

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

VOX MEDIA, LLC,

Plaintiff,

-against-

GOOGLE LLC and ALPHABET INC.,

Defendants.

Case No. 1:26-cv-00325

**COMPLAINT FOR DAMAGES AND
INJUNCTIVE RELIEF**

JURY TRIAL DEMANDED

TABLE OF CONTENTS

INTRODUCTION	1
PARTIES	7
JURISDICTION AND VENUE	8
FACTUAL ALLEGATIONS	10
I. BACKGROUND	10
A. Vox Media’s Sale of Online Display Advertising To Fund Quality Content.....	10
B. The Relevant Ad Tech Products	13
C. Google’s Manipulation of Real-Time Bidding Depresses Vox Media’s Prices...	18
1. Dynamic Allocation	19
2. “Last Look” Insider Trading.....	21
3. Unified Auction & Minimum Bid to Win.....	23
4. Other Forms of Insider Trading	24
II. RELEVANT MARKETS AND GOOGLE’S MARKET POWER IN EACH.....	25
A. General Publisher Ad Servers for Open Display Inventory.....	25
1. Market Definition.....	25
2. Monopoly Power.....	28
B. Ad Exchanges for Open Display Inventory	30
1. Market Definition.....	30
2. Monopoly Power.....	32
III. UNLAWFUL CONDUCT.....	35
A. Google Monopolizes Publisher Ad Serving	35
1. Google Ties DFP to AdX (2008 – Present)	36
2. Google Ad Manager (2018 – Present)	39
3. Google Threatens to Eliminate Header Bidding (2014 – Present)	41

B. Google Abuses DFP to Monopolize the Market for Ad Exchanges.....	41
1. Last Look (2014 – 2019).....	43
2. Enhanced Dynamic Allocation (2014 – Present).....	47
3. Projects Bernanke & Alchemist (2013 – Present)	51
4. Dynamic Revenue Share (2014 – Present)	56
5. Exchange Bidding (2018 – Present)	60
6. Minimum Bid to Win (2018 – Present)	62
7. Project Poirot (2018 – Present)	64
8. Google Redacts Datasets (2018 – Present)	65
9. Google Eliminates Price Floors and Imposes Unified Pricing Rules (2018 – Present)	67
IV. ANTICOMPETITIVE EFFECTS.....	72
A. Publisher Ad Servers.....	72
B. Ad Exchanges	75
CLAIMS	77
I. COUNT 1 — MONOPOLIZATION OF THE MARKET FOR GENERAL PUBLISHER AD SERVERS FOR OPEN DISPLAY INVENTORY IN VIOLATION OF THE SHERMAN ACT, 15 U.S.C. § 2	77
II. COUNT 2 — MONOPOLIZATION OF THE MARKET FOR AD EXCHANGES FOR OPEN DISPLAY INVENTORY IN VIOLATION OF THE SHERMAN ACT, 15 U.S.C. § 2	78
III. COUNT 3 — ATTEMPTED MONOPOLIZATION OF THE MARKET FOR AD EXCHANGES FOR OPEN DISPLAY INVENTORY IN VIOLATION OF THE SHERMAN ACT, 15 U.S.C. § 2	79
IV. COUNT 4 — UNLAWFUL TYING IN VIOLATION OF THE SHERMAN ACT, 15 U.S.C. § 1.....	80
V. COUNT 5 — UNLAWFUL DECEPTIVE ACTS OR PRACTICES IN VIOLATION OF NEW YORK GENERAL BUSINESS LAW §§ 349-350	80
VI. COUNT 6 — COMMON-LAW FRAUD	86

VII. COUNT 7 — UNJUST ENRICHMENT.....	88
PRAYER FOR RELIEF	89
DEMAND FOR JURY TRIAL	90

INTRODUCTION

1. In January 2023, the United States and seventeen States sued Google for, among other things, monopolization of the publisher ad server market and monopolization of the ad exchange market in violation of Section 2 of the Sherman Act, and illegal tying in violation of both Section 1 and Section 2 of that Act.

2. In April 2025, after a three-week trial that featured live testimony from thirty-nine witnesses, deposition testimony from another twenty, and hundreds of exhibits, Judge Leonie Brinkema of United States District Court for the Eastern District of Virginia issued a 115-page opinion holding that Google had “willfully engaged in a series of anticompetitive acts to acquire and maintain monopoly power in the publisher ad server and ad exchange markets for open web advertising,” and unlawfully tied “its publisher ad server and ad exchange together.” Judge Brinkema specifically held that “this exclusionary conduct substantially harmed Google’s publisher customers.”

3. Plaintiff Vox Media, LLC (“Vox Media”) is one of those publisher customers. It brings this antitrust action for compensation and for injunctive relief to restore competition in the monopolized markets and protect the production of trusted, essential content millions of Americans rely on.

4. Vox Media is the leading modern media company with a highly regarded portfolio of engaging digital and print editorial brands, top talent, and premium podcasts, renowned for their wide range of coverage across politics, technology, food, fashion, sports, and culture, among other topics. Founded in 2011, Vox Media quickly built its prestigious portfolio featuring some of the most influential and respected brands, including: Vox, *New York Magazine*, The Verge, SB Nation, The Dodo, Popsugar, The Cut, Eater, Vulture, The Strategist, Intelligencer, Grub Street, Curbed, and the Vox Media Podcast Network, which features dozens

of successful shows, including *Stay Tuned* with Preet Bharara, *Pivot* with Kara Swisher and Scott Galloway, and Esther Perel's *Where Should We Begin?*. Vox Media has been widely recognized for its top-tier content, with its articles, editorial brands, podcasts, long- and short-form videos and talent receiving major awards in journalism and entertainment, including the Pulitzer Prize, numerous National Magazine Awards, Emmy Awards, James Beard Journalism Awards, Ambie Awards, iHeart Podcast Awards, and Gracie Awards. Vox Media has also been named one of Fast Company's Best Workplaces for Innovators, and its podcast network was named Adweek's Hottest Podcast Network of the Year, in addition to numerous other awards for its workplace and creativity that align with its commitment to building a better media industry.

5. Audience numbers reflect the broad appeal and quality of Vox Media's content. Vox Media's print and digital properties, distribution channels, and mobile apps serve more than 100 million monthly users with 325 million social media followers. From these users, Vox Media gets billions of video views, pageviews, and podcast downloads. Providing such a broad range of high-quality news, information, and related content to that large and varied audience requires enormous investment in human talent, technology, and infrastructure.

6. To that end, Vox Media relies on digital advertising for well over half of its revenue and funds its vast production of digital content primarily through digital advertising shown to consumers on its digital properties, distribution channels, and mobile apps. Vox Media's ad sales thus provide critical income and revenue for its provision of engaging online content consumed by users in this country and abroad.

7. Like many other publishers, Vox Media uses sophisticated technology across its properties to auction off ad space to advertisers who want to display an ad on a particular page to the types of users visiting that page. Because ad space is bought and sold electronically, Vox

Media can and does sell tens of millions of ad slots (called “impressions”) generated by millions of visitors *every day* across its properties, bringing ad inventory to the market that — without Vox Media — advertisers could not access.

8. Digital advertising is a \$200 billion business — a nine-fold increase since 2009. Yet, Vox Media has not shared equally with Google in this massive digital advertising market despite Vox Media’s relative size, proven value to audiences, and industry prestige. Instead, Google and its parent Alphabet unlawfully acquired and continue to maintain monopolies for the advertising technology (“ad tech”) tools that publishers and advertisers use to buy and sell online ad space that ultimately support their continued ability to provide their valued content to wide audiences. Google uses this ad tech monopoly to control how publishers sell their ad slots, forcing publishers to sell large shares of that ad space through Google at depressed prices. The result is dramatically less revenue for publishers and Google’s ad tech rivals, while Google reaps exorbitant monopoly profits.

9. Virtually all major U.S. digital publishers, and many thousands of smaller publishers, use a “publisher ad server” to manage their inventory of impressions. Among other core functions, the ad server identifies when an impression is available for sale, solicits bids for the impression, and ultimately chooses which bid is the winner. Google’s publisher ad server, DoubleClick for Publishers (“DFP”), controls more than 90% of the publisher-ad-server market.

10. When an ad server calls for bids to fill an impression, it usually does not contact advertisers directly. Rather, the ad server solicits bids from “ad exchanges,” which organize real-time auctions among participating buyers. Each exchange returns a bid from its winning buyer, and the ad server then chooses the winning exchange. Google’s exchange, DoubleClick Ad Exchange (“AdX”), controls more than 60-70% of the exchange market. Most of Google’s

exchange rivals have market shares in the single digits. And, critically, the huge number of buyers in Google's exchange are unique. Google largely prohibits them from participating in any other exchange.

11. With control over the largest ad exchange and the largest ad server — both of which Google acquired rather than developed — Google has carried out a sophisticated, anticompetitive, and deceptive scheme for well over a decade.

12. First, Google unlawfully tied its publisher ad server (DFP) to its ad exchanges (AdX). The U.S. publishing industry, including Vox Media, cannot practically reach millions of advertisers without using DFP. Predictably, Google's tie of DFP to AdX has forced publishers to use DFP, which has eliminated virtually every remaining publisher-ad-serving rival.

13. Second, with control over ad serving, Google stifles competition among exchanges and drives down prices for publishers' inventory of ad space available for purchase. Google's market manipulations have evolved over the years, but the goal has remained the same: Google makes it difficult for publishers to solicit competitive bids from rival exchanges, while at the same time rigging AdX's bids to its own advantage by trading on inside information from DFP. That means Google acquires more inventory at artificially depressed prices, resulting in less revenue overall for Vox Media and other publishers.

14. Google's scheme has been wildly profitable. For example, in 2022 alone, Google made \$30 billion from manipulating auctions for ad space across the Internet.

15. This stark imbalance should not occur in a healthy, competitive market. For that reason, and now for years, antitrust enforcers in the United States and throughout the world have recognized that Google's unlawful monopolization must be stopped:

a. The U.K. Competition and Markets Authority identified Google's misconduct and the harm to publishers. *See Online Platforms and Digital Advertising Market Study Final Report* at 20, 60, 394-406 (July 1, 2020) ("Google's strong position at each level of the intermediation value chain creates clear conflicts of interest, as it has the ability and incentive to exploit its position on both sides of a transaction to favour its own sources of supply and demand.").

b. The Australian Competition and Consumer Commission identified Google's misconduct and the harm to publishers, and proposed various measures to remedy some of Google's practices. *See Digital Advertising Services Inquiry Final Report* at 5-15 (Sept. 2021) (concluding that "Google has engaged in self-preferencing conduct," "Google's integration creates conflicts of interest which can harm advertisers and publishers," and "[n]ew rules should apply to Google's supply of ad tech services to address its dominance and problematic conduct"); *see also Digital Platform Services Inquiry Final Report* at § 3.4 (Mar. 2025).

c. The U.S. House Antitrust Subcommittee studied the conduct of Google and other platforms, collecting 1.3 million documents and holding seven hearings. The House Subcommittee found that Google is harming "the free and diverse press" and endangering "political and economic liberty." *Final Report and Recommendations, Investigation of Competition in Digital Markets*, at 57-77, 206-11 (Apr. 15, 2021).

d. In December 2020, the State of Texas and a bipartisan group of sixteen other State Attorneys General filed suit against Google in the Eastern District of Texas alleging monopolization and misrepresentations similar to those described in this

Complaint. *See Texas v. Google LLC*, No. 20-cv-00957 (E.D. Tex. Complaint filed Dec. 16, 2020, Fourth Amended Complaint filed May 5, 2023).

e. Between 2022 and 2023, the leadership of both the House and Senate Antitrust Subcommittees have introduced bills that, among other things, would break Google's unlawfully acquired dominance over several advertising technology markets and provide additional resources to antitrust enforcers to address Google's conduct.

f. In June 2023, the European Commission filed a case against Google alleging unlawful abuse of monopoly power in digital advertising and seeking a breakup of the components of that business as a legal remedy. In a statement, the head of the Commission explained why divestiture of Google's ad tech tools is necessary: "As long as these conflicts of interest remain in place, Google could continue such self-preferencing practices or it could engage in new ones. This market is a highly technical market. It is very dynamic. The detection of these behaviours can therefore be very challenging. We have seen this play out concretely: Each time a practice was detected by the industry, Google subtly modified its behaviour so as to make it more difficult to detect, but with the same objectives, with the same effects. A remedy requiring Google just to change its behaviour would allow Google to continue doing what it has been doing so far, just under a different disguise." Remarks by Executive Vice President Margrethe Vestager on the Statement of Objections sent to Google over practices in the online advertising technology industry (June 14, 2023). Even more recently, the European Commission fined Google nearly €3 billion and ordered such a remedy, directing Google to "bring these self-preferencing practices to an end" and "implement measures to cease its inherent conflicts of interest." European Commission – Press Release, "Commission

fines Google €2.95 billion over abusive practices in online advertising technology” (Sept. 4, 2025).

16. Further, as discussed above, the United States and seventeen additional State Attorneys General won a suit against Google in the Eastern District of Virginia for unlawful monopolization of the same advertising technology markets at issue in this Complaint. *See United States v. Google LLC*, 778 F. Supp. 3d 797 (E.D. Va. Apr. 17, 2025) (“EDVA Op.”). This Complaint alleges the same relevant product markets (a publisher ad server market and an ad exchange market), in the same geographies (worldwide), and much of the same anticompetitive conduct (an ad server/ad exchange tie and other schemes to enforce Google’s ad server and ad exchange monopolies) that the Eastern District of Virginia has already held to be anticompetitive. All that remains in the Eastern District of Virginia case is to decide the appropriate remedy, including a potential breakup of Google’s digital advertising monopolies. A recent ruling by this Court gave preclusive effect to those factual and legal findings in the Eastern District of Virginia opinion. *See* Opinion and Order, ECF 1219, *In Re: Google Digital Advertising Antitrust Litigation*, 21-md-3010-PKC (S.D.N.Y. October 27, 2025).

PARTIES

17. Plaintiff Vox Media, LLC (“Vox Media”) is a limited liability company organized and existing under the laws of the State of Delaware, with its corporate headquarters at 1701 Rhode Island Ave NW, Washington, DC 20036. Vox Media maintains its largest office at 85 Broad St., New York, NY 10004, in this District. Vox Media publishes more than 11 digital and print titles, including Vox (explanatory news and opinions), *New York Magazine* (life, culture, criticism, entertainment, politics, and style), *The Verge* (technology, gaming and business news, opinion and product reviews), *SB Nation* (sports), *Eater* (food and dining recommendations), *The Cut* (fashion, beauty, and culture), and more.

18. Defendant Google LLC (“Google”) is a limited liability company organized and existing under the laws of the State of Delaware, with its principal place of business in Mountain View, California. Google is among other things an online advertising company providing Internet-related products, including various online advertising technologies, directly and through subsidiaries and business units it owns and controls. Google maintains an office in this District at 111 8th Avenue, New York, New York 10011.

19. Defendant Alphabet Inc. (“Alphabet”) is a publicly traded company incorporated and existing under the laws of the State of Delaware and headquartered in Mountain View, California. Alphabet was created as a holding company for Google in late 2015, and Alphabet controls Google’s day-to-day operations. Virtually all of Alphabet’s revenue comes from Google. Since December 2019, Alphabet and Google have had the same Chief Executive Officer. As a result of Alphabet’s operational control, Google is Alphabet’s alter ego. This Complaint refers to Google and Alphabet together as “Google.”

JURISDICTION AND VENUE

20. This action arises under Sections 1 and 2 of the Sherman Act, 15 U.S.C. §§ 1–2, and Sections 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15 and 26. The Court has subject-matter jurisdiction under 15 U.S.C. § 4, and 28 U.S.C. §§ 1331 and 1337(a).

21. In addition to pleading violations of federal antitrust law, Vox Media alleges violations of state law and seeks relief thereunder. All claims under federal and state law are based upon a common nucleus of operative facts, and the entire action commenced by this Complaint constitutes a single case that ordinarily would be tried in one judicial proceeding. This Court therefore has jurisdiction over the state-law claims under 28 U.S.C. § 1337(a). Exercising jurisdiction over the state-law claims will avoid unnecessary duplication of actions and furthers the interests of judicial economy, convenience, and fairness.

22. The Court may exercise personal jurisdiction over Google because Google does extensive business within this District — including by providing the monopolized products in this District to Vox Media — and this action arises out of Google’s contacts within this District.

23. Venue is proper in this District under Sections 4 and 12 of the Clayton Act, 15 U.S.C. §§ 15 and 22, and 28 U.S.C. § 1331, because a substantial part of the events or omissions giving rise to Vox Media’s claims occurred in this District — including by providing the monopolized products in this District to Vox Media — and because Google transacts business and is found within and resides in this District.

24. Vox Media’s business and media operations are primarily located in this District; Vox Media’s largest office by number of employees is in this District; and the vast majority of Vox Media’s advertising personnel work in this District. Vox Media’s contacts with Google take place in this District and Vox Media meets regularly with Google employees at Google’s various offices in this District. Google has admitted that its conduct occurred in this District; and non-party witnesses, including major digital publishers, advertisers, and many of Google’s rivals, are or were located in this District. Indeed, in support of a transfer of the Department of Justice’s lawsuit to this District, Google averred that “Google’s second-largest corporate presence is in New York (where much of its ad tech business is located)” and that many of its witnesses are based in New York. *See* Mem. at 21, *United States v. Google LLC*, No. 1:23-cv-00108 (E.D. Va. Feb. 17, 2023), ECF 44-2.

25. Google’s conduct affects interstate trade and commerce.

26. Google’s conduct has a direct, substantial, and reasonably foreseeable effect on commerce within the United States, which in turn injures Vox Media’s domestic and foreign revenue.

FACTUAL ALLEGATIONS

I. BACKGROUND

A. Vox Media's Sale of Online Display Advertising To Fund Quality Content

27. Vox Media was founded in 2011, though many of its brands' legacies extend back much further. For example, *New York Magazine* entered circulation in 1968 — nearly six decades ago.

28. Since then, Vox Media has grown to serve hundreds of millions of consumers with award-winning content spanning a host of topics with broad appeal. These include in-depth journalism on consequential issues of national importance (Vox), publications focused on culture and politics (*New York Magazine* and *Intelligencer*), sports (SB Nation), technology (The Verge), dining (Eater), animals (The Dodo), entertainment and pop culture (Vulture), and more. Vox Media's accolades include a Pulitzer Prize for one of its writers in the field of Criticism for its discourse on literature, multiple James Beard Journalism Awards for food journalism, and frequent recognition by the National Magazine Awards. To provide this vast array of high-quality content, Vox Media employs approximately 600 individuals focused on publishing and content creation and distribution, including writers, reporters, and editors. For years, Vox Media has offered engaging, affordable content by selling advertisements alongside its articles and features.

29. Digital publishers like Vox Media present what are known as "display ads" to users — image-, text-, and video-based ads that appear alongside the publisher's content on their owned and operated websites. Those ads come in different formats, including banner ads along the top and bottom of a page; native ads that present in-text advertising content; and video ads that play in a video player on the reader's screen. Vox Media can display unique ads on each page and for each reader that visits its creators' sites.

30. Specifically, publishers like Vox Media sell their ad space to advertisers on an “impression-by-impression” basis. As users load one of Vox Media’s webpages, Vox Media can fill each ad slot (called an “impression”) with an ad responsive to that user’s behavior, intent, or interests. So, different users viewing the same page serviced by Vox Media can see different ads that are relevant to them. That makes publishers’ digital ad space particularly valuable to many advertisers, who can target specific types of customers, and to users, who are more likely to see advertisements in line with their interests. Additionally, with the ability to change ads depending on the consumer, there are many more opportunities for publishers to generate advertising revenue.

31. Generally speaking, publishers sell impressions through two sales channels: The “direct” and “indirect” channels. Direct sales are company-to-company, pre-negotiated deals between publishers and advertisers, including advertising campaigns sold by the publisher’s internal sales staff. Among other deal types, direct sales transactions occur in the following ways:

- a. Insertion order: Publishers and advertisers negotiate contracts specifying the start and end date of a campaign, the number of impressions to be sold, targeting criteria, and other terms. The publisher then creates an “insertion order” and configures the campaign in the ad server. The publisher and advertiser handle billing separately via an invoice. Usually, for a direct campaign served via insertion order, the volume of impressions is guaranteed. In other words, the publisher promises the advertiser that it will display a guaranteed volume of impressions.

- b. Programmatic Guaranteed and Preferred Deals: As with insertion orders, publishers and advertisers negotiate the terms of an ad campaign directly. But rather than create an insertion order, the publisher and advertiser execute the transaction through software from ad tech providers. Google offers different transaction types for direct deals via its ad tech software, including Programmatic Guaranteed (“PG”) and Preferred Deals (“PD”). The main difference between PG and PD deals is that only the former guarantees the advertiser an impression volume. Google charges Vox Media a revenue share of 5% for PG and 5-10% for PD.
- c. Private Marketplaces: Other ad tech providers, besides Google, permit publishers to transact direct deals in a similar manner to PG deals, PD deals, or both. Often, other ad tech providers call these deals “Private Marketplaces” or “PMPs.”

32. Publishers, including Vox Media, typically consider transactions via insertion order, PG, PD, and PMP to be interchangeable forms of direct deals.

33. Advertisers value direct sales, and typically pay a premium rate for them, because they permit greater flexibility and customization in how advertisers can present their ads. For example, they can purchase a set of impressions over a particular time frame, targeted to a particular audience, and appearing in a particular section of a publisher’s website. A direct-sales campaign is also valuable to “brand” advertisers — *i.e.*, those that want to target ads to a representative cross-section of a publication’s readers. When a user arrives at one of Vox Media’s sites and the generated impression would meet a direct deal’s criteria, Vox Media can load the direct advertisement instantaneously pursuant to the direct deal.

34. Indirect sales, by contrast, do not involve any prior negotiation between publisher and advertiser. Instead, publishers auction off their ad space in real time through electronic trading venues called “ad exchanges.” When a user arrives at one of Vox Media’s sites, Vox Media solicits bids from exchanges, which contact their participating advertisers and solicit their offers for the impression. At the conclusion of this process, Vox Media’s ad server chooses the winning ad and loads it onto the webpage. Auctioning off impression “inventory” happens in milliseconds, and the overall process of serving and loading the ad takes a few seconds or less.

35. The process of selling ad inventory — whether directly or indirectly — is repeated for *each* consumer, *each* page the consumer visits, and *each* impression generated on Vox Media’s website. Further, every page has multiple ad slots where publishers can serve an ad. Each day, Vox Media has millions of users visit its web, app, and mobile properties and sells, and therefore fills , tens of millions of impressions.

36. While Vox Media sells 50% of its ad inventory on its digital properties through the indirect sales channel, the remaining 50%, consisting of direct-deal impressions, accounts for more than 80–90% of Vox Media’s digital advertising revenue on those properties. Likewise, both in the past and now, any revenue generated from subscriptions and other non-advertising sources could not, alone, fund the volume and breadth of Vox Media’s high-quality content. Vox Media needs advertising revenue — and today, digital advertising revenue specifically — to sustain its operations.

B. The Relevant Ad Tech Products

37. To facilitate the sale of these impressions, all within milliseconds, publishers and advertisers use a series of specialized and distinct products.

38. Certain publishers sell their advertising inventory using “ad networks,” which pool inventory across the Internet for sale to advertisers affiliated with the network. Ad

networks offer relatively limited functionality and do not permit publishers to sell impressions to advertisers outside the network. Vox Media separately operates an ad network called Concert, which connects a curated selection of high-quality publishers and advertisers to facilitate ad sales.

39. Other publishers — including Vox Media — who either have a larger supply of ad inventory, desire greater control over their inventory, or both, do not primarily rely on ad networks. Instead, they must license several different ad tech tools with the goal of exercising greater control over their inventory and reaching a broader base of advertisers.

40. The core tool for large publishers is the “publisher ad server,” which organizes and sells their ad inventory both directly and indirectly across all digital platforms: desktop, mobile web, and mobile applications.

41. When a reader visits a webpage through any of these channels, the publisher ad server determines whether and how to fill the advertising inventory on the visited webpage. Depending on how a publisher like Vox Media has prioritized different demand sources in the ad server (and depending on the technological limitations and requirements of the ad server), the ad server may first seek to place a direct deal. If no direct deal ad is available to serve, the ad server then solicits bids from — or “calls” — “ad exchanges” (also called supply-side platforms or “SSPs”) to organize auctions for each impression. Alternatively, the ad server might bypass or defer the direct sales channel and begin by calling ad exchanges.

42. Once called, each exchange requests participating “demand-side platforms” (“DSPs”) to place bids on behalf of their advertisers. A DSP is automated ad-buying software that advertisers use to buy display ad inventory. The DSPs, based on advertiser demand and any available targeting information, then enter bids for the impression. To determine those bids,

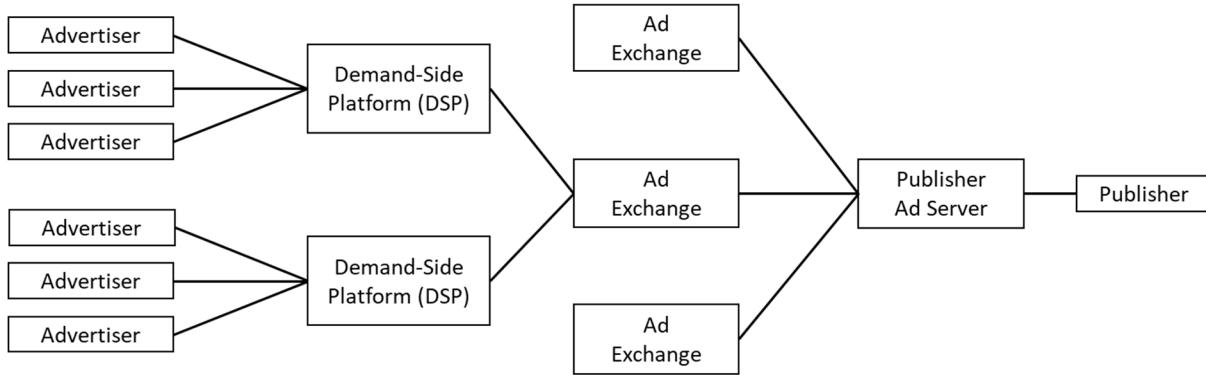
DSPs can run an internal auction among their participating advertisers. In that way, the DSPs run an auction before placing a bid in the exchange auction.

43. Each ad exchange collects the available bids, picks a winning DSP, and submits the winning bid to the publisher ad server. While exchanges return bids for individual impressions, each bid is priced in terms of its “Cost-Per-Mille” (“CPM”), or the price for one thousand impressions. So, for example, when an exchange wants to bid \$0.01 for an individual impression, the bid is communicated to the ad server as \$10 CPM.

44. Finally, the ad server decides which exchange’s bid to accept. If the ad server rejects all bids, it can place a “house ad” — *e.g.*, an ad from Vox Media advertising its own brand — to fill the impression.

45. At the conclusion of this auction process, publishers make money when ads are loaded on their pages rather than when readers click on them. That is because advertisers typically pay for impressions — *i.e.*, the right to display their ads on a publisher’s webpage. Each ad tech product then exacts a fee for its services, often on a per-impression basis. For example, the ad server charges the publisher monthly depending on the volume of impressions served. Exchanges, meanwhile, charge the publisher a percentage (called a “revenue share” or “take rate”) of each impression’s sale price. To account for that revenue share, exchanges submit bids to the ad server on a “net” basis, *i.e.*, the winning bid submitted by its DSPs less the revenue share. Finally, DSPs charge their advertisers a fee (often a revenue share) for their services — including identifying relevant readers and then assessing whether the ads shown were effective.

46. The below graphic depicts the relevant ad tech products, with buyers (*i.e.*, advertisers) on the left and sellers (*i.e.*, publishers) on the right.

Figure 1: Ad Tech Products

47. Google participates in the markets for all of these ad tech products, and the Eastern District of Virginia has already found Google to be a monopolist in two of the markets. Google thus controls the buying and selling of display ad inventory across most of the Internet.

48. As the Eastern District of Virginia held, Google's publisher ad server — “DoubleClick for Publishers” (“DFP”) — controls a “dominant” share of more than 90% of the market for publisher ad serving worldwide. EDVA Op., 778 F. Supp. 3d at 850. Google offers both a free version of DFP and a paid version for publishers like Vox Media that require certain additional features to monetize their inventory.

49. The Eastern District of Virginia also held that Google's exchange — “DoubleClick Ad Exchange” (“AdX”) — “has monopoly power” through its control of more than 60% of the exchange market. EDVA Op., 778 F. Supp. 3d at 855.

50. Google also offers two dominant DSPs — “Google Ads” (the dominant tool for smaller advertisers) and “Display & Video 360” (“DV360”) (the dominant tool for larger advertisers).

51. For years, Vox Media has licensed DFP as its only publisher ad server for all display advertising across all its publications. Likewise, AdX has been and continues to be Vox Media's primary exchange by a wide margin. Google Ads and DV360 also remain among the

most important DSPs. Vox Media relies on the revenue it earns through Google's AdX to operate its businesses and fund the creation of its premium content, and Vox Media's employees dedicate considerable time and resources to procuring, implementing, configuring, and optimizing their instances of DFP and AdX, both through those tools and through direct communication with Google.

52. Google acquired, rather than built, its ad tech dominance. Google purchased the leading ad server and ad exchange when it acquired DoubleClick (DFP) in 2008. Google then acquired rival AdMeld — which publishers had started to use to introduce competition among exchanges — in 2011. And Google has acquired several other ad tech services over the years — including the leading ad serving technology for small mobile app developers (AdMob) and the forerunner of Google's data management platform (Google Analytics).

53. With control over each ad tech product market, Google exacts fees from publishers and advertisers alike — for the sale of *each* impression. By default, Google charges publishers both a fee to serve the impressions using its ad server and another second fee (typically 20% of the sale price) to manage the auction on its AdX exchange. On the advertiser side, Google charges a revenue share for its DSP service and then other fees for data analytics. Google also increases its buy-side fees if an advertiser uses Google Ads as its DSP but the transaction clears through a non-Google exchange. Google will increase Google Ads' take rate from 15% up to 32% (or more) when buying through an exchange competitor. As a result, and as discussed below, very little Google Ads spending occurs on any exchange other than AdX.

54. Because Google charges revenue shares, it exacts an exchange fee from publishers only if AdX wins the right to intermediate the transaction. Likewise, its DSP exacts a fee only if it ultimately provides an ad to fill the impression. If Google's exchange and DSP

don't fill the impression, Google makes nothing in ad exchange commissions. While ordinarily that would provide Google with an incentive to return the most competitive bid possible, Google can abuse its monopoly positions to return depressed bids yet win *more* publisher inventory. The result is more money for Google.

C. Google's Manipulation of Real-Time Bidding Depresses Vox Media's Prices

55. Because publishers sell high volumes of impressions in milliseconds, it is infeasible to hold multi-round auctions where bidders can respond to each other's bids until the highest bid prevails. Rather, a publisher generally has only one chance to assess and accept bids.

56. To encourage competition among advertisers, publishers solicit bids in "real time" — *i.e.*, publishers want as many advertisers as possible to bid immediately when an impression becomes available. The faster the bids are submitted, the faster the publisher can load the page for the reader. And, the more bids the publisher receives, the higher the price it can get for its ad space. Advertisers bid higher when there are more competitors bidding more quickly for the same inventory.

57. Google represents that its publisher ad server, as a tool for publishers, maximizes the yield for publishers' inventory. But Google operates under a conflict of interest. With its control over publisher ad serving, Google controls how publishers solicit and evaluate real-time bids for their inventory. Meanwhile, by operating the dominant exchange and dominant buy-side software, Google has massive scale and is the most powerful clearinghouse and buyer of that inventory. The mechanics of Google's conduct have evolved over time, but the result has remained the same: Google manipulates the process of real-time bidding to exclude rival exchanges and underpay for publisher inventory. A fair, real-time auction, by contrast, would result in more publisher revenue, which would allow for greater investment in the creation of more content that consumers value.

58. DFP thwarts competition for Vox Media’s inventory and preferentially routes that inventory to AdX, even though a fair, real-time auction would produce higher publisher revenue, allowing for greater investment, the result of which would be more and better content for Vox Media’s over 100 million monthly consumers, which in turn would result in more ad impressions for sale.

1. Dynamic Allocation

59. Shortly after acquiring DoubleClick in 2008, Google used it to introduce “Dynamic Allocation.” Dynamic Allocation was the decision rule governing how AdX competed against non-Google exchanges. First, Dynamic Allocation required publishers to estimate an historical average CPM (a “static bid”) for each non-Google exchange it used. Second, once an impression became available, DFP sent the highest static bid as a “price floor” to Google’s exchange, AdX, and called AdX to run a real-time auction and submit a bid. AdX would win the impression if its real-time bid was equal to or higher (even one penny higher) than the highest static bid. Once AdX beat the highest static price, no other exchange was permitted to compete for the impression. Thus, with DFP, AdX was the only exchange that could bid in real time for each impression; AdX bid dynamically, while all other exchanges bid statically. The Eastern District of Virginia referred to this Google-imposed rule as “First Look.” EDVA Op., 778 F. Supp. 3d at 826 (“In addition to giving AdX the opportunity to bid before other exchanges, DFP permitted AdX to bid in real-time, whereas other exchanges were required to make static bids that were set in advance and could not account for contemporaneous information.”).

60. Dynamic Allocation caused substantial financial harm to publishers, including Vox Media. Because Vox Media could call exchanges only one at a time, it could not compare offers between exchanges. That left Vox Media to accept AdX’s bid even though, had another

exchange been permitted to bid, it could have offered more for the impression. Further, even though AdX was bidding in real time, it was competing against only the highest *static* bid. A static bid is just a publisher’s estimate of an exchange’s historical, average bidding price, so it systematically underestimates the exchange’s willingness to pay for valuable impressions. Real-time bids, meanwhile, respond to the value of the particular impression and thus are higher than static bids for valuable inventory. As a result, competing against static bids only, AdX could buy Vox Media’s most valuable inventory at one penny above average prices.

61. How DFP operated in practice, with Dynamic Allocation, directly contradicted the representations Google made to induce publishers to use its ad server. For example, Google contractually agreed with Vox Media that it would not use Vox Media’s data “for purposes of informing bids” placed by Google through its exchange. Google had assured publishers that DFP would serve their interests and that Dynamic Allocation, in particular, would “maximize yield.” Similarly, Google told publishers that Dynamic Allocation was a “risk-free way to get the highest yield for every non-guaranteed impression they sell through their direct and indirect sales channels.”¹ As Google knew and discussed internally, however, Dynamic Allocation depressed publishers’ revenue. When exchanges competed head-to-head, Google found that publishers’ clearing prices increased by an average of 40%. Google therefore knew that its ad server, while supposedly a tool to maximize publishers’ revenue, in fact operated against publishers’ interests.

¹ DoubleClick by Google, “Profiting from Non-Guaranteed Advertising: The Value of Dynamic Allocation & Auction Pricing for Online Publishers” (2010), https://static.googleusercontent.com/media/www.google.com/en//adexchange/DC_Ad_Exchange_WP_100713.pdf.

2. “Last Look” Insider Trading

62. To work around some of the inadequacies in Google’s ad server, publishers eventually developed a solution called “client-side header bidding.” Before contacting DFP, publishers could configure an auction in the reader’s browser, which allowed multiple exchanges to bid in real time for each impression. Because header bidding occurred before the publisher asked DFP to fill the impression, publishers could collect header bidding’s per-impression bids, compare them, and then reflect the highest header bid in a corresponding “line item” in DFP — a publisher-configured component of the ad server that identifies pricing information and other details about ad inventory — so that the header bid could compete against AdX. Using header bidding was the first way that publishers could compare real-time offers from several exchanges at once.

63. In the years since, some companies have introduced “server-side” header bidding, where exchanges compete in real time on a third party’s servers rather than on the user’s browser. For example, Amazon offers a server-side header-bidding JavaScript code (a “wrapper”) called “Amazon TAM.” Similarly, Vox Media integrates with exchanges using a server-side header-bidding product called Prebid Server. The results of a server-side header-bidding auction are represented as line items in the ad server in the same way as bids from client-side header bidding.²

64. The results of client-side header bidding were favorable for publishers and consumers: Increased competition for publisher ad inventory led to higher prices and more investment in online content. Vox Media has observed that it receives higher bids when multiple

² Google’s server-side header bidding product, originally called “Exchange Bidding” and now called “Open Bidding,” does not use line items to compete on price. Instead, Open Bidding and Exchange Bidding are integrated directly with AdX.

exchanges compete through header bidding. Even Google recognized that “pitting multiple exchanges against one another fostered price competition, which was good for [publishers’] business.”

65. But client-side header bidding did not restore competition for publishers’ inventory, because Google “avoid[ed] direct head-to-head competition between AdX and other exchanges.” EDVA Op., 778 F. Supp. 3d at 828. Rather than submit its bid at the same time as its rivals, AdX instead cheated off its rivals before setting its own bid. Applying Dynamic Allocation, DFP sent the winning bid from client-side header bidding to AdX as a price floor (just as it had previously sent the highest static bid as a price floor). AdX then won the impression if it could equal the winning header-bidding bid or exceed it by as little as a penny. Because the header-bidding auction was conducted first, AdX’s access to rivals’ inside information was called “Last Look.” EDVA Op., 778 F. Supp. 3d at 829.

66. “Being able to view its competitors’ bids provided Google and its advertising customers with a significant informational advantage that significantly disadvantaged other competitors in the ad exchange space.” EDVA Op., 778 F. Supp. 3d at 829. At the time (and until fall 2019), AdX ran a second-price auction: The bid it submitted to the ad server equaled the second-highest available bid in the exchange. Without Last Look, AdX would have lost an impression whenever its second-highest bid was lower than the header bid. But, with Last Look, AdX could replace the second-highest AdX bid with the header bid as its price floor and still win the impression. When AdX stole impressions via Last Look, there was *no* revenue gain to publishers. That is because, if AdX had not won, publishers would have sold the impression to another exchange at the same price.

67. “Last Look also harmed publishers using DFP who were not compensated as much as they would have been for their inventory had Google’s AdX demand been required to compete with third-party exchanges (*i.e.*, non-Google exchanges) on a level playing field.” *Id.* Rather than AdX submitting the highest bid available from its participating DSPs, based on the value of the impression to those DSPs, AdX shaved off the top because it knew the next highest price to beat. For example, if header bidding returned a \$4.00 bid, Google could win the impression for \$4.01 rather than offer the best price (*e.g.*, \$6.00) from its DSPs. By contrast, without access to inside information, Google would have offered the highest possible bid so as to maximize its revenue share and minimize the chance of losing the impression. In short, Google traded on inside information and bought Vox Media’s inventory on the cheap.

3. Unified Auction & Minimum Bid to Win

68. In 2019, Google claimed to give up its Last Look advantage when it changed the DFP auction rules and enforced a so-called “Unified Auction.” As part of the Unified Auction, Google created a functionally identical advantage to Last Look that it now calls “Minimum Bid to Win.”

69. After an auction concludes, DFP tells the “Authorized Buyers” in the Unified Auction — the DSPs participating in AdX (including Google’s DSPs DV360 and Google Ads) and certain other exchanges — what the minimum price to win the impression would have been. This is *not* merely the price at which the impression sold; rather, Google tells the winning bidder the second-highest price that was placed in the auction — *i.e.*, the cheapest price at which the winner could have won the impression. Minimum Bid to Win thus provides functionally the same information as Last Look: The next highest price to beat.

70. The only difference from Last Look is that Google now knows the minimum winning price immediately *after*, rather than *before*, an auction closes. But, at the same time it

enforced the Unified Auction, Google developed a bidding algorithm that used the Minimum Bid to Win from prior auctions to rig bids in hundreds of millions of future, similar auctions. The effect on competition from Last Look and Minimum Bid to Win is therefore the same.

71. Minimum Bid to Win remains in effect to this day, and Vox Media continues to suffer significant financial injury. Google can buy an inflated share of Vox Media’s ad inventory at artificially depressed prices and starve rival exchanges of opportunities to fairly compete.

4. Other Forms of Insider Trading

72. Last Look and Minimum Bid to Win are only two of the many ways that Google exploits its access to rivals’ bid information. As detailed below, Google employs several other tricks to rig its bids. For example, “Dynamic Revenue Share” allowed AdX to adjust its 20% revenue share when manipulating the bidding price alone would not be enough to win impressions by a penny. *See infra* § III.B.4. AdX would then secretly *increase* its take rate in future auctions to exact more revenue from publishers. “This dynamic approach helped AdX advertisers win more auctions, and caused advertisers using third-party exchanges, including those exchanges that participated in header bidding, to win fewer auctions.” EDVA Op., 778 F. Supp. 3d at 829-30. From 2017 to fall 2019, there were two versions of Dynamic Revenue Share (“DRS v.2” and “tDRS”) that operated in basically the same manner.

73. Separately, with “Project Bernanke” (sometimes called “Project Alchemist” starting in fall 2019), Google uses bid-level information from DFP and AdX³ to organize Google Ads advertisers as a buyers’ cartel. *See infra* § III.B.3. In billions of auctions, Google underpays publishers for their inventory but charges Google Ads advertisers as if they are competing in a

³ In 2018, Google rebranded DFP and AdX and now calls them, together, “Google Ad Manager” or “GAM.” As described herein, GAM itself did not change the operation of DFP or AdX, other than contractually to tie them together. *See infra*. Accordingly, this complaint refers to Google’s dominant ad server and dominant ad exchange as DFP and AdX, respectively.

more competitive auction. Google pockets the difference and uses the slush fund to bankroll money-losing bids by AdX in billions of other auctions, so that AdX can beat out rival exchanges. When AdX rigs its bids to beat third-party exchanges, publishers make no more money, because AdX (aided by Last Look and later Minimum Bid to Win) continues to bid at or near the next highest price to beat. Google therefore depresses publisher revenue by hundreds of millions of dollars while, at the same time, increasing its share of the exchange market.

74. Ultimately, however styled, Google's misuse of rival bidding information is the core of its business model. Because Google controls the ad server, it can control when its exchange submits bids for impressions, and what information it has beforehand. Because Google does not compete in real time, it undermines the competitive process that publishers need in order to sell their inventory at competitive prices.

II. RELEVANT MARKETS AND GOOGLE'S MARKET POWER IN EACH

A. General Publisher Ad Servers for Open Display Inventory

1. Market Definition

75. General publisher ad servers for open display inventory worldwide form a relevant antitrust product market. Publisher ad servers are inventory management systems that publishers use to manage their online display ad inventory available on desktops, mobile web, and mobile applications. Among other features, ad servers (1) collect user-identification information, if available; (2) manage direct and indirect sales channels; (3) forecast what inventory will be available to sell; (4) permit a publisher's sales team to input requirements and parameters for the publisher's display ads; (5) allocate inventory among exchanges; (6) generate reports on ad inventory performance; (7) load ads on the publisher's website or mobile app, across a variety of ad formats and types; (8) create invoices for a publisher's direct sales; and (9) manage display ad inventory for both websites and mobile applications.

76. Most publishers use only one ad server to manage their ad inventory across all inventory types. Using different ad servers for different kinds of ad inventory, such as one ad server for desktop inventory and a separate ad server for mobile app inventory (often called “multihoming”), is impracticable. For example, multihoming can create conflicts within a publisher’s inventory. Further, it is too costly to use different ad servers to sell different kinds of inventory, as the publisher would have to manage two independent ad stacks. For these reasons, among others, Vox Media uses only one ad server (Google’s DFP) for online display advertising across all of its publications and ad inventory types.

77. Publisher ad servers also are unique — they are not interchangeable with ad exchanges or ad networks. For example, an exchange cannot route inventory to other exchanges, nor can it load advertisements on the publisher’s webpage and provide reports regarding inventory performance across multiple sources of demand. Nor does an exchange pick the winning bid among all demand sources; only an ad server can serve as the final decider of which ad will fill an impression on the page. An ad network likewise cannot manage and organize multiple demand sources. For an ad-supported publisher like Vox Media, a publisher ad server is the only tool it can use to manage its digital ad inventory.

78. Internally, Google recognizes that the market for ad servers is distinct from markets for other ad tech products. Google calculates its share of the ad-server market without accounting for ad exchanges or ad networks.

79. Google has publicly recognized that publisher ad servers form a distinct market. When Google acquired DoubleClick and its leading ad server, Google represented to the FTC that an ad server was “not [a] direct substitute[]” for an ad network, calling any assertion to the contrary “seriously flawed and utterly divorced from commercial reality.” According to Google,

an increase in the price for DoubleClick's ad server would cause publishers to "switch to other publisher-side ad serving products, such as those" available at the time from "24/7 Real Media [and] Atlas/aQuantive."

80. Building an ad server is not a substitute for licensing an ad server. Building an ad server from scratch requires scale, substantial capital, and deep access to highly sophisticated engineering sources; it is not a viable option for publishers like Vox Media. *EDVA Op.*, 778 F. Supp. 3d at 836-37 ("The 'extremely major investment' required to develop a publisher ad server makes doing so infeasible for companies that do not specialize in enterprise software development."). And even if built, the time, energy, resources, and cost of maintaining and updating an in-house ad server are not practical for publishers like Vox Media.

81. The Eastern District of Virginia also identified a virtually identical market for "publisher ad servers for open-web display advertising." *See EDVA Op.*, 778 F. Supp. 3d at 833-34. The Eastern District of Virginia's relevant product market includes the same products: ad servers that allow publishers to manage web inventory. *See EDVA Op.*, 778 F. Supp. 3d at 835-36 (market includes ad servers that are "capable of performing ad-serving functions for websites"). The Eastern District of Virginia's relevant product market does not include ad servers capable only of serving instream video ads, mobile ads, or social media ads. *See EDVA Op.*, 778 F. Supp. 3d at 836. Nor does it include in-house technology. *EDVA Op.*, 778 F. Supp. 3d at 836-37.

82. The relevant geographic market is global, with the exception of certain regions subject to economic or political sanctions. Ad servers in countries and regions subject to U.S. embargoes like Cuba, Iran, North Korea, Syria, Russia, Crimea, Donetsk, and Luhansk are typically barred from the open web. They can neither compete with other ad servers nor are they

likely to transact a significant quantity of advertising impressions. Ad servers in regions subject to certain illiberal regimes that impose onerous restrictions on the production and distribution of digital content (e.g., China) are also not substitutes. Accordingly, the relevant geographic market is global, with limited exceptions.

83. The Eastern District of Virginia also identified the same relevant geographic market as worldwide with the exception of “countries where the operation of ad tech companies is substantially restricted by government censorship of the Internet (e.g., China) or U.S. economic sanctions (e.g., Iran).” EDVA Op., 778 F. Supp. 3d at 847 & n.26. This Complaint excludes the same countries and regions from the geographic market definition as were excluded from the market identified by the Court in the Eastern District of Virginia.

2. Monopoly Power

84. Google is a monopolist in the relevant publisher-ad-serving market. Google’s DFP today has more than a 90% market share. Google’s market share has nearly doubled since it purchased DoubleClick in 2008. Since then, several ad-serving rivals — including 24/7 Real Media, aQuantive, and ValueClick — have exited the market. There are no meaningful ad-serving competitors left.

85. In 2010, just two years after acquiring DFP, Google internally estimated that its ad server managed 78% of gross spending on display advertising across the top 400 publishers in North America. By 2012, approximately 85% of publishers in the United States licensed Google’s ad server. That number grew to more than 90% by 2015. The Eastern District of Virginia found that Google has been “proven” to possess monopoly power in the publisher ad server market and that Google’s “industry participants perceive DFP to be the ‘dominant’ publisher ad server.” EDVA Op., 778 F. Supp. 3d at 850.

86. Google's monopoly power is confirmed by direct evidence. Google charges a substantially higher ad serving fee than its rivals — at least eight times higher. For video ad serving, specifically, Google charges an ad serving fee eleven times higher than other forms of display advertising, despite offering no different functionality or service.

87. Further, for years, Google has degraded the quality of its ad server with severe limitations despite widespread dissatisfaction among publishers. As discussed below, Google has, *inter alia*, (1) degraded publishers' ability to measure performance among exchanges; (2) limited publishers' ability to set higher prices for their inventory; (3) reduced real-time competition between exchanges; and (4) permitted Google's exchange to return bids based on rivals' bid information. The Eastern District of Virginia specifically identified Google's removal of publishers' ability to set higher price floors as a degradation of service about which "Google was not concerned" because publishers had no credible alternatives to DFP. *See* EDVA Op., 778 F. Supp. 3d at 852.

88. Google's monopoly in publisher ad serving is protected by high barriers to entry. Switching ad servers is extremely costly and resource-intensive. Publishers like Vox Media would need to reconfigure their entire technology stack to account for millions of ad auctions per day across webpages to change ad servers — and there would be a significant risk to revenue if there were any glitch during the transition process. Paired with the potential loss of revenue and integration with other Google products, services, and third-party vendors, switching ad servers is an unrealistic option.

89. Another barrier to entry is that Google has tied its ad server to AdX, which is the dominant exchange in the ad exchange market. Today, publishers cannot access real-time bids from AdX without using DFP. *See infra* § III.A.1. Any ad-serving competitor therefore would

have to enter the ad exchange and ad serving markets simultaneously — and at sufficient scale to convince publishers to forgo AdX. Such simultaneous entry into the exchange and ad serving markets is all but impossible.

90. The Eastern District of Virginia has already found that Google has monopoly power in the ad server market. The Court found that “Google’s publisher ad server DFP has a durable and ‘predominant share of the market’ that is protected by high barriers both to entry and expansion.” EDVA Op., 778 F. Supp. 3d at 850. The Court further found that its conclusion was “reinforced by evidence that Google has acted to degrade DFP’s features without fear that its customers would switch to alternative publisher ad servers.” *Id.*

B. Ad Exchanges for Open Display Inventory

1. Market Definition

91. The market for advertising exchanges for open display inventory is also a relevant antitrust product market. These exchanges are marketplaces that auction publishers’ display inventory (for websites and mobile apps) to advertisers through ad-buying tools (including DSPs) on an impression-by-impression basis.

92. Ad exchanges are not interchangeable with ad networks, which are marketplaces designed for smaller publishers and smaller advertisers. Unlike ad networks, ad exchanges do not bear inventory risk and are designed to integrate with multiple DSPs so that publishers can entertain more bids for their inventory. Further, most large advertisers buy inventory primarily through exchanges rather than ad networks. Reflecting that ad networks are not a substitute for ad exchanges, Vox Media sells almost all of its indirect display inventory to exchanges, not networks.

93. Ad exchanges also are not interchangeable with the direct sales channel. Buying and selling ad inventory directly is costly; a publisher must employ a dedicated sales staff to

manage, sell, and serve online ad campaigns. It would be infeasible for Vox Media to scale up its direct deals to substitute for its indirect deals.

94. Additionally, cost aside, it remains commercially infeasible for a publisher like Vox Media to sell advertising inventory only through direct sales. Vox Media’s supply of impressions can expand or contract depending on traffic — it would be difficult to pre-negotiate the sale of a moving target. Advertisers negotiating direct deals also do not want to appear alongside certain types of content that, while important, are not well suited for certain advertising campaigns. And advertisers ultimately prefer the flexibility of indirect programmatic sales for a portion of their advertising spend in accordance with desired impact.

95. Google itself analyzes the ad exchange market without reference to ad servers, ad networks, DSPs, or direct deals. Specifically, Google measures AdX’s market share by tracking its percentage of overall exchange market revenue and exchange impression volume, *i.e.*, how many impressions AdX intermediates as compared with other exchanges. Meanwhile, Google describes direct sales and ad networks as separate channels with “distinct characteristics.”

96. The Eastern District of Virginia has already identified a virtually identical market for “ad exchanges for open-web display advertising.” *See* EDVA Op., 778 F. Supp. 3d at 837-38. The Eastern District of Virginia held that “[a]d exchanges play a distinct role in the open-web display ad tech stack by connecting publishers using publisher ad servers with advertisers using programmatic buying tools such as demand-side platforms and ad networks.” *Id.* The Court also held that “there is no other ad tech tool that is reasonably interchangeable with ad exchanges.” *Id.*

97. The relevant geographic market is global, with the exception of certain regions subject to economic or political sanctions. Ad exchanges in countries and regions subject to U.S.

embargoes like Cuba, Iran, North Korea, Syria, Russia, Crimea, Donetsk, and Luhansk are typically barred from the open web. They can neither compete with other ad exchanges nor are they likely to transact a significant quantity of advertising impressions. Ad exchanges in regions subject to certain illiberal regimes that impose onerous restrictions on the production and distribution of digital content (e.g., China) are also not substitutes.

98. The Eastern District of Virginia also identified the same relevant geographic market as worldwide with the exception of “countries where the operation of ad tech companies is substantially restricted by government censorship of the Internet (e.g., China) or U.S. economic sanctions (e.g., Iran).” EDVA Op., 778 F. Supp. 3d at 847 & n.26. Accordingly, the relevant geographic market is global, with limited exceptions. This Complaint excludes the same countries and regions from the geographic market definition as did the market identified by the Court in the Eastern District of Virginia.

2. Monopoly Power

99. Google is a monopolist in the relevant ad exchange market. Google’s exchange (AdX) transacts more than 60%, and likely more than 70%, of all display ad inventory sold on ad exchanges. For instance, from October 2018 to October 2019, AdX transacted more than 60% of all display inventory sold through exchanges in the United States. Another market study shows that AdX presides over upwards of 64% of display advertising spending. Confirming these findings, the Eastern District of Virginia found that “from 2018 to 2022, AdX was the exchange for 63% to 71% of the worldwide open-web display transactions among the ad exchanges that produced data for [that] litigation.” EDVA Op., 778 F. Supp. 3d at 855.

100. AdX likewise historically transacted the largest portion (and sometimes the majority) of Vox Media’s *entire* programmatic ad inventory. AdX’s next largest competitors — Rubicon, AppNexus, and Index Exchange — have transacted a much smaller share of display

impressions for most publishers over the relevant time period, including Vox Media. In 2018, Google's exchange transacted \$7.6 billion in gross revenue — more than all other exchanges combined. And many rivals (e.g., Microsoft, Yahoo!) have exited the market.

101. There is also direct evidence of Google's monopoly power in the relevant ad exchange market. AdX is significantly able to underpay for publishers' inventory without losing market share. Google returns depressed prices for Vox Media's inventory— using, for example, Last Look and Project Bernanke — but nonetheless transacts a significant portion of that inventory through its exchange.

102. Additionally, Google charges a substantially higher revenue share than its rivals, and its market share has grown (and rivals' share has not grown) despite rivals *reducing* their revenue shares at times over the last few years. In 2017, for instance, a rival exchange slashed its take rates to 12% or lower. Many other exchanges charge at most a 15% take rate. By contrast, AdX maintains an average take rate of 20% and still is able to increase its market share. “AdX’s durable 20% take rate constitutes direct evidence of monopoly power.” EDVA Op., 778 F. Supp. 3d at 852.

103. Google internally recognized that functioning market forces would be expected to push exchange rates down to 5% or lower, because “20% for just sell-side platform/exchange isn’t likely justified by value.” Yet AdX’s average take rate has not budged. Google therefore can impose substantial, non-transitory price increases without losing (and in fact while increasing) its share of the exchange market.

104. Google’s market power in the exchange market is protected by barriers to entry. As discussed above, Google’s ad exchange is uniquely powerful because it includes all advertisers who also are buying search ad inventory on Google’s monopoly search results pages.

See EDVA Op., 778 F. Supp. 3d at 862-63 (“Google has been able to amass this unparalleled group of mostly small and medium-sized advertisers in large part due to the dominance of Search.”); *see also infra* § III.A.1. Those advertisers are not available through any other exchange. To compete, rival exchanges would have to provide search inventory at a similar scale to Google and then handle the complementary demand for display inventory, which is impossible in the foreseeable future.

105. Google’s anticompetitive conduct has erected additional barriers to entry. Google’s ad server, DFP, insulates AdX from competition as discussed at length below (*see infra* § III.B), meaning that a better ad exchange still would not have the same access to publishers’ inventory as AdX.

106. The Eastern District of Virginia has already found that Google has monopoly power in the ad exchange market. The Court held that “Google’s AdX has long been the dominant exchange for facilitating open-web display advertising.” EDVA Op., 778 F. Supp. 3d at 852. This conclusion was reinforced by direct evidence of market power, namely that AdX has been able to charge “a durable 20% take rate for well over a decade,” *id.*, and that Google has “used its market power in adjacent segments of the ad tech ecosystem to make it more difficult for customers on both sides of the ad exchange market to switch to rival exchanges,” *id.* at 854.

107. The Court’s conclusion that Google possesses market power in the ad exchange market was further reinforced by indirect evidence, namely a market share of up to “71% of the worldwide open-web display transactions among the ad exchanges that produced data for [the] litigation,” and “high barriers to entry and expansion.” *Id.* at 855.

III. UNLAWFUL CONDUCT

A. Google Monopolizes Publisher Ad Serving

108. Publishers program the ad server to serve display ads and auction available ad space. As a result, the publisher ad server is key to monetizing a publisher's webpages.

109. Google's strategy has been to monopolize publisher ad serving so it can control how publishers sell their ad inventory. Google now controls more than 90% of the publisher-ad-serving market. With that control, Google routes publishers' inventory to its own exchange without having to compete against rival exchanges.

110. Google monopolizes publisher ad serving by tying its publisher ad server (DFP), the tied product, to its ad exchange (AdX), the tying product. Today, Google permits publishers to clear transactions for impressions through AdX only if they also use DFP.

111. This tying arrangement coerces Vox Media to continue using DFP as its publisher ad server. It is not in Vox Media's interest to employ an ad server that does not promote competition among exchanges. Competition for inventory leads to higher prices and higher revenues for Vox Media.

112. Nonetheless, Vox Media must accede to the tie and use DFP because AdX — with more than 60% or 70% of the exchange market and currently a clearinghouse for Vox Media's programmatic impressions — is a must-have exchange for Vox Media.

113. With control over publisher ad serving achieved and now entrenched by tying, Google also has maintained its monopoly by eliminating its greatest competitive threat to its ad server: Client-side header bidding. For years, Google worried that publishers would develop client-side header bidding into an alternative to DFP. So, by abusing DFP to route impressions away from header-bidding participants and to AdX, Google ensured that client-side header bidding never could achieve the scale or investment necessary to become a substitute for DFP.

1. Google Ties DFP to AdX (2008 – Present)

114. With the DoubleClick acquisition in 2008, Google acquired the market's leading publisher ad server (DFP) and a nascent ad exchange (AdX). Almost immediately thereafter, Google set the foundation for an illegal tie between the two.

115. *First*, Google leveraged its search monopoly to lock advertiser demand for display inventory into AdX. As Google began selling ad space on its search results pages, Google required advertisers to use a DSP called “AdWords” to purchase Google’s search ad inventory — the largest and most valuable source of search ad inventory available. Further, AdWords usually was an advertiser’s *only* DSP because multihoming was too difficult and costly except for the most sophisticated buyers. To capitalize on its control over advertisers, Google permitted advertisers to purchase publishers’ online display inventory through AdWords, but *only* by bidding through AdX. That confined a substantial percentage of available demand to Google’s exchange and made it a must-have exchange for publishers.

116. The link between AdWords (now called “Google Ads”) and AdX remains today. In 2016, Google started routing Google Ads advertiser demand to non-Google exchanges, but only on a limited and ultimately immaterial basis. Recent evidence from the Eastern District of Virginia confirms that about 90% of Google Ads demand flows exclusively through AdX. *See* Plaintiffs’ Remedies Exhibit (“PRX”) 133A, Robin S. Lee, *Initial Remedies Report* fig. 2 (July 7, 2025), *United States v. Google LLC*, No. 1:23-cv-00108 (E.D. Va.). And, as before, most small- or medium-sized advertisers continue to use only one DSP, which is usually Google Ads. Consequently, millions of small- to medium-sized advertisers now use Google Ads (and no other DSP) to bid on and purchase digital ad space. That demand is available to publishers only if they sell inventory through AdX.

117. Google Ads demand (and therefore AdX) is particularly important for Vox Media. Vox Media does not have an alternative way to access advertising spending from the long tail of small- or medium-sized advertisers who buy mostly, or exclusively, through Google Ads. Smaller advertisers are disproportionately likely to use Google Ads as their DSP. Vox Media cannot forgo the significant revenue it earns from the Google Ads demand available only through AdX. Losing access to that revenue, would materially impair Vox Media's ability to provide high-quality journalism to serve its audiences.

118. Google also has taken steps to lock even large advertisers into AdX. Google makes many of the features in DV360 (for example, the ability to use Chrome browsing history to target ads to readers) unavailable to advertisers if they participate in exchanges other than AdX. As a result, advertisers must move more of their spending into AdX, thereby enhancing its market power. AdX currently intermediates 78% of DV360 advertising spend on Vox Media's websites, which is roughly consistent with historical percentages.

119. *Second*, with much of the available advertiser demand captured in AdX, Google permitted AdX to bid in real time only if a publisher licensed DFP. With a different ad server, AdX would not enter bids in real time. This arrangement made no short-term economic sense for Google because an exchange placing static bids, which are systematically lower than real-time bids, is less likely to win an impression. A lower win rate, in turn, generates less money for the exchange, as an exchange can take its revenue share only if it wins the impression. Google therefore decided to forgo immediate revenue from real-time bids in order to exert control in the publisher-ad-serving market. As the Eastern District of Virginia held, “[b]y restricting AdX’s submission of real-time bids only to DFP, and by not allowing AdX to provide real-time bids to

other publisher ad servers, Google [has] made AdX ineffective at its core function when used by publishers who did not also use DFP.” EDVA Op., 778 F. Supp. 3d at 861.

120. With the largest cross section of advertiser demand captured in AdX, and by offering more valuable, real-time bids only to publishers using DFP, Google forces Vox Media to use DFP as its ad server for each and every auction for its ad inventory. Vox Media cannot afford to forgo the most valuable real-time bids from the largest exchange, even though it does not want to hand over complete control of its inventory to Google.

121. Additionally, Google has confirmed that all demand that ordinarily participates in AdX is *not* available if a publisher uses a different publisher ad server. For example, in 2023, Google announced that Google Ads no longer would bid if a publisher used a third-party ad server to call AdX. Google made a similar announcement regarding DV360 in 2024.

122. The tie plainly worked: While DFP was roughly 50% of the publisher-ad-serving market when Google acquired it, it controls more than 90% today and has driven other publisher ad servers out of business. *See* EDVA Op., 778 F. Supp. 3d at 863-64. Google did not acquire that market share by building a better ad server — indeed, DFP causes Vox Media significant and ongoing financial injury — but rather by capitalizing on the fact that Vox Media and others must do business with AdX.

123. Vox Media has no interest in a single firm providing it with an ad exchange along with an ad server. To the contrary, having the same company control the sell-side and the exchange creates a conflict of interest — *e.g.*, the owner of the exchange will abuse the ad server to route inventory to its exchange even when the publisher could make more money elsewhere. It is nearly impossible for a publisher to determine whether, when, and how often this is occurring, because the firm controlling the publisher ad server also can limit the publisher’s

access to price and other information necessary to police the auction. As discussed below (*see infra* § III.B), Google is engaging in precisely that kind of self-dealing, to the detriment of Vox Media and ultimately its consumers.

124. There is no technological or legitimate business reason for an exchange to decline to bid in real time depending on the publisher ad server. AdX is the *only* exchange that limits real-time functionality to a particular ad server. All non-Google exchanges submit real-time bids to the ad server of the publisher’s choosing. Moreover, any ad-serving rival readily would accept real-time bids from AdX, because that would permit it to offer a competitive ad server without having simultaneously to develop its own powerful exchange.

125. Nor is there any technological or legitimate business reason for an exchange to withhold demand based on which ad server the publisher licenses. No other exchange operates in that manner. That Google ties real-time bids from AdX to DFP is an exercise of market power, not a technological or business necessity.

126. This Court previously has held that other plaintiffs plausibly alleged that Google has tied its ad server to its ad exchange: “Google used its monopoly power in AdX to actually coerce publishers into licensing a separate and distinct product, Google’s DFP ad server,” and “Google’s actions had anticompetitive effects in both markets, affecting a substantial amount of interstate commerce.” *See In re Google Digit. Advert. Antitrust Litig.*, 627 F. Supp. 3d 346, 369-70 (S.D.N.Y. 2022).

2. Google Ad Manager (2018 – Present)

127. The tie described above remains in effect through today. Additionally, in 2018, Google rebranded DFP and AdX as a single offering called “Google Ad Manager” (“GAM”), which is sold pursuant to a form contract. Google entered into GAM contracts with publishers, including Vox Media, to phase out separate AdX and DFP agreements and thereby force

publishers to agree to a combined contract for both DFP and AdX. Now that DFP and AdX are contractually linked as GAM, it is impossible for a publisher with a GAM account to access AdX without also purchasing DFP. And Google still prohibits its publisher customers from using any other ad server besides DFP to access real-time bids from Google through AdX. In other words, if a publisher is to access the largest source of available advertiser demand, it must license DFP and use it as its ad server.

128. Google has asserted that it has created a way for publishers not using DFP to access AdX demand called “AdX Direct.” However, this product only had “rudimentary functionality, did not show the price that AdX was offering, did not provide access to real-time bids, increased latency, and did not permit publishers to place bids from AdX into real-time auctions with bids from other exchanges.” EDVA Op., 778 F. Supp. 3d at 825 n.16. In other words, as described by Google’s Nitish Korula, it is simply a “concept for antitrust.” *Id.*

129. Despite the GAM rebranding, DFP and AdX remain separate products and Google continues to charge separate fees for ad-serving and ad-exchange services. DFP and AdX continue to function as before, providing the same respective ad-serving and exchange functionality that existed before Google introduced GAM. DFP and AdX have provided no material performance benefits to Vox Media since the introduction of GAM. Indeed, Google only has increased the financial injury to Vox Media.

130. GAM is the culmination of the tying arrangement Google first enacted after the DoubleClick merger. Google coerced most publishers to use its ad server by offering real-time bids from AdX only to DFP. Now, to sweep in any stragglers and entrench its control over ad serving, Google does not permit *any* bids from AdX unless a publisher uses DFP.

3. Google Threatens to Eliminate Header Bidding (2014 – Present)

131. With control over publisher ad serving, Google has reduced competition from its greatest threat: header bidding. As discussed at length below (*see infra* § III.B), Google insulates AdX from competition against header-bidding exchanges and thereby secures for AdX additional publisher inventory. As a result, there are fewer participants and less investment in header bidding than would occur in a competitive market.

132. Google’s attack on header bidding maintains Google’s monopoly in publisher ad serving because, as Google recognized for years, header bidding offers one critical function much like DFP — routing publisher inventory to exchanges. Google recognized that “header bidding ‘gives many publishers better yield, so it’s a no-brainer for a publisher to adopt it.’” EDVA Op., 778 F. Supp. 3d at 828. And so Google executives fretted that “[i]f header bidding consolidates all non-Google demand, we could lose our must-call status and be disintermediated.”

133. In a competitive market with adequate investment, publishers, header-bidding developers, or a rival ad server could have expanded header bidding’s functionality to make it a viable DFP alternative. Google’s repeated efforts to stave off header bidding over many years have stymied the entry of such a potential competitor.

B. Google Abuses DFP to Monopolize the Market for Ad Exchanges

134. The goal of monopolizing publisher ad serving is to give Google control over access to publishers’ inventory. Google then funnels publishers’ inventory to its exchange, even though publishers would make more money if their ad space were sold through rival exchanges.

135. Google has an economic incentive to manipulate the market in favor of its own exchange. Google generally takes a 20% revenue cut from publishers for every transaction

routed through its exchange — often higher than the fee charged by its exchange competitors. If another exchange manages the transaction, Google makes nothing.

136. To stay ahead of publishers and rivals and further its control over the exchange market, Google has forced publishers to adopt ever-changing auction rules in DFP for many years. But Google's scheme has retained the same basic core: Exclude rival exchanges from submitting bids for publishers' inventory in real time, depress prices for that inventory, and reduce the number of ad slots available. Then, Google takes a growing share of that shrinking pie. As the Eastern District of Virginia recognized, Google's changes to the auction rules "decreased product quality and harmed competition by further entrenching Google as the dominant company in open-web display advertising. Google made these changes, despite customer complaints, by exploiting its durable monopoly power in the open-web display ad exchange and publisher ad server markets." EDVA Op., 778 F. Supp. 3d at 864.

137. While secretly implementing changes to the auction mechanisms behind-the-scenes, Google continued to represent to publishers that it was running a fair, transparent second-price auction (until 2019) and then a fair, transparent first-price auction (through the present). These misrepresentations harmed Vox Media and thousands of publishers like it. The structure of an auction's rules affects publishers' auction strategies. For example, whether an auction is a first-price or a second-price auction impacts how publishers set their price floors. Vox Media and other publishers relied on Google's descriptions of its own internal auction rules, which Google never corrected or withdrew. The impact of Google's misrepresentations carries forward through today.

138. Additionally, Vox Media did not have notice of the details of many of these secret programs until at least January 14, 2022, when the third amended complaint filed by Texas and

the coalition of states was unsealed. The unredacted third amended complaint revealed crucial details about how Google's secret programs (including Bernanke and its variants) actually worked, and for the first time publicly described how those programs harmed publishers like Vox Media.

139. When these programs came to light, each was promptly re-alleged in the amended publisher class complaint submitted to the Court on October 5, 2022. However, despite the limited information that came to light through the third-amended Texas complaint, the full working effect of Google's auction manipulations continued to lack transparency, occurred out of the public eye, and had effects that were not immediately obvious or well understood. Indeed, to this day, much of Google's conduct in relation to its auction practices continues to occur out of the public eye and is almost impossible to track — much less counteract.

1. Last Look (2014 – 2019)

140. Before header bidding, exchanges originally ran second-price auctions: The DSP with the highest bid would pay one penny higher than the second highest bid. Second-price auctions were popular at that time because exchanges did not compete in real-time. The exchange would win the impression so long as its bid cleared the publisher's price floor, which was static and typically lower than what a second exchange would have offered in real time had it been called to bid. Without having to compete among themselves in real time, exchanges could afford to bid less than the most competitive bid from their participating DSPs.

141. Client-side header bidding introduced real-time competition among exchanges, which meant that exchanges had to compete more vigorously for publishers' inventory. Accordingly, most exchanges moved to first-price auctions, where the winning bidder pays the full amount of its bid. With more exchanges competing in real time for the same inventory, exchanges no longer could afford to withhold their DSPs' best offers.

142. Except for Google's AdX. With Dynamic Allocation, AdX knew the winning bid from header bidding (*i.e.*, the price to beat) *before* it called its DSPs to submit bids for the impression. AdX could run a second-price auction but adjust the clearing price when needed to outbid a competitor by a penny. This Last Look advantage allowed Google to preserve AdX's second-price auction and stabilize its prices only slightly higher than its competitors, rather than submit its highest bid based on the value ascribed to the impression by its DSPs. In that way, Google's trading on inside information depressed publishers' revenue.

143. For example, without Last Look, if header bidding returned a bid of \$4.00 and AdX ran a typical second-price auction with \$6.00 and \$3.00 bids, the AdX auction would clear at \$3.01, and the winning header-bidding exchange would secure the impression for \$4.00. Without inside information, AdX would have needed to submit the higher of the two bids (in this case, \$6.00) to win the auction. However, because of Last Look, AdX did not need to compete on a first-price basis and place the available \$6.00 bid. Instead, AdX could increase its bid from \$3.01 to \$4.01 and win the impression by a penny. Only because AdX knew the price to beat for the impression could it maintain a second-price auction with little risk of losing to first-price competitors. And Google applied Last Look on an auction-by-auction basis, recalculating a rigged bid each time, thereby separately and independently manipulating the price paid to publishers on *billions* of ad auctions.

144. Without Last Look, AdX would have moved to a first-price auction with the rest of the competition. AdX gets paid only if it intermediates a transaction; thus, Google's incentive would have been to bid higher prices to ensure victory. Yet, while most exchanges ran first-price auctions by 2017, AdX did not purport to move to a first-price auction until 2019. And even

then, Google has continued to develop auction rules that effectively entrench and expand Last Look (*see infra* § III.B.6).

145. Last Look not only permitted AdX to compete less vigorously for impressions; it also helped AdX manage a greater share of transactions. To take the previous example, a DSP valuing the impression at \$6.00 would face two options: Bid in header bidding where it would have to pay full price, or bid in AdX, which could get a \$1.99 discount. For DSPs, that is not a difficult decision. Google's access to inside information consolidated more demand in AdX.

146. Last Look also permitted AdX to maintain its 20% revenue share — substantially higher than its competitors' — despite price competition from rivals. Because exchanges present bids to the ad server on a “net” basis, *i.e.*, with the revenue share subtracted out, DSPs submit their bids to AdX knowing that the ad server will see only 80% of the actual bid that wins in AdX. So, if a DSP wins the \$6.00 impression for \$4.01, it actually must pay \$5.01. That is still a good deal because AdX is trading with Last Look. But, without that advantage, a \$6.00 bid through AdX is more expensive than a \$6.00 bid through a lower-priced rival exchange. DSPs naturally would have moved spending to rival exchanges unless AdX lowered its revenue share, which today still remains at the exorbitant 20% take rate.

147. A Google study confirms that Last Look caused advertisers to migrate from non-Google exchanges to AdX and Google's DSPs. And Google has admitted internally that “Last Look is inherently unfair.” In 2019, Google internally recognized that Last Look gave AdX a substantial competitive advantage and that moving away from it would promote fairness and transparency for publishers.⁴

⁴ See, e.g., GOOG-DOJ-AT-00597161 (PTX0816), <https://www.justice.gov/atr/media/1370321/dl> (admitting that “[t]he fact that AdX buyers can bid using information that

148. Google's Last Look behavior was monopsonistic: Rather than bid at competitive prices and compete in real time with rivals for advertiser demand, Google secured more advertisers bidding in AdX at reduced prices. Thus, Google was able to take exchange volume from rivals and intermediate a higher share of lower-value transactions. In short, Last Look "entrenched Google's monopoly power, disadvantaged Google's publisher customers, and harmed the competitive process." EDVA Op., 778 F. Supp. 3d at 864.

149. Moreover, Google implemented Last Look while lying to publishers, including Vox Media. For years, Google explicitly has agreed in its DFP and AdX (and now GAM) contracts not to use "data entered by [publishers] . . . that is not generally shared with buyers" — including header-bidding bids entered as line items in DFP — "for purposes of informing bids" made by Google. In that way, and in conjunction with its myriad promises that Dynamic Allocation "maximizes yield," Google concealed its market manipulation from Vox Media and induced it to permit DFP to run Dynamic Allocation across its inventory. Vox Media reasonably relied on these assurances, which it had no reasonable means of verifying. Had Google disclosed how Last Look operated, Vox Media would have objected to the practice, taken additional measures to do business with rival exchanges, and otherwise altered its strategies to try to prevent Google from outbidding rivals by no more than a penny.

150. Google now claims that it ended Last Look in 2019. Its assurances are false. As discussed at length below, Google has enacted additional auction rules across publisher inventory that substantively parallel Last Look and inflict even greater harm on publishers.

comes out of DFP ranking (EDA price, remnant line items w/ their prices, etc.) is a significant informational advantage.").

Additionally, in one recent regulatory filing, Google confirmed that Last Look against publishers' direct deals persists to this day.

2. Enhanced Dynamic Allocation (2014 – Present)

151. Not long after publishers introduced client-side header bidding, Google doubled down on Last Look with “Enhanced Dynamic Allocation” (“EDA”).

152. Prior to EDA, publishers (including Vox Media) could prioritize their direct deals in DFP, so their direct-deal advertisers had the first pick of high-value impressions. Publishers could allocate the best impressions to direct-deal advertisers first, selling the remainder to buyers in exchanges. Alternatively, if a publisher chose, it could select an exchange to compete with direct-deal advertisers, according to the terms the publisher thought best achieved its business goals. Either way, publishers controlled their inventory and could protect their relationships with direct-deal advertisers, who often negotiated in good faith for a slice of publishers’ high-value ad inventory.

153. Beginning in 2014, however, Enhanced Dynamic Allocation took that control away from publishers. Google now requires publishers to make *every impression* available for sale through AdX. To do so, DFP converts publishers’ direct deals into “temporary” CPMs, which DFP sends to AdX as a price floor. AdX then can beat out prior, directly negotiated deals so long as it can bid one penny higher than the DFP-assigned “temporary” CPM. Further, when calculating that temporary CPM, Google entirely *ignores* the price of the direct deal. So, even though a direct-deal advertiser might be willing to pay \$10 CPM for an impression, Google could assign it a temporary CPM much lower — indeed, even close to \$0. And Google applies EDA on an auction-by-auction basis, including by recalculating a temporary CPM each time,

thereby separately and independently depressing the price paid to publishers for *billions* of impressions for their high-value inventory.

154. Google also has introduced an add-on to Enhanced Dynamic Allocation called “Optimized Competition,” which, by use of an algorithm, lowers a direct deal’s temporary CPM before passing it along as a price floor.

155. Enhanced Dynamic Allocation further entrenches AdX’s control over the exchange market. Publishers lost the ability to select which exchanges (if any) could compete with direct deals, and on what terms. So, rather than allowing publishers to negotiate with a third-party exchange to set the terms by which that exchange could compete with impressions eligible for direct deals — for example, if the exchange could guarantee minimum spend or CPM — Google required publishers to make *all* of their impressions available for sale through AdX on the terms *Google* set. Further, for years, AdX was the only exchange that could compete for inventory eligible for a direct deal. That gave AdX an extraordinary advantage over other exchanges, which no longer could negotiate with publishers to achieve unique access to high-value inventory on terms that benefited the publisher and the rival exchange alike, and were locked out from some of a publisher’s most valuable impressions. Put another way, rather than earn publishers’ business, AdX stole it instead.

156. Further, by forcing publishers to make all of their inventory available to AdX, DFP can allocate to AdX the most valuable impressions while leaving publishers’ direct deals with less valuable impressions. Even worse, AdX could supplant direct deals entirely, so that publishers fail to deliver on their commitments to advertisers. Naturally, over time, AdX’s attacks on direct sales depressed the prices that publishers could receive for what used to be their most valuable inventory.

157. Google never has given publishers, including Vox Media, insight into how DFP calculates the temporary CPM it sends as a price floor, or how Optimized Competition adjusts that temporary CPM. Further, Google never told Vox Media that it permitted AdX to beat out direct deals based not on their actual price, but rather a deflated temporary CPM. Publishers cannot verify whether and to what extent the temporary CPM understates the value of a direct deal for any particular impression. As a result, even over a publisher's objection, AdX can win impressions regardless of whether a direct deal would have paid more.

158. Google represented to publishers that Enhanced Dynamic Allocation would increase its programmatic revenue without harming its direct deals, and that it would protect publishers from underdelivering on its direct deals with advertisers. Vox Media enabled and continued to use Enhanced Dynamic Allocation for many years on the basis of these representations. These representations were false. Internally, as investigations by domestic and foreign antitrust enforcers have only recently revealed, Google knew that Enhanced Dynamic Allocation improved only its yield, not publishers' bottom line. Enhanced Dynamic Allocation allowed Google to cherry-pick Vox Media's best impressions while reducing the value of Vox Media's current and future direct deals. Enhanced Dynamic Allocation has also caused Vox Media, at times, to under deliver on its direct deals.

159. Despite numerous demands, including from Vox Media, Google chose not to give publishers the data necessary to determine for themselves whether Enhanced Dynamic Allocation was in fact beneficial or not. For example, in 2016, Google program managers reported that publishers' concerns about Enhanced Dynamic Allocation were a frequent topic at their meetings with Google's publisher clients. Publishers demanded that Google provide better

reporting and data regarding the effects and value of Enhanced Dynamic Allocation. Google never did.

160. Google also lied about how Enhanced Dynamic Allocation operates. Despite Vox Media’s complaints to Google that direct deals were pacing behind schedule and underdelivering — including when placed at a higher priority level than AdX because Vox Media wanted the direct campaign to serve first — AdX *still* would serve ahead of the direct deal, jeopardizing Vox Media’s revenue and relationships with advertisers. To this day, Google never has made available any data or analytics that would allow Vox Media to track how AdX competes with direct deals with Enhanced Dynamic Allocation. Nor does Google assist Vox Media whenever a direct deal under delivers due to Enhanced Dynamic Allocation.

161. Google’s representations regarding “sponsorship” direct deals were likewise false, as EDA can (and does) take impressions otherwise eligible to be sold to sponsorship advertisers and sells them instead to AdX. But, as with Enhanced Dynamic Allocation generally, Vox Media has limited ability to determine precisely when and how AdX continues to compete against sponsorships.

162. Vox Media cannot feasibly shut off Enhanced Dynamic Allocation. Starting in 2015, Google made EDA a mandatory function of DFP. Today, there is no identifiable option to disable Enhanced Dynamic Allocation in DFP’s user interface. And even if Vox Media were to disable Enhanced Dynamic Allocation (which since has been rebranded as just “Dynamic Allocation”) today, AdX would refuse to submit live, competitive bids for any of its impressions. Thus, Vox Media has no choice but to accede to Enhanced Dynamic Allocation every time it sells an impression and accepts depressed prices for its most valuable inventory.

163. This Court has previously held that other plaintiffs suing Google have plausibly alleged that EDA caused injury to competition in the ad exchange market and that “Google was untruthful to its publisher clients.” *In re Google Digit. Advert. Antitrust Litig.*, 627 F. Supp. 3d at 386.

3. Projects Bernanke & Alchemist (2013 – Present)

164. In parallel with Last Look, Google has developed an additional bid-rigging scheme that capitalizes on AdX’s unlawful access to inside information. In 2013, Google’s “gTrade” team launched “Project Bernanke,” which dramatically increased AdX’s win rate at the expense of rival exchanges and increased Google’s revenues at the expense of publishers. Through this scheme, Google steals money from publishers for billions of impressions every month and then uses those ill-gotten gains to bankroll AdX in billions of other, money-losing auctions that otherwise would have been won by rival exchanges.

165. In fall 2019, Google updated the Bernanke algorithm — sometimes called “Alchemist” — so the same scheme continued to work after AdX moved to a first-price auction. For nearly a decade, Google kept Bernanke and Alchemist completely secret from publishers. In an internal study, Google found that Bernanke could depress a publisher’s revenue by upwards of 40%. Meanwhile, Google estimated that Bernanke generated many hundreds of millions of dollars in additional profit for Google.

166. As discussed above, Google Ads runs an internal auction among advertisers when an impression is made available for sale through AdX. Prior to 2013, Google Ads would submit the two highest Google Ads bids to the AdX auction, less a revenue share. For example, if the highest bids in Google Ads were \$7.06 and \$4.71, then Google Ads would submit \$6 and \$4 net bids to AdX. The second-price AdX auction would clear at a price no lower than \$4. Then, with a \$4 clearing price, publishers would be paid \$3.20 after AdX took out its 20% take rate.

Meanwhile, because Google Ads ran (and continues to run) a second-price auction, the winning advertiser would be charged \$4.71.

167. Starting in 2013, Project Bernanke manipulated the bids that Google Ads submitted to the AdX auction. Google would deflate the second-highest Google Ads bid — often eliminating it entirely — and inflate the highest Google Ads bid before submitting them to the second-price AdX auction.

168. Google's bid manipulation depressed publishers' revenue and increased AdX's market share, not as a consequence of a superior product, but of auction manipulations. In auctions where the two Google Ads bids were the highest bids for publishers' inventory, Bernanke substantially depressed prices paid to publishers.

169. As an example, suppose for the same \$7.06 and \$4.71 bids described above, Google Ads could submit an inflated \$18 bid and a deflated \$1 bid to AdX. With \$18 and \$1 bids, the AdX auction would clear at \$1.00, and publishers would be paid \$0.80. At the same time, Google would continue to charge advertisers as if the bid manipulation did not occur — here, \$4.71. That meant Google could increase its profits several times over. In this example, Google would more than double its profit from \$1.51 (\$4.71 - \$3.20) to \$3.90 (\$4.71 - \$0.80).

170. All of that money came out of publishers' pockets. For more than a decade, Google repeated this bid depression scheme billions of times. Google applied Bernanke on an auction-by-auction basis, recalculating a rigged bid each time, thereby separately and independently manipulating the price paid to publishers on billions of ad auctions. Internally, Google referred to the slush fund it generated as the Bernanke "pool."

171. Next, in other auctions, Google would spend the pool to beat out rival exchanges, even when it made no rational economic sense to do so. For example, if the winning header bid

was \$10 in a subsequent auction, and Google once again submitted \$18 and \$1 bids, AdX would take the \$10 bid as a price floor (via Last Look), and the AdX auction would clear at \$10.01 (net of AdX's revenue share). In this scenario, AdX would pay publishers \$10.01 to beat out the rival exchange, but charge advertisers the same \$4.71 as before. As a result, Google *lost money* in this auction (and billions of others like it), with the sole purpose of increasing AdX's market share at the expense of rivals. As with Bernanke's bid depression, Google recalculated the bid needed to beat out rivals by a penny on an auction-by-auction basis, thereby separately and independently manipulating billions of auctions to foreclose competition from rivals. At the same time, in each of those auctions, publishers *made no more money*. To return to the prior example, if AdX had not won the impression for \$10.01, the publisher could have sold the impression to a rival exchange for \$10.

172. Project Bernanke operated in much this way from 2013 until fall 2019, at times with targeted modifications. The original version of Bernanke, from 2013 until 2015, generated and spent the Bernanke pool on a publisher-by-publisher basis. Then, in May 2015, Google imposed "Global" Bernanke, which generated and spent the pool across *all* publishers. That dramatically increased the opportunities Google had to manipulate its bids, which caused further harm to publishers and to its exchange rivals. Finally, in 2016, Google introduced a variation of Bernanke known internally as "Bell v.2." Google depressed Google Ads' bids even further for certain publishers engaged in "multi-calling" — *i.e.*, publishers that called AdX multiple times to bid on the same impression to see if, despite Bernanke and Last Look, AdX would bid more than a penny above its rivals. As with Bernanke generally, Google did not disclose to publishers that they were subject to yet more punishment under Bell v.2.

173. Bernanke persisted even after Google moved to a first-price auction in 2019. In first-price auctions, the highest bidder wins and pays what it bid. Accordingly, Google Ads submitting two bids no longer would change the clearing price of the AdX auction. For that reason, Google created a modified “first-price Bernanke,” which it sometimes called “Alchemist,” and is still in operation to this day. Alchemist carries out the same basic scheme as Bernanke: Underpay publishers and build up the “pool” in trillions of auctions and then use the pool to displace higher-CPM bids from rival exchanges when needed. And Alchemist continues to use inside information, which Google accesses from its ad server monopoly, to power its bid rigging cartel.

174. Bernanke, in its various forms, is irrational but for its destruction of competition. By subsidizing bids in auctions that Google Ads would have otherwise lost — to the point where Google deliberately loses money — AdX spends down the “Bernanke pool” in order to exclude competitors from winning impressions, secure in the knowledge that it can recoup its losses and replenish the “Bernanke pool” by trading on inside information to deflate bids in future auctions. Further, in the Bell variation, Google chooses to lose future auctions — and therefore make no money at all in exchange fees — in order to punish publishers.

175. Google’s manipulations were also deceptive. For example, from 2010 to 2019, Google publicly and repeatedly professed that AdX ran a “sealed bid second-price auction.” Scott Spencer, a Google executive, represented in a media interview that “AdX is a second price auction with minimum CPMs set by the publisher.” Other senior Google executives made similar representations in an academic paper published in 2014 in *American Economic Review*. Yet, in effect, the result of Bernanke was to silently impose a *third-price* auction: Google would

pay the *third* highest price available for publishers’ inventory (or something close to it) because Google either deflated the second-highest price or (in many cases) removed it entirely.

176. And after 2019, although Google transitioned to a first-price auction and represented that it was “fair” and “transparent,” Google was secretly running a “first-price” version of Bernanke that it called Alchemist. As discussed above, Alchemist secretly rigged Google Ads’ bids so that the resulting auction was *not* fair or transparent to publishers or ad exchange rivals.

177. Publishers, including Vox Media, had no way to discover that Google was engaging in bid-rigging. Google never disclosed Project Bernanke or its successors to Vox Media or other publishers; indeed, Google forbade disclosure of Bernanke to publishers in any way, shape, or form. In the words of one Google employee, “the first rule of Bernanke is we don’t talk about Bernanke.” Internally, Google warned against disclosing Bernanke and how it operated to publishers. Google introduced Bernanke slowly to prevent publishers from detecting it. Google also withheld auction data that publishers might have used to uncover Google Ads’ rigged bids through Bernanke or its other variants.

178. Repeatedly, for years, Google admitted internally that it was deceiving publishers. In 2018, Google employees recognized that they were not being forthcoming about Bernanke and worried about providing data that would allow Google’s customers to deduce that Google was not running a true second price auction. In 2019, consistent with its earlier descriptions, Google continued to represent publicly that it was still running a fair second-price auction, which was false because of Last Look, Bernanke and its variants, and other auction manipulations.⁵ In

⁵ See Jason Bigler, *An update on first price auctions for Google Ad Manager*, Google Ad Manager (May 10, 2019), <https://blog.google/products/admanager/update-first-price-auctions-google-ad-manager/> (stating that “currently,” Google runs “[a] second price, real-time bidding

2020, when one Google employee wondered whether Bernanke-style mechanisms had been considered from a publisher point of view, and worried that Bernanke may be harming publishers, another employee suggested discussing the matter in person rather than in writing and confirmed that Google was intentionally withholding details from publishers. Had Google disclosed Bernanke and its variants and how they operated, Vox Media would have objected to the program and explored auction techniques to avoid Bernanke's negative impacts. But Vox Media relied on, among other misrepresentations, Google's repeated (and false) statements that it was running a fair second-price auction.

179. This Court has previously held that such actions by Google plausibly resulted in harm to competition and were deceptive. *See In re Google Digit. Advert. Antitrust Litig.* 627 F. Supp. 3d at 389 (denying motion to dismiss claims that Project Bernanke, Global Bernanke, and Bell “were anticompetitive measures that harmed competition in the ad-exchange market”).

4. Dynamic Revenue Share (2014 – Present)

180. Much like Last Look and Bernanke allow Google to rig AdX's *bids* to beat rivals by a penny, Google also developed a program to manipulate AdX's *revenue share* to also beat rivals by a penny and increase its impression volume. In 2014, Google introduced “Dynamic Revenue Share,” which permitted Google to reduce its revenue share when necessary to win an impression. Two versions of DRS (DRS v2 and tDRS) allowed Google to reduce its revenue share in the auction of more sought-after impressions but make up the shortfall by increasing its fee for less competitive impressions. Across all versions of DRS, Google continued to charge very close to its contracted revenue share (typically 20%) on average over the billing period.

auction run with Authorized Buyers — which includes Google Ads, Display & Video 360 and other Demand Side Platforms”).

181. Dynamic Revenue Share, like Last Look and Bernanke, operates by trading on rivals' bid information. For example, under the rules of DRS v2 or tDRS, if header bidding returns a bid of \$4.00, and the highest available bid in AdX (net of Google's fees) is \$3.57, AdX could forgo its entire take rate (20%) and win the auction with a bid up to \$4.46. However, because AdX knows the floor is \$4.00, it can charge a reduced take rate of 10% and still win the auction at \$4.01. Conversely, for the next auction, if AdX clears at \$4.20 (net of Google's fees) and the highest bid from header bidding is \$3.67, Google can increase its take rate to 30% and win the impression for \$3.68. Google thus wins both impressions and makes \$2.02 (\$0.45 from the first auction in which it dropped its revenue share plus \$1.57 from the auction in which it increased its revenue share). The publisher, meanwhile, makes \$7.69 (\$4.01 plus \$3.68).

182. In a fair auction, publishers would make substantially more. Google can tailor its revenue share to win impressions only if it can access information from DFP about rivals' bidding behavior. Without access to rivals' bids, Google could not selectively modify its revenue share, and would either charge a flat 20% fee or reduce its fee across the board in order to win both impressions. Either way, there would be more revenue available for publishers. To take the prior example, if Google keeps its 20% revenue share, it wins only the second impression and makes \$1.05. The publisher makes \$8.20 (\$4.00 + \$4.20). Alternatively, if Google reduces its revenue share to 10% for both transactions, it wins both impressions and makes \$0.98 (\$0.45 + \$0.53). The publisher, meanwhile, makes \$8.74 (\$4.01 + \$4.73). In short, by trading on inside information with Dynamic Revenue Share, Google can make far more money at publishers' expense.

183. Dynamic Revenue Share also insulates AdX from price competition and entrenches Google's monopoly in the exchange market. Even if a rival lowers its revenue share

across the board, AdX need not respond in kind because it can lower its fee on any particular impression, only to make up for lost revenue by charging a higher fee for less competitive impressions. The result is that AdX can preserve an average 20% revenue share *and* process a greater share of impressions. By contrast, without access to rivals' bids, Google would have to make a choice: Compete by lowering its fee overall or preserve the higher fee and lose market share to rivals. Either way, the competitive process would work, because impressions would be routed to the most efficient exchange.

184. But instead, in each auction manipulated by each version of DRS, Google entrenched its ad exchange monopoly by taking more impressions on terms less favorable to publishers. Google applied DRS on an auction-by-auction basis, recalculating a rigged bid each time, thereby separately and independently manipulating the price paid to publishers on *billions* of ad auctions. As the Eastern District of Virginia found, "dynamic revenue share . . . helped mitigate the risk that header bidding posed to [Google's] ad tech products, and enabled AdX to remain the world's largest ad exchange." EDVA Op., 778 F. Supp. 3d at 830.

185. Google hid Dynamic Revenue Share from publishers for the first two years of its operation. Google began rolling out Dynamic Revenue Share without notice in 2014. By the fall of 2015, Google had expanded the program to all publishers but still told publishers nothing about it. When Google finally announced Dynamic Revenue Share publicly in 2016, it did so with little explanation.

186. Both at the time and later, Google's publicly available website threatened that disabling Dynamic Revenue Share would "reduce Ad Exchange yield." For reasons discussed above, however, Google's representations were false. That is because the upside to the publisher from Google winning the first impression over a rival (\$0.01) pales in comparison to the

downside of Google raising its revenue share on the second impression it would have won anyway (-\$0.52). Google did not disclose its per-impression revenue share in the bid-level data available in DFP, which would have enabled publishers to discover that DRS was losing them money. Internal Google documents also reveal that the program did not increase publishers' yield. Rather than "create matches for impressions that would not have sold to any advertisers without it," the "primary purpose" of the program was to "exploit [Google's] Last Look advantage" and harm rival exchanges. EDVA Op., 778 F. Supp. 3d at 870.

187. Google's misrepresentations continued for years. Google's publicly available website now states that "revenue share optimizations" were "paused" in September 2019. That statement is false or at best misleading, as Dynamic Revenue Share remained operative in DFP's user interface until at least 2021. Google employees bragged that while Google's ad buyers would benefit, publishers would find DRS hard to detect.

188. Google employees also warned against referring to the specifics of Dynamic Revenue Share externally and disclosing details about how Dynamic Revenue Share actually worked, lest publishers disable it. For example, tDRS worked not solely by changing Google's revenue shares, but also by altering the floor price in publishers' auctions. Google never told publishers that Dynamic Revenue Share was manipulating the price floors set by publishers. As explained further below, publishers' ability to set their own floor prices was an important mechanism by which they maximized revenue and controlled the sources of advertisements on their websites. *See infra* § III.B.9.

189. This Court has previously sustained well-pleaded allegations that "described how publishers were misled about the implementation of Dynamic Revenue Sharing" and held that Google's efforts to "permit[] AdX to win bids based on price manipulations by Google, as

opposed to a superior product or some other legitimate business factor,” plausibly resulted in harm in the ad-exchange market. *See In re Google Digit. Advert. Antitrust Litig.* 627 F. Supp. 3d at 391.

190. Harm from DRS extended to Vox Media. Because of Google’s lack of transparency and misrepresentations, Vox Media had no way of knowing how Dynamic Revenue Share worked. Had Google disclosed how Dynamic Revenue Share functioned, Vox Media could have taken steps to counter Google’s unfair practices, including telling Google to disable it or taking other countermeasures (e.g., attempting to floor AdX higher to stop it from increasing its take rate and reducing its net bid). It could not do so, however, because Google was never transparent about what impressions DRS affected and how. The result to Vox Media from DRS, and Google’s deception about it, was substantial financial injury, repeated over billions of auctions.

5. Exchange Bidding (2018 – Present)

191. As mentioned above, in 2018, Google publicly launched a server-side alternative to client-side header bidding called “Exchange Bidding,” later re-named “Open Bidding.” Exchange Bidding purportedly permits certain non-Google exchanges (and certain DSPs) to bid against AdX in real time. Google charges publishers a 10% fee for video ad space sold through Exchange Bidding, and a 5% fee for other kinds of impressions (e.g., text/native, banners). Either way, that fee is *additional* to the take rate charged by non-Google exchanges. Meanwhile, Google does not charge an extra 5% or 10% fee for impressions sold through AdX.

192. Publishers cannot use Exchange Bidding to create fair competition among exchanges. Whenever a publisher uses Exchange Bidding, it must make the impression available for sale through AdX. There is no way to sell exclusively to third party exchanges. And then, rival exchanges are saddled with an additional 5% or 10% fee while AdX is not. That means

AdX has a 5% to 10% price advantage whenever it competes in Exchange Bidding — *i.e.*, a rival exchange must pay more than 5-10% *higher* than AdX before it can win an impression.

193. Google also has attempted to cajole publishers into abandoning client-side header bidding in favor of Exchange Bidding. For example, Google repeatedly represented to Vox Media and told publishers publicly that Exchange Bidding would lead to higher revenue.⁶ For years, Vox Media enabled Exchange Bidding based in part on these representations. Internally, however, Google employees recognized that its representations were merely a story to discourage publishers from using client-side header bidding. Google also recognized that publishers were reporting significant revenue from header bidding at the cost of minimal increase in latency — a fair tradeoff, in Google’s own view. As one Google executive cautioned the company’s employees: “I would suggest being very careful here what we say to publishers. Remember, [Exchange Bidding] negatively impacting header bidding is a Google desired outcome. Publishers are likely fine with header bidding, they make more money with it.” Google therefore knew its representations that Exchange Bidding would lead to higher revenue were false, but made them anyway to encourage Vox Media and other publishers to abandon client-side header bidding.

194. Google’s promise that Exchange Bidding would lead to higher revenue was false. Exchanges yield higher prices for publishers when they bid through other header-bidding solutions, including client-side header bidding. Google engaged in repeated acts of coercion and

⁶ See Jonathan Bellack, *Exchange Bidding now available to all customers using DoubleClick for Publishers*, Google Ad Manager (Apr. 4, 2018), <https://blog.google/products/admanager/exchange-bidding-now-available-to-a/> (“With Exchange Bidding, publishers can increase revenue by allowing multiple exchanges to compete with each other -- and with DoubleClick Ad Exchange -- in a unified auction.”).

misrepresentations to conceal that fact. In so doing, Google protected its AdX exchange from competition and inflicted substantial financial harm on Vox Media.

6. Minimum Bid to Win (2018 – Present)

195. Google also has represented that AdX, as a participant in Exchange Bidding, no longer benefits from Last Look. But, in 2019, Google gave itself a new Last Look advantage, with the same harm to competition and publisher revenues.

196. In fall 2019, Google introduced a so-called “Unified Auction.” Google represented that AdX would move to a first-price auction and assured that no buyer would access inside bidding information. Google’s Sam Cox further publicly represented that it would run a “fair and transparent market for everyone,” in which “[a]n advertising buyer’s bid will not be shared with another buyer before the auction.”⁷ Google’s contracts also continued to promise — as they do today — that Google would not inform its bids using publisher-inputted data “that is not generally shared with buyers.”

197. But, as part of the Unified Auction, Google simultaneously introduced a feature called “Minimum Bid to Win.” After an auction concludes, DFP now tells the winning bidder — if it is an “Authorized Bidder,” *i.e.*, an exchange or DSP participant in Google AdX or Exchange Bidding — what the minimum price to win the impression would have been. This is *not* merely the price at which the impression sold; rather, Google tells the winning bidder the second-highest price that was placed in the auction, *i.e.*, the cheapest price at which the winning DSP could have won the impression. Minimum Bid to Win thus provides functionally the same information as Last Look: The next highest price to beat.

⁷ See Sam Cox, *Simplifying programmatic: first price auctions for Google Ad Manager* (Mar. 6, 2019), <https://blog.google/products/admanager/simplifying-programmatic-first-price-auctions-google-ad-manager>.

198. The only difference from Last Look is that Google now knows the minimum winning price immediately *after*, rather than *before*, an auction closes. But that difference is immaterial. Once an auction closes, Google can use the Minimum Bid to Win to inform its bids on millions of similar auctions. For instance, Google uses Minimum Bid to Win to power a bidding algorithm that caps AdX’s bids as closely as possible to bids from rival exchanges — precisely the same goal as Last Look. As one Google planning document states: “If we knew our competitor’s bid exactly, we can simply bid a cent above that[.] But we don’t have this information before the auction, so we need to predict [the] competitor’s bid.”

199. Over the years, Google has introduced additional programs that make Minimum Bid to Win even more powerful. For example, in or around 2022, Google introduced “Header Bidding Trafficking,” which permits DFP to see and “pull” *all* bids submitted by exchanges participating in header bidding into the ad server. Previously, Google could view only the highest bid from header bidding that was “pushed” into the ad server. Google can use Header Bidding Trafficking information, along with Minimum Bid to Win, to better predict rival exchanges’ bids on future impressions so it can outbid them by a penny.

200. Google has unique access to other information, too, which likewise powers its bid prediction algorithms. For example, DFP can see the kinds of inventory for which rival exchanges submit bids (*e.g.*, banner), the time of day they are likely to bid, and numerous other characteristics about rivals’ bidding behavior. Google can access (and use) this information *only* because it is the dominant publisher ad server. Then Google sends this information to its exchange and its buy-side tools (*e.g.*, Google Ads), which use it to predict rival bids.

201. In essence, Google used its monopoly power in the market for publisher ad servers to amass bidding data across exchanges; then, on an auction-by-auction basis, it

calculated the minimum price that its authorized buyers should pay in order to win a first-price auction for each particular impression. The informational advantage conveyed by Minimum Bid to Win drove advertisers to use Google's ad exchange, foreclosing competition in that market.

202. This Court has recognized the anticompetitive potential of Minimum Bid to Win, and held that allegations outlining how Google "us[ed] bid data obtained through the publisher ad servers and the historical bids of advertisers" in order to "artificially depress the bids for publisher impressions" "plausibly explain how Google used its market dominance to benefit consumers of its ad-buying tools at the expense of consumers of its publisher ad servers." *In re Google Digit. Advert. Antitrust Litig.*, 721 F. Supp. 3d 230, 259-60 (S.D.N.Y. 2024).

7. Project Poirot (2018 – Present)

203. In yet another move to eliminate exchange rivals, Google designed another secret program to ensure that DV360, its DSP for large advertisers, offered depressed bids on non-Google ad exchanges. In that way, Google coerced publishers to sell inventory through AdX. Google named this so-called "[a]uction [d]efense" "Project Poirot."

204. Poirot employed an algorithm to detect whether an exchange was running a "clean" second-price auction. If the exchange was not running a "clean" second-price auction, DV360 deflated its bids on that exchange. Although Google acknowledged in various internal documents that AdX itself did not run a "clean" second-price auction, Google did not use Poirot to deflate DV360 bids on AdX.

205. In implementing Poirot, Google determined that the "optimal bid multiplier" was below 1 for many third-party exchanges. As Poirot lowered DV360 bids on certain third-party exchanges, but not on AdX, the ultimate effect was to shift DV360 spend toward AdX and away from third-party exchanges.

206. Poirot lost Google revenue in the short run, because DSPs charge a revenue share much like exchanges. So, no profit-minded DSP would want to deflate its bids. But Google was willing to sacrifice short-term profits because Poirot harmed rival ad exchanges even more. According to Google, Poirot caused a “revenue drop in the range of 20-30%” for header-bidding exchanges, while DV360 lost 1.9% of its revenue as a result of Poirot. Ultimately, Poirot accomplished its evident goal, as DV360 spent “7% more on AdX and reduc[ed] spend on most other exchanges.”

207. Google continued to refine Project Poirot after launch. For example, as established during trial in the Eastern District of Virginia, Google launched Poirot Version 2 in 2018 and increased the amount of bid deflation to as much as 90 percent.

208. Also as recognized by the Eastern District of Virginia, “Project Poirot [] enhanced AdX’s market power by adjusting some of DV360’s bids in a way that preference[d] AdX over third-party ad exchanges.” EDVA Op., 778 F. Supp. 3d at 865 n.29. And Google understood — indeed, intended — this effect. Together, Google estimates that Poirot and another auction defense mechanism, Project Elmo, cost rival exchanges 21% of their revenue. That made rival exchanges less viable options for publishers and kept client-side header bidding from developing into a competitive threat to Google’s ad-server monopoly. Indeed, this Court already has recognized the potential anticompetitive effect of Poirot, concluding it was plausible that “Poirot . . . harmed competition in the ad exchange market” by “us[ing] DV360 to obtain information about rival exchanges and direct[ing] spending away from rival exchanges and toward AdX.” *In re Google Digit. Advert. Antitrust Litig.* 627 F. Supp. 3d at 398.

8. Google Redacts Datasets (2018 – Present)

209. Google also cements its market power and obfuscates its anticompetitive conduct by redacting key data from the auction records it provides to publishers, including Vox Media.

210. For example, when the winner of the client-side header bidding auction ultimately won an impression, Google used to allow publishers to compare the winning bid to losing bids from other exchanges, including AdX. That information allowed publishers to assess the incremental benefit from an exchange’s participation in header bidding, which helped them decide how to manage the header-bidding auction — including which exchanges to invite, how many to invite, and how long to let the auction proceed.

211. In 2018, however, Google redacted two DFP data fields (known as “KeyPart” and “TimeUsec2”) so that publishers no longer could compare impression-level and bid-level data between header-bidding exchanges and Exchange Bidding exchanges, including AdX. The upshot is that publishers now have substantially less insight into client-side header bidding’s comparative advantage, and therefore have greater difficulty designing client-side header bidding to maximize revenue.

212. In fact, Google’s decision to prohibit publishers from comparing winning bids from header bidding to losing bids from AdX (and vice versa) means that publishers cannot even be sure whether the demand source that ultimately wins an impression was the highest bidder. In that way, Google makes it substantially more difficult for publishers to detect and react to its anticompetitive conduct.

213. Vox Media subscribed to several data transfer files, including data transfer files previously joinable by using the KeyPart and TimeUsec2 fields. Google’s elimination of the joinability of these transfer files by the redaction of these data fields impaired the revenue Vox Media could receive for its inventory.

214. Google continues to redact data transfer files to this day. Recently, Google modified its data transfer files and promised they would be joinable. But Google again redacted

several data fields, making it impossible to generate a complete and accurate comparison between header bidding exchanges and AdX.

215. Google's elimination of the joinability of the data transfer files by the redaction of the data fields such as KeyPart and TimeUsec2 impaired the revenue Vox Media was able to receive for its inventory.

216. Google's redaction of DFP data is irrational but for its anticompetitive effect, because no publisher ad server in a competitive market would reduce the amount of information available to publishers. Ad-server data is an important source of truth for publishers' operations, and almost all revenue-related advertising decisions rely on this data. As this Court previously recognized, "Google's data redaction plausibly resulted in depressed prices to publisher clients who were restrained from tailoring bids specifically to header bidding." *In re Google Digit. Advert. Antitrust Litig.*, 627 F. Supp. 3d at 397. Accordingly, data redactions, hashing, and similar conduct make the ad server less valuable to publishers.

9. Google Eliminates Price Floors and Imposes Unified Pricing Rules (2018 – Present)

217. For several years, publishers could set unique price floors for each exchange (including AdX), each DSP participating in that exchange (including Google Ads), and each advertiser participating in that DSP (e.g., Coca Cola). By setting a unique price floor, a publisher could establish a new minimum price (other than the next best price) that the buyer would have to meet in order to win an impression. With higher price floors, publishers could force buyers to submit bids that were substantially higher, rather than just one penny higher, than the next highest available bid, which better reflected the value of their inventory.

218. For example, if the highest bid from the DSPs participating in AdX was \$6.00, but AdX bid \$4.01 in light of Last Look, that meant there was \$1.99 on the table that AdX took

from the publisher. If the publisher set a \$6.00 price floor, though, AdX could win the impression only if it met that floor — *i.e.*, only if it paid the full \$6.00, which a participating DSP already had decided was the value of the impression. Likewise, with a \$6.00 floor, AdX could not increase its revenue share yet still win the impression.

219. Differential price floors were not a panacea and never could have substituted for a fair auction in the ad server. That is because a publisher could not know, when setting a floor, what the maximum available bid from the buyer would prove to be. The floor was simply the publisher’s best *guess* about what the buyer would be willing to pay if it had to compete without access to inside bid information. Thus, any floor risked not being high enough and leaving money on the table, or being too high and pricing the buyer out of the auction. Nonetheless, publishers used price floors because that was the only available tool at their disposal.

220. For years, Vox Media employed differential price floors to maximize revenue. Vox Media found that setting higher price floors for advertisers and exchanges caused it to return higher bids and ultimately led to higher revenue. That advertisers in AdX bid more vigorously in response to price floors indicated that, absent the floors, advertisers were likely benefitting from Google’s many advantages, including Last Look and Dynamic Revenue Share. Floors would not impact a buyer’s bidding behavior if it was already offering its most competitive bid. As recognized by the Eastern District of Virginia, differential floors were “a primary tool that publishers had used . . . to mitigate Google’s dominance of the ad exchange market.” EDVA Op., 778 F. Supp. 3d at 865.

221. In 2019, though, Google disabled differential price floors at the exchange- and DSP-level. As part of the Unified Auction, Google introduced “Unified Pricing Rules” (“UPR”). Google asserted that, because it was moving AdX to a first-price auction, “floor prices no longer

serve the purpose of closing the gap between the highest bid and the second bid.” Google also asserted that eliminating differential price floors would “establish[] a level playing field for advertisers, simplif[y] the ad tech bidding landscape for publishers, improve[] matches, and increase[] publisher revenue.” EDVA Op., 778 F. Supp. 3d at 870. Now, if a publisher sets a price floor, it must apply equally to all exchanges and buyers in the market for the publisher’s inventory. The result for many publishers is a price floor lower for AdX than what AdX had to clear previously.

222. As the Eastern District of Virginia recognized, Google’s justifications for UPR were disingenuous. *See* EDVA Op., 778 F. Supp. 3d at 870. Google knew that publishers were “rational” in setting differential floors and that “some publishers set higher price floors on AdX to ‘protect’ their businesses.” *Id.* Still, Google implemented UPR over the protests of its publisher customers, offering “strong evidence that Google implemented Unified Pricing Rules to enhance the AdX-DFP tie, and not for its proffered justifications of helping its publisher customers simplify their decision-making, receive better matches, and increase revenue.” *Id.* at 871.

223. Google’s justifications were also logically inconsistent. First, if differential price floors truly made no difference to Google, there would have been no reason to eliminate them. But they *did* make a difference. As the U.K. Competition & Markets Authority found in its investigation of Google’s ad tech dominance, Google enforced UPR because it was dissatisfied with publishers setting unique price floors that made AdX compete. Second, without floors, Google still does not offer its best price for inventory. For example, Google’s Minimum Bid to Win permits AdX to win impressions for less than the price the advertisers it represents would be

willing to pay. Differential floors remain valuable because they would allow publishers to force AdX to compete more vigorously for impressions.

224. Differential price floors also had other benefits for publishers. For example, they allowed publishers to maintain diversity in their demand partners. Publishers specifically sought to diversify their revenue to “reduce[] dependence” on Google. EDVA Op., 778 F. Supp. 3d at 831. Observing this dynamic, the Eastern District of Virginia confirmed that Google took away differential floors in order to restrict its customers’ ability to deal with its rivals and remove “a primary tool that publishers had used to maintain revenue diversity and to mitigate Google’s dominance of the ad exchange market.” EDVA Op., 778 F. Supp. 3d at 865.

225. Higher price floors against AdX also served yet another purpose that Google never addressed: Policing unpleasant, unsuitable, or even malicious advertisements. While AdX is an important DSP for Vox Media, it is also a significant source of low-quality advertising, in substantial part because of low-quality ads from Google Ads. For years, Vox Media used differential price floors to weed out unsuitable ads that its readers did not want to see. Eliminating SSP-level price floors left Vox Media exposed to a greater threat of improper (or even malicious) advertisements appearing on its pages.

226. The ability to apply differential price floors at both the exchange- and DSP-level, particularly as applied to AdX and Google Ads, would be valuable to Vox Media today. Placing differential floors on AdX would, among other things, help diversify Vox Media’s exchanges and make it less reliant on Google. Differential floors on AdX also would help alleviate the proliferation of low-quality advertising from Google.

227. Google also made misrepresentations to publishers to enforce UPR. For example, in the May 2019 “Best Practices” guide, Google represented that applying multipliers to non-

Google bids — one potential workaround to the unified price floors — would not “maximize yield.” Further, in the “Best Practices” guide, Google actually *proposed* a different workaround to the unified floors (using “house line items” in DFP), only to kill it weeks later once publishers started to use it.

228. UPR also puts many rival exchanges at a price disadvantage. For example, if differential floors were available, publishers could adjust floors for non-Google exchanges downward by 5% to account for the 5% Exchange Bidding fee. That adjustment could be in a publisher’s interest for any number of reasons, including to diversify its demand partners or to secure what it believes is a higher quality ad from a different exchange. But now, with UPR, publishers cannot account for the Exchange Bidding fee. That means rival buyers in Exchange Bidding must offer Google not only their best price for inventory, but rather their best price *plus* a 5% surcharge.

229. Ultimately, UPR is irrational but for its destruction of competition. In a competitive market, no ad server would limit a publisher’s ability to set prices — particularly based on the promise that bidders for inventory are competing fairly. Publishers value maximum flexibility to secure the highest prices for inventory, and this Court has recognized that Google’s use of its “right to restrict publishers’ pricing decisions does not appear to have a legitimate business purpose other than to restrict competition in the ad exchange market.” *In re Google Digit. Advert. Antitrust Litig.*, 627 F. Supp. 3d at 401. Instead, “Google imposed Unified Pricing Rules . . . at the request of the AdX team, who wanted to use the termination of Last Look as an opportunity to significantly limit the ability of publishers to set floor prices per buyers.” EDVA Op., 778 F. Supp. 3d at 871 (quotation marks omitted). And indeed, for each auction in which

Google restricted publishers’ pricing decisions, it enhanced its monopoly in the exchange market while harming publishers like Vox Media.

IV. ANTICOMPETITIVE EFFECTS

230. Google’s unlawful conduct has resulted in significant anticompetitive effects in the markets for publisher ad serving and ad exchanges. By thwarting competition for publisher inventory, Google has reduced the value of publishers’ ad space and thereby depressed publisher revenue. But for Google’s conduct, there would be *more* impressions generated and therefore more output in the ad-serving and exchange markets. Additionally, advertisers would have more and higher quality ad space in which to place ads, and users would be presented with more relevant advertisements.

231. Vox Media, as a direct customer of DFP and AdX, has suffered substantial economic harm as a direct and proximate result of Google’s unlawful conduct. AdX has capitalized on Last Look, Minimum Bid to Win, Unified Pricing Rules, and other improper advantages and manipulations to obtain subcompetitive prices for Vox Media’s inventory with no alternatives for Vox Media. Absent Google’s conduct, Vox Media would be able to make available even more, higher quality impressions for purchase on Vox Media’s webpages and create more high-quality, premium journalism.

A. Publisher Ad Servers

232. As this Court has recognized, Google substantially has increased barriers to entry in the market for publisher ad servers, in large part by tying DFP to AdX. *In re Google Digit. Advert. Antitrust Litig.*, 627 F. Supp. 3d at 368-69 (concluding that State plaintiffs had plausibly alleged “anticompetitive effects in both markets” for ad servers and ad exchanges by identifying how “Google restricted the ability of publishers using a non-Google ad server to trade through AdX, only allowing publishers that license Google’s ad server to receive live, competitive bids

from AdX”). Any entrant into the publisher-ad-serving market now must be able to offer an equally powerful ad exchange to encourage publishers to switch publisher ad servers. Such two-level market entry is all but impossible, especially for an entrant that lacks search-derived demand that it can lock into its ad exchange.

233. The anticompetitive effect of Google’s conduct on the publisher-ad-server market is evident from the exit of competitors and limited entry over the past decade. Several large ad tech firms used to offer publisher ad servers, including substantial competitive offerings from Yahoo!, AppNexus, and OpenX. Today, few competitors to Google remain in the market for publisher ad servers. The Yahoo! and OpenX ad servers were shuttered in 2019, and AppNexus (since rebranded as Xandr) faces an uncertain future. Although Xandr was acquired by Microsoft in June 2022, few publishers have adopted Xandr’s publisher ad server, in large measure because switching would require forgoing AdX demand. As the Eastern District of Virginia found: “[A]lmost ‘every other publisher ad server either went out of business or was sold for scrap’ because Google has ‘destroyed all competition’ in the ad server market through its AdX-DFP tie and associated activities.” EDVA Op., 778 F. Supp. 3d at 864 (quoting Brian O’Kelley, founder of AppNexus). Meanwhile, there have been no viable entrants into the publisher-ad-serving market for many years.

234. Google’s monopoly control over ad serving permits Google to depress prices for publisher inventory below competitive levels. Google systematically routes publisher inventory to its own exchange at the expense of publisher revenue, and publishers have little to no recourse. Publishers have no power to negotiate the terms of their ad-serving agreements, and they have little ability to change the auction rules in DFP. Indeed, each time publishers

implement a way to work around Google’s latest anticompetitive move — *e.g.*, using house line items post-UPR — Google quickly finds a way to kill it.

235. Vox Media, as a captive user of DFP, has suffered directly as a result of Google’s anticompetitive conduct. DFP thwarts competition for Vox Media’s inventory and preferentially routes that inventory to AdX, even though a fair, real-time auction would produce higher publisher revenue, allowing for greater investment, the result of which would be more and better content for Vox Media’s more than 100 million monthly current users, driving further reader engagement and in turn resulting in more ad impressions for sale.

236. Google’s conduct was intended to cause, and did cause, a direct, substantial, and reasonably foreseeable effect on United States commerce through the monopolization of the worldwide market for publisher ad servers, which caused underinvestment in and exits from the market by U.S.-based ad server providers. These domestic effects in turn damaged Vox Media’s domestic and foreign revenue. Google’s unlawful tie of its publisher ad server to its advertising exchange excludes numerous United States rivals from the ad-server market. *See supra* § III.A. Absent Google’s unlawful tie, Vox Media could have licensed one of these now-defunct publisher ad servers to serve both its United States and foreign inventory. Instead, Vox Media is forced to license DFP as its primary publisher ad server for its inventory nationwide and worldwide.

237. As a result of Google’s monopolization of the worldwide ad-server market, Vox Media’s ad inventory, as a whole, has been sold at depressed prices. This reduces Vox Media’s domestic revenues, which in turn necessarily reduces Vox Media’s investment in content for readers and, ultimately, Vox Media’s output of advertising impressions.

B. Ad Exchanges

238. Google likewise has harmed competition in the market for ad exchanges. Most notably, by rigging the auction rules in DFP, Google has insulated AdX from competition with other exchanges. This Court has previously held that Google's use of Dynamic Allocation, Enhanced Dynamic Allocation, Bernanke, Dynamic Revenue Share, the redaction of auction data, Poirot, UPR, and Minimum Bid to Win all plausibly caused harm to the ad exchange market. *In re Google Digit. Advert. Antitrust Litig.*, 627 F. Supp. 3d at 384-85 (Dynamic Allocation), 386-87 (EDA), 389 (Bernanke), 390 (Dynamic Revenue Share), 397 (redaction of auction data), 398 (Poirot), 402 (UPR); *In re Google Digit. Advert. Antitrust Litig.*, 721 F. Supp. 3d at 259 (Minimum Bid to Win).

239. As Google excludes rivals from competition, it has increased its share of the exchange market. Google's increasing share gives it access to bid and win data at a scale that it can use to develop and enforce features that benefit AdX over rival exchanges, to the detriment of Vox Media and its users. For example, Google has recast its Last Look advantage as Minimum Bid to Win. That, in combination with UPR, allows Google to intermediate an even greater share of publishers' impressions in AdX at significantly lower prices, which only exacerbates a negative feedback loop to the detriment of rivals and consumers. In short, "Google's use of its monopoly power to impose artificial technical limitations that made it harder for customers to do business with rivals, instead of competing on the merits by 'making [its ad exchange] more attractive to customers,' constituted anticompetitive conduct." EDVA Op., 778 F. Supp. 3d at 859.

240. Competing exchanges consequently have exited the market and new entrants are unable to compete. More than a decade ago, Microsoft, Yahoo!, and top Silicon Valley venture funds competed in the exchange market, with the AdECN, AdBrite, and ASDAQ exchanges. All

three of these exchanges since have ceased operations. Meanwhile, competition from new entrants is weak because Google has obstructed competition among exchanges. Competitors have lowered their revenue shares to half and even a quarter of Google's, yet Google's share of the exchange market continues to increase. That is because, *inter alia*, Google can capitalize on Last Look and its variations and selectively modify its revenue share when needed to take impressions from rivals, only to charge even higher fees on less competitive impressions. Google thus has power to raise prices without losing (and indeed, is gaining) market share.

241. Neither publishers nor advertisers are a source of competitive discipline for Google. Publishers cannot withhold their inventory from DFP because they need access to AdX, and almost all rivals for publisher ad serving have exited the market. As to advertisers, because Google can trade on inside information to win impressions more cheaply than rivals, DSPs that optimize their campaigns necessarily will increase their ad spending in AdX at the expense of other exchanges. Google's ability to underpay publishers increases the amount of advertiser demand it can control. Indeed, the Eastern District of Virginia previously recognized that only "other two-sided platforms can compete with ad exchanges for transactions," and AdX was not constrained by DSPs or other tools that do not directly mediate auction transactions between buyers and sellers. *See* EDVA Op., 778 F. Supp. 3d at 844.

242. Vox Media has suffered substantial economic injury as a direct and proximate result of Google's unlawful conduct. Google's Last Look, Dynamic Revenue Share, and related auction mechanisms have resulted in underpayment for Vox Media's inventory. When Vox Media tried to counteract Google's advantages with differential price floors, Google disabled that practice by imposing UPR. The result is less investment in Vox Media's content and fewer impressions for sale through ad exchanges — Google AdX or otherwise.

243. Google's conduct was intended to cause, and did cause, a direct, substantial, and reasonably foreseeable effect on United States commerce, which in turn damaged Vox Media's domestic and foreign revenues. Google's anticompetitive auction mechanisms and related conduct caused Google to gain dominant scale and exclude numerous United States rivals from the worldwide market for ad exchanges. *See supra* § III.B. Absent Google's unlawful monopolization, Vox Media would have traded substantial volumes of impressions over these excluded exchanges, with the result of greater revenue in the United States and abroad. Moreover, Google's myriad auction manipulations significantly reduce competition in the exchange market and drastically reduce Vox Media's ability to sell impressions through United States exchanges that remain in business.

244. As a result of Google's monopolization of the worldwide ad-exchange market and the exclusion of United States ad exchange competitors, Vox Media's entire inventory has been and continues to be sold at depressed prices. Google is also able to rig its bids and protect a supracompetitive revenue share. By employing those tactics, Google has depressed and continues to depress Vox Media's revenues, which Vox Media otherwise would have invested in their business, ultimately yielding a greater output of advertising impressions.

CLAIMS

I. COUNT 1 — MONOPOLIZATION OF THE MARKET FOR GENERAL PUBLISHER AD SERVERS FOR OPEN DISPLAY INVENTORY IN VIOLATION OF THE SHERMAN ACT, 15 U.S.C. § 2

245. Vox Media repeats and incorporates by reference each of the foregoing allegations of this Complaint.

246. Google unlawfully acquired and now unlawfully maintains a monopoly in the market for publisher ad serving by, *inter alia*, tying its publisher ad server (DFP) to its ad exchange (AdX). Google has forced publishers to use DFP and erected barriers to entry in the ad

serving market. Most ad-serving rivals have exited the market, and any new entrant simultaneously would have to provide a similarly powerful ad exchange.

247. Google has implemented an unlawful tying arrangement: (1) AdX and DFP are separate products in separate markets; (2) AdX has market power in the relevant exchange market; (3) Google has coerced publishers to use DFP in order to access AdX, even though they otherwise would not do so in a competitive market; and (4) as a result of the tie, Google has monopolized, and maintains a monopoly in, the market for publisher ad serving. The effect of the tie has been to reduce publisher revenue, which otherwise would have been invested to spur more content and growth, yielding greater output of impressions available for sale.

248. Google's various anticompetitive tactics to undermine client-side header bidding also have stymied investment in and/or entry by a potential ad-serving competitor.

249. As a result of Google's unlawful conduct, Vox Media has suffered, and continues to suffer, monetary harm in an amount to be proved at trial.

II. COUNT 2 — MONOPOLIZATION OF THE MARKET FOR AD EXCHANGES FOR OPEN DISPLAY INVENTORY IN VIOLATION OF THE SHERMAN ACT, 15 U.S.C. § 2

250. Vox Media repeats and incorporates by reference each of the foregoing allegations of this Complaint.

251. Google unlawfully acquired and now unlawfully maintains a monopoly in the market for ad exchanges. By exploiting its monopoly in publisher ad serving, Google has, *inter alia*, (1) restricted publishers from routing inventory to multiple exchanges; (2) forcibly routed publisher inventory to Google's exchange (*e.g.*, Dynamic Allocation, Dynamic Revenue Share, Project Bernanke) even though a fair and transparent auction would yield higher revenues for publishers; (3) traded on inside information (*e.g.*, Last Look, Minimum Bid to Win); (4) disabled

publishers' efforts to introduce more competition for their inventory; and (5) siphoned revenue from publishers that did not adequately favor Google products to publishers that did.

252. With these tactics, Google has acquired monopoly power in the exchange market, depressed prices for publisher inventory below competitive levels, and ultimately reduced the output of impressions available for exchanges to intermediate and advertisers to buy. Of the impressions that remain, Google now controls a greater and growing share.

253. As a result of Google's unlawful conduct, Vox Media has suffered, and continues to suffer, monetary harm in an amount to be proved at trial.

III. COUNT 3 — ATTEMPTED MONOPOLIZATION OF THE MARKET FOR AD EXCHANGES FOR OPEN DISPLAY INVENTORY IN VIOLATION OF THE SHERMAN ACT, 15 U.S.C. § 2

254. Vox Media repeats and incorporates by reference each of the foregoing allegations of this Complaint.

255. To the extent that Google contends it does not have a monopoly in the market for ad exchanges, Vox Media asserts in the alternative that Google intentionally and unlawfully has attempted to monopolize the market for ad exchanges.

256. The anticompetitive conduct set forth herein evinces a specific intent to monopolize and a dangerous probability of monopolizing the market for ad exchanges.

257. Over several years, Google's share of the exchange market has grown substantially while rivals have not made any appreciable gains.

258. As a result of Google's unlawful conduct, Vox Media has suffered, and continues to suffer, monetary harm in an amount to be proved at trial.

IV. COUNT 4 — UNLAWFUL TYING IN VIOLATION OF THE SHERMAN ACT, 15 U.S.C. § 1

259. Vox Media repeats and incorporates by reference each of the foregoing allegations of this Complaint.

260. Google tied its DFP ad server to its AdX exchange, thereby coercing publishers to license DFP.

261. Google's DFP and Google AdX are separate and distinct products in separate product markets.

262. Google AdX has monopoly power or, in the alternative, sufficient market power in the exchange market to coerce publishers to license DFP, thus restraining competition in the market for publisher ad servers.

263. Google's tying arrangement affects a substantial volume of commerce in the ad-server market and has substantially foreclosed competition in that market.

264. Google's tying arrangement has excluded competition in the publisher-ad-server market and caused Vox Media substantial harm. For example, Google's tying arrangement has subjected Vox Media to numerous Google schemes that have depressed prices for Vox Media's inventory below competitive levels, and ultimately reduced the output of Vox Media's impressions.

265. As a result of Google's unlawful conduct, Vox Media has suffered, and continues to suffer, monetary harm in an amount to be proved at trial.

V. COUNT 5 — UNLAWFUL DECEPTIVE ACTS OR PRACTICES IN VIOLATION OF NEW YORK GENERAL BUSINESS LAW §§ 349-350

266. Vox Media repeats and incorporates by reference each of the foregoing allegations of this Complaint.

267. At all relevant times and for all acts alleged in this Complaint, Google was and is doing business in the State of New York and is subject to New York law. Google offered and advertised its ad tech products (*e.g.*, DFP) to consumers operating in the State of New York, including Vox Media. Indeed, Google has assigned New York employees to sell and make representations about its ad tech products to publishers, like Vox Media, with a substantial New York presence. Vox Media contracted with Google through Google's sales team, which includes New York-based employees, to license Google's ad tech products at issue in this Complaint.

268. Google employees based or working in New York also planned, enforced, and crafted misleading communications and advertisements about each of the anticompetitive and deceptive acts alleged in this Complaint. Google has acknowledged that much of its conduct occurred in this District, *see Texas v. Google*, No. 20-cv-00957 (E.D. Tex. Jan. 19, 2021), ECF No. 28, at 4-5, and that the largest share of its witnesses is located in this District, *see* Tr. at 49-50 (E.D. Tex. Mar. 18, 2021), ECF No. 90.

269. Google's anticompetitive and deceptive conduct has harmed and continues to harm many thousands of publishers throughout the United States, including in New York. Indeed, given Google's overwhelming market share, more than 90% of publishers that use a publisher ad server have been harmed by Google's deceptive practices. That includes not only larger publishers like Vox Media, but also many thousands of smaller publishers that use the entry-level version of DFP. In effect, there is no corner of U.S. publishing that has escaped Google's unlawful conduct, including publishers both large and small.

270. Vox Media's entire publication portfolio has been injured as a result of billions of deceptive transactions that Google has planned and enforced from New York. Additionally, the majority of Vox Media's advertising operations staff is based in New York, and hundreds of

thousands of New Yorkers consume content from Vox Media-powered websites and apps each day. Moreover, Vox Media solicits advertisements from many New York advertisers and other New York buyers of ad inventory. As a result, both Vox Media and everyday New Yorkers have been substantially injured by Google's unlawful and deceptive conduct.

271. Google's deceptive practices impacted billions of transactions in New York and among New Yorkers. When New Yorkers accessed Vox Media's websites and mobile apps in New York and viewed advertising impressions, or when New Yorkers participated in auctions for Vox Media's New York impressions, the auctions for those impressions were affected by Google's deceptive programs.

272. As alleged in this Complaint, Google's conduct is doubly deceptive. First, Google rigs auctions for publishers' advertising inventory without their knowledge and entirely beyond their detection. For example, with Project Bernanke, Google ran billions of price-depressive auctions in a manner that was undetectable to publishers. Google similarly has enforced other auction mechanics (*e.g.*, Dynamic Revenue Share) without publishers' knowledge and consent, and it has manipulated publishers' datasets (*e.g.*, bid- and impression-level data files) in order to ensure that publishers could not monitor or counteract Google's conduct. With each auction that Google has manipulated using one or more of its anticompetitive strategies, it has engaged in an independent, deceptive commercial act.

273. Second, over many years, Google has made a series of misrepresentations to publishers regarding the operation of its ad tech products, often in publicly available marketing and advertising materials, and also in publisher-specific communications. Google has assured publishers that DFP works for their benefit despite knowing that practices like Dynamic Allocation, Enhanced Dynamic Allocation, Dynamic Revenue Share, Minimum Bid to Win, and

Unified Pricing Rules harm publishers and benefit Google. Google made false representations about each of these practices, and so induced Vox Media and others to enable, or otherwise use, them and trust they were operating appropriately. Meanwhile, Google knew and discussed internally how those practices led to depressed prices for publishers' ad inventory. Google also falsely assured publishers that it was not trading on inside information, and that it was running a fair second-price auction when, in reality, it routinely traded on rivals' bids and ran manipulated auctions for billions of impressions every month. Publishers, including Vox Media, have relied on Google's misrepresentations to, *inter alia*, decide which products to adopt and how to design their auction strategies.

274. Google made these misrepresentations to Vox Media specifically, with the goal and effect of causing Vox Media substantial financial injury. For example:

- a. Google lied that Enhanced Dynamic Allocation would protect Vox Media's direct deals and would not cause Vox Media to lose revenue from direct deals. Vox Media enabled Enhanced Dynamic Allocation, in part, based on Google's representations that it would not displace direct deals to the detriment of direct revenue. Now it cannot shut off Enhanced Dynamic Allocation.
- b. Google concealed that Enhanced Dynamic Allocation artificially would depress the price of a direct deal using a "temporary CPM," which permitted AdX to win impressions even when a direct-deal advertiser was willing to pay more.
- c. Google lied that Enhanced Dynamic Allocation did not permit Google to compete with certain sponsorship deals. Potentially for years, Google deceived Vox Media into believing that its highest value direct deals were safe from Enhanced Dynamic Allocation.

d. For years, in its DFP agreements, Google has represented to Vox Media that it does not use “data entered by [publishers] . . . that is not generally shared with buyers” — including header-bidding bids entered as line items in DFP — “for purposes of informing bids” made by Google. That is false for many reasons already discussed: Google routinely trades on inside information not shared with other buyers.

e. Google represented to Vox Media that Exchange Bidding leads to higher revenue. For years, Vox Media enabled Exchange Bidding based on false promises of greater revenue.

f. In its implementation of Dynamic Revenue Share, Google intentionally hid from publishers that it was altering the revenue shares and floor prices in auctions for their inventory. Prior to the introduction of UPR, publishers, including Vox Media, intentionally set price floors to maximize their revenues and control the advertising inventory they sold. Absent Google’s omission, Vox Media would have changed its price-flooring strategy.

g. Google falsely represented that AdX ran a true second-price auction, when in reality, Project Bernanke and its variants converted AdX’s auction into a manipulated auction. Absent that false representation, Vox Media would have changed its auction strategy.

h. Google intentionally withheld information regarding Bell v.2 from publishers. Specifically, Google did not inform publishers, including Vox Media, that if publishers sent multiple calls to AdX, Google would fix the bids those publishers receive below an artificially low cap. To the contrary, Google for years told publishers that multi-calling was an appropriate auction strategy.

i. Google represented to publishers, including Vox Media, that it had eliminated Last Look advantages in 2019. But in fact, Google's Last Look, in the form of Minimum Bid to Win, persists to this day.

275. Google likewise misled federal antitrust enforcers and the U.S. Congress regarding its planned use of publishers' competitive and other sensitive data. The Federal Trade Commission approved Google's acquisition of DoubleClick in reliance on those and other misrepresentations.

276. Publishers, large and small, cannot counteract or forestall Google's deceptive and anticompetitive practices. Because Google controls publisher ad serving, publishers must subject their inventory to the auction manipulations that Google enforces in DFP. Similarly, because AdX historically was Vox Media's (and others') largest exchange, publishers have had no choice but to sell growing shares of inventory at artificially depressed prices. As proof of its control over U.S. publishing, Google enforces substantially the same terms of dealing across all publishers, and it has enforced the same deceptive practices across all publisher inventory. No publisher has the bargaining power to negotiate around Google's deceptive practices.

277. Google's misrepresentations and omissions are material and have resulted in a significant loss of revenue for Vox Media. Vox Media's injury persists today.

278. Google knowingly and intentionally has engaged in these deceptive practices with the purpose and effect of monopolizing the relevant ad tech markets, depriving publishers of revenue, and deceiving publishers regarding the true impacts of its unlawful practices.

279. Likewise, the public's interest in a fair and competitive marketplace for display advertising is harmed by Google's deceptive acts and practices.

VI. COUNT 6 — COMMON-LAW FRAUD

280. Vox Media repeats and incorporates by reference each of the foregoing allegations of this Complaint.

281. Google falsely represented to Vox Media that various features of DFP and AdX would serve Vox Media’s interests. Google knew that its representations were false. For example:

- a. Google justified UPR because it supposedly “help[ed] . . . publisher[s] . . . simplify their decision making, receive better matches, and increase revenue,” but admitted internally that UPR was “an opportunity to significantly limit the ability of publishers to set floor prices.” EDVA Op., 778 F. Supp. 3d at 871.
- b. For years, in its DFP agreements, Google has represented to Vox Media that it does not use “data entered by [publishers] . . . that is not generally shared with buyers” — including header-bidding bids entered as line items in DFP — “for purposes of informing bids” made by Google. That is false for many reasons already discussed: Google routinely trades on inside information not shared with other buyers.
- c. Google represented to Vox Media that Exchange Bidding leads to higher revenue. For years, Vox Media enabled Exchange Bidding based on false promises of greater revenue.
- d. In its implementation of Dynamic Revenue Share, Google intentionally hid from publishers that it was altering the revenue shares and floor prices in auctions for their inventory. Prior to the introduction of UPR, publishers, including Vox Media, intentionally set price floors to maximize their revenues and control the advertising inventory they sold. Absent Google’s omission, Vox Media would have changed its price-flooring strategy.

e. Google falsely represented that AdX ran a true second-price auction, when in reality, Project Bernanke and its variants converted AdX's auction into a manipulated auction. Absent that false representation, Vox Media would have changed its auction strategy.

f. Google intentionally withheld information regarding Bell v.2 from publishers. Specifically, Google did not inform publishers, including Vox Media, that if publishers sent multiple calls to AdX, Google would fix the bids those publishers receive below an artificially low cap. To the contrary, Google for years told publishers that multi-calling was an appropriate auction strategy.

g. Google represented to publishers, including Vox Media, that it had eliminated Last Look advantages in 2019. But in fact, Google's Last Look, in the form of Minimum Bid to Win, persists to this day.

282. Google intended to induce Vox Media to rely on its misrepresentations.

283. Vox Media in fact reasonably relied on Google's misrepresentations to enact and keep in place various features of DFP and AdX, and to adopt strategies to monetize ad inventory. For example, for years, Vox Media set its monetization strategy on the belief that Google was running a fair second-price auction. But because of Bernanke, DRS, and other manipulations, that was false.

284. As a result of that reliance, Vox Media has sustained and continues to sustain significant revenue loss.

VII. COUNT 7 — UNJUST ENRICHMENT

285. Vox Media repeats and incorporates by reference each of the foregoing allegations of this Complaint.

286. Google was unjustly enriched and benefited by manipulating its online advertising auctions. For years, Google employed Dynamic Allocation, Enhanced Dynamic Allocation, Project Bernanke, UPR, and other schemes to monopolize the ad-serving and exchange markets, and to depress prices for publishers' inventory. In executing these schemes, Google used DFP to prevent publishers from soliciting competitive bids from rival exchanges and rigged AdX's bids by trading on inside information.

287. Google's conduct was not within the scope of Vox Media's contracts with Google. Google's deceptions extend beyond the specific representations it made in its contracts with Vox Media, and concern details that were not disclosed or within the subject matter of the contracts. For example, Google's contracts do not disclose or suggest that Google would depress bids for publishers despite promises of running a fair second- or first-price auction (*e.g.*, Bernanke and Alchemist) or that Google would secretly depress bids on non-Google exchanges to coerce publishers to sell inventory to AdX (*e.g.*, Project Poirot).

288. The enrichment and benefit to Google came at the expense of Vox Media. Vox Media relied on Google to operate honest advertising auctions to facilitate the sale of Vox Media's advertising inventory. By manipulating auctions run by DFP and intermediated through AdX, Google artificially depressed the price of Vox Media's display advertising inventory to Google's benefit. For example, as Google acknowledged in a study on Project Bernanke, the

effect of that auction manipulation alone resulted in up to a 40% reduction in publishers' revenue. Vox Media was unfairly deprived of revenue as a result.

289. Equity and good conscience require that Google make restitution to Vox Media. For years, Google has represented that its ad serving practices were in Vox Media's interests. Time and again, Google staff have acknowledged internally that these representations were false, that publisher inventory pricing was reduced, and that its auction manipulations were "inherently unfair." Fairness thus requires that Google make restitution to Vox Media.

PRAYER FOR RELIEF

290. WHEREFORE, Vox Media requests the Court to enter judgment in its favor against Defendants, awarding all such relief as the Court deems appropriate and just.

291. Vox Media requests the following relief:

- a. That the Court enter an order declaring that Defendants' actions, as alleged herein, violate the Sherman Act and New York law;
- b. That the Court enjoin Defendants from continuing to violate the Sherman Act and enter relief to restore competition;
- c. That the Court enjoin Defendants from continuing to violate New York law and enter relief to protect the public from Defendants' deceptive practices;
- d. That the Court enjoin Defendants from taking additional actions that will further harm competition;
- e. That the Court award Vox Media damages, treble damages, punitive damages, and/or restitution in an amount to be determined at trial;
- f. That the Court award Vox Media pre- and post-judgment interest;
- g. That the Court award Vox Media its costs of suit, including reasonable attorneys' fees and expenses; and

h. That the Court award any and all such other relief as the Court may deem proper.

DEMAND FOR JURY TRIAL

292. Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Vox Media demands a jury trial of all issues so triable.

Dated: January 14, 2026

Respectfully submitted,

/s/ John Thorne

John Thorne
Daniel G. Bird
Bethan R. Jones
Christopher C. Goodnow
Daniel S. Severson
Mark P. Hirschboeck
Eliana Margo Pfeffer
Eric J. Maier
Sven E. Henningson
KELLOGG, HANSEN, TODD, FIGEL
& FREDERICK, P.L.L.C.
1615 M Street NW
Suite 400
Washington, DC 20036
Tel.: (202) 326-7900
Fax: (202) 326-7999
Email: jthorne@kellogghansen.com
dbird@kellogghansen.com
bjones@kellogghansen.com
cgoodnow@kellogghansen.com
dseverson@kellogghansen.com
mhirschboeck@kellogghansen.com
epfeffer@kellogghansen.com
emaier@kellogghansen.com
shenningson@kellogghansen.com

Counsel for Vox Media, LLC