152 (Apr. 8, 1890) (statement of Sen. Hoar) ("[A] man who merely by superior skill and intelligence . . . got the whole business because nobody could do it as well as he could was not a monopolist."); Hillary Greene, *Muzzling Antitrust: Information Products, Innovation and Free Speech*, 95 B.U. L. REV. 35, 39 (2015) (asserting that bona fide innovation is "essentially immunized regardless of its anticompetitive effect"); *see also* Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004) (noting that the possession of monopoly power is not illegal because it is a spur to innovation).

3. MAJORITY STAFF OF SUBCOMM. ON ANTITRUST, COM. & ADMIN. L. OF THE H. COMM. ON THE JUDICIARY, 116TH CONG., INVESTIGATION OF COMPETITION IN DIGITAL MARKETS 132 (Comm. Rep. 2020) [hereinafter HOUSE REPORT]; *see also* Daisuke Wakabayashi et al., *The Economy Is in Record Decline, but Not for the Tech Giants*, N.Y. TIMES (July 30, 2020), https://www.nytimes.com/2020/07/30/technology/tech-company-earnings-amazon-apple-facebook-google.html [https://perma.cc/DKR4-JA4L] ("More than three billion people now regularly come to Facebook or one of its family of apps . . . ."); Mariel Soto Reyes, *Scandals and Teen Dropoff Weren't Enough to Stop Facebook's Growth*, BUS. INSIDER (Apr. 26, 2019, 10:20 AM), https://www.businessinsider.com/facebook-grew-monthly-average-users-in-q1-2019-4 [https://perma.cc/3LCV-L2RA] (reporting 2.4 billion monthly active users in the first quarter of 2019).

Google's search engine is the most widely used on the globe.[4] Amazon is both the leading online retailer[5] and the leading provider of cloud services.[6] Apple invented the Mac, the iPod, the iPhone, and the iPad. Breaking these giants up, despite their achievements, would discourage others from making similar contributions.

The critics are right, however, in one key respect: the tech giants have not gained their dominant positions solely through exceptional performance; they have also engaged in anticompetitive conduct. In some instances, they have allegedly acquired nascent rivals, small firms that posed a threat to their dominance.[7] In other cases—the focus of this Article—they have excluded competitors by disadvantaging them. Their targets have typically been third parties that sell products or services on their platforms. Each of the tech giants allows third parties to do so, but

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4. John M. Newman, *Antitrust in Digital Markets*, 72 VAND. L. REV. 1497, 1503 (2019) (citing *Search Engine Market Share Worldwide: June 2018–June 2019*, STATCOUNTER, https://gs.statcounter.com/search-engine-market-share#monthly-201806-201906 [https://perma.cc/MN6S-R7LQ]) (noting that industry sources identify Google's worldwide share of the "search" or "search engine" market as more than 90%). The latest data indicates that Google still has over a 90% market share. *See Search Engine Market Share Worldwide: Sept 2020–Sept 2021*, STATCOUNTER, https://gs.statcounter.com/search-engine-market-share [https://perma.cc/M7BU-SREE].

5. *See* Feng Zhu & Qihong Liu, *Competing with Complementors: An Empirical Look at Amazon.com*, 39 STRATEGIC MGMT. J. 2618, 2623 (2018) (stating that Amazon is "the largest online retailer in the United States"); *see also* Newman, *supra* note 4, at 1503 ("In the first quarter of 2019, Amazon reportedly captured 74% of all e-commerce transactions in the United States. Its share of certain categories like e-books may be higher still.").

6. Daisuke Wakabayashi, *Prime Leverage: How Amazon Wields Power in the Technology World*, SEATTLE TIMES (Dec. 16, 2019, 1:29 PM), https://www.seattletimes.com/business/prime-leverage-how-amazon-wields-power-in-the-technology-world/ [https://perma.cc/B2SQ-QZD3] ("[C]loud computing . . . has grown into one of the technology industry's largest and most lucrative businesses, offering computing power and software to companies. And Amazon is its single biggest provider.").

7. *See* C. Scott Hemphill & Tim Wu, *Nascent Competitors*, 168 U. PA. L. REV. 1879, 1884–86 (2020); Kevin A. Bryan & Erik Hovenkamp, *Startup Acquisitions, Error Costs, and Antitrust Policy*, 87 U. CHI. L. REV. 331, 331 (2020); Herbert Hovenkamp, *Antitrust and Platform Monopoly*, 130 YALE L.J. 1952, 1987, 2008–09 (2021). In December 2020, the Federal Trade Commission (FTC) and forty-six states sued Facebook, and the central allegation in both actions was that Facebook's acquisitions of Instagram and WhatsApp had reduced competition by eliminating firms that would have developed into direct rivals. *See* Complaint ¶¶ 1, 9, FTC v. Facebook, Inc., No. 20-3590, 2021 WL 2643627 (D.D.C. June 28, 2021); Complaint ¶ 12, New York v. Facebook, Inc., No. 20-3589, 2021 WL 2643724 (D.D.C. June 28, 2021). Despite the force of this charge, the district court dismissed both complaints. It held that the FTC had failed to plead monopoly power with sufficient particularity and supporting detail. *See* FTC v. Facebook, Inc., 2021 WL 2643627, at *14. It ruled that the states' action was barred by laches (which does not apply to the FTC) because the acquisitions had occurred in 2012 and 2014, many years before the complaint was filed. *See* New York v. Facebook, Inc., 2021 WL 2643724, at *1–2. While the court allowed the FTC to refile, it declared that the states could do nothing to cure their defect and dismissed their case entirely. The court also rejected the refusal to deal allegations in both lawsuits. *See infra* note 149 and accompanying text.

frequently competes with them, sometimes taking actions that undercut the third parties. The tech giants distort their search results to demote third-party products and favor their own; they use the confidential data they collect on individual third parties to identify their most popular products and then offer copies at lower prices; and they exclude third parties from their platforms simply because they are competitors. These tactics not only injure the entrepreneurs and employees who work at the targeted firms, but they reduce their incentive to offer new products and services, harming consumers.

The solution is not, as some critics have demanded, to ban the tech giants from entering complementary product markets. As noted below, studies have shown that such entry benefits consumers by widening choice, lowering prices, or improving product quality. For example, when Amazon introduces a new private label product, the item is typically equal in quality to third-party products but offered at a lower delivered price.[8] This enhancement in choice causes consumers to increase their total purchases of the product category, suggesting that consumers prefer the market with Amazon in it, even though the total number of third-party products is reduced.[9]

The tech giants' most prominent critics, however, do not believe that their behavior should be judged by its impact on consumer welfare. Frequently called New Brandeisians,[10] they maintain that antitrust's focus on consumers has restricted its vision and betrayed its "founding values."[11] In their view, Congress passed the antitrust laws to benefit a broad array of constituents, including small producers, entrepreneurs, workers, and consumers.[12] In addition, Congress was concerned about the corrupting effect of concentrated economic power on the political

8. *See* Zhu & Liu, *supra* note 5, at 2631–32.

9. *See id.* at 2632.

10. These critics are often referred to as New Brandeisians because they share Brandeis's distrust of large corporations. *See* A. Douglas Melamed, *Antitrust Law and Its Critics*, 83 ANTITRUST L.J. 269, 270 n.9 (2020) (identifying Professor Tim Wu, Chair of the Federal Trade Commission Lina Khan, and Senator Elizabeth Warren as members of this group). Wu's most recent book repeats the title of Brandeis's famous critique. *See* TIM WU, THE CURSE OF BIGNESS: ANTITRUST IN THE NEW GILDED AGE (2018).

11. Lina M. Khan, *The Separation of Platforms and Commerce*, 119 COLUM. L. REV. 973, 983 (2019).

12. *See, e.g.*, Lina M. Khan, Note, *Amazon's Antitrust Paradox*, 126 YALE L.J. 710, 737 (2017) ("[T]he undue focus on consumer welfare is misguided. It betrays legislative history, which reveals that Congress passed antitrust laws to promote a host of political economic ends—including our interests as workers, producers[, and] entrepreneurs . . . ."); *id.* at 716 ("[A]ntitrust law now assesses competition largely with an eye to the short-term interests of consumers, not producers or the health of the market as a whole . . . .").

process.[13] The tech giants' conduct, they argue, should be judged by its impact on *all* these values.[14]

This wide-ranging approach raises severe administrability problems.[15] There is no objective test for balancing conflicts between consumer or supplier welfare, on the one hand, and small business protection or political influence, on the other, and the critics have not suggested any. As a result, antitrust decisions would be idiosyncratic, if not arbitrary, and their predictability and deterrence effect would be weakened. Inevitably, consumers and workers would be hurt. While it might be more important to curb the political power of the tech giants, that argument is difficult to make when most households are falling further behind and most workers have seen little or no increase in their wages.

Antitrust policy, then, should continue to focus on protecting consumers from market power and vulnerable suppliers—like workers—from monopsony power. This focus would *not* immunize the tech giants. To the contrary, they have engaged in exclusionary tactics that have harmed consumers and possibly workers. The problem is that when the tech giants have disadvantaged third parties in complementary product markets, it has rarely, if ever, led to monopoly power or a dangerous probability of monopoly power in those markets. As a result, under existing law, the tech giants can exclude third parties—and harm consumers or workers—with little fear of substantial financial penalties.[16]

Congress could approach this problem in two ways. First, it could break up the tech giants, which would diminish their ability and incentive to exclude smaller rivals. They could be split into smaller versions of themselves—horizontal restructuring—or they could be barred from offering their own products on their platforms—vertical restructuring.[17] Both forms of separation, however, would come with high costs. Splintering them horizontally would raise prices or reduce value for

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13. *See id.* at 740 (asserting that the consumer welfare goal overlooks Congress's "understanding that concentration of economic power also consolidates political power, 'breed[ing] antidemocratic political pressures'") (alteration in original) (quoting Robert Pitofsky, *The Political Content of Antitrust*, 127 U. PA. L. REV. 1051, 1051 (1979))).

14. *See id.* at 743–44.

15. *See* D. Daniel Sokol, *Antitrust's "Curse of Bigness" Problem*, 118 MICH. L. REV. 1259, 1259–60 (2020); *see also infra* Section IV.C (describing the administrability problems in more detail).

16. While Section 5 of the FTC Act prohibits this conduct, it does not result in financial sanctions. There is no private right of action under Section 5, no treble damages, and no civil penalties for the first violation. Furthermore, the FTC can no longer bring restitution actions. *See infra* Section V.A.

17. This is vertical restructuring because it would bar the tech giants from vertically integrating into the suppliers of the products for their platforms.

consumers. Preventing them from selling private label products on their platforms would deprive millions of consumers of choices they prefer.

Alternatively, Congress could amend the Sherman Act to prohibit conduct that reduces competition significantly whether or not it is likely to create monopoly power. Congress could also authorize the Department of Justice and the Federal Trade Commission (FTC) to obtain civil penalties if either agency establishes a violation. The resulting twin sanctions—treble damages in private (and some government) actions and civil penalties in government actions—would substantially increase the deterrence of unwarranted exclusion. To be sure, these changes would also increase the risk of chilling procompetitive conduct. If a plaintiff need not show actual or imminent monopoly power—if all it needs to show is significant market power—it can attack a wider range of behavior. But that risk can be minimized by limiting the amendment to large two-sided platforms and including proof requirements that make it very difficult to challenge procompetitive conduct.[18]

In sum, tech giant exclusion should be addressed not by altering the goals of antitrust law or by splitting the companies into pieces but by amending the Sherman Act to prohibit unjustified exclusion that significantly reduces competition.[19]

Part I of this Article describes the tech giants. Part II analyzes the most frequent antitrust criticism leveled at them—that they have used the leverage they have in their core businesses to suppress competition in the sale of complementary products. Part III discusses the government lawsuits, just filed, that accuse Google of excluding competition in its core businesses, general search and general search advertising. Part IV evaluates criticisms of antitrust's consumer welfare goal. Part V examines whether the tech giants should be broken up, horizontally or vertically. Part VI describes a superior approach to the tech giant challenge: amending the Sherman Act to bar tech giant conduct that significantly reduces competition—and harms consumers or workers—even if it is unlikely to create monopoly power.

18. *See infra* Section VI.B.

19. Senator Klobuchar has introduced legislation that would codify this approach. *See infra* Section VI.C.1. The House Antitrust Subcommittee recently recommended it. *See infra* Section VI.C.2. Professor Gavil has endorsed it. *See* Andrew I. Gavil, *Competitive Edge: Crafting a Monopolization Law for Our Time*, WASH. CTR. FOR EQUITABLE GROWTH (Mar. 27, 2019), https://equitablegrowth.org/competitive-edge-crafting-a-monopolization-law-for-our-time [https://perma.cc/E6L8-VHXV]. In addition, Professor Salop believes that anticompetitive conduct that falls short of monopolization should be challenged. *See* Jonathan Sallet, *The Federal Trade Commission, Unilateral Conduct, and "Unfair Method of Competition," in* ALBERT A. FOER LIBER AMICORUM 327, 344 (2020).

I. THE TECH GIANTS

Amazon, Apple, Facebook, Google, and Microsoft are the five most valuable corporations in America.[20] When companies are ranked by R&D spending, these firms lead as well.[21] They are also unusually profitable. One measure of their return is their "surplus wealth," defined as the difference between their financial market value and the value of their capital assets. On this measure too, they rank at or near the top in the country.[22] In April 2020, they made up "more than 20 percent of the value of the entire S&P 500."[23]

This striking preeminence has emerged in the last decade and a half. In 2005, only Microsoft made the list of the five most valuable corporations in America.[24] The explosive growth of the tech giants is attributable in large part to the appeal of their products and services. While they have employed exclusionary conduct to hold competitors at bay,[25] there is little doubt that their rise is primarily due to their success in pleasing customers. Take Amazon. Even its best-known critic acknowledges that Amazon has "revolutionized e-commerce"[26] and "delivered enormous benefits to consumers."[27] Amazon's low prices, quick delivery, and wide selection have made it the retailer of choice for millions of consumers, especially during the COVID-19 pandemic. As a

20. *See* Amrith Ramkumar, *Apple Surges to $2 Trillion Market Value*, WALL ST. J. (Aug. 19, 2020, 5:42 PM), https://www.wsj.com/articles/apple-surges-to-2-trillion-market-value-11597848808 [https://perma.cc/3EGN-7UCM]; Farhad Manjoo, *Stumbles? What Stumbles? Big Tech Is As Strong As Ever*, N.Y. TIMES (Aug. 1, 2018), https://www.nytimes.com/2018/08/01/technology/big-tech-earnings-stumbles.html [https://perma.cc/J8EK-3KFG].

21. Rani Molla, *Amazon Spent Nearly $23 Billion on R&D Last Year — More Than Any Other U.S. Company*, VOX (Apr. 9, 2018, 11:36 AM), https://www.vox.com/2018/4/9/17204004/amazon-research-development-rd [https://perma.cc/TZS4-HS25].

22. Mordecai Kurz, *On the Formation of Capital and Wealth: IT, Monopoly Power, and Rising Inequality* (Stan. Inst. for Econ. Pol'y Rsch., Working Paper No. 17-016, 2017), https//siepr.stanford.edu/research/publications/formation-capital-and-wealth-it-monopoly-power-and-rising-inequality [https://perma.cc/46FR-L58L] (showing that the tech giants occupy five of the top seven valuation spots).

23. Matt Phillips, *Investors Bet Giant Companies Will Dominate After Crisis*, N.Y. TIMES (Apr. 29, 2020), https://www.nytimes.com/2020/04/28/business/coronavirus-stocks.html [https://perma.cc/EYR3-UGWU]. By July 2020, the five had almost reached "25% of the S&P 500." Ramkumar, *supra* note 20. In 2019, they accounted for "10% of the market value of *all* listed U.S. stocks." Robert W. Crandall, *The Dubious Antitrust Argument for Breaking Up the Internet Giants*, 54 REV. INDUS. ORG. 627, 627 (2019) (emphasis added).

24. *See* Gary Hoover, *Most Valuable Companies: The Last 25 Years*, AM. BUS. HIST. CTR. (Aug. 20, 2020), https://americanbusinesshistory.org/most-valuable-companies-the-last-25-years [https://perma.cc/SS2V-A86X].

25. *See infra* Part II.

26. Khan, *supra* note 12, at 716.

27. *Id.*

result, Amazon is the predominant source of online sales[28] and the location where most product searches begin.[29]

Like Amazon, Apple has made exceptional contributions to consumer welfare. Under the leadership of Chief Executive Officer and co-founder Steve Jobs, it developed the Mac, the iPod, the iPhone, and the iPad. Because it has been so prolific, Apple was the first American company to achieve a market capitalization exceeding two trillion dollars.[30] Likewise, Facebook succeeded by creating an unusually popular social network. Worldwide, it has between two and three billion average monthly users.[31] About "two-thirds of Americans use Facebook, three-quarters of them on a daily basis. In the United States, 80% of user time spent across social networks is spent on Facebook."[32] Its dominance is amplified by its ownership of the next two largest social networks, Instagram and Messenger. Together, the three sites take in more than 70% of the advertising dollars spent on social networks.[33]

Meanwhile, Google attained its stature by developing the planet's most popular search engine. As noted, it performs the vast majority of searches worldwide, with a share of more than 92%.[34] In the United States, its share is smaller (at approximately 88%) but still much larger than any rival.[35] Moreover, Google offers additional products, some of which also dominate their respective spheres. For example, its Android operating system has "captured 87.5% of the worldwide market for smartphone operating systems."[36] Meanwhile, its mapping service, Google Maps, is the first choice of nearly 80% of Android operating

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28. *See* Zhu & Liu, *supra* note 5, at 2623 (stating that Amazon is the "largest online retailer in the United States").

29. *See* Krista Garcia, *More Product Searches Start on Amazon*, EMARKETER (Sept. 7, 2018), https://www.emarketer.com/content/more-product-searches-start-on-amazon [https://perma.cc/N9PR-Q4NV] (reporting that Amazon's share of initial product searches is 54%).

30. *See* Ramkumar, *supra* note 20.

31. *See* Wakabayashi et al., *supra* note 3.

32. Khan, *supra* note 11, at 1001 (footnote omitted).

33. *See* Newman, *supra* note 4, at 1503. Facebook also owns WhatsApp, which is ranked in the top ten. *See* Khan, *supra* note 11, at 1001.

34. *Search Engine Market Share Worldwide: Sept 2020–Sept 2021*, Statcounter, https://gs.statcounter.com/search-engine-market-share [https://perma.cc/8Z84-KZLY].

35. *Search Engine Market Share United States of America: Sept 2020–Sept 2021*, Statcounter, https://gs.statcounter.com/search-engine-market-share/all/united-states-of-america [https://perma.cc/K8K9-UYFU]; *see also* Richard J. Gilbert, *The U.S. Federal Trade Commission Investigation of* Google Search *(2013)*, *in* THE ANTITRUST REVOLUTION 489, 497 n.11 (John E. Kwoka, Jr. & Lawrence J. White eds., 7th ed. 2019) (reporting that Google's share of U.S. search queries from all devices (mobile phones, laptops, etc.) exceeded 85% in 2017).

36. *See* Newman, *supra* note 4, at 1504; *see also* Nabila Popal & Ryan Reith, *Smartphone Market Share*, INT'L DATA CORP. (July 29, 2021), https://www.idc.com/promo/smartphone-market-share [https://perma.cc/3NY4-H25E] (showing that Android has approximately 85% market share).

system users, and, despite the presence of Apple Maps, nearly 70% of iPhone users.[37]

Microsoft is a special case. Like the other tech giants, its profitability and market capitalization are unusually high, and it continues to dominate a major product: its share of desktop operating systems remains at almost 80%.[38] But unlike the other tech giants, it has not only been sued but held liable under the U.S. antitrust laws. Two decades ago, federal, state, and private plaintiffs brought actions against the Redmond giant, and although it was not broken up, many aspects of its behavior were condemned, by both a federal district court and the U.S. Court of Appeals for the D.C. Circuit.[39] The experience left it chastened.[40] In the nineties, it assaulted Netscape and Sun Java and essentially destroyed them.[41] Recently, even though it offers a competing search engine, it has not prevented Google (or any other tech giant) from expanding rapidly.[42]

While the New Brandeisians call the tech giants monopolists,[43] it is not clear that Amazon, Apple, Facebook, and Google can charge prices for their core services (their platforms) that substantially exceed the competitive level—the definition of monopoly power in current law and economics.[44] Because of economies of scale, network effects, and other advantages, they doubtlessly possess significant and durable market power.[45] But there is a difference between market power and monopoly power. A firm has market power so long as it can raise prices to some

37. Newman, *supra* note 4, at 1504 n.36.

38. *See id.* at 1504.

39. *See generally* ANDREW I. GAVIL & HARRY FIRST, THE MICROSOFT ANTITRUST CASES: COMPETITION POLICY FOR THE TWENTY-FIRST CENTURY (2014) (describing the antitrust cases that the Department of Justice and the states brought against Microsoft in the late twentieth century).

40. *See* Crandall, *supra* note 23, at 637 ("[Microsoft] began acting a lot more cautiously and running more of its decisions past lawyers." (quoting Brian Feldman, *U.S. v. Microsoft Proved That Antitrust Can Keep Tech Power in Check*, N.Y. MAG., Dec. 12, 2017)).

41. *See Competition in Digital Technology Markets: Hearing Before the S. Subcomm. on Antitrust, Competition Pol'y & Consumer Rights*, 116th Cong. 165 (2020) (statement of Sally Hubbard, Dir. of Enf't Strategy, Open Mkts. Inst.) [hereinafter Hubbard Statement].

42. *See id.* ("[O]ne result of [the government's] victory is that Microsoft was not free to use the same tactics against Google and other internet upstarts that it had used against Netscape.").

43. *See, e.g.*, *id.* at 164 (referring to the "big four" as "The Platform Monopolists"); *see also id.* at 165–77 (discussing each firm and characterizing it as a monopolist).

44. *See, e.g.*, United States v. Microsoft Corp., 253 F.3d 34, 51 (D.C. Cir. 2001) (per curiam) ("[A] firm is a monopolist if it can profitably raise prices substantially above the competitive level."); *see also infra* note 44 (citing additional sources).

45. *See* Stigler Comm. on Digit. Platforms, *Final Report* 34–35 (2019), https://www.chicagobooth.edu/-/media/research/stigler/pdfs/digital-platforms---committee-report---stigler-center.pdf [https://perma.cc/8GUU-R2NT] (concluding that the four tech giants have dominant positions protected by high entry barriers because they "demonstrate extremely strong network effects, very strong economies of scale, remarkable economies of scope due to the role of data, marginal costs close to zero, drastically lower distribution costs than brick and mortar firms, and a global reach").

degree above the competitive level, even if the elevation is modest.[46] As numerous scholars have recognized, under that definition, virtually all firms have some market power.[47] Monopoly power requires more—a substantial gap between price and the competitive level, a high degree of market power.[48] That the tech giants possess monopoly power is less obvious.[49]

Consider Amazon, for example. While it is the leader in online sales, its market share is barely over 50%,[50] well short of the 70–80% commonly associated with monopoly power.[51] Moreover, one of its closest rivals is the world's largest retailer, Walmart.[52] Amazon's margins are also below those of most brick-and-mortar retailers,[53] suggesting that if it has monopoly power, it does not exercise it. Amazon

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46. *See* John B. Kirkwood, *Market Power and Antitrust Enforcement*, 98 B.U. L. REV. 1169, 1174 (2018) (stating that "there is widespread agreement that market power is the ability to raise price profitably above the competitive level," but specifying no minimum amount by which price must exceed the competitive level); *accord id.* at 1172 n.12 (citing numerous sources that repeat this definition of market power).

47. *See, e.g.*, DENNIS W. CARLTON & JEFFREY M. PERLOFF, MODERN INDUSTRIAL ORGANIZATION 642 (4th ed. 2005) (noting that if the definition of market power is "applied literally, probably every firm in the United States has at least a tiny bit of market power"); Einer Elhauge, *Defining Better Monopolization Standards*, 56 STAN. L. REV. 253, 330 (2003) ("[J]ust about every firm in the real world has at least some pricing discretion."); Richard Schmalensee, Comment, *Another Look at Market Power*, 95 HARV. L. REV. 1789, 1790 (1982) ("[A]lmost all firms have some market power, though most have very little.").

48. *See, e.g.*, *Microsoft Corp.*, 253 F.3d at 51 (stating that a firm has monopoly power if it can "raise prices substantially above the competitive level"); Reazin v. Blue Cross & Blue Shield of Kan., Inc., 899 F.2d 951, 967 (10th Cir. 1990) ("Market and monopoly power only differ in degree—monopoly power is commonly thought of as 'substantial' market power."); William M. Landes & Richard A. Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937, 937 (1981) (defining monopoly power as "a high degree of market power").

49. *See* JONATHAN B. BAKER, THE ANTITRUST PARADIGM: RESTORING A COMPETITIVE ECONOMY 123 (2019) ("[A] platform with a dominant position in its markets need not be a natural monopoly or even exercise market power."); Sokol, *supra* note 15, at 1281 ("It was just a decade ago that we were told that . . . Facebook was the primary way in which users shared information. Today, . . . Facebook is a legacy service, and younger people use any other set of applications to share information—such as Pinterest, Twitter, or Snapchat.").

50. *See* Khan, *supra* note 11, at 985 (stating that Amazon "is estimated to capture 52.4% of all U.S. online retail spending").

51. *See* Colo. Interstate Gas Co. v. Nat. Gas Pipeline Co., 885 F.2d 683, 694 n.18 (10th Cir. 1989) (stating that to establish "monopoly power, lower courts generally require a minimum market share of between 70% and 80%"); Exxon Corp. v. Berwick Bay Real Est. Partners, 748 F.2d 937, 940 (5th Cir. 1984) (per curiam) ("[M]onopolization is rarely found when the defendant's share of the relevant market is below 70%.").

52. *See* Zhu & Liu, *supra* note 5, at 2623 ("As the largest online retailer in the United States, [Amazon's] website, as of March 2015, was attracting 175 million visits per month (compared to 122 million and 82 million, respectively, for the websites of eBay and Walmart, its two largest competitors)." (footnote omitted)).

53. *See, e.g.*, Jon Dages et al., *Walmart vs. Amazon*, ECONOMIST 18 (2016), https://www.economist.com/sites/default/files/ballstate_ws.pdf [https://perma.cc/AL7R-JLUK].

is most likely to exert monopoly power in the sale of e-books, where its market share is at least 74%.[54] But even in this segment, there is no evidence, as of this Article's publication, that Amazon charges monopoly prices.[55]

Apple is best known for its innovative products—the Mac, the iPod, the iPhone, and the iPad—but it faces competition in each category.[56] In smartphones, for example, the iPhone competes with devices powered by Google's Android operating system, and collectively Android phones outsell the iPhone.[57] This rivalry does not prevent Apple from exercising significant market power, since many consumers prefer the look, feel, and functionality of an iPhone. But Apple does not account for a monopoly share of smartphones. Nor is it clear that Apple charges a monopoly price for iPhones. To show that, one would have to demonstrate that Apple's prices substantially exceed the full economic costs, adjusted for risk, of developing and making iPhones.[58]

In contrast, Google and Facebook may possess monopoly power. Neither Facebook's social network nor Google's search engine charges consumers for their basic services. But consumers pay in other ways: the two platforms track their activities, compile the resulting data, and sell it to advertisers. In principle, one could calculate the costs and benefits to consumers of these activities,[59] but that would be difficult. The clearer evidence of monopoly power is on the advertising side of their platforms. Google charges advertisers for placing ads in its search results, and its share of search advertising is high. In the United Kingdom, where the Competition and Markets Authority (CMA) conducted an investigation,

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54. *See* Newman, *supra* note 4, at 1503.

55. Similarly, though Amazon is the leader in cloud computing services, its share of that market is far less than half, and it faces large and growing rivals like Microsoft and Oracle. *See* Felix Richter, *Amazon Leads $150-Billion Cloud Market*, STATISTA (July 5, 2021), https://www.statista.com/chart/18819/worldwide-market-share-of-leading-cloud-infrastructure-service-providers/ [https://perma.cc/UFJ3-FM24].

56. *See* Marina Lao, *No-Fault Digital Platform Monopolization*, 61 WM. & MARY L. REV. 755, 794 n.191 (2020) ("It is common knowledge that the core Apple products and services for which the company is best known—iPhones, iPads, Mac computers and laptops, and music streaming (Apple Music)—all face significant competition.").

57. Android accounts for 87.5% of the worldwide market for smartphone operating systems. *See* Newman, *supra* note 4, at 1504.

58. *See* Kirkwood, *supra* note 46, at 1181–93 (showing that pricing power cannot be demonstrated by comparing a firm's prices to its costs without examining both marginal cost and full economic cost).

59. One cost is unwanted ads. *See, e.g.*, Stigler Comm. on Digit. Platforms, *supra* note 45, at 30 ("A platform can analyze a user's data in real time to determine when she is in an emotional 'hot state' and then offer targeted sales."). Another cost is lost privacy. *See, e.g.*, HOUSE REPORT, *supra* note 3, at 52 ("In the absence of genuine competitive threats, a firm offers fewer privacy protections than it otherwise would.").

Google's share of search advertising exceeded 90% in 2018.[60] In the U.S., its share is approximately 73%.[61] The CMA also estimated that Google's return on capital (40%) was more than four times its cost of capital (9%).[62] While this does not prove that Google has been pricing substantially above its full, risk-adjusted economic cost, it is suggestive. According to the CMA, the gap between Facebook's return on capital and its cost of capital was even greater—50% versus 9%.[63] As a result, the agency concluded: "We have found that the profitability of both Google and Facebook has been well above any reasonable estimate of what we would expect in a competitive market for many years."[64] This evidence comes from the United Kingdom, but if it were replicated here, it would constitute significant evidence of monopoly power. In the United States, Facebook's share of social network advertising is 70%,[65] which is at the monopoly threshold. In short, there is some evidence that two of the tech giants, Google and Facebook, exert monopoly power in their core businesses, while Amazon and Apple appear to face more substantial competition.

But whether or not the tech giants have monopoly power in their primary markets, they are most often charged with excluding competition in their secondary or complementary markets—the markets they create that allow third parties to sell products or services on their platforms.[66] All four of the tech giants have set up these markets and frequently compete in them. For instance, Amazon operates Amazon Marketplace in which third parties can sell products and services on Amazon.com. Amazon has entered the Marketplace and offers numerous private label

60. COMPETITION & MKTS. AUTH., ONLINE PLATFORMS AND DIGITAL ADVERTISING: MARKET STUDY INTERIM REPORT ¶ 16 (2019) ("Google has generated around 90% or more of UK search traffic each year over the last ten years and generated over 90% of UK search advertising revenues in 2018.").

61. HOUSE REPORT, *supra* note 3, at 196 ("Publicly available data suggests Google captured around 73% of the search advertising market in 2019.").

62. COMPETITION & MKTS. AUTH., *supra* note 60, ¶ 59.

63. *Id.*

64. *Id.* (emphasis omitted).

65. *See* Newman, *supra* note 4, at 1503. Google and Facebook together account for less than a monopoly share of total digital advertising. *See* Crandall, *supra* note 23, at 645 ("Their share of total digital advertising, even when combined, is projected to be only 56.8% in 2018 . . . ."). But the CMA found that search advertising was a separate market from other digital advertising. *See* COMPETITION & MKTS. AUTH., *supra* note 60, ¶ 5.28 ("All media agencies and most advertisers told us that search and display advertising are not substitutable . . . .").

66. In their primary markets, as noted, the tech giants are most often accused of acquiring potential rivals. Recently, however, the federal government and eleven states charged Google with monopolizing its core businesses, general search and general search advertising. *See infra* Part III.

products—under the AmazonBasics brand or other house labels[67]—many of which compete directly with the third-party products it hosts.[68] Similarly, Apple operates an App Store where owners of iPhones and iPads can download apps for their devices. The App Store offers independently developed apps and, in many categories, competing apps developed by Apple. Google employs the same strategy. Its search engine displays results that frequently feature its own complementary products as well as competing independent products.

Critics contend that the tech giants exclude competition in these complementary markets. Part II evaluates the principal allegations.

II. Exclusion in Complementary Markets

The big tech firms have an inconsistent attitude toward the third parties that sell on their platforms. In general, they welcome third parties because a broad array of complementary products enhances the value of their platforms.[69] In some cases, however, they deliberately undermine third parties that compete with their own products.

Critics charge that the tech giants suppress third-party competitors in three main ways. First, they allegedly bias the results of their searches, artificially downgrading third-party products and elevating their own. This distortion reduces the visibility of rival products, depriving them of sales and reducing their ability to compete. Second, the tech giants allegedly use the data they collect on specific third parties to copy their most popular products, often offering them at lower prices, which devastates the third parties and undermines their incentive to develop new products. Third, the tech giants allegedly refuse to deal with third-party rivals simply because they are rivals. For example, Amazon may agree with a branded product seller that Amazon will carry its brand—and only its brand—in a particular product category. After committing to

67. *See* House Report, *supra* note 3, at 249 ("[A]mazon represented that it offers approximately 158,000 private-label products across 45 in-house brands . . . ."); Dana Mattioli, *Amazon Scooped Up Data From Its Own Sellers to Launch Competing Products*, Wall St. J. (Apr. 23, 2020, 9:51 PM), https://www.wsj.com/articles/amazon-scooped-up-data-from-its-own-sellers-to-launch-competing-products-11587650015 [https://perma.cc/APB5-DCRN] ("Amazon's private-label business encompasses more than 45 brands with some 243,000 products.").

68. *See* Mattioli, *supra* note 67 ("In a recent survey from e-commerce analytics firm Jungle Scout, more than half of over 1,000 Amazon Marketplace sellers said Amazon sells its own products that directly compete with the seller's products.").

69. *See* Stigler Comm. on Digit. Platforms, *supra* note 45, at 74 ("[P]latforms have an incentive to attract good complements in order to attract users."). Third-party sales are important to Amazon. *See* Jeff Wilke, *Small Business Success in Challenging Times: 2020 Amazon SMB Impact Report*, Amazon 2 (2020), https://d39w7f4ix9f5s9.cloudfront.net/4d/8a/3831c73e4cf484def7a5a8e0d684/amazon-2020-smb-report.pdf [https://perma.cc/T4QE-YUSA] ("Their products continue to account for more than 50% of all units sold in our online stores, and their sales continue to outpace our first-party sales."); House Report, *supra* note 3, at 275 (noting Amazon's claim that third-party sales account for nearly 60% of its sales).

exclusivity, Amazon allegedly removes competing sellers from its platform, curtailing consumer choice.[70] Third parties cannot avoid the resulting harm because no good substitute for Amazon.com exists.[71]

The following sections analyze each of these allegations, asking whether the asserted conduct harms consumers and whether it created, or threatens to create, monopoly power.

A. *Search Bias*

Google, Amazon, and Apple have all been accused of search bias. Google's behavior produced a major fine in Europe but, despite an extensive FTC investigation, no action in the United States. Recently, *The Wall Street Journal* uncovered evidence that Google had distorted the results of searches for videos to favor its own affiliate, YouTube. Other reports contain evidence of search bias by Amazon and Apple. True search bias would distort competition because it would rank search results according to what contributes most to platform profits, not what best serves consumers.

1. Google

Federal authorities in both Europe and the United States have investigated Google for search bias. In 2017, the European Commission (EC) concluded that Google had altered its search results so that its comparison-shopping service, Google Shopping, was generally placed ahead of competing services.[72] Ruling that this constituted an abuse of dominance, the EC fined Google €2.42 billion.[73] There was no doubt that Google had redesigned its search algorithm to favor its own products. In 2007, Google unveiled Universal Search, a new algorithm that gave "particular prominence to Google's products."[74] Indeed, Universal Search placed Google Shopping "at or near the top of search results for comparative shopping services."[75] The issue was whether this priority was justified. The EC found that it was not,[76] and thus that it injured consumers as well as competitors.

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70. *See* Hubbard Statement, *supra* note 41, at 170.

71. *See, e.g.*, Mattioli, *supra* note 67 ("Because 39% of U.S. online shopping occurs on Amazon, according to research firm eMarketer, many brands feel they can't afford *not* to sell on the platform.").

72. *See* Eleanor M. Fox, *Platforms, Power and the Antitrust Challenge: A Modest Proposal to Narrow the U.S.-Europe Divide*, 98 NEB. L. REV. 297, 306–07 (2019) (summarizing the European Commission's decision in *Google Shopping*).

73. *See id.* at 307.

74. Gilbert, *supra* note 35, at 490.

75. Fox, *supra* note 72, at 306.

76. *Id.* at 307 (stating that the change had "no objective justification").

The EC did not conclude, however, that Google's search bias resulted in monopoly power. While Google does not charge consumers for searches or complementary services, such as Google Shopping, it does charge advertisers to place messages on these products. But the EC did not find that Google's new search design resulted in higher advertising rates. Although the new design reduced, often severely, the sales of rival products,[77] the EC did not rule that it enabled Google to elevate its advertisement rates to monopoly levels. Advertisers apparently had other choices.[78]

In the United States, the FTC investigated Google's new search algorithm but decided not to issue a complaint. Even the FTC's staff attorneys, who are sometimes more aggressive than the Commissioners, agreed. While they objected to some aspects of Google's behavior, they did not recommend a complaint with respect to its search engine.[79] Like the EC, moreover, the FTC found that the sites Google downgraded lost significant traffic, but did not conclude that Google gained monopoly power.[80] Unlike the EC, though, the FTC decided that Google's new algorithm was justified. Richard Gilbert, an economist who consulted for the FTC, noted that Universal Search produced a greater diversity of websites on the first results page, and consumer responses indicated that they preferred that.[81] In short, the Commission found that Google's new algorithm did not bias its search results; it enhanced them.[82]

In contrast, a recent investigation by *The Wall Street Journal* concluded that Google had engaged in a different type of search bias: "When choosing the best video clips to promote from around the web, Alphabet Inc.'s Google gives a secret advantage to one source in particular: itself. Or, more specifically, its giant online-video service,

77. *See id.* ("Google Shopping increased its share in all thirteen markets in the European Economic Area, in many by a large amount.").

78. *See* Gilbert, *supra* note 32, at 499 (noting advertisers' ability to place messages on "third-party websites" and "alternative media such as social network sites, radio, and television").

79. *See* Charles Duhigg, *The Case Against Google*, N.Y. TIMES MAG. (Feb. 20, 2018), https://www.nytimes.com/2018/02/20/magazine/the-case-against-google.html?searchResultPosition=2 [https://perma.cc/G47W-TC4F].

80. *See* Gilbert, *supra* note 35, at 502.

81. *See id.* at 502–03.

82. Five years after the FTC decision, the European Commission again fined Google for exclusionary behavior, this time concluding that Google had refused to license its Android operating system to mobile phone makers unless they agreed to pre-install Google products like Google Search and Google Maps. *See* European Commission Statement 18/4584, Statement by Commissioner Vestager on Commission Decision to Fine Google €4.34 Billion for Illegal Practices Regarding Android Mobile Devices to Strengthen Dominance of Google's Search Engine (July 18, 2018), https://ec.europa.eu/commission/presscorner/detail/en/statement_18_4584 [https://perma.cc/HR48-ZE3E]. This conduct is similar to the conduct alleged in the recent Department of Justice suit discussed below. *See infra* Part III.

YouTube."[83] *The Wall Street Journal* found that Google systematically favored YouTube in its search results even when competitors like Facebook Watch and Amazon's Twitch carried the same or similar videos and even when the number of their views or followers was greater.[84] Google denied that it engaged in self-preferencing but did not offer an explanation for the results.[85] *The Wall Street Journal*'s sources maintained that Google wanted to drive traffic to its platform and increase its bargaining leverage with content providers,[86] reasons that hardly justify the conduct.

The Wall Street Journal's report, in short, strongly suggests search bias, just like the reports on Amazon that follow. The House Antitrust Subcommittee Report presented additional evidence of self-preferencing.[87] All this material indicates that Google sometimes continues to place its services above competing sites even when its ranking algorithm would not warrant that priority. None of these accounts, however, contain evidence of actual or probable monopolization.

2. Amazon

ProPublica found that Amazon's search algorithm ranked Amazon's products (and products that use Amazon's fulfillment services) above rival products. The report concluded that this bias gave the favored products an "oft-decisive advantage."[88] An investigation by *The Wall Street Journal* uncovered another type of distortion. According to Amazon insiders, the platform altered its search algorithm so that it gives priority to products that are more profitable for Amazon.[89] The new algorithm does not use profitability directly—Amazon's lawyers barred that—but it employs proxies for profitability.[90]

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83. Sam Schechner et al., *Searching for Video? Google Pushes YouTube over Rivals*, WALL ST. J. (July 14, 2020), https://www.wsj.com/articles/google-steers-users-to-youtube-over-rivals-11594745232 [https://perma.cc/7UJM-6TYN].

84. *See id.*

85. *See id.*

86. *See id.*

87. *See* HOUSE REPORT, *supra* note 3, at 188–91.

88. *See* Khan, *supra* note 11, at 988 (quoting Julia Angwin & Surya Mattu, *Amazon Says It Puts Customers First. But Its Pricing Algorithm Doesn't*, PROPUBLICA (Sept. 20, 2016, 8:00 AM), https://www.propublica.org/article/amazon-says-it-puts-customers-first-but-its-pricing-algorithm-doesnt [https://perma.cc/VD2J-A48A]); *see also* Hubbard Statement, *supra* note 41, at 170 ("Amazon pushes its own products to the top of Amazon search results . . . .").

89. *See* Dana Mattioli, *Amazon Changed Search Algorithm in Ways That Boost Its Own Products*, WALL ST. J. (Sept. 16, 2019, 10:49 AM), https://www.wsj.com/articles/amazon-changed-search-algorithm-in-ways-that-boost-its-own-products-11568645345 [https://perma.cc/A64E-QHWH].

90. *See id.*

Both reports indicate that Amazon has been skewing its search results to increase its net income. The reports do not analyze Amazon's actual search algorithm; they rely on Amazon employees who are familiar with it. But if the insiders' accounts are accurate, it indicates that Amazon has elevated its own interests above those of consumers.

Amazon's choices, whether justified or not, do not appear to have led to monopoly power or a dangerous probability of monopoly power. *The Wall Street Journal*'s report, for example, presents no evidence that Amazon has monopolized, or was about to monopolize, any relevant market. Professor Ramsi Woodcock notes that this is a general problem with criticism of Amazon: "Critics appear not to have pointed to any evidence that Amazon has power in the individual markets for the thousands of products that appear for sale on Amazon's website . . . ."[91] *eMarketer* data is consistent with this retort. It shows that Amazon's market share of virtually every product category is small. For instance, its share of Home and Kitchen products is 11.1%, its share of Sports and Outdoor products is 5.7%, and its share of Baby products is 2.6%.[92] The only exception is Clothing, Shoes, and Jewelry products, where Amazon's market share is 47.7%.[93] This data is imperfect, because it calculates market share based on the number of brands in a product category, not total sales.[94] Yet Amazon's low share of brands in virtually every category supports the notion that Amazon's entry into complementary product markets has rarely, if ever, created or threatened to create monopoly power. If Amazon has been distorting search results, few if any antitrust plaintiffs could turn to the Sherman Act for relief.

3. Apple

An investigation by *The New York Times* suggested that Apple has also been biasing search results. A data analysis firm retained by the *Times* found that "for more than a year, the top results of many common searches in the iPhone App Store were packed with the company's own apps. That was the case even when the Apple apps were less relevant and

91. Ramsi Woodcock, *Digital Monopoly Without Regret*, 2020 CONCURRENCES 53, 57. For an example, see Hubbard Statement, *supra* note 41, at 172 (stating that the tech giants "claim monopolies" in complementary product markets, but presenting no evidence of monopoly power).

92. *See Share of Amazon's Private-Label Products, By Product Category, March 2019*, EMARKETER (Mar. 18. 2019), https://www.emarketer.com/chart/227300/share-of-amazons-private-label-products-by-product-category-march-2019-of-total-number-of-brands [https://perma.cc/EU8T-R894].

93. *See id.*

94. *See id.* Thus, if Amazon and a third party each had a single brand in a product category, the data would indicate that Amazon and the third party had the same market share, even if the sales of the Amazon brand were much greater.

less popular than ones from its competitors."[95] However, search bias may not have been the culprit. Two senior Apple executives acknowledged the results but maintained that they reflected the merits of Apple's products, not deliberate distortion. The executives stated that "the company did not manually alter search results to benefit itself. Instead, they said, Apple apps generally rank higher than competitors because of their popularity and because their generic names are often a close match to broad search terms."[96] In any event, "the company had since adjusted the algorithm so that fewer of its own apps appeared at the top of search results."[97]

This account is puzzling. If Apple's original search algorithm served consumers, why was Apple so willing to change it? Whatever the answer, the *Times* report contained no evidence that either the original or the revised algorithm enabled Apple to monopolize a market.

In sum, there is reason to believe that three tech giants (Google, Amazon, and Apple) have distorted their search results to favor their own products. In each case, the evidence of manipulation emerged from internal sources rather than deconstruction of their search algorithms. That is not surprising; internal sources are likely to be the only practical method of demonstrating search bias in most instances. In two cases (Google and Amazon), the companies offered no justification. In no case, however, was there evidence that the alleged bias led to actual or probable monopoly power. Together, these two conclusions—apparent anticompetitive conduct but no dangerous probability of monopoly power—support expanding the reach of the Sherman Act.

B. *Product Copying*

Critics also charge that the tech firms routinely undercut third parties that sell on their platforms by copying their most popular products.[98] The tech firms allegedly identify those products by examining the confidential data they collect on individual third parties. In other words, they use nonpublic information about specific sellers to free ride on their product ideas, depriving them of business and undermining their incentive to

95. Jack Nicas & Keith Collins, *How Apple's Apps Topped Rivals in the App Store It Controls*, N.Y. TIMES (Sept. 9, 2019), https://www.nytimes.com/interactive/2019/09/09/technology/apple-app-store-competition.html [https://perma.cc/Y559-7KT7].

96. *Id.*

97. *Id.*

98. *See* Elizabeth Warren, *Here's How We Can Break Up Big Tech*, MEDIUM (Mar. 8, 2019), https://medium.com/@teamwarren/here-how-we-can-break-up-big-tech-9ad9e0da324c [https://perma.cc/S9R9-ESSY] ("Amazon crushes small companies by copying the goods they sell on the Amazon Marketplace and then selling its own branded version." (emphasis omitted)).

develop new products.[99] The tech firms compound the damage when they offer their own products at lower prices.[100] Even the possibility of this behavior may limit the funding available to start-ups because the mere prospect of competing with Amazon increases the risk of failure.[101] Further, the threat of copying a rival's product can make it easier to acquire the rival at a bargain price.[102]

Press reports suggest that both Amazon and Apple have mimicked third-party products offered on their platforms. A 2014 study found that when Amazon first offered private label women's clothing, its list of products included "25 percent of the top items first sold through [Amazon Marketplace] vendors."[103] Six years later, *The Wall Street Journal* interviewed Amazon employees who admitted they studied the sales data of specific third parties to determine which private label products to offer.[104] Although Amazon had prohibited this conduct, the employees

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99. *See* BAKER, *supra* note 49, at 132 ("Amazon may be able to exploit its information about product sales to identify rapidly features of rival diaper brands that customers find attractive. Amazon could quickly add those features to its own private-label products, limiting the profits its rivals earn from their product improvements."); ALEC MACGILLIS, FULFILLMENT: WINNING AND LOSING IN ONE-CLICK AMERICA 161 (2021) (stating that Amazon "draws on [third-party] sellers' expertise and the stream of data their transactions generate to see which of their products sell well and then starts selling near-copies of those goods under Amazon's own brands").

100. *See* MACGILLIS, *supra* note 99, at 161 ("Amazon prices [its copycat items] so aggressively that rivals have to price their own items at absurdly low prices, . . . leaving [them] with meager margins."); Michal Addady, *Merchants Say Amazon Is Copying Their Products*, FORTUNE (Apr. 20, 2016, 12:06 PM), https://fortune.com/2016/04/20/amazon-copies-merchants/ [https://perma.cc/WGU7-BZZ8] (stating that after Rain Design had been selling its laptop stand for $43 on Amazon for over 10 years, Amazon came out with a copycat laptop stand priced at half the cost).

101. *See* Khan, *supra* note 11, at 978–79; Newman, *supra* note 4, at 1517 ("People are not getting funded because Amazon might one day compete with them." (quoting startup founder Olivia Solon, *As Tech Companies Get Richer, Is It "Game Over" for Startups?*, GUARDIAN (Oct. 20, 2017, 5:00 PM), https://www.theguardian.com/technology/2017/oct/20/tech-startups-facebook-amazon-google-apple [https://perma.cc/78MX-38M7])).

102. *See* Khan, *supra* note 11, at 977–78 ("Facebook . . . would often give companies a choice: Be acquired by Facebook, or watch it roll out a direct replica."); A. Douglas Melamed & Nicolas Petit, *The Misguided Assault on the Consumer Welfare Standard in the Age of Platform Markets*, 54 REV. INDUS. ORG. 741, 751 n.21 (2019) ("[W]hen Snapchat rebuffed Facebook's $3 billion offer in 2013, the latter responded by imitating the app's most successful features.").

103. George Anderson, *Is Amazon Undercutting Third-Party Sellers Using Their Own Data?*, FORBES (Oct. 30, 2014, 9:23 AM), https://www.forbes.com/sites/retailwire/2014/10/30/is-amazon-undercutting-third-party-sellers-using-their-own-data/?sh=658850b753d8 [https://perma.cc/XD8Z-SAE5].

104. *See* Mattioli, *supra* note 89; *see also* Dana Mattioli, *Senator Pushes DOJ on Criminal Probe*, WALL ST. J. (Apr. 28, 2020, 9:16 AM), https://www.wsj.com/articles/senator-pushes-doj-to-open-criminal-investigation-into-amazon-11588067701 [https://perma.cc/Q8VR-XDL4] (discussing Senator Josh Hawley's call for a criminal investigation into Amazon's position as an online platform that hosts *and* competes with its third-party sellers).

said they ignored the rules or found ways around them.[105] They were willing to skirt the rules because individualized nonpublic data helped them determine "how to price an item, which features to copy or whether to enter a product segment based on its earning potential."[106] Similarly, several press investigations found that Apple had upgraded its apps with "the features of the most popular apps that other innovators built."[107]

This practice has generated such adverse publicity and hostile Congressional reaction that Amazon made no attempt to defend it. To the contrary, in response to *The Wall Street Journal*'s story, Amazon reiterated that it prohibits its private label product teams from accessing individual seller data and announced it had opened an investigation.[108] Three months later, Amazon CEO Jeffrey Bezos testified at a House antitrust subcommittee that the investigation was continuing and that he could not "guarantee . . . that this policy has never been violated."[109] Amazon eventually claimed that its prohibition had not been ignored—that only one employee had accessed third-party data regarding the products in question and he saw only aggregated data.[110]

The antitrust analysis of product copying is complicated because mimicking a rival's product can be procompetitive. When an entrant copies a dominant firm's product and offers it at a lower price, consumers benefit. When Amazon enters a complementary product market, most consumers benefit because Amazon matches the quality of the third-party product but charges a lower delivery price, causing total market output to increase.[111] Likewise, it is elementary business sense for a firm to scan its market to learn of product improvements it ought to copy.[112] To be sure, intellectual property law often prohibits such mimicking to protect incentives to innovate, but here the third-party products were not patented and their distinctive features were not trade secrets.

Three studies examine the impact of tech giant entry into complementary product markets. Two studies looked at Google's entry

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105. *See* Mattioli, *supra* note 67 (quoting Amazon statement that "we strictly prohibit our employees from using nonpublic, seller-specific data to determine which private label products to launch").

106. *Id.*; *see also* HOUSE REPORT, *supra* note 3, at 276–78 (citing additional evidence).

107. Hubbard Statement, *supra* note 41, at 174 (citing press accounts from 2013, 2016, and 2019).

108. *See* Mattioli, *supra* note 104. A U.S. Senator called for a criminal investigation. *See id.*

109. Ryan Tracy, *Tech Titans Face Antitrust Questions*, WALL ST. J. (July 29, 2020, 7:29 PM) (quoting testimony of Jeff Bezos), https://www.wsj.com/articles/tech-ceos-defend-operations-ahead-of-congressional-hearing-11596027626 [https://perma.cc/P9Q4-6XU5].

110. *See* HOUSE REPORT, *supra* note 3, at 277–78.

111. *See infra* notes 120–24 and accompanying text.

112. *See* HOUSE REPORT, *supra* note 3, at 165 ("I think every company engages in research to understand what their customers are enjoying so they can learn and make their products better." (quoting testimony of Mark Zuckerberg)).

into the sale of apps for its Android operating system.[113] A third study investigated Amazon's entry into segments of the Amazon Marketplace.[114] As expected, two of the studies found adverse effects on the number of products that third-party sellers offered. According to one, Amazon's entry increased the number of discontinued third-party products by six percentage points.[115] According to another, Google's entry reduced the total quantity of app upgrades in the targeted product space by 7.9%.[116] It also caused the developers in that space to increase the price of their apps by an average of 3.7%.[117]

All three studies, however, found significant consumer benefits. Many consumers preferred the tech giants' products and stopped buying third-party products as a result.[118] It was this loss of business that led the third parties to reduce the number of products and product upgrades they offered.[119] Consumers switch to Amazon's products because of its lower prices. When Amazon moves into a product category, it matches the prices that third parties charge,[120] but reduces shipping costs to zero, lowering delivery prices.[121] Consumers value this so much that they

113. *See* Wen Wen & Feng Zhu, *Threat of Platform-Owner Entry and Complementor Responses: Evidence from the Mobile App Market*, 40 STRATEGIC MGMT. J. 1336, 1336 (2019); Jens Foerderer et al., *Does Platform Owner's Entry Crowd Out Innovation? Evidence from Google Photos*, 29 INFO. SYS. RSCH. 444, 444 (2018), https://doi.org/10.1287/isre.2018.0787 [https://perma.cc/3KQ2-YJUD].

114. Zhu & Liu, *supra* note 5, at 2618.

115. *See id.* at 2632.

116. *See* Wen & Zhu, *supra* note 113, at 1349.

117. *See id.* at 1351. Developers presumably increased prices because Google took their most price-sensitive customers, leaving them with a greater percentage of customers willing to pay higher prices.

118. *See* Zhu & Liu, *supra* note 5, at 2638.

119. *See* Wen & Zhu, *supra* note 113, at 1360.

120. *See* Zhu & Liu, *supra* note 5, at 2632, 2634 (finding that "prices are determined by Amazon" but "entry has little impact on sellers' pricing strategies," implying that Amazon essentially charges the same as third parties). Amazon also generally matches the quality of third-party products, because product ratings do not fall when Amazon enters a category. *See id.* at 2632; *see also* Khan, *supra* note 11, at 994 (stating that "Amazon's entry into competition with third-party merchants does not affect . . . customer satisfaction" with product quality). To be sure, not all Amazon products perform well. *See* Blake Ellis & Melanie Hicken, *Dozens of Amazon's Own Products Have Been Reported as Dangerous—Melting, Exploding or Even Bursting into Flames. Many Are Still on the Market*, CNN (Sept. 10, 2020, 7:55 AM), https://www.cnn.com/2020/09/10/business/amazonbasics-electronics-fire-safety-invs/index.html [https://perma.cc/9Y8L-9A7G] (noting that reviews of more than seventy Amazon Basics products—out of 5,000 offered—have described fires, melting, or other risks).

121. *See* Zhu & Liu, *supra* note 5, at 2632 ("[W]hen Amazon offers products, their shipping fees become zero."); Hubbard Statement, *supra* note 41, at 170.

increase their total purchases in the product category.[122] This increase in output strongly suggests that consumer welfare rose.[123]

Likewise, consumers switched to Google's products because they preferred Google's apps.[124] This switching hurt third-party product development in some ways but increased it in others. As noted, one study found that third parties reduced the total number of app upgrades they offered in the targeted product category.[125] But the study also found that an impending Google entry accelerated other aspects of product development.[126] Third parties increased their upgrades of non-competing products by 4% and their development of new apps by 3–10%.[127] Further, the most popular apps—those least likely to lose business to Google—responded to the threat of entry by increasing upgrades on competing apps by 7.8% and upgrades on other apps by 15%.[128] The overall pace of innovation may have quickened.[129] The second Google study concluded that Google's entry into the photography space did increase innovation. Examining over six thousand apps, the authors found that apps affected by Google's entry were 9.6% more likely to issue major updates than unaffected apps.[130]

In sum, the studies indicate that when a tech giant enters a complementary product market, consumers may benefit on balance. While many third parties curtail product development, consumers gain in other ways. When Amazon enters, it offers lower delivery prices and consumers increase their total purchases of the product category. When Google enters, it offers apps that many consumers prefer, other third parties step up their development efforts, and total innovation may quicken.

Given these countervailing effects, a blanket ban on copying rival products would be difficult to justify. Because Amazon's entry increases total output and Google's entry may well promote overall innovation, a blanket ban could easily reduce consumer welfare. A vertical breakup would be even more difficult to justify, since it would prevent the tech giants from offering *any* complementary products, even those that

122. *See* Zhu & Liu, *supra* note 5, at 2632 ("[O]ur results suggest that Amazon's entry reduces shipping cost and, hence, the cost to consumers of affected products, resulting in increased sales . . . .").

123. *See id.* at 2638 ("Amazon's entry increases the popularity of affected products.").

124. *See* Wen & Zhu, *supra* note 113, at 1340.

125. *See id.* at 1349.

126. *See id.*

127. *See id.* at 1338.

128. *See id.*

129. *See* Foerderer et al., *supra* note 113, at 444.

130. *See id.*

involved no mimicking at all and thus no direct threat to third-party innovation.[131]

In one circumstance, however, it would make sense to prohibit a tech giant from copying a third-party's product. When a tech giant identifies the item by using *nonpublic* data about a *specific* third party, copying the product poses a particularly direct threat to innovation. In that circumstance, the targeted firm may well be a pioneer—the first to develop an idea—and allowing a tech giant to take a pioneering idea is especially likely to undercut innovation. In contrast, when a platform uses other information—public information about popular products[132] or nonpublic information that is aggregated across multiple competitors[133]—there is less danger that the platform will free ride on a single seller's new idea. To be sure, no empirical studies address the issue of where to draw the line on tech giant product copying—and thus any change is necessarily tentative. But the lack of empirical research is a problem with tech giant exclusion generally,[134] and should not stop courts or Congress from making reasonable judgments. This analysis suggests it would be appropriate to bar platforms from using nonpublic data about specific third parties in deciding which products to copy. This would prevent the worst instances of free riding while giving the tech giants considerable latitude to enter complementary markets with cheaper or better products.[135] While enforcing this rule would require access to

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131. *See infra* Section IV.B.

132. Amazon itself provides public information on successful third-party products. *See* Jack Nicas et al., *A Handbook to Today's Tech Hearing*, N.Y. TIMES (Jan. 26, 2021), https://www.nytimes.com/2020/07/29/technology/tech-ceos-congress-what-to-know.html [https://perma.cc/5VKL-CYRZ] ("Amazon says information on promising products are available to anyone through its public best-seller rankings . . . .").

133. A platform has legitimate reasons to collect—and aggregate—third-party data. It enables the platform to assess fees based on sales volume, and it helps the platform decide how much third-party product to stock in its warehouses.

134. *See* Stigler Comm. on Digit. Platforms, *supra* note 45, at 71–72 (explaining that while digital platforms have the ability and incentive to exclude competitors, it is unclear whether they have used it, and finding that "[m]ore formal research in this area is essential").

135. Using nonpublic, seller-specific data to copy a product would not be per se illegal. To prevail, a plaintiff would have to satisfy all the requirements of the legislation proposed below, including the requirement that the conduct is likely to reduce competition significantly and harm consumers. In contrast, the European Commission (EC) recently charged Amazon with abuse of dominance because it had copied third-party products based on information it had gleaned from *aggregated* data about *multiple* sellers. *See* Valentina Pop & Sam Schechner, *Amazon Faces New EU Antitrust Charges*, WALL ST. J. (Nov. 10, 2020, 8:34 AM), https://www.wsj.com/articles/amazon-faces-new-eu-antitrust-charges-11605003489 [https://perma.cc/8J8W-4HXY] (noting that Margrethe Vestager, the EC's Executive Vice President, emphasized that the EC's "case doesn't focus on how Amazon gathers data about individual sellers"). This action is troubling. If Amazon cannot even use aggregated data to decide which markets to enter, its ability to make profitable entry decisions will be inhibited and consumers may be hurt. Vestager did not

internal information, such information is clearly available given that *The Wall Street Journal* had no trouble obtaining it from current Amazon employees.[136]

C. *Refusals to Deal*

Critics have also charged the tech giants with a third form of exclusionary conduct: refusing to deal with firms simply because they are competitors. For instance, Amazon allegedly enters into exclusive distribution arrangements with suppliers that require it to remove competing suppliers from its platform.[137] The Director of Enforcement Strategy at the Open Markets Institute, Sally Hubbard, contends that these expulsions amount to "illegal monopolization," though she does not identify any markets that Amazon has monopolized.[138] Moreover, when Hubbard explains why the suppliers want this exclusivity, the story she tells, if valid, is procompetitive. According to Hubbard, the suppliers sell products that require customer service in physical stores.[139] The suppliers also sometimes offer their products through third parties on the Amazon Marketplace, and those third parties frequently discount the products.[140] As a result, free riding occurs: consumers visit the physical stores to take advantage of the in-store service but then purchase the products online.[141] To prevent the free riding, the brands make Amazon their exclusive online outlet.[142] In short, exclusivity is a response to a market failure.[143] This account may be incorrect, but even if it is, there is currently no evidence that Amazon's exclusivity arrangements have resulted in monopoly power or a dangerous probability of monopoly power.

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assert that the EC's action would benefit consumers; her stated goal was to protect competitors. She declared that Amazon's conduct "marginalizes third-party sellers and caps their ability to grow." *Id.*

136. Amazon's Seller Data Protection Policy has several loopholes. *See* HOUSE REPORT, *supra* note 3, at 281 (listing answers on an Amazon "Frequently Asked Questions" document from 2014 to suggest that Amazon was aware of "significant loopholes" in the policy). These loopholes should be closed.

137. *See* Hubbard Statement, *supra* note 41, at 170.

138. *See id.*

139. *Id.* at 169–70.

140. *Id.*

141. *Id.*

142. *Id.* Amazon may also agree with some suppliers to enforce minimum advertised prices. *See* Khan, *supra* note 11, at 989. This would give Amazon an independent reason to expel discounting third-party sellers.

143. *See* John B. Kirkwood, *Antitrust and Two-Sided Platforms: The Failure of American Express*, 41 CARDOZO L. REV. 1805, 1822 (2020) (stating that free riding is the best-known kind of market failure in antitrust); *see also* John M. Newman, *Procompetitive Justifications in Antitrust Law*, 94 IND. L.J. 501, 517 (2019) (explaining why a restraint is procompetitive only if predicated on a market failure).

The tech giants have also been accused of naked exclusion—refusing to deal with a competitor without any purported justification. In 2016, Apple allegedly restricted Spotify's access to the App Store simply because a new version of Spotify posed a threat to Apple Music.[144] Apple denies this,[145] and, in any event, the exclusion was temporary. Spotify's new version appeared in the App Store and consumer choice was restored. Recently, more serious allegations of naked exclusion were leveled against Facebook in FTC and state complaints.[146] The complaints charge that Facebook denied access to its Application Programming Interfaces (APIs) to app developers that competed with it or helped others compete with it. Specifically, Facebook allegedly adopted a policy that barred apps that included a "core functionality" of Facebook or that linked to competing social networks.[147] These refusals to deal were assertedly so effective that they deterred any direct challenge to Facebook's platform, thereby maintaining Facebook's monopoly power.[148] The complaints cite little evidence, however, that any of the affected apps would have developed into a competing social network. Moreover, Facebook asserts that it no longer engages in the practice.[149]

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144. *See* Khan, *supra* note 11, at 977.

145. *See Addressing Spotify's Claims*, APPLE NEWSROOM (Mar. 14, 2019), https://www.apple.com/newsroom/2019/03/addressing-spotifys-claims/ [https://perma.cc/6RJQ-FSER]. Apple claims that Spotify has sought to avoid its responsibilities under the App Store Guidelines, which other app developers routinely honor. *Id.*

146. *See* Complaint, FTC v. Facebook, Inc., *supra* note 7, at 50; Complaint, New York v. Facebook, Inc., *supra* note 7, at 71.

147. *See, e.g.*, Complaint, New York v. Facebook, Inc., *supra* note 7, at 54 ("In 2011, Facebook adopted a policy aimed at forbidding 'competing social platforms,' and any apps that linked or integrated with competing social platforms, from accessing its APIs."); *id.* ("In 2013, Facebook amended its Platform policy . . . to forbid applications that 'replicat[e] [Facebook's] core functionality' . . . ." (alterations in original)).

148. *See id.* at 63 (asserting that Facebook's policies "neutralized competitive threats"); *see also* Khan, *supra* note 11, at 1001–02 (asserting that Facebook's exclusionary practices have caused competitors to exit the market or shut down entirely).

149. *See* HOUSE REPORT, *supra* note 3, at 169 ("Facebook told the Subcommittee that it 'does not restrict access to its Platform APIs simply because an app competes with a Facebook product or service . . . .'" (quoting *Online Platforms and Market Power, Part 2: Innovation and Entrepreneurship: Hearing Before the Subcomm. on Antitrust, Com. & Admin. Law of the H. Comm. on the Judiciary*, 116th Cong. 3 (2019))); Khan, *supra* note 11, at 1002 n.141.

Facebook's cessation of the practice—it dropped its policy in 2018 and had not cut off any apps since 2013—caused the district court to rule that neither the FTC nor the states were entitled to an injunction. *See* FTC v. Facebook, Inc., No. 20-3590, 2021 WL 2643627, at *53 (D.D.C. June 28, 2021); New York v. Facebook, Inc., No. 20-3589, 2021 WL 2643724, at *66–67 (D.D.C. June 28, 2021). The court also emphasized that neither plaintiff had alleged that Facebook's conduct met the criteria for illegality articulated in *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S 398, 407 (2004). *See* FTC v. Facebook, Inc., 2021 WL 2643627, at *40; New York v. Facebook, Inc., 2021 WL 2643724, at *29. This is a general problem: most allegations of tech giant refusals to deal do not address the *Trinko* criteria.

In addition to the government actions against Facebook, Epic Games sued Apple and Google for removing one of its most popular games, *Fortnite*, from their app stores.[150] The expulsions occurred because Epic refused to pay the commissions the tech giants charged on in-game purchases.[151] Epic contended that the commissions were set at monopoly levels and that the tech giants could impose such high charges only because they make it impossible, or nearly impossible, for consumers to obtain apps except through their own app stores.[152] As a result, Apple is the only source of apps for Apple phones and Google is, with rare exceptions, the sole supplier of apps for Android phones.[153] Epic's suits challenged this exclusivity.

Apple argues that exclusive distribution is justified because the safety and security of iPhone apps would be at risk unless Apple screens and monitors them.[154] If consumers could obtain apps from some other source—the developer or a third-party app store—Apple could not guarantee the apps' safety and security.[155] Apple also asserts that it could not obtain an adequate return on its intellectual property unless it charges high App Store commissions.[156] Thanks to Apple's creativity, hundreds of millions of consumers use iPhones. If app developers could sell directly to this vast pool of users, they would not have to pay Apple anything for Apple's innovations.

Neither argument seems sufficient to justify Apple's walled garden. Many other platforms, including Apple's own iMac, allow users to access apps from independent sources without triggering substantial safety and security issues.[157] In addition, Apple's commission rate (30% of sales) appears to be far higher than necessary to cover the costs of providing safety, security, and other App Store services.[158] To justify that

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150. *See* Tim Higgins, *Apple Countersues "Fortnite" Maker Epic Games, Seeks Punitive Damages*, WALL ST. J. (Sept. 8, 2020, 7:33 PM), https://www.wsj.com/articles/apple-countersues-fortnite-maker-epic-games-seeking-to-halt-in-app-payments-11599592017 [https://perma.cc/3ZY3-8VA2].

151. *See id.* Subsequently, thirty-six states filed a similar suit against Google. *See* Ryan Tracy & Tripp Mickle, *States Target Google Play Store Practices in Antitrust Suit*, WALL ST. J. (July 7, 2021, 9:55 PM), https://www.wsj.com/articles/states-target-google-play-store-in-antitrust-suit-11625694096 [https://perma.cc/5T6P-2QSU].

152. *See* Higgins, *supra* note 150.

153. *See* Tracy & Mickle, *supra* note 151.

154. *See* Higgins, *supra* note 150.

155. *See id.*

156. *See id.*

157. *See* HOUSE REPORT, *supra* note 3, at 341 (noting that both personal computer manufacturers and Samsung, the leading maker of Android phones, allow users to obtain apps from multiple sources).

158. *See* Higgins, *supra* note 150 (noting that Apple claims that its commission rate is driven by the costs of operating an "ecosystem that provides a safe and secure way to download third-

commission rate, Apple's expenses would have to be $15–17 billion a year,[159] which is highly unlikely.[160] Finally, Apple has not explained why it needs the large profits it makes on the App Store to provide an adequate return on its intellectual property in the iPhone. Why can't Apple achieve that return through the prices it charges for iPhones?

This analysis suggests that the proper resolution is to end Apple's exclusivity and allow third parties to distribute apps to users without paying Apples' current commission rate. The resulting competition for users would drive down commission rates and stimulate innovation. At the same time, Apple should be permitted to review apps for safety and security, block apps that fail this review, and charge a reasonable fee for conducting the review. This resolution would produce lower commission charges and greater innovation without compromising safety and security.

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The elements of unjustified exclusion are clear. When a tech giant uses its own profitability rather than the preferences of its customers to rank search results, it distorts consumer choice. When a platform uses confidential data it gathers on individual third parties to identify their most popular products and then duplicates them, it undercuts third-party innovation. When a tech giant refuses to deal with a competitor simply because it is a competitor, it augments the platform's market power and diminishes the options available to consumers.

The evidence suggests that all the tech giants have used one or more of these exclusionary tactics. The extent of their conduct will become clearer as ongoing proceedings unfold, but at this point, it seems fair to conclude that all the tech giants have suppressed competition in complementary markets through unwarranted exclusion. At the same time, there is no evidence to date that this behavior led to monopoly power or a dangerous probability of monopoly power in these markets. The critical question, therefore, is how to deter this conduct. Congress could break up the tech giants, which would diminish their ability and incentive to engage in unwarranted exclusion, or Congress could make the conduct itself illegal by amending the Sherman Act.

Before examining these approaches in Parts V and VI, Part III comments on three recently filed government lawsuits that charge Google with anticompetitive exclusion in its core markets. In these suits, the

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party software"). Apple also points out that it charges a 30% commission only during the first year it hosts a subscription service; afterwards, the commission is 15%. *See* HOUSE REPORT, *supra* note 3, at 339.

159. *See* HOUSE REPORT, *supra* note 3, at 344.

160. *See id.* at 345 ("Phillip Shoemaker, Apple's former Senior Director of App Store Review, estimated that Apple's costs for running the App Store are less than $100 million.").

government plaintiffs contend that Google's actions have enabled it to maintain monopoly power in its primary markets.

III. EXCLUSION IN CORE MARKETS

In late 2020, three government lawsuits charged Google with monopolization. The first, brought by the Department of Justice and eleven states, accused Google of monopolizing its principal markets, general search and search advertising.[161] The second, filed by Texas and nine other states, alleged that Google had monopolized the software used to purchase and sell display advertising on the internet.[162] The third, brought by Colorado and thirty-seven other states, endorsed the allegations in the Department of Justice lawsuit and added additional charges, including the claim that Google biased its search results against vertical search engines.[163]

All three lawsuits contend that Google used exclusionary behavior to cement monopoly power in its core markets. As a result, all three allege violations of Section 2 in its current form, and do not need an amendment to the Sherman Act to succeed. But two aspects of these actions warrant comment. First, Google's stated defense to the Department of Justice action reflects a fundamental misunderstanding of antitrust law. Second, an amendment to the Sherman Act would make it easier to pursue the search bias allegation in the Colorado lawsuit.

A. *Paying for Default Status*

The Department of Justice and eleven states asserted that Google monopolizes general search by paying hardware and software makers to make Google the default search engine on their products.[164] The complaint estimates, for example, that Google pays Apple $8–12 billion

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161. Complaint at 2, United States v. Google LLC, No. 1:20-cv-03010 (D.D.C. Oct. 20, 2020).

162. *See* Amended Complaint at 2, Texas v. Google LLC, No. 4:20-cv-00957 (E.D. Tex. Mar. 15, 2021). For the issues in this complex area, see FIONA SCOTT MORTON & DAVID C. DINIELLI, OMIDYAR NETWORK, ROADMAP FOR A DIGITAL ADVERTISING MONOPOLIZATION CASE AGAINST GOOGLE (2020), https://omidyar.com/wp-content/uploads/2020/09/Roadmap-for-a-Case-Against-Google.pdf [https://perma.cc/2FBJ-K2XN]; Daniel S. Bitton & Stephen Lewis, *Clearing Up Misconceptions About Google's Ad Tech Business* (May 5, 2020), https://www.accc.gov.au/system/files/Google%20-%20Report%20from%20Daniel%20Bitton%20and%20Stephen%20Lewis%20%285%20May%202020%29.pdf [https://perma.cc/RCT4-6AVG]; Dina Srinivasan, *Why Google Dominates Advertising Markets: Competition Policy Should Lean on the Principles of Financial Market Regulation*, 24 STAN. TECH. L. REV. 55 (2020).

163. *See* Complaint at 20–21, Colorado v. Google, LLC, No. 1:20-cv-03715 (D.D.C. Dec. 17, 2020).

164. Complaint, *supra* note 161, at 3–4. According to the complaint, Google monopolizes three specific markets: general search services, search advertising, and general search text advertising. *Id.* at 1.

a year to place Google—and only Google—on the home screen of its iPhones.[165] In addition, Google allegedly pays billions more to other distributors to achieve the same result.[166] Through these arrangements and its ownership of Chrome, the leading internet browser, Google has allegedly locked up access to search engines on the vast majority of search access channels.[167] In consequence, Google has not only disadvantaged rival search engines, it has constricted consumer choice, reduced privacy protections, and raised the rates that advertisers have to pay for search advertising.

Google has famously claimed that it does not have monopoly power because "competition is only a click away."[168] Yet if it is so easy for consumers and advertisers to turn to another search engine, why does Google pay billions of dollars to make its own service the default? The answer, the complaint maintains, is that few consumers in fact use any search engine other than the default.[169] As a result, it is worth a great deal of money to Google to be the default search engine on Apple phones, Android phones, Dell laptops, and many other products.[170]

The complaint does not address the effects of ending Google's payments for default status. It alleges that these exclusionary payments are substantial—in Apple's case, they amount to 15–20% of its net income[171]—and allow the distributors of its search engine to share in Google's monopoly profits.[172] But what would happen if Google could no longer make these payments? Google claims that the search distributors would compensate by raising their prices—that is, a government victory would result in higher prices for mobile phones,

165. *Id.* at 37.

166. *Id.* at 3–4 ("Google pays *billions* of dollars each year to distributors—including popular-device manufacturers such as Apple, LG, Motorola, and Samsung; major U.S. wireless carriers such as AT&T, T-Mobile, and Verizon; and browser developers such as Mozilla, Opera, and UCWeb—to secure default status for its general search engine and, in many cases, to specifically prohibit Google's counterparties from dealing with Google's competitors.").

167. *Id.* at 4 ("Between its exclusionary contracts and owned-and-operated properties, Google effectively owns or controls search distribution channels accounting for roughly 80 percent of the general search queries in the United States.").

168. Letter from Larry Page, former CEO, Google, to Google Users (Apr. 5, 2012), https://abc.xyz/investor/founders-letters/2012/ [https://perma.cc/BWL8-9SXK].

169. Complaint, *supra* note 161, at 3–4.

170. *See id.* at 38 ("Although it is possible to change the search default on Safari [Apple's browser] from Google to a competing general search engine, few people do, making Google the *de facto* exclusive general search engine. That is why Google pays Apple billions on a yearly basis for default status.").

171. *Id.* at 37 ("The revenues Google shares with Apple make up approximately 15–20 percent of Apple's worldwide net income.").

172. *Id.* at 5 ("It is these search advertising monopoly revenues that Google 'shares' with distributors in return for commitments to favor Google's search engine.").

laptops, and other search devices.[173] But even if that were true, consumers are likely to be better off overall. Google allegedly captures the monopoly profits it earns from its default status by raising advertising rates.[174] Yet if Google is a profit-maximizing firm, it would pay only *part* of these profits to the distributors of its search engine. In other words, Google is likely to be paying those search distributors less for default status than the revenue it generates from the monopoly premium it charges advertisers. As a result, if the lawsuit is successful, and Google's advertising charges drop sharply, the gains to advertisers in the form of lower advertisement costs would exceed the lost income to search distributors from the Google payments. The prices of advertisements—and therefore the prices of advertised products—would fall more than the prices of phones and other search devices would rise. Consumer welfare would increase.

The more fundamental point, however, is that Google cannot justify its payments for default status on the ground that the payments reduce phone prices. The lower prices occur because Google suppresses competition among search engines and shares the resulting monopoly profits with phone makers. But consumer benefits funded by anticompetitive restraints are not procompetitive benefits. They occur not because Google has increased competition but because Google has reduced it. As a result, Google cannot excuse its exclusion by showing that some of the monopoly profits it earned were ultimately passed on to phone purchasers. That is not a legitimate justification.[175]

B. *Suppressing Vertical Search Engines*

In the third lawsuit, Colorado and thirty-seven other states endorsed the Department of Justice's position on default status and leveled additional charges.[176] One charge asserts that Google biased its search results against vertical search engines—those that specialize in a particular "vertical" segment like hotels, restaurants, or local repair

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173. *See* Kent Walker, *A Deeply Flawed Lawsuit That Would Do Nothing to Help Consumers*, GOOGLE: THE KEYWORD (Oct. 20, 2020), https://blog.google/outreach-initiatives/public-policy/response-doj/ [https://perma.cc/84KF-2FAX] ("This lawsuit would do nothing to help consumers. To the contrary, it would . . . raise phone prices . . . ."); *see also id.* ("These agreements enable us to distribute Android for free, so they directly reduce the price that people pay for phones.").

174. Complaint, *supra* note 161, at 53.

175. *See* Kirkwood, *supra* note 143, at 1820–25 (showing that American Express could not justify a restraint on the ground that it enabled the company to increase cardholder rewards); C. Scott Hemphill & Nancy L. Rose, *Mergers that Harm Sellers*, 127 YALE L.J. 2078, 2107 (2018) ("Nor may a horizontal agreement be defended on the ground that the resulting extra profit induces or is spent on increased innovation.").

176. *See* Complaint, *supra* note 163, at 9.

services.[177] This bias is evident, according to the complaint, because Google does not always discriminate against vertical search engines; it does so only when a particular vertical segment is lucrative for Google.[178] In such cases, it restricts the advertising or the prominence of the competing service, sometimes both.[179]

The states allege that Google engages in this exclusionary conduct to bolster its monopoly power in a general search.[180] By suppressing the revenues of vertical search engines, Google allegedly prevents them from entering the general search market, e.g., by becoming a general search engine themselves, by banding together with other vertical services to create a new general search engine, or by partnering with an existing general search engine. None of these scenarios, however, seem likely. What is the chance that Yelp, Trip Advisor, or Hotels.com, individually or in combination, would overcome the daunting barriers that stand in the way of becoming a direct competitor to Google in a general search? After all, Google has indexed hundreds of billions of web pages and can draw on decades of experience responding to search queries.

If Google has discriminated against vertical search engines, it is much more likely that Google is trying to protect its market power in vertical search. Google sells advertising in these segments and operates competing services like Flights or Hotel Units.[181] If Google could not suppress vertical rivals, its ability to charge supracompetitive advertising rates in these markets would be reduced. The stronger theory, therefore, is that Google's search bias has enabled it to preserve market power in vertical search. Given the limits of Section 2, the states cannot pursue this theory without an amendment to the Sherman Act.[182]

Part IV turns to an issue that is pervasive in evaluating tech giant exclusion: should the conduct be judged by its impact on consumer welfare, antitrust's dominant paradigm for four decades?

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177. *See id.* at 57–58.

178. *See id.* at 67 ("In areas that are not important commercial segments for Google and do not generate significant search advertising revenue, like books, educational courses, events, movies and recipes, Google allows consumers to connect directly to specialized vertical providers.").

179. *See id.* at 61 ("Google selects particular commercial segments, like local home services, in which it denies specialized search providers the ability to: (a) purchase specialized advertisements in their own name in its specialized-advertising carousel; and/or (b) appear on the Google search results page in the so-called OneBox feature that typically provides a map and associated listings for a specific commercial segment (*e.g.*, a listing of local electricians or hotels).").

180. *See id.* at 5.

181. *Id.* at 31.

182. The states may still have a viable Section 2 theory. In *United States v. Microsoft Corp.*, 253 F.3d 34, 77–78 (D.C. Cir. 2001) (per curiam), the court found numerous violations even though it was far from clear that Netscape Navigator or Sun Java would ever be able to create an effective substitute for Windows.

IV. CONSUMER WELFARE

In a famous book, Judge Robert Bork argued that both congressional intent and sound administration indicated that the antitrust laws have a single goal—consumer welfare.[183] His definition of the term, however, was highly misleading. By consumer welfare, he did not mean the welfare of those who purchased the defendant's product—consumers in the relevant market—but total welfare, the welfare of the entire society.[184] As a result, "consumers" under Bork's definition included producers. A monopolist is a "consumer," and gains to a monopolist could offset losses to actual consumers. Indeed, if a merger led to a monopoly and reduced production costs sufficiently, it would pass Bork's "consumer welfare" test even though consumers were forced to pay higher prices.[185]

Bork ultimately lost the battle for total welfare. While he helped persuade courts and scholars that the fundamental goal of antitrust was consumer welfare, he did not convince them that this meant total welfare. Scholars showed that congressional intent and administrative efficiency actually favored a true consumer welfare standard—a standard that protects consumers in the relevant market.[186] The vast majority of courts now agree. Although a few decisions initially appeared to follow Bork,[187] that has largely ended. Today, when courts describe the aims of U.S. antitrust law, they generally say that its goal is to promote competition (or the competitive process), that competition is reduced when consumers are harmed, and that competition is increased when consumers are benefited.[188] Indeed, in recent years the Supreme Court has repeatedly equated a restraint's impact on competition with its effect on consumers. In *Ohio v. American Express Co.*,[189] the Court declared: "The goal [of the rule of reason] is to 'distinguis[h] between restraints with anticompetitive

183. *See* ROBERT BORK, THE ANTITRUST PARADOX 66, 97 (1978).

184. *See id.* at 90; *see also* Barak Y. Orbach, *The Antitrust Consumer Welfare Paradox*, 7 J. COMPETITION L. & ECON. 133, 148 (2011) ("Bork explicitly equated the term 'consumer welfare' with 'the wealth of the nation,' a term that economists would understand as 'social welfare.'" (footnote omitted) (quoting BORK, *supra* note 183, at 90)).

185. *See* Herbert Hovenkamp, *Is Antitrust's Consumer Welfare Principle Imperiled?*, 45 J. CORP. L. 65, 68–69 (2019).

186. *See, e.g.*, Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, 123 HARV. L. REV. 397, 436–38 (2009); Steven C. Salop, *Question: What Is the Real and Proper Antitrust Welfare Standard? Answer: The True Consumer Welfare Standard*, 22 LOY. CONSUMER L. REV. 336, 347–48 (2010); John B. Kirkwood & Robert H. Lande, *The Fundamental Goal of Antitrust: Protecting Consumers, Not Increasing Efficiency*, 84 NOTRE DAME L. REV. 191, 206–07 (2008); John B. Kirkwood, *The Essence of Antitrust: Protecting Consumers and Small Suppliers from Anticompetitive Conduct*, 81 FORDHAM L. REV. 2425, 2429 (2013).

187. *See, e.g.*, Reiter v. Sonotone Corp., 442 U.S. 330, 343 (1979) (describing the Sherman Act as a "consumer welfare prescription" (citing BORK, *supra* note 183, at 66)).

188. *See* Kirkwood, *supra* note 46, at 1174 n.15.

189. 138 S. Ct. 2274 (2018).

effect that are harmful to the consumer and restraints stimulating competition that are in the consumer's best interest.'"[190] In addition, no court has ever applied a total welfare test. No judge has concluded that a merger or other challenged practice that is likely to raise prices to consumers should be allowed because it would increase total welfare.[191]

This hard-won consensus is now under attack. The New Brandeisians argue that the consumer welfare standard (the true consumer welfare standard) should be jettisoned. First, they claim it is too narrow because it focuses only on downstream harm and ignores upstream harm—harm to workers, farmers, and other suppliers. Second, they claim it is too constricted because it cares only about price and disregards effects on quality, choice, and innovation. Finally, they say that consumer welfare gives no independent weight to the corrupting influence of large firm size on the political process. They would replace consumer welfare with a broad set of goals, including protecting workers, small business, entrepreneurial opportunity, and political decentralization.

A. *Protecting Suppliers*

The New Brandeisians and other critics are correct that antitrust should be concerned about small, powerless suppliers. In buy-side cases—cases challenging allegedly anticompetitive conduct by buyers—the ultimate aim of antitrust law ought to be to protect these suppliers, not consumers. While buy-side restraints can hurt consumers, the paramount goal should be to protect small suppliers from monopsonistic exploitation, whether or not consumers are injured. Thus, if Amazon excludes rival buyers of a product and acquires monopsony power over the suppliers of that product, allowing Amazon to depress the price it pays below the competitive level, antitrust courts should not ask whether consumers have been hurt. The injury to suppliers should be sufficient for liability. The case law largely agrees. Two Supreme Court decisions,

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190. *Id.* at 2284 (alteration in original) (quoting Leegin Creative Prods., Inc. v. PSKS, Inc., 551 U.S. 877, 886 (2007)). The Court reiterated the principle in its latest antitrust case. *See* Nat'l Collegiate Athletic Ass'n v. Alston, 141 S. Ct. 2141, 2151 (2021).

191. *See* Kirkwood & Lande, *supra* note 186, at 225 ("No court in the United States . . . has ever allowed a merger that was likely to increase prices in the relevant market (or otherwise deprive consumers of the choices a competitive market would provide) on the ground that it was likely to enhance economic efficiency."); Herbert Hovenkamp, *Implementing Antitrust's Welfare Goals*, 81 FORDHAM L. REV. 2471, 2477 (2013) ("[O]ne is hard pressed to find a single appellate decision that made [a] finding of fact that a challenged practice resulted in lower market-wide output and higher prices but that also went on to approve the restraint because proven efficiencies exceeded consumer losses.").

issued sixty years apart, take this position,[192] as do most lower court cases.[193] Virtually all commentators concur.[194]

In this area, then, the debate over consumer welfare is rhetorical, not substantive. There is broad agreement that antitrust protects consumers in sell-side cases and suppliers in buy-side cases. But there is no consensus on how to articulate that fact. Does antitrust have two goals or just one?

There are three ways to resolve this issue.[195] One way is to retain "consumer welfare" as the sole goal of antitrust but characterize it as a term of art that includes supplier welfare as well as consumer welfare.[196] That works conceptually and highlights the importance of consumers—the protected class in the vast majority of antitrust cases. But it deemphasizes suppliers and does not mention the most important category of suppliers—workers—a category of increasing

192. *See* Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co., 549 U.S. 312, 321 (2007) (holding that a predatory bidding plaintiff can prevail by showing harm to suppliers, not consumers); Mandeville Island Farms, Inc. v. Am. Crystal Sugar Co., 334 U.S. 219, 235 (1948) ("It is clear that the agreement is the sort of combination condemned by the Act, even though the price-fixing was by purchasers, and the persons specially injured under the treble damage claim are sellers, not customers or consumers." (footnotes omitted)); *see also* Telecor Commc'ns, Inc. v. Sw. Bell Tel. Co., 305 F.3d 1124, 1133–34 (10th Cir. 2002) ("The Supreme Court's treatment of monopsony cases strongly suggests that suppliers . . . are protected by antitrust laws even when the anti-competitive activity does not harm end-users.").

193. *See* Kirkwood & Lande, *supra* note 186, at 233–36; *infra* note 194 (citing articles referencing additional cases).

194. *See, e.g.*, Warren Grimes, *Adam Smith, the Competitive Process, and the Flawed Consumer Welfare Standard*, 69 GRUR INT'L 3, 7 (2020); Gregory J. Werden, *Monopsony and the Sherman Act: Consumer Welfare in a New Light*, 74 ANTITRUST L.J. 707, 735 (2007); Hemphill & Rose, *supra* note 175, at 2081.

195. There is another approach that avoids the issue altogether. It maintains that the sole goal of antitrust is to protect the *competitive process*, whatever the effect on consumers and suppliers. *See* Warren Grimes, *Breaking Out of Consumer Welfare Jail: Addressing the Supreme Court's Failure to Protect the Competitive Process*, 16 RUTGERS BUS. L. REV. 49, 50 (2020); Gregory J. Werden, *Antitrust's Rule of Reason: Only Competition Matters*, 79 ANTITRUST L.J. 713, 719 (2014); Barak Orbach, *How Antitrust Lost Its Goal*, 81 FORDHAM L. REV. 2253, 2254 (2013); Eleanor Fox, *The Efficiency Paradox, in* HOW THE CHICAGO SCHOOL OVERSHOT THE MARK 77, 77–79 (Pitofsky ed., 2008). There is much to be said for this position. The antitrust laws were plainly passed to protect competition and the competitive process. Moreover, as a legal test, the competitive process works well when the challenged practice simply replaces competition with a cartel. But it cannot resolve the hard cases, when the challenged conduct restricts one aspect of competition and strengthens another. *See* Kirkwood, *supra* note 143, at 1818. In such cases, it is not clear, even in principle, whether the competitive process has been injured or enhanced. *See* Kirkwood, *supra* note 143, at 1810 n.15. A welfare test avoids this indeterminacy. Under a welfare test, a practice is illegal if its overall effect is to reduce consumer welfare in a sell-side case or small supplier welfare in a buy-side case.

196. *See* Hovenkamp, *supra* note 185, at 114–15.

significance.[197] A second approach is to state the ultimate goal as protecting "trading partners," a term that includes both consumers and suppliers.[198] This also works conceptually but fails to mention consumers, suppliers, or workers, and thus lacks the linguistic punch of the other approaches. Moreover, because "trading partner" is a new term in antitrust, it would initially require explanation each time it is used.[199]

The third approach is to identify both of antitrust's protected classes and to single out workers as the most important category of supplier. This approach seems superior because it has the greatest rhetorical force and would best cement popular support for antitrust enforcement. It would work like this: The fundamental goal of antitrust is to protect consumers from anticompetitive conduct. Where buyers rather than sellers restrain competition, however, the central aim is to protect small, powerless suppliers like workers.[200]

B. *Non-Price Effects*

Critics also contend that consumer welfare focuses only on price.[201] Applying that standard, courts allegedly ask whether the challenged conduct led to higher prices but not whether it suppressed product quality,

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197. *See, e.g.*, Suresh Naidu et al., *Antitrust Remedies for Labor Market Power*, 132 HARV. L. REV. 536, 541 (2018).

198. Hemphill & Rose, *supra* note 175, at 2080.

199. Hovenkamp, *supra* note 185, at 115.

200. *See generally* John B. Kirkwood, *The Essence of Antitrust: Protecting Consumers and Small Suppliers from Anticompetitive Conduct*, 81 FORDHAM L. REV. 2425 (2013) (stating that in a "buy-side case" the goal is "to stop conduct that creates market power on the buying side, transfers wealth from suppliers to buyers, and does not provide suppliers with offsetting benefits"). Ordinarily, there is no conflict between protecting suppliers from monopsony power and advancing consumer welfare. *See* Roger G. Noll, *"Buyer Power" and Economic Policy*, 72 ANTITRUST L.J. 589, 606 (2005); Roger D. Blair & Jeffrey L. Harrison, *Antitrust Policy and Monopsony*, 76 CORNELL L. REV. 297, 339 (1991). A monopsonist depresses the price it pays suppliers by reducing the quantity it purchases from them, and that reduction in inputs tends to reduce the monopsonist's output, which harms consumers. *See* Blair & Harrison, *supra*, at 308. In the monopsony model, in short, there is *no* pass through of lower input prices to consumers. *See* Noll, *supra*, at 606; Blair & Harrison, *supra*, at 339. In some settings, to be sure, there may be a conflict. A merger of health insurers may create monopsony power over physicians and the merged firm's contracts with employers may require it to pass on any lower reimbursement rates it negotiates. John B. Kirkwood, *Buyer Power and Healthcare Prices*, 91 WASH. L. REV. 253, 260 (2016). But that consumer benefit is likely to be offset by the merged firm's increased downstream market power, which would allow it to raise the fees it charges employers. *Id.* at 260–61. Moreover, even if the offset is incomplete—even if consumers benefit on balance—the harm to physicians should be decisive. *Id.* at 261. Congress wanted to protect small suppliers from monopsonistic exploitation and did not indicate that such harm should be excused if there was sufficient pass on to consumers. *Id.* at 284–87.

201. *See* Khan, *supra* note 12, at 737–38.

variety, or innovation.[202] If the critics were right, and courts actually ignored non-price effects, it would be a mistake because consumer welfare plainly includes non-price dimensions like choice, quality, and innovation.[203] Accordingly, leading decisions involving the tech giants do scrutinize non-price effects.[204] And the critics have not pointed to specific cases in which significant adverse effects on non-price variables were disregarded. If that were to occur, the solution would be to address the non-price harms, not discard consumer and supplier welfare as the lodestars of antitrust.

C. *Political Influence*

The New Brandeisians also claim that antitrust law has ignored the political power of the tech giants.[205] These enormous firms have the resources to spend large amounts on lobbying, campaign donations, and political messaging, enabling them to influence the political process in ways that a smaller firm cannot match. To curb this influence, critics want antitrust law to be more aggressive—to attack conduct that increases the size and profits of the tech giants, even if it benefits consumers and workers.[206]

That is a principled position. The iconic opinions in *United States v. Aluminum Co. of America*[207] and *Brown Shoe Co. v. United States*[208] asserted that Congress, deeply concerned with industrial concentration, preferred fragmented markets, even if the consequence was higher prices.[209] But those opinions were issued many years ago, during the era of widely shared prosperity that stretched from the end of World War II to the late seventies. More recently, social divisions have intensified, wages have stagnated, and inequality has soared. Since 1979, the average real wage of non-managerial workers has barely budged: it was no higher

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202. *See id.* at 737; *see also* Tim Wu, *After Consumer Welfare, Now What? The "Protection of Competition" Standard in Practice* 5–6 (Competition Pol'y Int'l, Colum. Pub. L. Rsch. Paper No. 14-608, 2018), https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=3294&context=faculty_scholarship [https://perma.cc/L6A6-7WVW].

203. *See, e.g.*, Lao, *supra* note 56, at 783 ("Contrary to common critiques of the standard, the measure of consumer harm is *not* limited to price or output effects. Diminishment of quality, choice, or innovation alone would qualify as consumer harm as well because these factors clearly impact consumer welfare." (footnote omitted)).

204. *See* United States v. Microsoft Corp., 253 F.3d 34, 57, 79, 87 (D.C. Cir. 2001) (per curiam) (condemning practices that suppressed nascent competitors, limited choice, and retarded innovation); *supra* notes 81–82 and accompanying text (concluding that Google's new search algorithm probably improved the quality of search results); *see also* Sokol, *supra* note 15, at 1273 ("[A]ntitrust courts have dealt with non-price issues . . . on a regular basis.").

205. *See, e.g.*, Khan, *supra* note 12, at 767.

206. *See id.* at 753, 802–03.

207. 148 F.2d 416 (2d Cir. 1945).

208. 370 U.S. 294 (1962).

209. *See Alcoa*, 148 F.2d at 428–29; *Brown Shoe Co.*, 370 U.S. at 344.

in 2014 than it was in 1979.[210] The wages of the least educated workers have actually dropped.[211] At the same time, the share of income and wealth captured by the top 1% tripled. In 1979, the top 1% accounted for approximately 8% of national income; in 2017, they took in nearly 24%.[212] Ordinary workers, therefore, have not only seen little increase in their own income, but they are also falling further behind those at the top. This disparity has contributed to an unprecedented decline in life expectancy: in the last three decades, deaths from suicide, alcoholism, and drug abuse have risen sharply among working-class Americans.[213]

These developments have made it difficult to ask average Americans to pay higher prices or accept lower wages in order to limit the political power of big firms. Antitrust already curbs political power by preventing firms from increasing their profits—and thus their ability to influence the political process—through anticompetitive behavior. But if antitrust law were to do more—to attack any conduct that increased firm resources or political influence, even if the conduct were procompetitive and benefited consumers and workers—it would put antitrust in conflict with the people it is supposed to protect. It would force antitrust to sanction marketplace success, simply because such success often leads to greater political influence.[214] Such a radical shift in the purpose of antitrust would not only harm the economy, it would hurt workers and families whose fortunes have deteriorated.

Curbing the tech giants' political power might produce some benefits for consumers and workers. It could, for example, lead to legislation that expands privacy rights or improves working conditions. But no one has shown that an antitrust law that puts higher priority on political power

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210. *See* ABHIJIT V. BANERJEE & ESTHER DUFLO, GOOD ECONOMICS FOR HARD TIMES 239 (2019).

211. *See id.* ("Among high school dropouts, high school graduates, and those with some college, real weekly earnings among full-time male workers in 2018 were 10 to 20 percent below their real levels in 1980.").

212. *See id.* at 238. For other accounts of this sharp rise in inequality, see THOMAS PIKETTY, CAPITAL IN THE TWENTY-FIRST CENTURY (Arthur Goldhammer trans., 2014) (providing evidence of the history of income inequality in the United States among different social groups); JOSEPH E. STIGLITZ, THE PRICE OF INEQUALITY (2012) (addressing factors leading to increased inequality and the weakening of the American economy, such as persistent monopoly power and distortionary economic policies); JACOB S. HACKER & PAUL PIERSON, WINNER-TAKE-ALL POLITICS: HOW WASHINGTON MADE THE RICH RICHER—AND TURNED ITS BACK ON THE MIDDLE CLASS (2010) (revealing evidence on American incomes, which portrays a vanishingly small share of workers receiving the benefits of America's economic growth).

213. See David Leonhardt & Stuart A. Thompson, Opinion, *How Working-Class Life Is Killing Americans, In Charts*, N.Y. TIMES (Mar. 6, 2020), https://www.nytimes.com/interactive/2020/03/06/opinion/working-class-death-rate.html [https://perma.cc/5FWH-4RUT].

214. *See* Woodcock, *supra* note 91, at 55 ("Doing away with the consumer welfare standard would effectively render all denials of inputs illegal, exposing firms that win by being better than the competition to as much liability as firms that win by making competitors worse . . . .").

than on consumer and supplier welfare would, on balance, benefit consumers and workers. This is not surprising. Because the extent of the tech giants' political power is unclear, it is not obvious that reducing it would generate large benefits for those constituencies. Likewise, there is no evidence that most citizens would prefer an economy in which big firms had less political power but prices were higher and wages were lower.[215]

Finally, if courts are supposed to sacrifice consumer and supplier welfare in order to curtail the political power of big firms, how far should they go? How much of a price increase should be tolerated in order to diminish Amazon's political influence? Absent concrete answers, incorporating political considerations into an antitrust case would leave judges at sea. They would have to rely on their own preferences rather than objective tests,[216] at least until enough decisions were made that the tradeoffs became clear. Until that point, the rule of law would suffer: businesses would lack certainty—they would be forced to guess what they can and cannot do—rendering compliance more difficult.[217] Even more concerning, the uncertainty would discourage the tech giants from taking aggressive or novel actions likely to benefit consumers and workers.[218]

In sum, the fundamental goals of antitrust law should not be altered. Antitrust enforcement actions should be evaluated by their impact on consumer welfare and supplier welfare. Likewise, proposals to break up the tech giants should be subjected to the same criteria. While Congress is surely entitled to restructure the big tech platforms to reduce their political influence or their power to censor speech, this Article would not recommend an approach that harms consumers and workers.

V. BREAKING UP THE TECH GIANTS

The most strident critics of the tech giants want them dismantled. Splitting the tech giants up horizontally would mean breaking up their core businesses (their platforms) into multiple smaller businesses. It would mean replacing the existing Amazon.com with several online retail

215. *See* Hovenkamp, *supra* note 185, at 67 ("The neo-Brandeisians still face the formidable task of providing evidence that most citizens believe they would be better off in a world of higher cost smaller firms selling at higher prices . . . .").

216. *See* Melamed & Petit, *supra* note 102, at 747 ("If antitrust law were understood to pursue multiple and perhaps conflicting or ill-defined objectives, antitrust decision-makers would be free to make largely unconstrained value choices.").

217. *See id.* ("[A] limited-purpose antitrust law [focused exclusively on consumer welfare] . . . makes the law more predictable and thus facilitates compliance by firms and other economic agents.").

218. The lack of an objective test is likely to breed "excessive caution by businesses uncertain about the consequences of aggressive or novel forms of competition." Melamed, *supra* note 10, at 286.

sites, each operated by an independent successor firm, and each owning a portion of Amazon's existing assets. Likewise, it would mean dividing Facebook's existing users into a number of groups and assigning each group to a new social network site.

Breaking up the tech giants vertically would be a more limited remedy. It would split off each firm's upstream supply of products from its downstream platform. If a tech giant allowed third parties to sell products on its platform, it could not sell its own products on that platform. Thus, if Amazon Marketplace continued to offer third-party products, Amazon could not sell AmazonBasics or other private label products on Amazon.com, ending competition between Amazon and the third-party products it hosts.

A. *Horizontal Dissolution*

Breaking up the tech giants into smaller versions of themselves is likely to impose substantial costs on consumers and workers. Each tech giant has attained its current size in large part by providing customers with products and services they value. Splitting the tech giants into pieces would make it more difficult to supply those products and services at the current prices. Every tech giant has achieved economies of scale and network effects that would be undercut if they were one quarter of their current size. A mini tech giant would no longer be a tech giant. As a result, the cost of producing and delivering their products would rise, and the value of using their platforms would fall. Their aggregate sales would shrink, and they could not afford to employ as many workers. Breaking up the tech giants would also penalize them for their success, discouraging other firms, including their successors, from attempting to duplicate it.

The administrative costs of horizontal dissolution would be substantial. While experience with private divestitures indicates that large-scale breakups can be accomplished,[219] the process would "inevitably be complex, expensive, and lengthy."[220]

1. Amazon

If Amazon were dissolved and four successor firms created, the number of products offered by each successor is likely to fall. Each would start with one-quarter of the staff of Amazon and would need to renegotiate contracts with hundreds of thousands of suppliers.[221] Not only

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219. *See* Rory Van Loo, *In Defense of Breakups: Administering a "Radical" Remedy*, 105 CORNELL L. REV. 1955, 1981–84 (2020).

220. *Id.* at 1987.

221. New contracts would be needed because none of the successors could offer the volume or distribution of the original Amazon.com.

would that take time, but many suppliers may not want to contract with every successor. They may prefer to choose the one or two sites that appear to be most likely to attract vendors and customers, which would skew competition in favor of the successor with the most business, pushing the market toward the re-creation of Amazon.com.[222]

At the same time, the distribution and shipping costs of each mini Amazon would rise sharply. At present, Amazon locates its warehouses throughout the country in a pattern that enables it to fulfill orders as quickly and cheaply as possible.[223] A horizontal breakup would mean that one-quarter of these warehouses would be assigned to each mini Amazon. Every warehouse would then have to serve a larger territory, raising shipping costs and slowing delivery speeds. This would raise the effective price of buying online and cause online orders to fall, diminishing the number of workers required to fulfill these orders.[224]

In short, a horizontal breakup is likely to result in fewer products available online, at higher prices, and with longer delivery times. With fewer workers needed, wages may be reduced as well.[225] Splitting up Amazon would also reduce the number of firms able to build a secure server system for the Department of Defense (DOD). At present, the DOD has determined that only two firms have the resources necessary to supply a hardened, worldwide system—Microsoft and Amazon.[226] If Amazon were broken up, the DOD would be left with a single supplier.

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222. Reconcentration of the market is a natural outgrowth of the presence of scale economies and network effects. *See infra* note 228 and accompanying text.

223. *See* Jean-Paul Rodrigue, *The Distribution Network of Amazon and the Footprint of Freight Digitalization*, J TRANSP. GEOGRAPHY, Aug. 12, 2020, at 12.

224. In addition, Amazon.com and its cloud computing affiliate, Amazon Web Services (AWS), share the same internal systems which provide hundreds of services to clients and are managed by an equal number of teams. *See* Katherine Anne Long, *In the 15 Years Since Its Launch, Amazon Web Services Transformed How Companies Do Business*, SEATTLE TIMES (Mar. 13, 2021, 7:41 PM), https://www.seattletimes.com/business/amazon/in-the-15-years-since-its-launch-amazon-web-services-has-transformed-how-companies-do-business/ [https://perma.cc/9237-SHF7] ("AWS infrastructure also supports Amazon logistics, helping route more than 2.5 billion packages every year to the right address . . . , not to mention nearly all of Amazon's other operations."). If Amazon.com and AWS were split up, those services would have to be duplicated at each successor, entailing a major reprogramming and restaffing effort.

225. *See* Herbert Hovenkamp, *Whatever* Did *Happen to the Antitrust Movement?*, 94 NOTRE DAME L. REV. 583, 622 (2018) ("Breaking up large firms may reduce rather than increase employment and may force wages lower.").

226. *See* Jon Bateman, Opinion, *The Antitrust Threat to National Security*, WALL ST. J. (Oct. 23, 2019, 6:43 PM), https://www.wsj.com/articles/the-antitrust-threat-to-national-security-11571784197 [https://perma.cc/XP9U-XJMV]. The DOD later cancelled this project, but proposed a new approach and "made clear that only Microsoft and Amazon Web Services had the capacity to build it." *See* Kate Conger & David E. Sanger, *Pentagon Cancels Deal It Awarded to Microsoft*, N.Y. TIMES INT'L ED. (July 8, 2021), http://iht.newspaperdirect.com/epaper/viewer.aspx [https://perma.cc/PL97-QNNZ].

2. Facebook

Facebook is the world's most popular social media site. With between two and three billion monthly active users,[227] Facebook's network effects are unparalleled. If Facebook were broken up and its user base divided among four successors, its value as a social network would be radically diminished. A user's access to other users would be reduced by 75%. To be sure, groups of friends might be kept together on the same new platform, but that is likely to be difficult to accomplish across the entire network. Splitting up Facebook and its user base is likely to impose substantial harm on consumers.

Alternatively, Facebook's entire user base could be assigned to each of its successors. Initially, this would preserve its network effects, but the parity is unlikely to last. Few users would take the time to post their latest news and photos on more than one successor. Instead, users would gravitate to the successor that is generating the most activity. At that point, network effects would work in favor of the leader, reinforcing and enlarging its lead. Unless some of the successors manage to differentiate themselves effectively, a dominant social network site is likely to re-emerge.[228]

Moreover, if the point of the breakup is to increase competition, that is likely to have undesirable effects in Facebook's case because its output is not entirely benign. It is known for "addicting people like a drug, promoting fake news, allowing a foreign power to tip a presidential election, allowing mass murderers to broadcast their massacres, and diminishing our privacy."[229] Splitting Facebook into four pieces is likely to make these problems worse because the successors will compete among themselves to generate more of whatever made Facebook profitable.[230] If it was profitable to produce fake news, the successors will vie to present more of it. As economists Aaron Edlin and Carl Shapiro note, when "firms produce bads, the solution is . . . not . . . more competition."[231] Some of these problems might be reduced, though, if Facebook were simply forced to divest two previously acquired businesses, Instagram and What's App.

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227. *See supra* note 3 and accompanying text.

228. *See* Crandall, *supra* note 23, at 646 ("If network effects explain the dominance of Google, Facebook and Amazon . . . , it is far from clear how breaking these companies into multiple companies would end their dominance. Network effects would likely reappear and lead to a result much like the *status quo ante*.").

229. Aaron Edlin & Carl Shapiro, Opinion, *Why Breaking Up Facebook Would Likely Backfire*, MERCURY NEWS (Sept. 20, 2019, 11:32 AM), https://www.mercurynews.com/2019/09/19/opinion-why-breaking-up-facebook-would-likely-backfire/ [https://perma.cc/BM2M-7PPR].

230. *See id.*

231. *Id.* Instead, "the solution is regulation or taxation." *Id.*

3. Google

Google's preeminence in search rests principally on the superiority of its search algorithm which it continually improves over time.[232] As Google sees how users pose search queries and what responses they find most valuable, Google refines its own search methods, enhancing the speed and accuracy of its results.[233] In other words, Google's dominance rests in significant part on a continuing process of learning by doing. Horizontal restructuring would interfere with this process by reducing the volume of feedback each successor receives.

Breaking up Google would increase rivalry, which could raise the pace of innovation. Each successor would face more pressure to innovate or lose sales.[234] But each mini Google would also have fewer engineers and fewer users, inhibiting internal development and learning by doing. Facing more competition, moreover, each successor would be less able to appropriate the full gains from innovation, diminishing its incentive to innovate.[235] It would be risky to rely on horizontal dissolution to enhance the speed at which Google improves its search algorithm.

Some contend that splitting up big tech firms like Google would increase national security.[236] The idea is that these firms operate in China and want to expand their sales there, so they tend to cooperate with the Chinese government.[237] This helps China achieve its aims—enlarging its power, capturing more foreign technology, and spreading its brand of authoritarian governance.[238] But if the tech giants were broken up, this collaboration may be reduced because some of the successor firms may adopt independent strategies, like locating their supply chains in other

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232. *See* Adam Heitzman, *How Google Came to Dominate Search and What the Future Holds*, FORBES (June 5, 2017, 8:00 AM), https://www.forbes.com/sites/forbesagencycouncil/2017/06/05/how-google-came-to-dominate-search-and-what-the-future-holds/ [https://perma.cc/2TSC-9XMJ].

233. *Id.*

234. *See* CARL SHAPIRO, *Competition and Innovation: Did Arrow Hit the Bull's Eye?*, *in* THE RATE AND DIRECTION OF INVENTIVE ACTIVITY REVISITED 361, 401 (Josh Lerner & Scott Stern eds., 2012) ("[I]nnovation, broadly defined, is spurred if the market is contestable; that is, if multiple firms are vying to win profitable future sales.").

235. *Cf.* Noll, *supra* note 200, at 608–09 ("[T]he excess profit of the winner in the technology race is the carrot that induces firms to participate in the race."); Louis Kaplow, *On the Relevance of Market Power*, 130 HARV. L. REV. 1303, 1330 (2017) ("Many procompetitive explanations for practices have the character of an investment—perhaps expenditures to improve quality or to attract customers—and the profitability of an investment depends on the magnitude of the profit margin on subsequent sales.").

236. *See* Ganesh Sitaraman, *The National Security Case for Breaking Up Big Tech*, KNIGHT FIRST AMEND. INST. 6 (2020), https://s3.amazonaws.com/kfai-documents/documents/8e8ff45389/3.23.2021_Sitaraman_MW.pdf [https://perma.cc/ZP9R-65AM].

237. *See id.* at 6, 9.

238. *See id.* at 10–11.

countries or refusing to sell products in China.[239] This helpful result, however, is not the only possibility. Competition among the successors may cause them to work harder to exploit whatever profitable opportunities they find.[240] If it is profitable, these firms are likely to use Chinese suppliers, expand sales in the Chinese market, or cooperate with the Chinese government.[241] Moreover, without the heft of a tech giant, the successors will be less able to resist pressure from the Chinese government. It is not at all clear, in short, that restructuring would enhance U.S. national security.

4. Apple

There is little call to break up Apple horizontally. Apple's smartphones already compete with smartphones powered by Google's Android operating system, and Android phones far outsell iPhones.[242] Prodded by this competition, Apple continually upgrades the iPhone. That progress might be slowed if Apple were split into parts, each with a fraction of Apple's R&D staff and budget.

In sum, the case for breaking up the tech giants into smaller pieces, each a mini version of itself, is weak. The successors would lack the scale, experience, and network effects of the tech giants, which would cause prices to rise and quality to fall.[243] Indeed, a breakup might not even increase competition at all, and to the extent it did, the breakup may dampen innovation.[244] Innovation may increase if the successors compete

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239. *See id.* at 15.

240. *See id.* at 16.

241. *See id.* at 16.

242. *See supra* note 36 and accompanying text.

243. *Cf.* Hovenkamp, *supra* note 7, at 2008 (explaining that structural breakup is not a "promising remedy" for antitrust problems, and that "[t]he history of deconcentration measures in American monopolization cases is not pretty" (citing 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, 1105 & n.4 (1989))).

244. Crandall contends that most past breakups have not increased competition. *See* Crandall, *supra* note 23, at 647–48. While that conclusion may be too pessimistic, particularly as the industries evolved, he is right that sometimes the main source of increased competition has not been the decree itself but technological change:

> The development of television broadcasting provided a dose of competition to motion picture distribution and exhibition that the 1948 *Paramount* case would have been unlikely to deliver. Antitrust and regulatory agencies struggled unsuccessfully to introduce competition into the provision of local wireline telecommunications under the 1982 AT&T decree and its successor, the 1996 Telecommunications Act, but competition eventually came from two new communications technologies–wireless and Internet communications–not from wireline entrants that were attracted by the enforcement of the antitrust decree.

Id. at 644.

intensively among themselves, which will force them to develop new products to maintain sales and profits.[245] But all four of the giants have been highly innovative—which is largely why they are gigantic[246]—and coerced restructuring could depress that. It would reduce the resources available to each firm, disrupt the team dynamics that have made them successful, and limit each firm's ability to appropriate the gains from innovation. As two Nobel Prize laureates recently noted, breaking up monopolies provides no assurance of faster economic growth.[247]

The case for vertical separation is stronger, but it too would have substantial drawbacks. The better approach is to subject the tech giants to treble damages and civil fines if they engage in significant anticompetitive conduct that falls short of monopolization.

B. *Vertical Separation*

Vertical restructuring is more limited and more surgical than horizontal dissolution. As explained earlier, each of the tech giants operates a marketplace or app store on its platform, enabling consumers to purchase products and services offered by third parties, and similar items supplied by the tech giant itself.[248] In other words, each tech giant has vertically integrated into the supply of products offered on its platform, competing with many of the third parties it hosts. A vertical breakup would prohibit that vertical integration and that competition. If a tech giant allowed third parties to sell on its platform, it could not offer its own products on that platform. Indeed, it could not sell private label or house brand products at all. "Structural separations place clear limits on the lines of business in which a firm can engage."[249]

This step, supported by Senator Elizabeth Warren[250] and the New Brandeisians,[251] has a principled basis. The tech giants could not gain

245. *See* Sitaraman, *supra* note 236, at 19.

246. *See supra* notes 2–6 and accompanying text.

247. *See* ABHIJIT V. BANERJEE & ESTHER DUFLO, GOOD ECONOMICS FOR HARD TIMES 179 (2019) ("[I]t would be unreasonable to conclude that breaking up monopolies will single-handedly restore fast growth. After all, growth has also been sluggish in Europe, and European regulators have been much more aggressive against monopolies. This illustrates, once again, the only clear lesson of the last few decades. We don't understand very well what can deliver permanently faster growth.").

248. *See supra* notes 66–68 and accompanying text.

249. Khan, *supra* note 11, at 980.

250. *See* Elizabeth Warren, *Here's How We Can Break Up Big Tech*, MEDIUM (Mar. 8, 2019), https://medium.com/@teamwarren/heres-how-we-can-break-up-big-tech-9ad9e0da324c [https://perma.cc/4R4S-MM3G]. Senator Warren would designate as "platform utilities" all companies "with an annual global revenue of $25 billion or more and that offer to the public an online marketplace, an exchange, or a platform for connecting third parties." *Id.* These firms would be "prohibited from owning both the platform utility and any participants on that platform." *Id.*

251. *See, e.g.*, Hubbard Statement, *supra* note 41, at 178.

market power in complementary markets by excluding rivals if the tech giants could not compete with those rivals. As a result, the incentive to engage in exclusion would be much reduced. If the platforms could not sell private labels, they would have little reason to disadvantage third-party products in their search results. Similarly, there would be no point in using proprietary information to identify popular third-party products and copy them since they could not sell the copies. In short, if the tech giants could not compete with third parties, they would have little incentive to exclude them, and third parties, freed from tech giant competition, would likely increase the number of products and product upgrades they offer.

Against that benefit, however, there is a major cost. A vertical breakup would deprive consumers of the tech giants' own products—apps developed by Apple, Google, or Facebook, and private label products offered by Amazon. Imagine if you went to Costco and could not purchase its private label products. From paper towels to aspirin, coffee to ice cream, and wine to eggs, Costco offers its Kirkland line of private label products at a quality comparable to the national brands but at a significantly lower price.[252] Amazon follows the same strategy. Its AmazonBasics items are cheaper than branded products because Amazon does not advertise or market them.[253] They are of equal quality because Amazon demands that and frequently sources them from brand manufacturers.[254] AmazonBasics batteries, for example, are substantially less costly than branded batteries like Eveready or Duracell, but are equivalent in quality.[255] A vertical breakup would deprive consumers of the choices these products provide.[256]

To be sure, if Amazon cannot offer its AmazonBasics line, other firms might be able to supply the same products at the same prices. After all, Amazon does not manufacture the items it sells under its private labels. But an independent firm would start with two disadvantages: it would

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252. *See* Sarah Nassauer, *How Kirkland Signature Became One of Costco's Biggest Success Stories*, WALL ST. J. (Sept. 10, 2017), https://www.wsj.com/articles/how-kirkland-signature-became-one-of-costcos-biggest-success-stories-1505041202 [https://perma.cc/9Z8C-UNM4].

253. *See* Herbert Hovenkamp, Opinion, *The Warren Campaign's Antitrust Proposals*, REGUL. REV. (Mar. 25, 2019), https://theregreview.org/2019/03/25/hovenkamp-warren-campaigns-antitrust-proposals [https://perma.cc/7SXA-5MWQ].

254. *Id.*

255. *Id.*

256. Likewise, marketing studies have found that store brands benefit consumers. *See* Koen Pauwels & Shuba Srinivasan, *Who Benefits From Store Brand Entry?*, 23 MKTG. SCI. 364, 385, 387 (2004) (concluding that store brand entry increases product variety and allows consumers to buy more products at lower prices—not only from the store brands themselves, but from second-tier national brands introduced in response); Fiona Scott Morton & Florian Zettelmeyer, *The Strategic Positioning of Store Brands in Retailer-Manufacturer Negotiations*, 24 REV. INDUS. ORG. 161, 162 (2004) (finding that store brands are more likely to duplicate the quality of leading national brands than other national brands).

begin with a much smaller volume than Amazon now commands, and it would not possess Amazon's name recognition. Initially, therefore, its sales would be much smaller, its unit costs would be higher, and its delivery speeds would be slower. It might eventually grow large enough to replicate Amazon's quality, but it might not. In the meantime, consumers would be harmed.

Google would no longer be able to offer Google Maps or Google Flights. It would have to divest these popular apps to independent firms that are unlikely to match Google in financial resources or in technical expertise. In consequence, the apps are unlikely to be improved as rapidly or maintained as assiduously. Senator Warren's proposal also states that Google would have to spin off its search engine.[257] This appears to be a drafting error because the proposal also designates Google Search as a platform utility.[258] But this mistake, minor in itself, highlights the administrative and practical difficulties that would attend any form of structural relief.[259] Further, Warren's plan is not limited to the tech giants. Its revenue threshold would sweep in Walmart and force the retail giant, which operates an online marketplace, to stop selling its private label products through that marketplace.[260] Warren's proposal, therefore, would deprive internet shoppers of a large source of savings.[261]

In sum, a vertical breakup is likely to cause third parties to offer more products and improve them more frequently. And innovation by third parties may be more disruptive—and thus more valuable—than innovation by a tech giant.[262] But studies find that tech giant competition has only modest adverse effects on third-party product development and may well increase the total amount of innovation in the marketplace.[263] Moreover, when Amazon enters a market, prices fall and output

257. *See* Warren, *supra* note 98.

258. *See id.*

259. *See generally* Diana L. Moss, *Breaking Up Is Hard to Do: The Implications of Restructuring and Regulating Digital Technology Markets*, 19 ANTITRUST SOURCE, Oct. 2019, at 1 (arguing that proposals to break up large digital technology companies are in tension with antitrust principles and questioning the utility of breakup remedies in the digital technology sector).

260. *See id.* at 7.

261. Senator Warren's proposal would not force smaller firms, like Costco and Safeway, to cease offering private label products. But the private label goods these firms offer provide concrete illustrations of the value of house brands. *See generally* Warren, *supra* note 98 (companies with global revenue between $90 million and $25 billion are not required to structurally separate from participants on their platforms).

262. *See* Tim Wu, *Taking Innovation Seriously: Antitrust Enforcement if Innovation Mattered Most*, 78 ANTITRUST L.J. 313, 318 (2012).

263. *See supra* notes 127–30 and accompanying text.

increases.[264] As a result, removing the tech firms from these markets is likely to impose substantial losses on consumers, depriving them of products and services they value, including AmazonBasics products, Apple apps, and Google Maps. At this point, as a leading New Brandeisian acknowledges, the case for a vertical breakup has not been made.[265]

The better approach would be to amend the Sherman Act to prohibit conduct that reduces competition significantly, whether or not it produces monopoly power. This change would enable the antitrust laws to reach and penalize the tech giants' unjustified exclusion without splitting them into pieces or forcing them to divest their private label products. To be sure, a conduct approach would likely be less clean than vertical separation. Once Amazon stops selling AmazonBasic items and Google divests Google Maps, the need for ongoing monitoring is likely to be minimal. In contrast, an antitrust challenge to tech giant exclusion would require a significant resource commitment. But as explained below, that resource commitment is likely to be both manageable and worthwhile.

VI. AMENDING THE SHERMAN ACT

The tech giants have excluded third parties selling on their platforms by demoting them in search results, using nonpublic seller-specific data to copy their products, or refusing to deal with them simply because they are competitors. While this behavior is not widespread, it appears to be unjustified and anticompetitive. It enhances the tech giants' market power and injures their customers. Yet no one in the United States has successfully challenged any of this conduct.

The most likely reason for the lack of challenges is that the conduct did not violate the Sherman Act. It is unilateral rather than collusive, and it did not result in actual or imminent monopoly power.[266] This gap should be closed. The Sherman Act should be amended to reach unilateral exclusion by the tech giants that reduces competition significantly—even if it is unlikely to create or maintain monopoly power. In addition, the Department of Justice and the FTC should be authorized to obtain civil penalties if they establish a violation of this new section. This addition

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264. *See supra* notes 120–24 and accompanying text. Economist Carl Shapiro describes vertical separation proposals as "blunt deconcentration policies [that] would cause the prices of many goods and services to go up." Carl Shapiro, *Antitrust: What Went Wrong and How to Fix It*, 35 ANTITRUST, no. 3, Summer 2021, at 33, 42.

265. *Cf.* Khan, *supra* note 11, at 1034 (noting after extensive analysis that "the case for structural separations in digital markets is *worth assessing*" (emphasis added)). Khan notes that the "debate . . . is in its early stages," *id.* at 1065, and that "[g]etting the policy right will require . . . further study." *Id.* at 1091. She does not recommend breaking up the tech giants.

266. There is one exception: thirty-eight states recently alleged that Google's exclusion of vertical search engines helped it maintain monopoly power in general search. *See* discussion *supra* Section III.B.

would couple public civil penalty enforcement with private treble damage actions, magnifying the deterrent effect of antitrust law.[267]

These twin sanctions would alter the tech giants' financial calculus, raising the cost of exclusionary conduct substantially. Of course, the increased penalties might not stop them in every case. They might calculate that the cost of any sanction they would have to pay for suppressing rivals would be offset by the profits they gain by achieving greater dominance and higher barriers to entry.[268] But, they cannot count on that result, and the issue is not easy to resolve.[269] In the face of such uncertainty, stiff financial sanctions are likely to reduce the incidence of exclusionary conduct. This is particularly so in complementary product markets where the tech giants cannot hope to gain the long-run advantages they possess in their core businesses.[270]

The following sections address the principal issues this proposal raises. First, Section A explains why Congress should not rely on Section 5 of the Federal Trade Commission Act[271] to solve the problem. Section B then addresses the risk that expanding the Sherman Act would unduly deter procompetitive conduct. Next, Section C describes the recent Congressional support for the change. Finally, Section D uses a detailed example to show that the new amendment would be workable in practice.

A. *Section 5 of the FTC Act*

Passed in 1914, the FTC Act not only created a second federal agency to enforce the Sherman Act, but it also gave the agency a broader mandate. Section 5 prohibits "unfair methods of competition,"[272] whether or not they emerge from collusion or result in monopoly power. In principle, therefore, Section 5 plugs the hole in the Sherman Act just described. In practice, however, it rarely does so. As explained below, the ability of Section 5 to deter anticompetitive conduct is modest. It cannot

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267. *See* Harry First, *The Case for Antitrust Civil Penalties*, 76 ANTITRUST L.J. 127, 161–63 (2009) (maintaining that the FTC and Justice Department should be empowered to impose civil penalties in monopolization cases).

268. *See* Michal S. Gal & Nicholas Petit, *Radical Restorative Remedies for Digital Markets*, 37 BERKELEY TECH. L.J. (forthcoming 2021) (manuscript at 7–10), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3687604 [https://perma.cc/HKF8-F7EZ].

269. *See id.* (manuscript at 9) ("The level at which a monopolist's comparative advantages give rise to an insuperable barrier to entry is . . . an issue of unresolved empirical disagreement . . . .").

270. Take private label batteries. Amazon could use exclusionary conduct to capture more of this market, but a larger market share would not give it any significant advantages over competitors like Eveready and Duracell.

271. Pub. L. No. 63-203, 38 Stat. 717 (1914) (codified as amended at 15 U.S.C. §§ 41–58).

272. 15 U.S.C. § 45(a)(1). In 1938, Congress amended Section 5 to clarify and expand the agency's ability to challenge consumer protection problems by adding the language "unfair or deceptive acts or practices." *See* Act of Mar. 21, 1938, ch. 49, sec. 1077, § 3, 52 Stat. 111.

be enforced by private parties, and violations of Section 5 do not result in treble damages or attorneys' fees. The Department of Justice cannot enforce it, reducing its deterrent effect still further. Perhaps most important, courts have been reluctant to apply Section 5 outside the bounds of the Sherman Act. In consequence, the FTC has rarely brought such suits; in the last forty years, the FTC has not pursued a single pure Section 5 challenge to unilateral exclusion.

1. No Private Treble Damage Actions

The FTC Act contains no private right of action.[273] As a result, respondents do not face the possibility of treble damages and attorneys' fees.[274] Nor can the FTC seek civil penalties for an initial violation.[275] While the agency once used restitution actions to impose financial sanctions, the Supreme Court recently held that the agency had no authority to pursue restitution.[276] In none of its restitution cases, moreover, did the FTC ever challenge exclusion without alleging a Section 2 violation.[277] In short, tech giant exclusion is highly unlikely to result in treble damages, civil penalties, restitution, or other monetary sanctions in a pure Section 5 case. Thus, if a tech giant concludes that it would be profitable to exclude a third party from its platform, the prospect of a Section 5 action would not materially change the calculus.

For this reason, structural relief could be preferable to a pure Section 5 action. As scholar Lina Khan notes, "Unlike structural remedies, behavioral remedies seek to change the firm's conduct, while leaving the underlying incentives untouched."[278] But behavioral remedies do change a firm's incentive when they result in significant financial sanctions.

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273. *See* 15 U.S.C. § 45(b).

274. *See id.* § 45(l).

275. *See id.* § 45(b), (l)–(m). In response to an initial violation, the FTC can only issue a cease-and-desist order. *See id.* § 45(b). If the respondent violates that order, the Commission can impose civil penalties but that requires the respondent to repeat the violation. *See id.* § 45(l)–(m).

276. *See* AMG Cap. Mgmt., LLC v. FTC, 141 S. Ct. 1341, 1344 (2021) (holding that 15 U.S.C. § 53(b) does not authorize the FTC to seek equitable monetary relief such as restitution). *See generally* Stephen Calkins, *Why FTC Needs High Court Win on Monetary Equitable Relief*, LAW360 (July 17, 2020, 5:43 PM), https://www.law360.com/articles/1293281/print?section=appellate [https://perma.cc/9NYG-MZP5] (describing the importance of restitution to the FTC's consumer protection mission).

277. *See* Gerald A. Stein, *Understanding the FTC's Monetary Equitable Remedies Under Section 13(b) for Antitrust Violations*, 34 ANTITRUST, Fall 2019, at 59, 60 (noting that the FTC has brought only 11 competition cases seeking restitution since 1973 and none of them involved pure Section 5 exclusion).

278. Khan, *supra* note 11, at 1074.

2. No Department of Justice Enforcement

The U.S. Department of Justice cannot enforce Section 5.[279] This reduces by half the number of federal agencies that can prosecute pure Section 5 violations. If the FTC lacks the relevant industry expertise or is distracted by other matters, there will be no federal enforcement whatsoever.

3. Few Pure Section 5 Actions

In practice, moreover, Section 5 rarely reaches beyond the Sherman Act. In theory, its breadth is clear: its language, legislative history, and case law indicate that it was not meant to be confined to the contours of the Sherman Act or the Clayton Act.[280] Since the early 1980s, however, when the FTC was firmly rebuffed in several attempts to apply Section 5 to novel practices,[281] courts have seldom been willing to sustain a pure Section 5 challenge.[282] The only area in which the FTC has had repeated success involves attempts to collude.[283] But with respect to unilateral exclusion, the FTC has not brought any pure Section 5 cases since the early 1980s.[284] In consequence, the broad language of the FTC Act has not generally "resulted in an operationally wider scope for the FTC Act than the Sherman Act."[285]

The FTC and the courts may be unwilling to apply Section 5 more aggressively because they fear it would chill procompetitive conduct. Section 2 reduces that risk by placing severe limits on the ability of

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279. *See* 15 U.S.C. § 45(b).

280. Pub. L. No. 63-212, 38 Stat. 730 (1914) (codified as amended at 15 U.S.C. §§ 12–27, 29 U.S.C. §§ 52–53); *see* Neil W. Averitt, *The Meaning of "Unfair Methods of Competition" in Section 5 of the Federal Trade Commission Act*, 21 B.C. L. REV. 227, 252 (1980).

281. The FTC lost three major Section 5 cases during this era. *See* E.I. Du Pont De Nemours & Co. v. FTC, 729 F.2d 128, 130 (2d Cir. 1984); Off. Airline Guides, Inc. v. FTC, 630 F.2d 920, 921–22 (2d Cir. 1980); Boise Cascade Corp. v. FTC, 637 F.2d 573, 573 (9th Cir. 1980).

282. *See* William E. Kovacic & Marc Winerman, *Competition Policy and the Application of Section 5 of the Federal Trade Commission Act*, 76 ANTITRUST L.J. 929, 933, 942 (2010).

283. This behavior is an ideal vehicle for Section 5 since it is plainly anticompetitive yet does not literally violate Section 1 or Section 2 of the Sherman Act. *See* Sallet, *supra* note 19, at 336 (stating that invitations to collude are the "most widely accepted and well-established example of conduct that supports a standalone Section 5 complaint").

284. There was one, very brief exception. The FTC's case against Intel was originally brought as a pure Section 5 case. *See* Complaint at *1, *In re* Intel Corp., F.T.C. File No. 061-0247 (Fed. Trade Comm'n 2009) (No. 9341), 2009 WL 4999728, at *1. But the Commission quickly issued a supplemental complaint charging a Sherman Act violation. *See* Daniel Crane, *Reflections on Section 5 of the FTC Act and the FTC's Case Against Intel*, CPI ANTITRUST J., Feb. 2010, at 2, 8, https://repository.law.umich.edu/cgi/viewcontent.cgi?article=2369&context=articles [https://perma.cc/8SCD-AYW3] (referring to "the Commission's decision (strongly objected to by Commissioner Rosch) to bring a supplemental Sherman Act Section 2 challenge concerning the same conduct as the Commission challenges in its Section 5 allegations").

285. Daniel A. Crane, *Antitrust Antitextualism*, 96 NOTRE DAME L. REV. 1205, 1234 (2021).

plaintiffs to challenge unilateral exclusion. A plaintiff cannot challenge unilateral exclusion under Section 2 without establishing monopoly power or a dangerous probability of monopoly power.[286] But those limits are too severe; they immunize a wide range of unjustified and anticompetitive exclusion. Consumers and workers would be better protected, and the tech giants more effectively controlled if the limits were moderated.

B. *Scope and Proof Requirements*

Congress can expand the Sherman Act without unduly chilling procompetitive behavior by restricting the scope of the amendment and imposing proof requirements that would make it almost impossible to attack procompetitive behavior. Congress can restrict the amendment's scope by stipulating that a defendant must operate a two-sided platform and earn annual revenues exceeding $70 billion, a threshold that would cover the tech giants but few other firms.[287] Congress can further curb false positives by insisting that a plaintiff satisfy six proof requirements.

The first is significant market power. While the new statute would allow challenges to anticompetitive conduct that is unlikely to create monopoly power, it would not impose liability on conduct that is unlikely to result in significant market power. Conduct cannot impose significant harm on competition or consumers unless it creates or preserves significant market power.[288]

As I have suggested elsewhere, the best way to demonstrate significant market power is to prove that the challenged conduct has caused, or is likely to cause, significant anticompetitive effects.[289] Inferring market power from actual or likely anticompetitive effects should be the primary way of establishing market power under the new

286. *See* Spectrum Sports, Inc. v. McQuillan, 506 U.S. 447, 456, 459 (1993). In *Spectrum Sports*, the McQuillans claimed that Spectrum drove them out of business but did not show that Spectrum had monopoly power, or a dangerous probability of monopoly power, in any relevant market. *Id.* at 449–52, 459–60. The McQuillans relied on a line of Ninth Circuit cases that dispensed with these requirements. *Id.* at 453. The Court rejected this precedent because it made it too easy for a plaintiff to challenge procompetitive conduct. *Id.* at 457–59.

287. Facebook, the smallest of the tech giants, had total revenues of $70 billion in 2019. *See* HOUSE REPORT, *supra* note 3, at 170. The others were much larger. *See id.* at 175 (finding that Google's total revenue was $160.7 billion in 2019); *id.* at 248 (noting that Amazon generated $280 billion in total revenue in 2019); *id.* at 331 (reporting that in 2019, Apple made $260 billion in total revenue).

288. *See* Kirkwood, *supra* note 46, at 1173 (stating that market power is "central to antitrust because it distinguishes firms that can harm competition and consumers from those that cannot").

289. *See generally id.* (proposing price level benchmarks that can determine both market power and anticompetitive effects).

statute.[290] But it would not be enough. The plaintiff would also have to demonstrate significant market power through the traditional means—defining a relevant market and showing that the defendant has a significant share of that market. Since *Jefferson Parish Hospital District No. 2 v. Hyde*,[291] the minimum market share for establishing significant market power has generally been 30%.[292] The plaintiff would have to show that the defendant's conduct enabled it to attain or maintain such a share.

The second requirement is significant barriers to entry. It is elementary that market power cannot last for any significant period of time without entry barriers.[293] If the relevant market is not protected by significant obstacles to entry, the challenged conduct is unlikely to cause lasting anticompetitive effects and is more likely to be procompetitive.

The third requirement is significant anticompetitive effects. This would help establish market power but, more importantly, is a necessary step in demonstrating that the challenged conduct is more likely to reduce competition than increase it. If the plaintiff cannot establish that the defendant's exclusionary behavior is likely to have significant anticompetitive effects—that it is likely not only to weaken or extinguish rivals but also to significantly raise price, reduce quality, restrict choice, or suppress innovation—the plaintiff's case should be dismissed.[294] Absent significant anticompetitive effects, the challenged conduct cannot possibly impose significant harm on consumers or workers, and an attack on such conduct may chill procompetitive activity.

Fourth, the plaintiff would have to show that the challenged conduct is likely to harm competition overall. This would follow directly from the plaintiff's proof that the conduct is likely to have significant anticompetitive effects when the defendant fails to establish a

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290. The plaintiff could also use direct economic evidence to show that the defendant's conduct allowed it to charge a price significantly above cost. *See, e.g.*, Eastman Kodak Co. v. Image Tech. Servs., Inc., 504 U.S. 451, 477 (1992) ("It is clearly reasonable to infer that Kodak has market power to raise prices and drive out competition in the aftermarket, since respondents offer direct evidence that Kodak did so."). One reasonable measure of significance, based on the federal government's traditional approach to merger analysis, is 5%. *See* Kirkwood, *supra* note 46, at 1218. If the challenged conduct likely enabled the defendant to maintain a price 5% above full economic cost, then the defendant has significant market power. *See id.* at 1218–20.

291. 466 U.S. 2 (1984), *abrogated on other grounds by* Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28 (2006).

292. *See id.* at 26–27; *see, e.g.*, Brokerage Concepts, Inc. v. U.S. Healthcare, Inc., 140 F.3d 494, 517 (3d Cir. 1998) (finding that "since *Jefferson Parish* no court has inferred substantial market power from a market share below 30 percent").

293. *See* John B. Kirkwood & Richard O. Zerbe, Jr., *The Path to Profitability: Reinvigorating the Neglected Phase of Merger Analysis*, 17 GEO. MASON L. REV. 39, 40 (2009).

294. In a buy-side case, the plaintiff should have to show significant, persistent monopsony power and significant adverse effects on workers or other small suppliers.

justification.[295] But when the defendant shows that the practice is likely to have procompetitive effects, the plaintiff would have to establish that its anticompetitive effects significantly exceed its procompetitive effects.

Fifth, the plaintiff would have to establish that the first four requirements are "likely" to be met. It would not be enough to show, for example, a "reasonable possibility" or "dangerous probability" of significant market power. The plaintiff would have to prove that significant market power was likely.

Finally, the plaintiff would be required to describe its legal theory in terms that are clear enough for other firms to understand and precise enough that other firms can avoid the problem without foregoing significant procompetitive conduct. Before a court issues an injunction, awards treble damages, or imposes civil penalties, the plaintiff's theory must pass these tests of clarity and precision.

Together, these six requirements would erect a major barrier to attacks on procompetitive conduct. They would provide defendants with six substantive grounds on which to contest a plaintiff's case, grounds that could be employed throughout the litigation (e.g., in motions to dismiss or motions for summary judgment) to defeat an attack on desirable conduct. Together, they would sharply reduce the new statute's adverse impact on procompetitive conduct.

C. *Congressional Support*

Both Senator Amy Klobuchar's antitrust reform bill and the recent report of the House Antitrust Subcommittee endorse the idea that significant anticompetitive conduct should be illegal whether or not it results in monopoly power.

1. Senator Klobuchar's Bill

Senator Klobuchar's proposed legislation, the "Competition and Antitrust Law Enforcement Reform Act of 2021,"[296] would prohibit exclusionary conduct that harms competition and consumers even if it falls short of creating monopoly power. The bill declares it "unlawful for a person, acting alone or in concert with other persons, to engage in exclusionary conduct that presents an appreciable risk of harming competition."[297] Under the bill, "harming competition" does not require either monopoly power or a dangerous probability of monopoly power. To the contrary, the bill establishes a presumption that conduct presents an appreciable risk of harming competition when the person or group

295. It would also follow if the plaintiff shows that the justification could be achieved through a less restrictive alternative.

296. S. 225, 117th Cong. (2021).

297. *Id.* § 9(b).

undertaking the conduct has "significant *market* power in the relevant market."[298] Its definition of market power does not require monopoly power.[299]

Most of the features of the bill are commendable.[300] What it lacks are the provisions in Section VI.B that limit the risk of chilling procompetitive conduct. Most importantly, the bill does not require the plaintiff to show that the challenged conduct is "likely" to harm competition. It is sufficient to show that the conduct presents an "appreciable risk" of reducing competition. The term is not defined, but that presumably means that conduct with a 40% chance of harming competition would be illegal, even though it has a 60% chance of increasing competition and benefiting consumers. Further, the bill does not require the plaintiff to demonstrate "significant" harm to competition. True, the defendant must possess "significant market power" to trigger the presumption of harm, but a plaintiff need not utilize the presumption to establish a violation.[301] The plaintiff does not have to show that anticompetitive effects or overall harm are significant, nor does the plaintiff have to establish entry barriers.[302]

Like this Article's proposal, Senator Klobuchar's bill would allow both the Department of Justice and the FTC to recover civil penalties for violations of the new statute, and those penalties could be quite large—up to 30% of the defendant's total U.S. revenues in the affected line of commerce or, if smaller, 15% of its total U.S. revenues.[303] These additional sanctions would enhance the deterrence of anticompetitive exclusion.

2. House Subcommittee Report

The House Antitrust Subcommittee Report also recommends expanding existing law to prohibit conduct that reduces competition even if it does not create monopoly power or a dangerous probability of monopoly power.[304] The Report suggests two routes to this goal. First, it proposes "extending the Sherman Act to prohibit abuses of dominance"

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298. *Id.* § 9(c) (emphasis added).

299. The bill's definition of market power tracks the standard definition, *see supra* notes 46–47 and accompanying text, which is satisfied whenever a firm has sufficient power to alter the competitive result, even if the deviation is small. *See* S. 225 § 9(a).

300. For example, the bill would allow a court to infer market power from the likely effects of the challenged conduct, without showing actual effects or defining a relevant market. *See id.* § 13(b). For support for this approach, see Kirkwood, *supra* note 46, at 1172.

301. S. 225 § 9(a).

302. Instead, the defendant may offer evidence that entry or expansion would substantially eliminate the risk of competitive harm. *See id.*

303. *See id.* § 9(a)–(b)(1).

304. HOUSE REPORT, *supra* note 3, at 396.

and defines dominance to include significant market power.[305] Specifically, it recommends establishing a "statutory presumption that a market share of 30% or more constitutes a rebuttable presumption of dominance by a seller."[306] This is identical to the standard for significant market power in this Article's proposal.[307] Second, the Report recommends overturning *Spectrum Sports*.[308] As a result, the Sherman Act would bar the "use of monopoly power in one market to privilege the monopolist's position in [a] second market . . . , even if the conduct [does] not result in monopolization of the second market."[309] This mirrors this Article's approach to tech giant exclusion in complementary product markets.[310]

D. *Illustrative Example*

This Article's proposal is likely to be workable in practice, as the following example suggests.

Suppose that Amazon alters its search algorithm to favor products that pay higher fees to Amazon. Products paying higher fees now get a boost in Amazon's search results and products paying lower fees are downgraded. Amazon does not conceal the change. To the contrary, it announces that the new algorithm benefits consumers because producers

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305. *Id.*

306. *Id.*

307. *See supra* note 292 and accompanying text.

308. *See* HOUSE REPORT, *supra* note 3, at 396.

309. *Id.* For a similar recommendation, see Herbert Hovenkamp, *The Federal Trade Commission and the Sherman Act*, 62 FLA. L. REV. 871, 884 (2010).

310. The Report also recommends "establishing nondiscrimination rules" that "would require dominant platforms to offer equal terms for equal service." HOUSE REPORT, *supra* note 3, at 382 (citing a submission by Eleanor Fox and Harry First); *see also* Eleanor M. Fox & Harry First, *We Need Rules to Rein in Big Tech*, CPI ANTITRUST CHRONICLE, Oct. 2020, at 1, 5 (suggesting that the FTC should engage in rulemaking to prohibit discriminatory conduct by big tech firms that disadvantage, suppress, and exclude competitors that use their platforms). Fox and First suggest that these nondiscrimination rules should be issued by the FTC and it ought to consider prohibiting a range of tech giant behavior. *See id.* at 1. They note, though, that competition rulemaking would be a new endeavor for the Commission. *See id.* at 4. In its 107-year history, it has issued just one competition rule, a minor regulation intended to facilitate compliance with the Robinson-Patman Act in the Men's and Boys' Tailored Clothing Industry. *See id.* at 4 n.10. This track record is not surprising given the difficulties of formulating a good competition rule—one that is clear, well-targeted, easily administered, and comprehensive. For example, a rule that required platforms to offer "equal terms for equal service" would be clear in principle but would not preclude discrimination. A platform could impose higher fees on third parties when they need more services (e.g., inventory management or credit support). To regulate this, the Commission could specify the types and levels of service a platform may provide and the charge it could impose for each. But that would turn the FTC into a sectoral regulator, prescribing and policing the terms of the interactions between platforms and the third parties they host. As a result, while a nondiscrimination rule may be desirable, it should not be the sole means of controlling tech giant exclusion.

would not be willing to pay higher fees unless they thought that consumers would buy more of their products. The fees, in other words, are a signal of product quality. They are also a promotional payment—a payment for product placement, like the payments manufacturers make to supermarkets for desirable shelf space.

But the fees may also be anticompetitive. Since consumers often click on the product ranked highest in Amazon's search results, the new algorithm would give an advantage to the firm willing to pay the highest fees, and that advantage could translate into market power, enabling it to raise prices and sustain the higher fees. Suppose that the FTC believes that the new algorithm is anticompetitive and decides to challenge it. Under the proposed expansion of the Sherman Act, the behavior would be illegal only if the agency proves that it reduces competition significantly.

The FTC's first obligation would be to establish that the new algorithm creates significant market power. That would not mean proving that Amazon itself had gained market power, since the new algorithm is not intended to exclude Amazon's rivals. Instead, the FTC would have to show that firms favored by the new algorithm—those willing to pay the highest fees—gained significant market power. The agency's claim would be that Amazon is being paid to favor those firms over their rivals, enabling them to exercise market power. The fees make it more difficult for rivals to get exposure to consumers, raising their costs and creating a barrier to competition.

One way to establish this market power is to show that the new algorithm resulted in actual anticompetitive effects. The FTC might demonstrate, for example, that after Amazon implemented its new algorithm, several favored firms raised prices significantly.[311] The FTC might also show that the new algorithm led to a reduction in product quality, as consumers substituted higher ranked but lower quality products for the superior products they used to purchase. This substitution could cause consumers to reduce the total quantity purchased in the product category, which would lower output.

In addition, the FTC would have to define one or more relevant markets and show that in each market a favored firm had a share of at least 30%. This exercise would rely on the Hypothetical Monopolist Test and evidence such as product characteristics, price movements, industry perceptions, and company documents. Finally, the FTC would have to show that each relevant market is protected by entry barriers. As noted, the primary barrier is the new algorithm itself, which prevents a disfavored firm from competing head-to-head with a favored firm unless the disfavored firm is willing to pay higher fees. The size of the fee

311. As noted, a price increase of 5% would qualify as significant. *See supra* note 290.

differential would measure the height of the barrier; it would have to be at least 5% to be significant.

The FTC would then have to demonstrate significant anticompetitive effects. This proof would flow from its evidence of market power. If the FTC had established market power through significant actual anticompetitive effects, this element would be satisfied. If the FTC had used the market definition/market share approach, it could show that significant anticompetitive effects were likely by proving that Amazon's new algorithm had enabled one or more favored firms to significantly increase their market share. A greater market share is likely to confer greater market power and a profit-maximizing firm is likely to exercise that power.

If the FTC establishes significant anticompetitive effects, the burden would shift to Amazon to demonstrate significant procompetitive effects. Suppose that Amazon maintains that its new algorithm benefits consumers because it assigns higher rankings to firms willing to pay higher fees and firms would not pay those fees unless they thought their products were superior. The new algorithm, in other words, would be a way for Amazon to auction off the top spots in its product ranking to the firms with the highest quality products. This logic, however, is flawed. As noted, firms may pay higher fees not because their products are better but because they intend to acquire market power. Amazon's justification is therefore incomplete: consumers may benefit from the new algorithm, but they may not.

The FTC could resolve the case by establishing a less restrictive alternative. In this instance, there is one: if Amazon allows firms to pay for higher placement in its search results, it should identify their links as paid advertisements. That designation would inform consumers that a product's ranking reflects both the criteria Amazon uses to determine product merit and the fees the firm was willing to pay for higher placement. Without this designation, consumers would incorrectly assume that rankings simply reflect merit. In short, because there is a less restrictive alternative, Amazon's new algorithm would be illegal.

As this example indicates, courts should have no trouble administering the proposed expansion of the Sherman Act. Under it, a plaintiff would have to show that market power, anticompetitive effects, and net harm are significant; that each of these elements is likely, not just reasonably probable, and that the plaintiff's theory of liability is clear and precise. But otherwise, the analysis would follow the familiar approach of the Rule of Reason. The proposal should pose no special problems in application.

CONCLUSION

Critics charge that the tech giants pose an existential threat to antitrust law: it cannot address their enormous power and abusive conduct unless it abandons its focus on consumer welfare and its aversion to structural relief. But changing the goals of antitrust would be undesirable. That would replace popular, operational standards with unspecified trade-offs, which would reduce the legitimacy of antitrust, hamper deterrence, and harm consumers and workers. Likewise, the tech giants should not be broken up. Structural relief is likely to raise prices, depress wages, or deprive consumers of products and services they value.

The tech giants' unjustified exclusionary conduct, however, should be addressed. While they have not systematically eliminated large numbers of competitors, they have undercut individual third parties that sell on their platforms by downgrading them in search rankings, using seller-specific confidential data to copy their products, and cutting them off simply because they are competitors. Although this conduct has harmed consumers, it rarely, if ever, has resulted in monopoly power or a dangerous probability of monopoly power.

Congress should amend the Sherman Act to prohibit conduct by the tech giants that significantly diminishes competition even if it does not threaten to create monopoly power. Congress should also increase the sanctions for a violation by empowering the Justice Department and the FTC to levy civil penalties. These two steps would substantially diminish tech giant exclusion.