FTC V. FACEBOOK: STAYING COMPETITIVE IN AN ERA OF INCREASED INTEROPERABILITY WITH CLOUD-BASED SERVICES

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INTRODUCTION

Antitrust law, like patent law, is "aimed at encouraging innovation, industry and competition."[1] Some economists reason that the prospect of gaining monopoly power, and reaping some monopoly profits, is a critical source of incentive to innovate, invest, and consequently develop new products and services that confer value on society.[2] Still, for years, the United States government has been trying to rein in "Big Tech," pursuing some of the largest and most powerful companies on the Internet for allegedly gaining *illegal* monopoly power.[3] Recently, the Federal Trade Commission (FTC) and Department of Justice (DOJ) filed suits alleging illegal monopolization against large technology companies such as Google[4], Amazon[5], and Meta[6]. This paper will analyze the ongoing *FTC v. Meta* (originally, *FTC v. Facebook*) case[7] and address how large technology companies can develop new cloud-based services designed for interoperability while staying competitive and adhering to antitrust laws. The parent company of Facebook is known as "Meta Platforms," after its name was changed, to supposedly signal a strategic shift

[1] Atari Games Corp. v. Nintendo of Am., Inc., 897 F.2d 1572, 1576 (Fed. Cir. 1990) (citing Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861, 876–77 (Fed. Cir. 1985)).

[2] *See, e.g.*, Makan Delrahim, Assistant Attorney General, U.S. Dep't of Just., The "New Madison" Approach to Antitrust and Intellectual Property Law, Remarks as Prepared for Delivery at University of Pennsylvania Law School (Mar. 16, 2018) (transcript available at https://www.justice.gov/opa/speech/file/1044316/download [https://perma.cc/M7MR-SSDF]).

[3] The Daily, *Google Monopoly Trial*, THE N.Y. TIMES, at 0:00-0:30 (Sept. 11, 2023), https://www.nytimes.com/2023/09/11/podcasts/the-daily/google-monopoly-trial.html?showTranscript=1 [https://perma.cc/4289-7XCE].

[4] *See* Press Release, U.S. Dep't of Just., Justice Department Sues Google for Monopolizing Digital Advertising Technologies (Jan. 24, 2023), https://www.justice.gov/opa/pr/justice-department-sues-google-monopolizing-digital-advertising-technologies [https://perma.cc/BKS4-TXZF].

[5] *See* Press Release, Fed. Trade Comm'n, FTC Sues Amazon for Illegally Maintaining Monopoly Power (Sept. 26, 2023), https://www.ftc.gov/news-events/news/press-releases/2023/09/ftc-sues-amazon-illegally-maintaining-monopoly-power [https://perma.cc/C29A-9Y9Z].

[6] *See* Press Release, Fed. Trade Comm'n, FTC Sues Facebook for Illegal Monopolization (Dec. 9, 2020), https://www.ftc.gov/news-events/news/press-releases/2020/12/ftc-sues-facebook-illegal-monopolization [https://perma.cc/KAB8-SDPV].

[7] *Id.*

toward providing metaverse-related services (e.g., virtual reality services, augmented reality services).[8] However, for consistency with the name "Facebook" in the initial court filing of *FTC v. Facebook*, "Meta Platforms" and its shorthand "Meta" are referred to as "Facebook" throughout this paper.

I. BACKGROUND

A. Statutes and Regulations

The Sherman Act was enacted in 1890 when the emergence of trusts and monopolies with power to suppress competition and completely control markets had become a matter of great public concern. The Sherman Act was designed to be a comprehensive charter of economic liberty aimed at preserving free and unfettered competition as the rule of trade.[9] The Sherman Act is based on the belief that enabling competitive forces to operate freely will lead to the optimal distribution of economic resources, the most affordable prices, the highest-quality products and services, and innovation.[10] Additionally, it aims to foster an atmosphere conducive to safeguarding democratic institutions.[11]

In *FTC v. Facebook* (now *FTC v. Meta*), the FTC alleged that Facebook violated Section 2 of the Sherman Act, which addresses conduct by entities that "monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce."[12] This vague language,[13] while initially construed to reach all monopolies,[14] has been interpreted

[8] *See Facebook*, ENCYCLOPEDIA BRITANNICA, https://www.britannica.com/topic/Facebook (last visited Oct. 7, 2023) [https://perma.cc/XW7S-CT3V].

[9] FTC v. Qualcomm, 969 F.3d 974, 988 (9th Cir. 2020) (citing N. Pac. Ry. Co. v. United States, 356 U.S. 1, 4 (1958)).

[10] *Id*.

[11] *Id*.

[12] Sherman Anti-Trust Act, 15 U.S.C. § 2.

[13] *See* Standard Oil Co. of N.J. v. United States, 221 U.S. 1, 61 (1911) (noting that the Sherman Act was ambiguous as to what "is involved in determining what is intended by *monopolize*." (emphasis added)).

[14] United States v. Trans-Missouri. Freight Ass'n, 166 U.S. 290, 335–41 (1897) ("The arguments which have been addressed to us against the inclusion of all contracts in restraint of trade, as provided for by the language of the act, have been based upon the alleged presumption that Congress, notwithstanding the language of the act, could not have intended to embrace all contracts, but only such contracts as were in unreasonable restraint of trade.").

by the Supreme Court to mean that only *some* monopolies are illegal— namely, those that unduly restrain trade.[15] To establish a firm engaged in anticompetitive conduct, enforcers or other plaintiffs must show: "(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident."[16]

The possession of monopoly power is the first element the enforcers must prove. Monopoly power can be established by evidence showing the entity being scrutinized has control over a dominant portion of a market.[17] *United States v. Aluminum Company of America* gave courts thresholds to determine the existence of monopoly power based on a company's share of the market.[18] For example, 33% market share does not establish monopoly power, "it is doubtful whether… 64% would be enough," and a 90% share of the market is definitely "enough to constitute a monopoly."[19] More recently, the court in *Image Tech. Servs. v. Eastman Kodak Co.* stated that "a 65% market share" is generally sufficient to establish a *prima facie* case of monopoly power.[20] Still, it is important to note that "[t]he mere possession of monopoly power. . . is not. . . unlawful."[21]

The second element requires the enforcers to show an alleged monopolist engaged in anticompetitive conduct.[22] In Section 2 cases, courts use a "rule of reason" analysis to determine whether a firm's actions were anticompetitive.[23] Briefly, the rule of reason weighs the pro-competitive nature of a firm's conduct against the anticompetitive nature of their conduct.[24] Some examples of illegal conduct include "creating, enlarging, or prolonging monopoly power by impairing the opportunities of rivals; and… [it] either (a) do[es] not benefit consumers at all, or (b) [is] unnecessary for the particular consumer benefits claimed for [it], or (c)

[15] *Standard Oil Co.*, 221 U.S. at 61–62.

[16] United States v. Grinnell Corp., 384 U.S. 563, 570–71 (1966).

[17] *See* United States v. Aluminum Co. of Am., 148 F.2d 416, 424 (2d Cir. 1945).

[18] *Id*.

[19] *Id*.

[20] *See* Image Tech. Servs. v. Eastman Kodak Co., 125 F.3d 1195, 1206 (9th Cir. 1997).

[21] Verizon Commc'ns, Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004).

[22] *See* United States v. Microsoft Corp., 253 F.3d 34, 58 (D.C. Cir. 2001).

[23] *See id*. at 84–86 (finding anticompetitive tying in a § 2 case should be subject to "rule of reason" analysis, not per se analysis).

[24] *See id*. at 59.

produce[s] harms disproportionate to any resulting benefits."[25] Regardless, a threshold step in any antitrust case is to accurately define the relevant market.[26]

B. Market Definition

Generally, the relevant market refers to "the area of effective competition."[27] The relevant market is considered to be the field in which "meaningful competition is said to exist."[28] Courts usually cannot properly apply the rule of reason without accurately defining the relevant market.[29] Further, if a case involves allegations of exclusive dealing, courts have found that such an arrangement violates the Sherman Act under the rule of reason only if "its effect is to foreclose competition in a substantial share of the line of commerce affected."[30] Accordingly, for conduct to have an anticompetitive effect, the ability of competitors to enter into or remain in the relevant market must be significantly limited.[31]

II. DISCUSSION

A. The Facts

Facebook is a social network that was founded in 2004 by Mark Zuckerberg and fellow students at Harvard University.[32] Since 2006, Facebook's Application

[25] PHILLIP E. AREEDA & HERBERT HOVENKAMP, FUNDAMENTALS OF ANTITRUST LAW § 6.04a (4th ed. 2011 & Supp. 2013).

[26] Ohio v. Am. Express Co., 585 U.S. 529, 542 (2018).

[27] *Id.* at 543.

[28] *See* Image Tech. Servs. v. Eastman Kodak Co., 125 F.3d 1195, 1202 (9th Cir. 1997) (citing United States v. Continental Can Co., 378 U.S. 441, 449 (1964)).

[29] Fed. Trade Comm'n v. Qualcomm Inc., 969 F.3d 974, 992 (9th Cir. 2020) (citing *Am. Express*, 525 U.S. at 543). The rule of reason balances the pro-competitive and anti-competitive effects of an alleged monopolist's conduct. Therefore, without defining the relevant market, it may be difficult, if not impossible, to appropriately measure competitive effects of the monopolist's conduct on competition.

[30] *Id*. at 1003 (quoting Allied Orthopedic Appliances Inc. v. Tyco Health Care Grp. LP, 592 F.3d 991, 996 (9th Cir. 2010) (internal quotations omitted)).

[31] Tampa Elec. Co. v. Nashville Co., 365 U.S. 320, 328 (1961) ("the competition foreclosed by the contract must be found to constitute a substantial share of the relevant market. That is to say, the opportunities for other traders to enter into or remain in that market must be significantly limited. . . ").

[32] *See Facebook*, *supra* note 8.

Programming Interface (API) has allowed programmers to write software that Facebook members can use directly through its services.[33]

Although access to Facebook is free of charge, Facebook earns most of its revenue from selling advertisements on its platform.[34] Not long after its founding, in 2008, Facebook surpassed Myspace as the most-visited social media website in the world.[35] Facebook grew further in 2012 when it acquired the photo and video sharing platform Instagram and in 2014, when Facebook acquired the instant-messaging service WhatsApp.[36]

B. Procedural History of Initial Complaint

i. FTC Sues

On December 9, 2020, the FTC sued Facebook, alleging the company was illegally maintaining a monopoly in the market for personal social networking services (PSNs) after years of anticompetitive conduct.[37] The FTC alleged that this monopoly violated Section 2 of the Sherman Act.[38] The FTC claimed Facebook had over a 60% market share in the PSN market.[39] Notably, the FTC excluded from the PSN definition networking services that focused on professional connections like LinkedIn, interest-based connections like Strava, services that enabled sharing of video and audio like YouTube, Spotify, Netflix, and Hulu, and mobile messaging services.[40] The FTC further claimed Facebook violated Section 2 of the Sherman Act by preventing interoperability between its services and competing

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[33] *Id*.; *see also What is an API?*, AMAZON WEB SERVICES, https://aws.amazon.com/what-is/api/ (last visited Oct. 7, 2023) (describing how APIs enable two software components to communicate with each other using requests and responses to interoperate) [https://perma.cc/ZR88-BWNM].

[34] *Facebook*, *supra* note 8.

[35] *Id*.

[36] *WhatsApp: The Best Meta Purchase Ever?*, INVESTOPEDIA, https://www.investopedia.com/articles/investing/032515/whatsapp-best-facebook-purchase-ever.asp#:~:text=WhatsApp%20Acquisition,-WhatsApp%20is%20an&text=When%20Facebook%20announced%20its%20plans,price%20Facebook%20paid:%20$21.8%20billion (last visited Oct. 7, 2023) [https://perma.cc/NQ38-PMC9].

[37] Press Release, Fed. Trade Comm'n., *supra* note 6.

[38] Complaint for Injunctive and Other Equitable Relief at 76, Fed. Trade Comm'n v. Facebook, Inc., 560 F. Supp. 3d 1 (D.D.C. 2021) (No. 1:20-cv-03590-JEB).

[39] *Id*. at 18-19.

[40] *Id*. at 17.

applications by cutting off access to its services by the competing applications.[41] Namely, it claimed Facebook restricted access to its APIs, such that third-party software applications that competed with Facebook could not interface with Facebook's services.[42] In fact, the FTC alleged that for a period of time, Facebook only made key APIs available to third-party software applications on the condition that they "refrain from providing the same core functions that Facebook offers."[43]

The FTC further alleged Facebook's policies of prohibiting users of its APIs from competing with Facebook's services deterred innovation from third-party apps that interoperated with and relied on Facebook's vast capabilities.[44] Further, the FTC proffered that when Facebook terminated API access for third-party apps Facebook found to be competitive threats, it prevented businesses from being able to challenge Facebook's monopoly in the PSN market.[45]

ii. Facebook Asks for Dismissal

On March 10, 2021, Facebook filed a motion to dismiss the case.[46] Facebook contended the FTC failed to define a plausible and relevant antitrust market because the FTC's definition lacked specificity regarding what companies formed the competitive landscape and how the landscape was divided amongst those companies.[47] In cases involving allegations of illegal monopolizations, the entity bringing the case (here, the FTC) has the burden to allege facts that establish a market including all products that consumers consider as acceptable substitutes.[48] Facebook contended the FTC failed to provide factual support for which products

[41] *See, e.g.*, *id.* at 41, 45–46.

[42] *See, e.g.*, *id.* at 42, 43–44, 46.

[43] *Id*. at 8.

[44] *See id.* at 8–9.

[45] *See id*. at 41.

[46] Rachel Lerman, *Facebook asks judge to dismiss antitrust suits filed by FTC, states*, WASH. POST (March 10, 2021), https://www.washingtonpost.com/technology/2021/03/10/facebook-dismiss-antitrust-lawsuits/ [https://perma.cc/VWQ3-7A9A]. When a party files a motion to dismiss in a lawsuit, the party is requesting that the court dismiss the case for lacking legal basis without the case needing to proceed to trial.

[47] *See Facebook Files Motions to Dismiss Lawsuits Brought by FTC, State Attorneys General*, META (March 10, 2021), https://about.fb.com/news/2021/03/motions-to-dismiss-ftc-state-ag-lawsuits/ (summarizing Memorandum in Support of Facebook, Inc.'s Motion to Dismiss FTC's Complaint, Fed. Trade Comm'n v. Facebook, Inc., 560 F. Supp. 3d 1 (D.D.C. 2021) (No. 1:20-cv-03590-JEB)) [https://perma.cc/UH4T-ZA8W].

[48] *Id.*

(or even which features of Facebook) fell within the purported "personal social networking" market because the FTC did not propose any substitutes for Facebook's platform.[49]

Facebook further contended the FTC did not plausibly allege that Facebook had monopoly power.[50] Facebook argued that the FTC did not, and could not, establish that Facebook had increased prices or restricted output because the agency acknowledged that Facebook's products were offered for free and in unlimited quantities.[51] The FTC's complaint contained a single, conclusory allegation that Facebook had a market share "in excess of 60%," which Facebook argued was not supported by the facts.[52]

Additionally, Facebook contended the FTC did not plausibly allege unlawful exclusionary conduct; specifically, that Facebook's acquisitions of Instagram and WhatsApp were anticompetitive.[53] Facebook had the FTC review the acquisitions before consummation to proactively address any anticompetitive concerns.[54] The FTC did not challenge the acquisitions, and thus Facebook closed them.[55]

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[49] *Id.*

[50] *Id.*

[51] *Id.* Generally, if a company can substantially increase prices or restrict output, those actions show dominant control over a market because the company does not have to compete with others by lowering its prices or selling a larger amount of products/services. However, free services offered in unlimited quantities cannot have their prices substantially increased or their output restricted. Therefore, traditional indicators of monopoly power do not apply here.

[52] *Id*. Also, factual backing in legal claims is critical to determine the outcome of a case. For example, if a legal claim is factually supported and refers to legal precedent with similar facts, then a court may rely on the similarity in facts to render its decision on the legal claim. However, if a legal claim lacks factual support, then a party pursuing the legal claim may fail to persuade a court that they have met the burden for establishing their legal claim should prevail.

[53] *Id*.

[54] *Id.* The FTC reviews acquisitions before they go though under the regulations outlined in the Hart-Scott-Rodino Antitrust Improvements Act (HSR ACT). This act requires companies to notify the FTC and DOJ before certain acquisitions are closed, to allow for a pre-merger review process which includes assessing potential antitrust concerns. The pre-merger review process ordinarily preempts anticompetitive acquisitions from being closed.

[55] *Id*.; *see also* Press Release, Fed. Trade Comm'n., FTC Closes Its Investigation Into Facebook's Proposed Acquisition of Instagram Photo Sharing Program, (Aug. 22, 2012), https://www.ftc.gov/news-events/news/press-releases/2012/08/ftc-closes-its-investigation-facebooks-proposed-acquisition-instagram-photo-sharing-program [https://perma.cc/27KJ-962F].

Moreover, Facebook argued that the FTC's claim that Facebook was required to share its proprietary platform with rivals was precluded by Supreme Court precedent that indicated there is no antitrust duty to allow access to a proprietary platform and one cannot incur antitrust liability for refusing access to parties that seek to use its technology to steal users.[56]

According to Facebook, none of the conduct challenged by the FTC was plausibly alleged to have harmed competition and consumers.[57]

iii. Initial Complaint Dismissed

On June 28, 2021, the United States District Court for the District of Columbia dismissed the FTC's complaint against Facebook.[58] Some regarded the dismissal as a major blow to the government's attempt to reign in "Big Tech."[59] However, the complaint was dismissed without prejudice.[60] Therefore, the court allowed the FTC to address the court's concerns and amend its complaint with additional information to support its claims.[61]

C. The District Court's Opinion on the Initial Complaint

The FTC's initial complaint relied on a monopoly maintenance theory.[62] Generally, to establish illegal maintenance of a monopoly, the government must prove (1) that the company possesses monopoly power in the relevant market and

[56] *See* Pac. Bell Tel. Co. v. Linkline Commc'ns, Inc., 555 U.S. 438, 450–51 (2009); Verizon Commc'ns, Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 407–08 (2004); Reveal Chat Holdco, LLC v. Facebook, Inc., 471 F. Supp. 3d 981, 1002 (N.D. Cal. 2020) (dismissing similar Platform-based claim of refusal to deal with rivals under Rule 12(b)(6)); Sambreel Holdings LLC v. Facebook, Inc., 906 F. Supp. 2d 1070, 1075 (S.D. Cal. 2012).

[57] Mem. in Support of Facebook, Inc.'s Mot. to Dismiss FTC's Compl., FTC v. Facebook, Inc., 560 F. Supp. 3d 1 (D.D.C. 2021) (No. 1:20-cv-03590-JEB) (citing Rambus Inc. v. FTC, 522 F.3d 456, 463 (D.C. Cir. 2008) (exclusionary conduct is conduct that harms competition and consumers).

[58] Salvador Rodriguez, *Judge dismisses FTC and state antitrust complaints against Facebook*, CNBC, June 28, 2021, https://www.cnbc.com/2021/06/28/judge-dismisses-ftc-antitrust-complaint-against-facebook.html [https://perma.cc/F86M-LCJW].

[59] Cecilia Kang, *Judge Throws Out 2 Antitrust Cases Against Facebook*, THE N.Y. TIMES, Oct. 4, 2021, https://www.nytimes.com/2021/06/28/technology/facebook-ftc-lawsuit.html [https://perma.cc/6JHP-WJVX].

[60] Fed. Trade Comm'n v. Facebook, Inc., 560 F. Supp. 3d 1, 32 (D.D.C. 2021).

[61] *See* Ciralsky v. CIA, 355 F.3d 661, 666–67 (D.C. Cir. 2004).

[62] *See* Fed. Trade Comm'n v. Facebook, 560 F. Supp. 3d at 6–11.

(2) that the company engaged in anticompetitive conduct to maintain that monopoly power.[63] The court analyzed the *FTC v. Facebook* case as a refusal to deal case.[64] The FTC held the burden of defining the relevant market and then proving that Facebook held a dominant portion of that defined market.[65] In this case, the court determined that despite successfully defining the relevant market, the FTC failed to adequately establish its claim that Facebook violated the Sherman Act.[66]

The court first determined the FTC adequately defined the market for PNSs.[67] Specifically, the court reasoned that because it was plausible that networking services such as LinkedIn, Spotify, and Strava are not used for the same social purposes as Facebook, meaning that users would not switch from Facebook to one of those other services, the FTC's definition was sufficient at this stage of the litigation;[68] However, this market definition was uniquely drawn, with little to no facts regarding actual consumer switching behavior.[69] Partially in light of the imperfectly defined market, the court reasoned that the FTC could not support its claim that Facebook had a monopoly in the PNSs market.[70] The FTC claimed Facebook had over a 60% market share in the PSN market.[71] However, the FTC did not support this claim with any data, nor did it identify any metric or method it used to reach this conclusion.[72]

First, the court acknowledged that it is not clear what exactly constitutes a PSN service.[73] For example, the FTC did not identify what services might have made up the other 40 % of the alleged PSN market.[74] Second, the court rationalized that traditional methods of evaluating market share did not apply in this case because

[63] Sherman Anti-Trust Act,15 U.S.C. § 2.

[64] *See* Fed. Trade Comm'n v. Facebook, 560 F. Supp. 3d at 21–28. In antitrust law, a refusal to deal case involves a dominant company denying business dealings with competitors or potential competitors. Authorities will often look to the dominant companies' reasons for refusing to deal, to determine whether the refusal is justified for legitimate business reasons (e.g., product quality, safety, efficiency, etc.), or whether the refusal constitutes an unlawful attempt to maintain a monopoly position.

[65] *See id*. at 4, 17–21.

[66] *Id*.at 30, 32.

[67] *See id*. at 14–18.

[68] *See id*. at 15.

[69] *See id*. at 17–18.

[70] *See id*. at 17–20.

[71] *Id*. at 18–19.

[72] *See id*. at 18–20.

[73] *Id*. at 19.

[74] *Id*.

PSNs like Facebook are free to use, which therefore prevented any revenue or units sold of Facebook's services from which market share could be measured.[75]

Summarily, the court held that while the FTC's complaint loosely defined the relevant market, the FTC did not adequately establish Facebook's share of that market.[76] Accordingly, the FTC did not demonstrate that Facebook had monopoly power in the PSN market.[77]

Further, the court held that Facebook's general policy of withholding API access from competitors was plainly lawful, to the extent it covered rivals with which it had no previous, voluntary course of dealing.[78] By contrasting the facts of the present case to those of *Aspen Skiing*, the court maintained long-standing precedent that the mere act of announcing or maintaining a "refusal to deal" with competitors cannot, in and of itself, violate Section 2.[79] However, certain specific acts of refusing to deal with competitors for whom there was a previous, voluntary course of dealing may constitute antitrust violations.[80] The court did not analyze whether instances of such specific acts occurred due to Facebook's policies because no such conduct by Facebook was alleged to be ongoing or about to occur.[81]

D. Procedural History of the Amended Complaint

i. FTC Files Amended Complaint

On August 19, 2021, the FTC filed an amended complaint against Facebook alleging antitrust violations under Section 2 of the Sherman Act, adding more detail on the accusation that the social media company crushed or bought rivals and once again asking a judge to force the social media giant to sell Instagram and

[75] *See id*. at 4.

[76] *See id*. at 20.

[77] *See id*. at 18–20.

[78] *Id*. at 24–25.

[79] *Id*.; *see also* PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW 273 (4th ed. 2014).

[80] *See* Fed. Trade Comm'n v. Facebook, Inc., 560 F. Supp. 3d at 27.

[81] 15 U.S.C. § 53(b); *see also* AMG Cap. Mgmt., LLC v. Fed. Trade Comm'n, 593 U.S. 67, 75 (2021); Fed. Trade Comm'n v. Credit Bureau Ctr., LLC, 937 F.3d 764, 774 (7th Cir. 2019) ("Section 13(b) serves a… forward-facing role: enjoining ongoing and imminent future violations."); Fed. Trade Comm'n v. Evans Prod. Co., 775 F.2d 1084, 1087 (9th Cir. 1985).

WhatsApp.[82] The amended complaint focused significantly more on interoperability and provided specific details regarding Facebook's purported market share.[83] For example, the amended complaint claimed that app developers were induced to interoperate with Facebook's services, the interoperability was enabled via API functionality, and Facebook instituted conditional dealing policies within its agreements for entities that interoperated with its services.[84] Additionally, the complaint purported that Facebook benefitted from developers interoperating with its services.[85]

ii. Amended Suit Proceeds

On October 4, 2021, Facebook filed a motion to dismiss the amended complaint (i.e., the second motion to dismiss the *FTC v. Facebook* case, since the case's initial filing).[86] In its second motion to dismiss, Facebook argued that the FTC (1) still had no valid factual basis for alleging monopoly power, (2) still had no valid factual basis for claiming that Facebook maintained monopoly power through unlawful exclusionary conduct, and (3) failed to approve the amended complaint by a valid vote because the Chair should have been recused.[87]

Facebook noted in its first argument that, in support of its new, supercharged market share numbers, the FTC relied on commercial data regarding usage of "three cherry-picked apps: Facebook, Instagram, and Snapchat"—even though the data does not even purport to measure actual or commercial PSN usage.[88] Facebook also pointed to logical inconsistencies in the FTC's complaint. It disputed that there were "barriers to entry" which prevented competition, because entry into the FTC's alleged PSN market did in fact occur by startups (Instagram and Snapchat), and could still occur by potential market rivals (YouTube (Google),

[82] Diane Bartz & Nandita Bose, *FTC says Facebook 'Bought and Buried' Rivals in Renewed Antitrust Fight*, REUTERS, Aug. 19, 2021, https://www.reuters.com/legal/litigation/us-ftc-expected-file-amended-complaint-against-facebook-2021-08-19/ [https://perma.cc/JVW7-QYZL].

[83] First Amended Complaint for Injunctive and Other Equitable Relief, at 8–11, 60–70, Fed. Trade Comm'n v. Facebook, Inc., 581 F. Supp. 3d 34 (D.D.C. 2022) (No. 1:20-cv-03590-JEB).

[84] *See id*. at 8–9.

[85] *Id*.

[86] Mem. in Support of Facebook, Inc.'s Mot. to Dismiss the FTC's Am. Compl., at 46, Fed. Trade Comm'n v. Facebook, Inc., 581 F. Supp. 3d 34 (D.D.C. 2022) (No. 1:20-cv-03590-JEB).

[87] *See id*. at 1, 3, 5.

[88] *See id*. at 2.

iMessage (Apple), Twitter, and TikTok (ByteDance)).[89] Further, Facebook highlighted that it never charged users any prices or restricted output to users, which it argues would preclude it from being a monopolist.[90]

Regarding their second argument, Facebook reiterated that the FTC previously cleared the Instagram and WhatsApp acquisitions—years before filing the suit against Facebook. Further, Facebook argued that the FTC offered only speculation that consumers might have better products if Instagram and WhatsApp had remained independent.[91] Notably, such speculation has never been a valid basis for condemning acquisitions as "exclusionary."[92]

Finally, Facebook argued that the FTC Chair, Lina Khan, should have been recused from the FTC's narrow vote.[93] However, this third argument is not particularly prudent for analyzing Facebook's case regarding other developing cloud-based platforms, as discussed later in this paper.

Despite these arguments, the court denied Facebook's second motion to dismiss, and the suit was allowed to proceed, with the presiding judge noting that the FTC had a plausible case against Facebook.[94] However, the judge did rule that the FTC could not pursue claims that Facebook refused to allow interoperability permissions with competing third-party apps to maintain its dominance because the policies had been abandoned in 2018.[95] Facebook's most recent enforcement of the policy was even older.[96]

iii. Upcoming Trial Date

There is not currently a trial date set for the *FTC v. Facebook case*, with court filings reporting that the FTC was pushing for a trial date in December 2023, and Facebook was requesting a trial date in early 2024 to have more time to prepare.[97]

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[89] *See id*.

[90] *See id*. at 3.

[91] *Id*.

[92] *Id*.

[93] *See id*. at 5.

[94] *See* Fed. Trade Comm'n v. Facebook, Inc., 581 F. Supp. 3d 34, 61 (D.D.C. 2022).

[95] *U.S. Judge Rejects Facebook Request to Dismiss FTC Antitrust Lawsuit*, REUTERS, Jan. 11, 2022, https://www.reuters.com/legal/litigation/us-judge-rejects-facebook-request-dismiss-ftc-antitrust-lawsuit-2022-01-11/ [https://perma.cc/2G79-8ZRV]; *see also* Fed. Trade Comm'n v. Facebook, Inc., 581 F. Supp. 3d at 40.

[96] *Id.*

[97] *U.S., Meta Spar Over Date of Antitrust Trial*, REUTERS, Feb. 23, 2022, https://www.reuters.com/legal/litigation/us-meta-spar-over-date-antitrust-trial-2022-02-23/ [https://perma.cc/C5WB-CBSQ].

After all, this complex case involving new and evolving technology marks the first time the FTC seeks to dismantle a company based on acquisitions it had already reviewed and cleared over a decade prior.[98] Still, later reporting indicates that the case likely will not begin until early 2024, consistent with Facebook's push for a later trial date.[99]

III. ANALYSIS

A. Key Issues in the Original Complaint

In the initial complaint, a key issue was that Facebook's market share was difficult to measure, and the FTC failed to provide factual support for their allegation of Facebook's share in the relevant market of PSNs. Another key issue was that Facebook's alleged "exclusionary conduct" occurred years before the FTC complaint was filed. Therefore, the FTC did not have a basis for requesting injunctive relief because no such conduct was alleged to be "ongoing or about to occur."[100]

B. Notable Difference in Measures of Relevant Market Share

In the amended complaint, after being scorned for not providing accurate measures of market shares in the initial complaint, the FTC included several factual measures to determine Facebook's dominance in the relevant market of PSNs, such as time spent on Facebook's service by users, monthly active users (MAUs), and daily active users (DAUs).[101]

Regarding time spent, the FTC presented evidence that Facebook's share of time spent by users of apps providing PSNs in the United States exceeded 80% since 2012 and was at least as high in 2011.[102] The FTC noted that the other 20%

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[98] Joint Civ. Rule 16.3 Rep. to the Ct., at 9, Fed. Trade Comm'n v. Facebook, Inc., 560 F. Supp. 3d 34 (D.D.C. 2022) (No. 1:20-cv-03590-JEB).

[99] Bryan Koenig, *FTC's Meta Case Split Up and Set for No Earlier Than 2024*, LAW360, Mar. 3, 2022, https://www.law360.com/articles/1470478/ftc-s-meta-case-split-up-and-set-for-no-earlier-than-2024 [https://perma.cc/6KMM-5BDT].

[100] 15 U.S.C. § 53(b); *see also* AMG Cap. Mgmt., LLC v. Fed. Trade Comm'n, 593 U.S. 67, 76 (2021); Fed. Trade Comm'n v. Credit Bureau Ctr., LLC, 937 F.3d 764, 774 (7th Cir. 2019) ("Section 13(b) serves a… forward-facing role: enjoining ongoing and imminent future violations."); Fed. Trade Comm'n v. Evans Prod. Co., 775 F.2d 1084, 1087 (9th Cir. 1985).

[101] *See* First Amended Complaint, *supra* note 83, at 63–68.

[102] *Id*. at 65.

of the market included combined shares of providers such as Snapchat, Google+, Myspace, Path, MeWe, Orkut, and Friendster.[103]

Regarding daily average users, the FTC presented evidence that Facebook's share of daily average users by apps providing PSNs in the United States exceeded 70% since 2016 and was at least as high in 2011.[104] The FTC noted that the other 30% of the market included combined shares of providers such as Snapchat, Google+, Myspace, Path, MeWe, Orkut, and Friendster.[105]

The FTC also presented evidence that Facebook's share of monthly average users by apps providing PSNs in the United States exceeded 65% since 2012 and was at least as high in 2011.[106] The FTC noted that the other 35% of the market included combined shares of providers such as Snapchat, Google+, Myspace, Path, MeWe, Orkut, and Friendster.[107]

While United States courts have not measured market share based on "time spent," MAUs, and/or DAUs in the past, some courts have acknowledged that some social media and software companies use these metrics as measures of financial health and growth prospects. Use of such metrics by companies like Twitter, Snap, and Robinhood Markets indicates that MAUs and DAUs might be an acceptable way for courts to measure market power.[108][109][110] Nevertheless, in the amended complaint, the FTC pointed to several antitrust authorities in foreign jurisdictions, as persuasive authority, who have used time spent, MAU, and DAU metrics to conclude market power.[111] For example, in 2020, the United Kingdom's Competition and Markets Authority ("CMA") concluded that "Facebook has significant and enduring market power in social media" within the United Kingdom based in part on a time spent metric.[112] In 2019, Germany's Federal Cartel Office (Bundeskartellamt or "BKartA") determined that Facebook's data terms of service constituted "an abuse of a dominant position on the market for

[103] *Id*.

[104] *Id*.

[105] *Id*.

[106] *Id*. at 66.

[107] *Id*.

[108] *See* In re Snap Inc. Sec. Litig., No. 2:17-cv-03679-SVW-AGR, 2018 U.S. Dist. LEXIS 97704, at *15 (C.D. Cal. June 7, 2018).

[109] *See* Shenwick v. Twitter, Inc., 282 F. Supp. 3d 1115, 1125 (N.D. Cal. 2017).

[110] *See* Golubowski v. Robinhood Mkts., Inc., No. 21-cv-09767-EMC, 2023 WL 1927616, at *2-3 (N.D. Cal. Feb. 10, 2023).

[111] *See* First Amended Complaint, *supra* note 83, at 67.

[112] *See id.*

social networks for private users" based in part on DAU and MAU metrics.[113] In 2019, the Australian Competition and Consumer Commission ("ACCC") published the results of its Digital Platforms Inquiry which, among other things, assessed Facebook's "market power" within Australia based in part on MAU and time spent metrics.[114]

The FTC wants the District Court to measure market power based on time spent, DAU, and/or MAU metrics because traditional market share calculations of revenue or units sold are inapplicable in this case as Facebook's services are free.

C. Considerations for the Amended Complaint at Trial

As explained above, the judge ruled (in the dismissal of the Motion to Dismiss the Amended Complaint) that the FTC could not pursue its claims that Facebook refused to allow interoperability permissions with competing third-party apps as a way to maintain its dominance because the policies had been abandoned in 2018 and Facebook's most recent enforcement of the policy occurred prior to 2018.[115] Therefore, the FTC will have to focus on its allegations of illegal monopoly power and a different form of anticompetitive conduct (e.g., the allegedly anticompetitive acquisitions of Instagram and WhatsApp), to satisfy both of the requisite prongs for an antitrust violation under Section 2 of the Sherman Act.[116]

D. Predicted Outcome of the Upcoming Trial

Measuring market power for free social media services with DAU, MAU, and time spent provides definite metrics which are easily enforceable and has been accepted by antitrust authorities in foreign jurisdictions.[117] Therefore, it is likely that the court in *FTC v. Facebook* will find such measures of market power acceptable. The court will likely conclude that Facebook possesses monopoly power in the relevant market, thereby satisfying the first of the two prongs that the government must prove to establish an antitrust violation under Section 2 of the Sherman Act.

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[113] *See id.*

[114] *See id.*

[115] *See U.S. Judge Rejects Facebook Request to Dismiss FTC Antitrust Lawsuit*, *supra* note 95.

[116] To establish a firm engaged in anticompetitive conduct, enforcers or other plaintiffs must show: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.

[117] *See* First Amended Complaint, *supra* note 83, at 63–68.

However, the court will likely not find that Facebook engaged in anticompetitive conduct such that the second prong of Section 2 is not satisfied. For example, the FTC alleges that Facebook engaged in anticompetitive acquisitions.[118] However, those acquisitions were previously allowed by the FTC, after a rigorous (e.g., longer-than-usual) merger review process.[119] While the FTC permitted the mergers to go forward, it reserved the right to "take such further actions as the public interest may require."[120] It is difficult to see how facts that were available at the time of the FTC's acquisition investigations (e.g., the 2012 investigation into the Instagram acquisition, which occurred four years after Facebook already became the most-visited social media site in the world[121]) could now form the basis for an allegation of illegal anticompetitive conduct. This is especially true when the WhatsApp acquisition was subsequently allowed two years after the Instagram acquisition. Additionally, in the amended complaint, the FTC cited the emergence of the mobile internet from the years of 2010–2012 as new evidence of the anti-competitiveness of Facebook's acquisitions.[122] However, given the years of the evidence provided by the FTC (e.g., 2010–2012), the emergence of the mobile internet was already well-known by the time of Instagram's acquisition in 2012 and even more well-known by the time of WhatsApp's acquisition in 2014; thereby illustrating that the emergence of the mobile internet likely was, or should have been, a factor when the FTC approved Facebook's acquisitions initially.[123]

Further, the FTC alleges that Facebook supplemented these "anticompetitive acquisitions" with anticompetitive conditional dealing.[124] However, the District Court already decided, for the amended complaint, that the FTC could not pursue the conditional dealing claims.[125] These claims alleged that Facebook refused to allow interoperability permissions with competing third-party apps as a way to

[118] *See id.* at 26–42.

[119] *See* Mem. in Support of Facebook, Inc.'s Mot. to Dismiss FTC's Am. Compl., *supra* note 86, at 3–4, 20–21.

[120] Letter from April J. Tabor, Acting Secretary, Fed. Trade Comm'n., to Thomas O. Barnett, Esq. (Aug. 22, 2012), https://www.ftc.gov/sites/default/files/documents/closing_letters/facebook-inc./instagram-inc./120822barnettfacebookcltr.pdf [https://perma.cc/2EMV-JNC8].

[121] *Facebook*, *supra* note 8.

[122] *See* First Amended Complaint, *supra* note 83, at 17–18.

[123] *See id.*

[124] *See id.* at 2, 43.

[125] *See U.S. Judge Rejects Facebook Request to Dismiss FTC Antitrust Lawsuit*, *supra* note 95.

maintain its dominance.[126] The court determined that these claims were not pursuable because the policies had been abandoned in 2018 and Facebook's most recent enforcement of the policy was even older.[127] Additionally, the District Court credited Facebook's argument that it had no antitrust duty to allow anyone to use its proprietary technology.[128]

Interestingly, neither the FTC nor Facebook raised the issue that Facebook is a multi-sided market, due to Facebook having multiple customers types (e.g., advertisers, third-party developers, and consumers).[129] If the court had agreed that Facebook is a multi-sided market, then the FTC's burden to show anticompetitive conduct could have been further complicated by a need to show evidence that Facebook harmed the competitive process in the multi-sided market as a whole.[130] Although, since the issue of a multi-sided market was not raised in the *FTC v. Facebook* case, it is not addressed at length in this paper.

Regardless, since Facebook's alleged conditional dealing is not at issue, and since the court will likely find Facebook's pre-approved acquisitions to not be anticompetitive, no further claims of anticompetitive conduct would remain against Facebook, and the FTC would have not satisfied the second prong of Section 2 under the Sherman Act.

Accordingly, the District Court will likely determine that Facebook has not violated Section 2 of the Sherman Act, while still allowing for new techniques of measuring market power that could have a widespread impact on enforcement of antitrust laws in the digital age.

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[126] *Id*.

[127] *Id*.

[128] *See* Mem. in Support of Facebook, Inc.'s Mot. to Dismiss FTC's Compl., *supra* note 57, at 4; *see also* Fed. Trade Comm'n v. Facebook, Inc., 581 F. Supp. 3d 34, 52 (D.D.C 2022).

[129] *See* Complaint for Injunctive and Other Equitable Relief, *supra* note 38; *see also* Mem. in Support of Facebook, Inc.'s Mot. to Dismiss FTC's Compl., *supra* note 57; *see also* First Amended Complaint, *supra* note 83; *see also* Mem. in Support of Facebook, Inc.'s Mot. to Dismiss the FTC's Am. Compl., *supra* note 86.

[130] Ohio v. Am. Express Co., 585 U.S. 529, 547 (explaining how "the plaintiffs' argument about merchant fees wrongly focuses on only one side of the two-sided credit-card market").

IV. IMPACT

A. Accessibility of Cloud-Based Services

Cloud-based services, despite being available to consumers for free or at little cost, face significant antitrust risks. Cloud-based services provide information technology as a service over the Internet or dedicated network with delivery on demand.[131] APIs enable software components to communicate with each other using requests and responses to interoperate, where at least one of the software components can be a cloud-based service.[132] Cloud-based services range from full applications and development platforms, to servers, storage, and virtual desktops.[133] Some of the numerous benefits of cloud-based services include: cost, speed, scalability, performance, and security.[134]

Cloud-based services are rapidly developing technologies, and such rapid technological change often leads to dynamic changes within existing markets or the development of new markets.[135] In the new or dynamically changing markets, firms can compete through innovation for temporary market dominance.[136] However, in the cycle of innovation and competition, that temporary market dominance is often displaced by the next wave of product advancements.[137] Measuring such dominance can be particularly difficult when the cloud-based service is a free service, as was discussed above with respect to *Facebook v. FTC*.[138] However, if the D.C. Circuit Court adopts the FTC's proposed measurements for market power of free services (e.g., via time spent, MAU, and/or

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[131] *What is Cloud Computing?*, GOOGLE CLOUD, https://cloud.google.com/learn/what-is-cloud-computing (last visited Jan. 28, 2024) [https://perma.cc/R8Z8-CLWU].

[132] *What is an API?*, *supra* note 33.

[133] *Id.*

[134] *What is Cloud Computing?*, MICROSOFT AZURE, https://azure.microsoft.com/en-us/resources/cloud-computing-dictionary/what-is-cloud-computing (last visited Oct. 7, 2023) (describing how cloud computing services can eliminate the capital expense of buying hardware and software for on-site computing, improve flexibility for running computations, increase/reduce computing power, storage, and bandwidth, allow for the management of data by dedicated off-site teams at data centers, allow for regular upgrading of hardware/software components, enable data to be regularly backed up, and protect data from potential threats) [https://perma.cc/2DAR-YRHV].

[135] *See* United States v. Microsoft Corp., 253 F.3d 34, 49 (D.C. Cir. 2001).

[136] *See id*.

[137] *See id.*

[138] *See Facebook Files Motions to Dismiss Lawsuits Brought by FTC, State Attorneys General*, *supra* note 47.

DAU), then cloud-based services could be subject to increased antitrust scrutiny using the FTC's newly-proposed measurements.[139] Easing the process for proving market power would lower the burden for a plaintiff (e.g., the FTC) to establish the existence of illegal monopolies and therefore enforce antitrust violations (e.g., under the Sherman Act).

i. Software as a Service (SaaS)

Some examples of cloud-based services which would be subject to the new market power measurements discussed earlier include software as a service (SaaS) technologies.[140] SaaS technology is a way of delivering applications over the Internet—as a service, instead of installing and maintaining software on a local device, which could require complex software and hardware management.[141] SaaS technologies are already facing antitrust scrutiny in instances outside of the *Facebook v. FTC* case.[142] SaaS technologies often have APIs which allow programmers to interface their own software components with the SaaS technologies.[143] Therefore, as large SaaS technologies continue to grow in their respective markets, it may be beneficial for them to be mindful that Facebook is facing scrutiny from the FTC for allegedly anticompetitive conduct, such as conditional dealing[144] and strategic acquisitions.[145]

Additionally, monopolies for software technology are competitively sought-after, in the form of patents.[146] For example, in 2022, the vast majority (63.5%) of

[139] *Id.*

[140] *See What is SaaS?*, SALESFORCE, https://www.salesforce.com/in/saas/ (last visited Oct. 7, 2023) [https://perma.cc/7WL3-XDFV].

[141] *See id.*

[142] *See* Press Release, Fed. Trade Comm'n, *supra* note 5; *see* Press Release, U.S. Dept. of Just., *supra* note 4.

[143] *See Shopify API reference docs*, SHOPIFY, https://shopify.dev/docs/api (last visited Oct. 7, 2023) [https://perma.cc/GJX9-SLYR]; *Slack API*, SLACK, https://api.slack.com/ (last visited Oct. 7, 2023) [https://perma.cc/EUJ8-MLEK]; *Google APIs Explorer*, GOOGLE, https://developers.google.com/apis-explorer (last visited Oct. 7, 2023) [https://perma.cc/46YT-CTMR].

[144] *See* First Amended Complaint, *supra* note 83, at 2, 4, 5, 26, 43, 77.

[145] *See, e.g., id.* at 2, 4, 21–26, 77.

[146] Raymond Millien, *Software-Related U.S. Patent Grants in 2022 Remained Steady While Chinese Software Patents Rose 8%*, IPWATCHDOG (March 28, 2023), https://ipwatchdog.com/2023/03/28/software-related-u-s-patent-grants-2022-remained-steady-chinese-software-patents-rose-8/ [https://perma.cc/Q2S4-GULK].

utility patents issued in the United States were software-related.[147] With a growing trend to pursue patent protection for software inventions, SaaS companies should be mindful of anticompetitive conduct that can stem from owning patents, such as patent misuse and/or unlawful patent pooling. SaaS companies should also be mindful of similar anticompetitive conduct for other forms of intellectual property (e.g., copyrights for software code[148]).

A patentee engages in patent misuse when the patentee imposes conditions on a licensee that exceed the scope of the patent right.[149] For example, an entity commits patent misuse when it attempts to license a patent for longer than the patent's life .[150] Per se patent misuse can also occur via tying. Tying can be seen when a licensee has market power and conditions a license to the patent on the purchase of a separate unpatented product. Such tying essentially extends the scope of the patent to wrongfully include the unpatented product.[151] In *Facebook*, the FTC contended Facebook imposed conditions on entities using its proprietary technology and barred them from competing with Facebook or its rivals.[152] Therefore, a court analyzing per se misuse may assess whether a company, such as Facebook, tied use of its platform to other services, including its own or non-competitors' services, rather than allowing free choice in the market. If such anticompetitive conduct is ongoing or imminent, equitable remedies including injunctions or divestitures may be available to prevent harm and restore market competition. However, these remedies were not applicable in *FTC v. Facebook* because *Facebook* implemented procompetitive policies that eliminated the threat of ongoing or imminent conditional dealing.[153]

Section 271(d) of the Patent Act provides a safe haven from allegations of patent misuse if a patent holder does not have market power in the relevant market

[147] *See id*.

[148] *See* 17 U.S.C. § 101 (the Copyright Act includes protection for computer programs, defined as "a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result.").

[149] *See* Princo v. Int'l Trade Comm'n, 616 F.3d 1318, 1327–40 (Fed. Cir. 2010).

[150] Kimble v. Marvel Ent., LLC, 576 U.S. 446, 453–55 (2015) (describing how royalty patents continued a patent monopoly beyond a patent period, contrary to patent law's policy of establishing a "post-expiration… public domain" in which every person can make free use of a formerly patented product).

[151] *See* Morton Salt Co. v. G.S. Suppiger Co., 314 U.S. 488, 493–94 (1942).

[152] *See* First Amended Complaint, *supra* note 83, at 4–5.

[153] 15 U.S.C. § 53(b); *see also* AMG Cap. Mgmt. v. Fed. Trade Comm'n, 593 U.S. 67, 75–76 (2021); Fed. Trade Comm'n v. Credit Bureau Ctr., 937 F.3d 764, 774 (7th Cir. 2019) ("Section 13(b) serves a… forward-facing role: enjoining ongoing and imminent future violations."); Fed. Trade Comm'n v. Evans Prod. Co., 775 F.2d 1084, 1087 (9th Cir. 1985).

for the patented product.[154] However, if the patented product is a software service, it can be difficult to measure whether the patent holder has market power.[155] Accordingly, if courts adopt the FTC's new guidelines for defining a relevant market, such an adoption could impact the scope of statutory protections provided against allegations of patent misuse under Section 271(d).[156]

Patent pooling is an arrangement where patent holders in a common technology or market commit their patents to a single holder who then licenses the patents out to the original patentees and occasionally, outsiders.[157] Patent pooling can be a concern for SaaS technology when multiple software patents from different entities are pooled together. This concern can be seen in anticompetitive conduct including fixing prices and/or foreclosing competition from technologies outside of the patent pool (e.g., by forcing licensees of a patent in the pool to license "unwanted" patents as well).[158] Generally, it is acceptable to license the patents together in a pool if they are "blocking" patents, in which a first patent is needed to practice the technology of a second patent without infringing.[159] It is also generally acceptable to license "essential" patents in a pool because they are needed to satisfy a given standard (e.g., MPEP, DVD, etc.).[160] However, in other situations, licensing the patents together in a pool is generally considered to be anticompetitive. An example of this is "substitute" patents, where technology covered by a first patent is substitutable with technology covered by a second patent (e.g., each patent performs a version of the same thing).[161] Patent pooling may become increasingly prominent with respect to SaaS tools in light of President Biden's recent Executive Order directing the development of standards for aspects of new software technologies.[162]

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[154] 35 U.S.C. § 271(d).

[155] *See* Fed. Trade Comm'n v. Facebook, Inc., 560 F. Supp. 3d 1, 20 (D.D.C. 2021).

[156] 35 U.S.C. § 271(d).

[157] Erik Hovenkamp & Herbert Hovenkamp, *Patent Pools and Related Technology Sharing*, PENN CAREY L.: LEGAL SCHOLARSHIP REPOSITORY, Apr. 2017, at 1.

[158] U.S. DEP'T OF JUST. & FED. TRADE. COMM'N., ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY, § 5.5 (rev. 2017).

[159] Letter from Joel I. Klein, Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, to Garrard R. Beeney, Partner, Sullivan & Cromwell (Dec. 16, 1998) (3C DVD Business Review Letter).

[160] *Id*.

[161] Hovenkamp, *supra* note 157, at 2.

[162] Exec. Order 14110, 88 Fed. Reg. 75191 (Oct. 30, 2023) (directing the development of industry standards for safe, secure, and trustworthy AI systems, for testing, for authenticating content and tracking its provenance, for labeling synthetic content, for detecting synthetic content, for protecting personally identifiable information, etc.).

ii. Artificial Intelligence as a Service (AIaaS)

Artificial intelligence as a service (AIaaS) is a developing cloud-based service which may be impacted by the D.C. District Court's ultimate ruling in *FTC v. Facebook* . The FTC has already noted that new forms of AI raise competition concerns, including key players in adjacent markets being able to use unfair methods of competition to gain control over new AI markets.[163] Simply, there is legitimate concern about AI enabling the formation of a derivative monopoly from an existing monopoly.[164]

Key players in "Big Tech" are already investing heavily into new forms of cloud-based AI services, which may potentially be subject to antitrust scrutiny in the coming years. For example, Facebook is investing in large language models (LLMs) trained on its own infrastructure.[165] Given Facebook's purported market power in PSNs, and the data it collects from that market (e.g., user data), it would seem that training a LLM on that abundance of data could seemingly enhance its purported monopoly.[166] For example, LLMs can generate outputs based on prompts after being trained on large data sets.[167] If Facebook has the most daily/monthly users of any other service in its market[168], then it follows that Facebook may have one of the best (e.g., most accurate) LLMs for generating content based on user data.

Still, retaining an accurate model for generating outputs may not constitute an illegal monopoly. For example, under current intellectual property laws, AI-generated content is neither patentable nor copyrightable, thereby precluding

[163] Staff in the Bureau of Competition & Off. of Tech., *Generative AI Raises Competition Concerns*, FED. TRADE COMM'N (June 29, 2023), https://www.ftc.gov/policy/advocacy-research/tech-at-ftc/2023/06/generative-ai-raises-competition-concerns [https://perma.cc/2TV7-7VLM].

[164] *See id*.

[165] Deepa Seetharaman, *Meta Is Developing a New, More Powerful AI System as Technology Race Escalates*, THE WALL ST. J., Sept. 10, 2023, https://www.wsj.com/tech/ai/meta-is-developing-a-new-more-powerful-ai-system-as-technology-race-escalates-decf9451?mod=hp_lead_pos6 [https://perma.cc/S8NS-UDAQ].

[166] *See, e.g.*, First Amended Complaint, *supra* note 83, at 2, 9, 15–17.

[167] *See* Christina Huang, Janet Fries, and Devin Stein, *Keeping Pace With IP Law As It Evolves On Generative AI*, LAW360, Aug. 22, 2023, https://www.law360.com/articles/1712188/keeping-pace-with-ip-law-as-it-evolves-on-generative-ai [https://perma.cc/ATE3-7VX9].

[168] *See ,e.g.*, First Amended Complaint, *supra* note 83, at 63–68.

proprietary protection for outputs from LLMs.[169] Nevertheless, an effective LLM could still provide a product that is vastly preferred by consumers, and could lead to market power, i.e., under the FTC's proposed market-power measurements (e.g., MAU, DAU), while also potentially barring entry by other competitors in a relevant market for which the LLM is being used.[170] While many LLMs also use APIs to interoperate with software services, avoiding anticompetitive conduct regarding the use of the APIs (or at least avoiding significant anticompetitive effects with respect to procompetitive benefits[171]) could be critical to avoiding allegations of an illegal monopoly, regardless of whether the LLM leads to a monopoly in an AI-derivative market of PSN.[172]

Other large tech companies, such as Google and Oracle, are also investing heavily into new forms of cloud-based artificial intelligence services, which may draw antitrust scrutiny.[173][174] Similar to the above analysis with respect to Facebook, Google is the subject of an antitrust case regarding Google Search. Google could seemingly use the data it gathers from Google Search to train a cloud-based AI model that is vastly preferred by consumers, and could lead to market power, i.e., under the FTC's proposed market-power measurements (e.g., MAU, DAU, time spent), while also potentially barring entry to other competitors in the relevant market for which the AI model is being used.[175] Though, again, avoiding allegations of anticompetitive conduct, such as by refusing to deal with all competitors[176] (e.g., as opposed to refuse to deal with certain entities, after previously dealing with them) or by not engaging in conditional dealing,[177]

[169] *See* Huang et al., *supra* note 167.

[170] *See, e.g.*, First Amended Complaint, *supra* note 83, at 63–68.

[171] *See* United States v. Microsoft Corp., 253 F.3d 34, 84–86 (D.C. Cir. 2001) (discussing allegations of illegal monopolization being analyzed under the rule of reason, which weighs anticompetitive and procompetitive effects).

[172] *See* Fed. Trade Comm'n v. Facebook, Inc., 581 F. Supp. 3d 34, 40 (D.D.C. 2022).

[173] Miles Kruppa & Deepa Seetharaman, *Sergey Brin Is Back in the Trenches at Google*, THE WALL ST. J. (July 21, 2023), https://www.wsj.com/articles/sergey-brin-google-ai-gemini-1b5aa41e [https://perma.cc/34DG-DQ43].

[174] Jordan Novet, *Oracle Comes Up Short on Revenue but Touts AI Cloud Contracts*, CNBC (Sept. 11, 2023), https://www.cnbc.com/2023/09/11/oracle-orcl-q1-earnings-report-2024.html [https://perma.cc/TQ5X-L67P].

[175] *See, e.g.*, First Amended Complaint, *supra* note 83, at 63–68.

[176] *See* AREEDA & HOVENKAMP, *supra* note 79; *see also* Verizon Commc'ns, 540 U.S. 398, 408 (2004) (a monopolist has "the right to refuse to deal with other firms," which includes the right to "refus[e] to cooperate with rivals.").

[177] *See* Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 601 (1985).

regardless of whether the AI model leads to a monopoly in an AI-derivative market of online searching, could be critical for avoiding antitrust scrutiny.[178]

B. The Data Aggregation Race

The DOJ's Antitrust Division and the FTC have recently sought public input regarding data aggregation, acknowledging that current merger guidelines do not address data aggregation in detail.[179] Data aggregation is any process in which information is gathered and expressed in a collective or summary form, for data processing purposes, such as statistical analysis.[180] Significantly, "data aggregation is an enormous, multi-billion-dollar industry."[181]

As discussed above, data can be useful for training models, including AI models, to perform software-related services. Therefore, companies, especially those that may be under scrutiny for allegedly having dominant market power, should be aware of how their use of data can be potentially anticompetitive.

As a matter of transparency and ethical data usage, most companies provide disclosure or notices as to what data they collect and how it is used through their privacy policies.[182] For example, Facebook discloses that they collect information about how people use their products, including the types of content they view or engage with (e.g., posts, videos, etc.); the features they use (e.g., cameras); the actions they take; the people or accounts they interact with; and the time, frequency, and duration of users' activities.[183] Third-party applications can also

[178] Fed. Trade Comm'n v. Facebook, Inc., 581 F. Supp. 3d 34, 40 (D.D.C. 2022).

[179] *See* Press Release, U.S. Dep't of Just., Justice Department and Federal Trade Commission Seek to Strengthen Enforcement Against Illegal Mergers (Jan. 18, 2022), https://www.justice.gov/opa/pr/justice-department-and-federal-trade-commission-seek-strengthen-enforcement-against-illegal [https://perma.cc/XR2T-BW7V].

[180] *See* Assemb. B. 176, Cal. Leg., 2015–16 Reg. Sess. (Cal. 2015); *see also* Assemb. B. 1726, Cal Leg., 2015–2016 Reg. Sess. (Cal. 2015).

[181] *See* JAY STANLEY & BARRY STEINDART, BIGGER MONSTER, WEAKER CHAINS: THE GROWTH OF AN AMERICAN SURVEILLANCE SOCIETY 7 (ACLU Technology and Liberty Program, Jan. 2023).

[182] *See* Thorin Klosowski, *Here's What You're Actually Agreeing To When You Accept a Privacy Policy*, THE N.Y. TIMES, Apr. 14, 2023, https://www.nytimes.com/wirecutter/blog/what-are-privacy-policies/ [https://perma.cc/XDT5-AC8K].

[183] *See Data Policy*, FACEBOOK, Jan. 04, 2022, https://www.facebook.com/about/privacy/update/printable [https://perma.cc/BJY5-7EJW].

provide users' information that they gathered to Facebook, via an API.[184] As software technology continues to develop, it is important to recognize the value that this aggregation of data can have on competition, such as being able to recognize users' intents[185] and/or preferences better than competitors.[186] Generally, access to more data than a competitor in a given market can drive expansion in the market over the competitor which can then drive access to even more data, creating a cycle of monopolistic expansion.[187]

Other companies also provide users with privacy policies that provide similar indications of the extent of data that they collect and how the data is used. For example, Google collects data on how, when, and where their services are used, o impact how services are operated, improved, developed, and/or personalized.[188] Amazon also discloses on their website that data is collected both when it is provided by users and automatically during user interaction with the "website, [Amazon's] products, and services."[189] Amazon provides clarity on how this aggregation of data is then used, via their privacy notice, which provides, in part, that Amazon utilizes users' "personal information to operate, provide, develop, and improve the products and services that [they] offer [their] customers. These purposes include… [p]rovid[ing], troubleshoot[ing], and improv[ing] Amazon Services. . . ."[190]

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[184] *See id*.

[185] *See* Andy Rosenbaum et al.*, Using Large Language Models (LLMs) to Synthesize Training Data*, AMAZON SCIENCE, https://www.amazon.science/blog/using-large-language-models-llms-to-synthesize-training-data (Jan. 20, 2023) (discussing how models are trained to recognize the intent of user-input, such as intent behind speech, text, etc.) [https://perma.cc/69TF-J7JK].

[186] *See* Bernard Marr, *How To Understand Your Customers and Their Needs With the Right Data*, FORBES, Feb. 3, 2022, https://www.forbes.com/sites/bernardmarr/2022/02/03/how-to-understand-your-customers-and-their-needs-with-the-right-data/?sh=a707f4a2f683 (discussing how data can be used to analyze consumer trends and preferences) [https://perma.cc/RS2L-PXA3].

[187] *See id.; see also* Rosenbaum, *supra* note 185.

[188] *See Privacy Policy*, GOOGLE, https://policies.google.com/privacy?hl=en-US (last visited Oct. 7, 2023) [https://perma.cc/C823-PAMV].

[189] *How Amazon Collects Your Personal Information*, AMAZON, https://www.amazon.com/gp/help/customer/display.html?nodeId=GSXETHUPY4UM7CRD (last visited Oct. 7, 2023) [https://perma.cc/2ZFX-MYDD].

[190] *Privacy Notice*, AMAZON, https://www.amazon.com/gp/help/customer/display.html?nodeId=GX7NJQ4ZB8MHFRNJ (last visited Oct. 7, 2023) [https://perma.cc/M9ZG-X45R].

Amazon also collects data from third-party sites, such as by scraping the internet for prices of certain products and then modifying the storefront functionality based on the prices found (e.g., choosing to display an alluring "Buy Now" button or instead providing a less appealing "See All Buying Options" link).[191] This practice of aggregating data, and more particularly, modifying storefront functionality to make competitor's products less appealing for purchase (e.g., by displaying the "See All Buying Options" link) on the Amazon Marketplace, when the competitor's products are priced lower than Amazon's Products, is part of the FTC's claims of anticompetitive conduct against Amazon being raised in the recent *FTC v. Amazon* case.[192] This claim arises out of the interoperability of Amazon's back-end services with third-party merchant sites to compare product pricing for allegedly implementing anticompetitive functionality, providing an example of how the use of data collected from interoperating cloud-based services can be subject to antitrust scrutiny.[193]

If market dominance by entities is to be measured by time spent, MAU, and/or DAU, it follows that such entities with alleged market dominance may have more data collected from users (e.g., due to more time spent on the services by users, more monthly visits by users, and/or more daily visit by users than other services in the market). Therefore, to avoid potential antitrust scrutiny, it may be pertinent for such entities to reduce the time spent on services by users, MAU, and/or DAU by imposing restrictions on how long users can stay on a service; how many times a user can access a service in a day, month, etc.; or other potential limitations to control the metrics being used to establish alleged market dominance. However, such a remedial action may be undesirable for businesses, because revenue (e.g., from advertisements) may be directly proportional to time spent on services by the users, MAU, and/or DAU.[194]

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[191] The Daily, *Amazon's Most Beloved Features May Turn Out to Be Illegal,* THE N.Y. TIMES, at 3:45-4:45 (Oct. 2, 2023), https://www.nytimes.com/2023/10/02/podcasts/the-daily/amazon-ftc.html [https://perma.cc/KL4E-HGSE].

[192] Complaint, at 30–31, 84, FTC Trade Comm'n v. Amazon.com, Inc., 71 F.Supp.3d 1158 (W.D. Wash. 2023) (No. 2:23-cv-01495).

[193] *See, e.g., id*. at 47, 54, 61, 83.

[194] *Earn Money with In-Stream Ads*, META, https://www.facebook.com/business/learn/lessons/earn-money-in-stream-ads-videos (last visited Nov. 16, 2023) [https://perma.cc/6YVT-ZDUW].

Accordingly, entities can obtain market dominance instead, but be mindful that their actions are not unduly anticompetitive.[195] For example, entities can avoid conditional deals that would otherwise limit the choices of consumers (e.g., users) in the relevant market, like how Facebook was able to avoid scrutiny by terminating policies including conditional deals.[196] Entities can also avoid creating unnecessary barriers to entry.[197] For instance, barriers to entry can be reduced by ensuring that technology works seamlessly with other commonly used software and technologies. When engaged in licensing of intellectual property (e.g., software patents or copyrights), entities can use license terms that are fair, reasonable, and non-discriminatory (FRAND).[198] Additional types of procompetitive activities could include participating in open-source projects, sharing research findings, or any other activities which may positively impact the growth of the relevant market.

C. Investments in Cloud Infrastructure

Infrastructure investment required for cloud-based services can be a potential barrier to entry for competition. In mid-2018, the cloud market was predicted to grow at over 10% annually over the next eight years – a growth rate which has been realized, if not exceeded, over the last few years.[199] Faculty at the University of Pennsylvania and Harvard have conducted research showing data center energy usage grew 25% a year on average between 2015 and 2021, even before generative AI and LLM use skyrocketed in late 2022.[200] As global spending on cloud infrastructure increases by an estimated 13% year-over-year through 2026, further

[195] United States v. Microsoft Corp., 253 F.3d 34, 84–86 (D.C. Cir. 2001) (discussing allegations of illegal monopolization being analyzed under the rule of reason, which weighs anticompetitive and procompetitive effects).

[196] *See U.S. Judge Rejects Facebook Request to Dismiss FTC Antitrust Lawsuit*, *supra* note 95.

[197] *See Microsoft Corp.*, 253 F.3d at 82–83.

[198] *See, e.g.*, Herbert Hovenkamp, *FRAND and Antitrust*, 105 CORNELL L. REV. 1683, 1743 (2020).

[199] DIANA L. MOSS, THE CLOUD TECHNOLOGY MARKET 4 (Am. Antitrust Inst., 2023).

[200] Ines Ferré, *Energy Consumption 'to Dramatically Increase' Because of AI*, YAHOO FINANCE (Sept. 30, 2023), https://finance.yahoo.com/news/energy-consumption-to-dramatically-increase-because-of-ai-114541309.html [https://perma.cc/W55E-T838].

growth is expected[201] As the cloud market continues to grow, it is important to consider which players in the market are benefitting from that growth.

In 2023, officials announced that Google would invest $1.2 billion in Nebraska infrastructure to develop data centers for cloud computing.[202] That $1.2 billion investment builds upon an additional $2.2 billion Google already invested in Nebraska cloud infrastructure.[203] Nebraska is just one example of a location where large tech companies like Google are investing in cloud infrastructure.[204] Nevertheless, this shows just how much money (measured in billions of dollars) is being invested to grow the cloud computing market.[205] In January 2023, Amazon bought nearly 400 acres in Ohio for $116.6 million. Plans indicate this land will be used for enormous data center complexes.[206]

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[201] *See, e.g., Annual Spending on Cloud IT Infrastructure Worldwide from 2013 to 2026*, STATISTA,

https://www.statista.com/statistics/503686/worldwide-cloud-it-infrastructure-market-spending/ (last visited Oct. 7, 2023) [https://perma.cc/FBF8-ELM6].

[202] Cindy Gonzalez, *Google Confirms Lincoln's $600M Data Center, Touts This Year's $1.2B Spend on NE Infrastructure*, NEB. EXAMINER (Aug. 22, 2023), https://nebraskaexaminer.com/2023/08/22/google-confirms-lincolns-600m-data-center-touts-this-years-1-2b-spend-on-ne-infrastructure/ [https://perma.cc/5C4Q-HW7Y].

[203] *See id.*

[204] Miranda Spivack, *More Data in the Cloud Means More Centers on the Ground to Move it*, THE N.Y. TIMES (June 27, 2023) https://www.nytimes.com/2023/06/27/business/data-centers-internet-infrastructure-development.html (discussing how investments in data centers are becoming increasingly prevalent at locations across the U.S., "from Virginia to Oregon") [https://perma.cc/9KG8-PPGZ]; Rich Miller, *Facebook Plans $800 Million Data Center in Illinois*, DATA CENTER FRONTIER (June 30, 2020), https://www.datacenterfrontier.com/cloud/article/11428908/facebook-plans-800-million-data-center-in-illinois (discussing that Facebook has invested $800 million in Illinois data centers to grow its cloud infrastructure) [https://perma.cc/YL5V-29FZ]; Rich Miller, *Facebook Keeps Building with $800 Million Data Center in Tennessee*, DATA CENTER FRONTIER (Aug. 12, 2020), https://www.datacenterfrontier.com/hyperscale/article/11428809/facebook-keeps-building-with-800-million-data-center-in-tennessee (discussing that Facebook has invested $800 million in Tennessee data centers to grow its cloud infrastructure) [https://perma.cc/FXA4-WBT6].

[205] Mark Williams, *Google to Add Two More Data Centers in Central Ohio*, THE COLUMBUS DISPATCH (May 3, 2023), https://www.dispatch.com/story/business/information-technology/2023/05/03/new-google-data-centers-bolsters-central-ohio-as-a-hub/70169685007/ (discussing that Google has also invested more than $2 billion in Ohio to build data centers to power AI innovations and tools such as Search, Gmail, and Maps) [https://perma.cc/8U8Z-59YU].

[206] *See id.*

The "cloud" refers to a network of remote servers hosted on the internet to store, manage, and process data, rather than a local server or a personal computer.[207] These remote servers are often located in data centers, which are facilities used to house computer systems and related components.[208] As such, data centers are integral to the functioning of cloud-based services, as they provide the infrastructure necessary for cloud computing.

As data centers are integral to cloud-based services, and billions of dollars are poured into data center development, it begs the question: how accessible is entry into the cloud-based services market?

Barriers to entry in a market can be a sign of anticompetitive behavior.[209] Courts have found those who bring allegations of Section 2 violations must show new competitors face "high market barriers to entry" and current competitors lack the ability to expand their output to challenge a monopolist's high prices.[210] Barriers to entry "must be capable of constraining the normal operation of the market to the extent that the problem is unlikely to be self-correcting."[211] Common entry barriers include patents or other legal licenses, control of essential or superior resources, entrenched buyer preferences, high capital entry costs, and economies of scale.[212] Accordingly, it is possible that control of data centers could constitute control of essential resources, and/or that the cost of developing such data centers could be a high capital entry cost, which could be a barrier to entry. Nevertheless, control over data centers would not necessarily constrain the normal operation of the market unless access to the data centers was based on anticompetitive decisions, such as exclusive dealing that prevented competition in a substantial share of the market.[213]

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[207] *What is the Cloud?*, MICROSOFT AZURE, https://azure.microsoft.com/en-us/resources/cloud-computing-dictionary/what-is-the-cloud (last visited Oct. 7, 2023) [https://perma.cc/MZ33-PHMX].

[208] *What is a Data Center?*, AMAZON WEB SERVICES, https://aws.amazon.com/what-is/data-center/ (last visited Oct. 7, 2023) [https://perma.cc/YS2C-MYGG].

[209] *See* Image Tech. Servs. v. Eastman Kodak Co., 125 F.3d 1195, 1207–08 (9th Cir. 1997).

[210] *See* Rebel Oil Co., Inc. v. Atlantic Richfield Co., 51 F.3d 1421, 1439 (9th Cir. 1995).

[211] *Id.* (citing United States v. Syufy Enter., 903 F.2d 659, 663 (9th Cir. 1990)).

[212] *See id.*

[213] *See* United States v. Microsoft Corp., 253 F.3d 34, 69 (D.C. Cir. 2001) (citing Tampa Electric Co. v. Nashville Coal Co., 365 U.S. 320, 327 (1961) ("In practical application, even though a contract is found to be an exclusive-dealing arrangement, it does not violate the section unless the court believes it probable that performance of the contract will foreclose competition in a substantial share of the line of commerce affected.")).

CONCLUSION

The FTC will likely lose in its challenge against Facebook, but could establish precedent vital to enforcers' future antitrust challenges. The history of the *Facebook* case provides teachings for how entities providing cloud-based services designed for interoperability can ensure their services stay competitive and adhere to antitrust laws. Specifically, while firms could avoid acquiring market power, possessing market power alone is not anticompetitive. Therefore, even with market power, firms can stay competitive by: avoiding conditional deals that would otherwise limit the choices of consumers (e.g., users) in the relevant market, avoiding creating unnecessary barriers to entry, ensuring that technology works with other commonly used software and technologies, licensing technology on FRAND terms, participating in open-source projects, sharing research findings, or otherwise positively impacting the growth of the relevant market in which the firms are competing. The rapid evolution of cloud technology is prompting governments to revamp enforcement strategies, but diligent developers of cloud-based services can still successfully navigate antitrust scrutiny to stay competitive.