IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

IN RE: GOOGLE DIGITAL ADVERTISING ANTITRUST LITIGATION	Case No. 1:21-md-3010 (PKC) **CONSOLIDATED AMENDED COMPLAINT** JURY TRIAL DEMANDED

This Document Relates To:

OPENX TECHNOLOGIES, INC., and OPENX LTD., *Plaintiffs*, v. GOOGLE LLC, and ALPHABET INC., *Defendants.*	Case No. 1:25-cv-10817 (PKC)
MAGNITE, INC., *Plaintiff,* v. GOOGLE LLC, and ALPHABET INC., *Defendants.*	Case No. 1:25-cv-10818 (PKC)
PUBMATIC, INC., *Plaintiff*, v. GOOGLE LLC, and ALPHABET INC., *Defendants.*	Case No. 1:25-cv-10819 (PKC)

EQUATIV SAS, EQUATIV INC., SHARETHROUGH INC., and SHARETHROUGH USA, INC.,

Plaintiffs,

v.

GOOGLE LLC, and ALPHABET INC.,

Defendants.

Case No. 1:26-cv-00140 (PKC)

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Plaintiffs OpenX Technologies, Inc. and OpenX Ltd. (together, "OpenX"), Magnite, Inc. ("Magnite"), PubMatic, Inc. ("PubMatic"), Equativ SAS, Equativ Inc., Sharethrough Inc., and Sharethrough USA, Inc. (together, "Equativ", and together with OpenX, Magnite, and PubMatic, the "Plaintiffs"), by and through their undersigned counsel, bring this Consolidated Amended Complaint (the "Complaint") for damages, declaratory and injunctive relief against Google LLC and Alphabet Inc. (together, "Google") and allege as follows:

NATURE OF THE ACTION

1. Google's decades-long scheme to monopolize the digital advertising industry and block new market entrants has been fully revealed and adjudicated as illegal anticompetitive conduct. The Plaintiffs—independent digital advertising platforms that attempted to introduce competition in the industry—were continually thwarted by Google's conduct. The Plaintiffs introduced products and services that made sales of digital advertising more efficient by improving the market's ability to value individual ad spaces, optimizing outcomes for both sellers (publishers) and buyers (advertisers). Each time the Plaintiffs did so, Google used its dominance to further rig the rules by which digital advertising is bought and sold, to the benefit of Google and to the detriment of the Plaintiffs and the entire industry. Google's conduct has stifled innovation, harmed competition, decreased product quality and caused significant damage to the Plaintiffs, as well as to Google's own publisher and advertiser customers. The Plaintiffs now bring this complaint as a follow-on complaint to *United States v. Google LLC*, Case No. 1:23-CV-108-LMB-JFA (E.D. Va.) ("*United States v. Google*"), to rectify the harm to the Plaintiffs that Google caused through its anticompetitive practices.

2. Publishers in the digital advertising space did not always have the ability to sell unique advertising space to specific advertisers. Historically, publishers were constrained by

direct deals—an inefficient system for selling advertising space in bulk, similar to the system for selling static print advertisements in a newspaper. That system did not reflect the unique value of each user viewing an ad, and it resulted in significant unsold ad space.

3. Beginning in 2008-2009, through multiple innovations, including from the Plaintiffs, the industry evolved to remove inefficiencies in the ad tech stack—the set of platforms and technologies that facilitate the buying and selling of display advertising on the open web—and improve outcomes for digital advertising customers. Primary among those was the development of real-time matching of specific ads to specific users. This matching requires ad tech platforms to consider unique user data, match it with multiple ad offerings, price the various matches, execute the optimal matching transaction, and deliver the winning ad to the user, all within the blink of an eye—namely, before the user notices meaningful latency in loading a webpage.

4. The Plaintiffs built and operate ad exchanges—platforms that stand between publishers and advertisers (or their agents) and attempt to optimize the matchmaking process between ad space and ads. And three of the Plaintiffs—OpenX, Equativ, and PubMatic—also built and offered at various times ad servers, publisher-side platforms that collect data on the relevant inventory and user, evaluate demand for an ad space from multiple different sources, including ad exchanges, and then select which ad to show the user. The Plaintiffs invested years and hundreds of millions of dollars competing for the business of publishers and advertisers alike, striving to offer the best technology, superior service, and low prices. But the Plaintiffs were marginalized and their competitive efforts were hampered by Google's decades-long, constantly evolving anticompetitive campaign.

5. Google operates the world's dominant ad exchange, AdX. Google also acquired and operates the world's dominant ad server, DFP. Google reached this dominance through a series of unlawful ties and ever-escalating ancillary anticompetitive conduct that leveraged the massive advertising demand Google controls through its ad buying platforms to elevate and build an impenetrable moat around its ad server and ad exchange offerings.

6. On January 24, 2023, following an investigation lasting several years, the United States Department of Justice, along with the attorneys general of California, Colorado, Connecticut, New Jersey, New York, Rhode Island, Tennessee and Virginia (together, the "Government"), filed a civil antitrust lawsuit against Google in the Eastern District of Virginia. After a three-week trial in that case, *United States v. Google*, the court (Brinkema, J.) found that Google willfully and illegally acquired and maintained monopolies in the markets for publisher ad servers and ad exchanges in violation of Section 2 of the Sherman Act and unlawfully tied products in each of these two markets in violation of Sections 1 and 2 of the Sherman Act. *See generally United States v. Google*, 778 F. Supp. 3d 797 (E.D. Va. 2025) ("Liability Op.").

7. That outcome was hardly surprising. In practice, Google controls, and at all times relevant to this Complaint has controlled, nearly the entire ad tech stack, calling the shots as to which ads get placed, where they get placed, and at what prices they get placed. Google can exert control over advertising transactions because it is simultaneously the broker for a large number of buyers, the broker for the vast majority of sellers, and the operator of the auction house where most transactions between buyers and sellers occur. Google gained that control by using its market power to acquire several monopolies in sequence. Most specifically, Google controlled the largest source of digital advertising demand in the world through its ad buying tool, AdWords. Google had attracted millions of advertisers to AdWords by offering them the

unique ability to purchase ads shown to users of Google's monopolistic search engine.[1] Google then established monopolies in the publisher ad server and ad exchange markets for open-web display advertising by tying access to demand from AdWords to the use of its ad exchange (AdX) and tying access to its ad exchange to the use of its publisher ad server (DFP). Google employees have acknowledged the conflict of interest inherent in Google owning dominant tools up and down the ad tech stack: "The analogy would be if Goldman or Citibank owned the NYSE [New York Stock Exchange]."

8. Google's monopolization scheme has evolved over time. As just one example, Google has required publishers to use DFP and AdX to sell their inventory to Google's AdWords advertisers. Google has also positioned DFP to accept real time bids—from *any* advertiser—*only* through AdX, placing AdX at a huge advantage over the Plaintiffs' exchanges. And Google imposed a program called Dynamic Allocation, which gave Google a "First Look" as a right of first refusal on each ad space made available through DFP. In 2013, however, that scheme came under threat, as an innovation known as header bidding partially circumvented the moat Google built around its ad server and ad exchange monopolies, allowing publishers to compare multiple real-time bids, from multiple advertisers, bidding through multiple ad exchanges. Header bidding technology was quickly adopted by publishers because it allowed for far more competition, leading to higher revenues for publishers and a better return on investment for advertisers. That competition on the merits, however, was anathema to Google. In the face of this revolutionary threat, Google used Dynamic Allocation to provide AdX a "Last Look,"

[1] In fact, a District Court overseeing a separate Department of Justice lawsuit regarding search found that "Google is a monopolist, and it has acted as one to maintain its monopoly" and "has violated Section 2 of the Sherman Act." *United States v. Google LLC*, 747 F. Supp. 3d 1, 32 (D.D.C. 2024).

allowing it to win bids after the header bidding process had finished with a full line of sight into its results. Google then employed multiple new programs intended to eliminate header bidding's success—and sometimes, to retaliate directly against the header bidding exchanges. These programs included sell-side dynamic revenue share ("SSDRS"), which permitted AdX to use its Last Look to manipulate its own take rates such that AdX, without sacrificing its own profits, won more business away from header bidding exchanges; and secretly manipulating its ad buying platforms' own bids—reducing one platform's bids on competing ad exchanges to shift traffic away from header bidding exchanges and back onto AdX ("Project Poirot") and shortchanging publishers' payments from another platform to build a secret pool of money to boost its own bids ("Project Bernanke" and its progeny).

9. Google's illegal and anticompetitive conduct has hurt participants across the digital advertising industry, including Google's competitors and Google's own customers. As a result of Google's conduct, publishers generate less money from their advertising inventory, while advertisers obtain less efficient matches and a poorer return on investment. Google's conduct has crippled the Plaintiffs at every turn, preventing them from competing on a level playing field and leaving them with fewer resources to develop groundbreaking innovations. Consequently, users view less relevant ads and have access to lower-quality content from weakened publishers—all because Google manipulates auctions to benefit itself rather than to facilitate optimal matches between advertisers and publishers. Google's self-interested conduct threatens the loss of a free and open Internet by siphoning off billions of dollars from advertisers, publishers and competing ad tech providers alike. To line its own pockets, Google has decimated digital publishers.

10. This Court has found that Google is precluded from disputing or relitigating its liability for much of its conduct under the antitrust laws, as well as the underlying findings of fact and conclusions of law laid out in the Liability Opinion. *See In re Google Digital Advertising Antitrust Litigation*, Case No. 1:21-md-3010 (PKC) (the "MDL"), Dkt. No. 1219 ("Collateral Estoppel Ruling"). The Plaintiffs now seek to hold Google accountable for the harm that Google's wrongful conduct caused to them specifically.

PARTIES

11. Plaintiff OpenX Technologies, Inc. is a Delaware corporation with its principal place of business in Pasadena, California.

12. Plaintiff OpenX Ltd. is a private limited company incorporated in England and Wales with its registered office in London. OpenX Ltd. is the parent of OpenX Technologies, Inc.

13. Plaintiff PubMatic, Inc. is a Delaware corporation. Its principal place of business is in Redwood City, California. PubMatic, Inc. is a publicly traded corporation, it has no parent corporation, and, to its knowledge, no publicly held corporation owns ten percent or more of its stock.

14. Plaintiff Magnite, Inc. is a Delaware corporation with its corporate headquarters and principal place of business in New York, New York. Magnite has offices throughout the United States and around the globe. Magnite operates the largest independent exchange for open-web display advertising.

15. Plaintiff Equativ SAS is a French simplified joint-stock company with its principal place of business in Paris, France. Equativ (previously "Smart AdServer") launched in

2006 as a publisher ad server provider. Over the next two decades, Equativ SAS expanded its presence across the ad tech stack worldwide, including by offering an ad exchange.

16. Plaintiff Equativ Inc. is a Delaware corporation with its principal place of business in New York, New York. Equativ Inc. is a subsidiary of Equativ SAS. Equativ SAS and Equativ Inc. work together to offer Equativ's products and services to publishers and advertisers in the United States.

17. Plaintiff Sharethrough Inc. is a Canadian corporation with its principal place of business in Montreal, Quebec. Sharethrough was incorporated in 2008 and over time grew into one of the top global independent omnichannel ad exchanges in the world.

18. Plaintiff Sharethrough USA, Inc. is a Delaware corporation with its principal place of business in New York, New York. Sharethrough USA, Inc. is a subsidiary of Sharethrough Inc. (together, "Sharethrough"). Sharethrough Inc. and Sharethrough USA, Inc. work together to offer Sharethrough's products and services to publishers and advertisers in the United States. In June 2024, Equativ acquired Sharethrough. For consistency, this Consolidated Complaint generally refers to Equativ and Sharethrough throughout as "Equativ." The Complaint refers to "Sharethrough" for allegations specific to Sharethrough or conduct specifically affecting Sharethrough prior to the 2024 merger. Today, Equativ offers products at multiple levels of the ad tech stack, including not only the Equativ Ad Server and Equativ SSP (ad exchange) but also a curating platform, Maestro by Equativ, and a managed services demand-side platform, Equativ Managed DSP. Equativ employs over 720 people across 18 countries with hundreds of millions of dollars in annual net recurring revenues, a majority of which is derived from their activities in North America.

19. Defendant Alphabet Inc. 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 LLC in late 2015.

20. Defendant Google LLC is a Delaware limited liability company with its principal place of business in Mountain View, California. Google LLC is the wholly owned, indirect primary operating subsidiary of Alphabet Inc. The sole member of Google LLC is XXVI Holdings, Inc., a Delaware corporation with its principal place of business in Mountain View, California. Since December 2019, Alphabet Inc. and Google LLC have had the same Chief Executive Officer. Alphabet Inc. controls Google LLC's day-to-day operations. Virtually all of Alphabet Inc.'s revenue comes from Google LLC. As a result of Alphabet Inc.'s operational control, Google LLC is Alphabet Inc.'s alter ego. This Complaint refers to Google LLC and Alphabet Inc. together as "Google."

JURISDICTION AND VENUE

21. This Court has subject-matter jurisdiction over the Plaintiffs' federal antitrust claims pursuant to Sections 1 and 2 of the Sherman Act (15 U.S.C. §§ 1 and 2), and Sections 4 and 16 of the Clayton Act (15 U.S.C. §§ 15 and 26), and 28 U.S.C. §§ 1331 and 1337.

22. This Court has supplemental jurisdiction over PubMatic's state-law claim pursuant to 28 U.S.C. § 1367(a).

23. This Court has personal jurisdiction over Google. Google provides a range of advertising technology products and services that are marketed, distributed and offered to consumers throughout the United States and within the Eastern District of Virginia, across state lines and internationally. Google engages in, and its activities substantially affect, interstate trade and commerce. Google does extensive business within the Eastern District of Virginia, a

substantial part of Google's anticompetitive conduct took place within the Eastern District of Virginia, and these actions arise out of Google's contacts within the Eastern District of Virginia. Among other things, Google contracted to provide its ad server to publishers in Virginia, including Town Hall Media and Gannett Co., Inc. ("Gannett"), the latter of which operates local publisher brands in Virginia, including the *Staunton News Leader*. *See* Liability Op., 778 F. Supp. 3d at 851. Google has purposefully availed itself of the benefits of doing business in Virginia by working with publishers in Virginia—including promoting and contracting for its ad server and ad exchange services—and Plaintiffs' claims arise out of those contacts with Virginia. As a Gannett executive testified during the *United States v. Google* trial, Gannett had no choice but to use Google's ad server and ad exchange to access demand for "monetizing many of [Gannett's] local properties," including the *Staunton News Leader*. *See* Liability Op., 778 F. Supp. 3d at 855. The Plaintiffs have contractual and/or commercial relationships with Gannett, Town Hall Media, and many other Virginia-based publishers for the sale of ad spaces. Because of the unfair advantages that Google's ad server provides to Google's ad exchange, which are described in greater detail below, each of the Plaintiffs has lost transactions to Google within the Eastern District of Virginia as a result of Google's anticompetitive conduct. Given its extensive activities in digital advertising markets that span the Eastern District of Virginia, Google has harmed Virginia-based publishers, advertisers, and consumers, and has derived substantial revenue from its conduct in the Eastern District of Virginia.

24. Moreover, "Google has proudly called Virginia home since 2009," with a large office complex and three data center campuses home to hundreds of employees, all across the Eastern District of Virginia. In 2024 alone, Google claims to have provided "$12.1 billion of economic activity for tens of thousands of Virginia businesses, publishers, nonprofits, creators,

and developers." Google operates data centers in Virginia in Loudoun and Prince William Counties, has recently broken ground on another data center in Chesterfield County and acquired a parcel for yet another data center in Botetourt County. Those Virginia data centers house servers that route a significant percentage of the ad requests received by the Plaintiffs. Google also maintains offices in Reston, Virginia. As of 2023, Google employed more than 875 individuals full time in Virginia.

25. Venue is proper in the Eastern District of Virginia under Section 12 of the Clayton Act, 15 U.S.C. § 22, and under 28 U.S.C. § 1391, because Google transacts business in the Eastern District of Virginia and a substantial part of Google's anticompetitive conduct took place within the Eastern District of Virginia.

JOINT ALLEGATIONS[2]

I. Digital Advertising Develops as a Major Medium for Selling Ads.

26. Digital advertising is the lifeblood of the Internet. Billions of digital display ads are shown to users every day—a scale of transactions that surpasses the daily average number of shares traded on the New York Stock Exchange many times over. Revenue from these digital advertisements compensates journalists, photographers, content creators and other online publishers, and allows users to access billions of webpages for free or, at most, minimal cost. Some of the world's most popular websites (*e.g.*, MSN, Weather.com, and Yahoo!) are free because the revenue from digital advertising subsidizes their maintenance and development. The Internet's rapid growth and development has been funded at every stage by digital advertising. Digital advertising also has created numerous job opportunities—from e-marketing and

[2] Unless otherwise indicated in the header of a specific section, the allegations in the "Joint Allegations" are alleged by all Plaintiffs.

advertising specialists, to data analysts who ensure the efficient use of advertising resources. The Internet's development into the world's primary channel for communications, media, and entertainment, coupled with the ability to collect data about the preferences of consumers who search for and access information online, has made digital advertising extremely popular. Digital advertising has overtaken traditional advertising channels such as print, radio, and television advertising. Today, more than thirty websites have achieved the milestone of welcoming over a billion visits per month, allowing advertisers to reach expansive and broad-ranging audiences.

27. Whereas traditional advertising largely depends on a one-size-fits-all strategy in which all users receive the same ads, digital advertising provides bespoke advertising tailored to particular users at a given time and location. As a result, digital advertising is more relevant and informative for the user—and more valuable for advertisers and publishers—than traditional forms of advertising. Digital advertisers employ this personalized understanding to place specific advertisements in front of specific users at specific times and specific locations, to maximize their return on advertising expenditures.

28. Digital advertising is the foundation by which publishers can offer, and users can obtain, free content on websites. It allows publishers to monetize advertising space on those websites rather than exclusively rely on user access fees. Some of the world's most popular websites, such as Weather.com, are able to make much or all of their content available for free—and even to further develop their website content—because of the revenue that digital advertising provides. Other websites, like *The New York Times* and *The Wall Street Journal*, use a hybrid model that includes both advertisements and paid subscriptions that allow users to access certain content that is placed behind paywalls. Although users see content and advertisements

simultaneously and instantaneously every time a webpage loads, behind the scenes, advertising transactions occur in milliseconds. Billions of such transactions occur each day across the Internet, resulting in trillions of digital display ad spaces bought by advertisers and displayed to users each month.

29. Although the technologies within the ad tech stack can sometimes facilitate the sale of other forms of digital advertising, this Complaint focuses on open-web display advertising. Display ads are online ads that engage users with text, image, or video-based marketing content, link to the advertiser's webpage, and often appear in rectangular spaces on publishers' websites.[3] Open-web display ads are display ads that run on websites that use third-party ad tech infrastructure to match advertisers' ads to publishers' inventory.[4]

30. The digital advertising industry depends on a series of interrelated tools, collectively called the **ad tech stack**, that connect digital publishers—website owners who have advertising space to sell—with digital advertisers, who wish to buy such advertising space. Conceptually, the ad tech stack is intended to ensure that the right (*i.e.*, most relevant) advertisement is placed on the right website, in front of the right user, at the right time. The ad tech stack includes both "buy-side" tools used by advertisers to buy digital ads, and "sell-side" tools used by publishers to sell digital ad space. These tools process millions of advertising

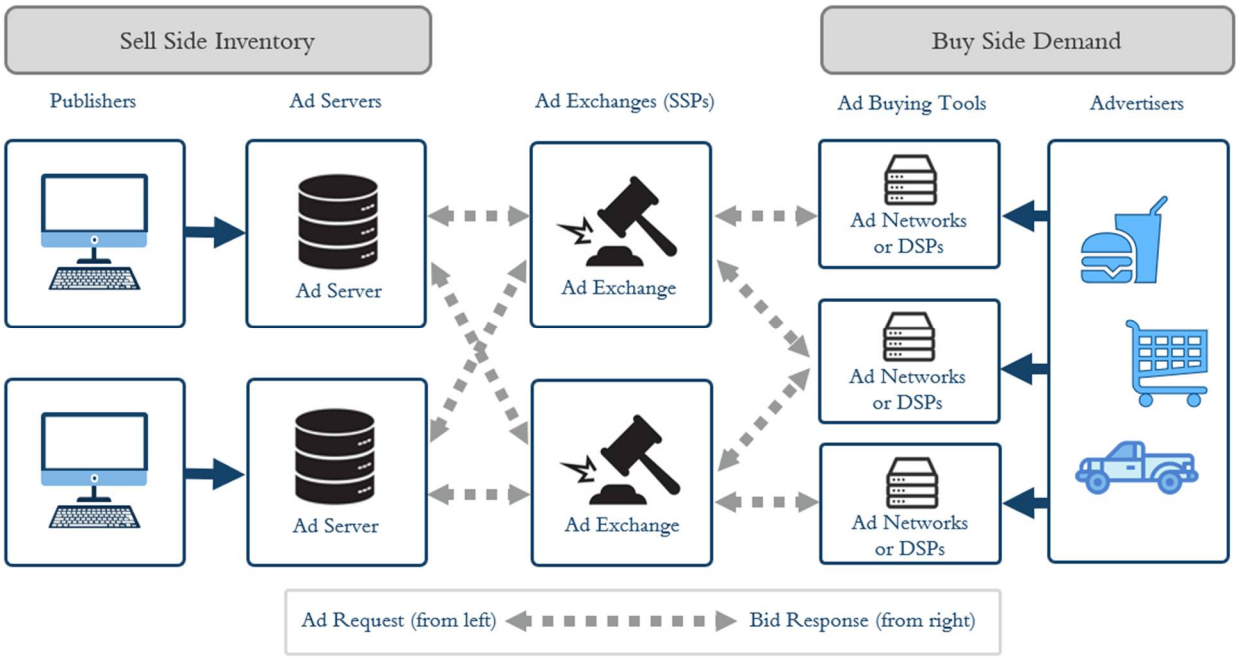
[3] Display ads are distinct from other forms of digital advertising, such as search ads (*i.e.*, sponsored results in a search engine), instream video ads (*i.e.*, advertisements that play before, during or after a streaming video), or mobile app ads (*i.e.*, ads shown within a non-browser mobile app).

[4] In contrast, some websites operate as "walled gardens" and offer their ad space inventory to advertisers exclusively through proprietary tools. One prominent example of a walled garden is YouTube, which is owned and operated by Google itself; another is Facebook.

transactions in a fraction of a second, identifying and delivering tailored and useful ads to users in the time it takes a webpage to load.

31. Figure 1, below, is a simplified diagram of the various entities within the ad tech stack, which the following sections explain in further detail.

Figure 1: The Ad Tech Stack



32. **Publishers** are the entities that control websites and publish content on them. They typically view selling ad space on their websites as a major source of revenue. *See* Liability Op., 778 F. Supp. 3d at 813–14. This revenue is generated by selling opportunities to place a specific ad in a specific ad space in front of a specific user at a specific time, each such ad constituting an **impression**.[5] The industry convention is to measure prices of impressions in cost per thousand impressions (cost per mille, or "CPM"). Large, sophisticated publishers use

[5] The terms "impressions" and "ad spaces" are sometimes used interchangeably to describe the spaces on websites that advertisers purchase to display ads. An ad space is the real estate that the publisher offers for sale; an impression is the advertisement shown to users after the sale.

modern ad tech products that facilitate large-scale advertising campaigns and increase their control over where, how, when, and to whom ads are shown, thus maximizing the value of their ad spaces.

33. **Advertisers**, on the other end of the transaction from publishers, are the companies that pay to place advertisements on publishers' websites to promote their goods or services or to present their messages to Internet users.

34. Between publishers on one end and advertisers on the other, today's ad tech stack includes multiple intermediaries that help complete the transaction. When a user navigates to a webpage, as the webpage loads, publisher-selected advertising spaces are offered for sale through the technology powering digital advertising. Advertisers can choose to bid on each ad space, ad tech tools partially configured by the publisher select the winning bid, and the winning advertiser's ad loads onto the webpage and is presented to the user. All this occurs seamlessly; when the webpage loads, the user sees both the webpage content and the advertisements that were just purchased to be placed on that webpage.

35. Today's sophisticated, efficient, and highly automated systems to target advertisements to specific Internet users are a relatively recent phenomenon. In the early years of the digital advertising industry, advertisements were not tailored to each user, but rather were purchased in bulk regardless of the individual users who navigated to a website (similar to print advertising). In the early 2000s, publishers sold inventory directly to advertisers almost exclusively through **direct deals**.

36. For example, a publisher like *The New York Times* could strike a deal with a specific advertiser like Ford to show 50 million ad impressions per month on its homepage for a new Ford model. This system of direct deals essentially transported print advertising to the

Internet medium. Advertisers paid for impressions in bulk in advance of users actually visiting a website, and those advertisers did not know at the time of the purchase whether those future users would be interested in their products. Just like in print advertising, all that Ford would have known in the above transaction was that its advertisement would be displayed 50 million times per month to readers of *The New York Times*.

37. As the Internet advanced and attracted more and more users, direct deals proved lucrative for large publishers. But they also had serious limitations. Publishers selling inventory through direct deals lacked an efficient way to sell any remaining unsold inventory, called remnant inventory, that was not allocated through direct deals—leaving a lot of value on the table. The dynamic nature of the Internet posed challenges in anticipating how many users would visit a website, making it difficult to accurately scope direct deals. If the number of users visiting a website was larger than anticipated—for example, because of a major but unexpected news event—those additional ad spaces would often go unsold, causing publishers to lose out on significant advertising revenue. Moreover, many publishers grew rapidly during a time of explosive growth in Internet usage. Direct deals did not provide sufficient scale or flexibility to account for publishers' organic growth and expansions of inventory.

38. In addition, because direct deals require a high enough volume of impressions to offset transaction costs and a dedicated sales or marketing team to negotiate bespoke contracts with large advertisers, smaller publishers and advertisers often lacked the resources and volume to transact this way. For example, whereas *The New York Times* may have a sizeable sales force dedicated to identifying large advertisers that value its readers, contacting those advertisers, and negotiating advertising contracts, smaller publishers like individual bloggers running interest-specific websites may lack the resources or time to do so. Another key disadvantage of

direct deals was that they often made little use of information about the users who viewed each impression, leaving "one of the largest sources of value of digital advertising, personalized targeting, largely untapped." Liability Op., 778 F. Supp. 3d at 815.

39. To overcome problems with direct deals, publishers sometimes sold remnant inventory in bulk (*i.e.*, with no valuation of individual ad spaces) to **ad networks**, which would later resell those ad spaces to advertisers at higher prices. "Ad networks provide a simple way to connect advertising demand with publisher inventory, and are now primarily used by smaller advertisers and publishers." Liability Op., 778 F. Supp. 3d at 817. But as the Internet exploded in popularity, more sophisticated solutions were needed.

40. As discussed in greater detail below, to further address deficiencies with the use of direct deals and ad networks, the industry evolved with the advent of two key technological innovations that dramatically improved the efficiency of ad space sales.

41. *First*, the industry introduced ad servers. **Ad servers** help publishers maximize revenue by providing tools that allow them to manage inventory across multiple web pages, set inventory price floors, schedule and manage direct sales campaigns, manage indirect sales of remnant inventory (*i.e.*, inventory that goes unsold in direct deals), and create detailed reports on inventory performance. As the *United States v. Google* court explained, "ad servers make it easier for publishers to place multiple sources of advertising demand in competition against each other, as well as to run advertisements pursuant to direct deals with large advertisers." Liability Op., 778 F. Supp. 3d at 818. Ad servers identify users visiting the publisher's web page, tagging each user with a unique user ID. They then execute the publisher's instructions about how to sell ad space by routing inventory between direct and indirect sales to maximize the yield or value of each ad space, and make the ultimate decision about which ad to "serve" to a user. Because of

the efficiency of a single centralized system to manage a publisher's entire inventory, and because that system is highly customized to each publisher (and such customization is labor-intensive and expensive), publishers typically use only one ad server to handle their inventory, and switching between ad servers is rare.

42. *Second*, the industry developed ad exchanges. **Ad exchanges** are real-time auction marketplaces that connect buyers and sellers of digital ad space on an impression-by-impression basis. Ad exchanges (also called "supply-side platforms", or "SSPs") obtain publisher ad space inventory from ad servers as it becomes available (*i.e.*, as users visit webpages) and make those ad spaces available for advertisers to bid on, in a real-time auction. Advertisers participate in such auctions using ad buying tools, which automate and optimize advertisers' bidding across multiple auctions on multiple ad exchanges, to create an advertising campaign that meets each advertiser's budget and other priorities. The ad exchange thus connects publishers' supply with advertisers' demand, conducts the auction on each ad space and transmits the winning bid for each ad space back to the ad server. The entire process occurs automatically, before the webpage is displayed to the user along with the attendant ad(s).

43. Ad exchanges run digital advertising auctions as follows. First, a user visits a publisher's webpage. At that moment, for each ad space that the publisher wishes to display to the user, the ad server sends an "ad request," which contains information about the web property on which the ad will be displayed, the user who would view the ad and the ad space itself, to the ad exchange. The exchange supplements the request with additional information about the user and the website that it may have obtained from other sources and solicits bids from ad buying tools in a real-time auction. In turn, the ad buying tools, based on the information contained in the request and any other information they may have gathered independently about the user and

the website, send bid responses back to the exchange. The exchange then closes the auction, determines the winning bid and shares that winning bid with the ad server. Finally, the ad server evaluates bids from different advertising sources, including ad exchanges and direct deals, decides which ad to serve for the ad space and displays that ad to the user on the publisher's site. Bids that do not meet or exceed the publisher's floor price—the minimum that the publisher is willing to accept for the ad space—are screened out. This entire process occurs in milliseconds, as the webpage loads.

II. Google's Anticompetitive Conduct.[6]

A. *Google Leverages Its Search Advertising Monopoly To Create a Dominant Ad Buying Tool for Small Advertisers.*

44. Google launched its flagship search product, Google Search, in 1998. That product rapidly became the world's most popular tool for retrieving information. Google Search offered "a unique opportunity for advertisers to place digital ads that matched precisely what an Internet user was looking for at that moment." Liability Op., 778 F. Supp. 3d at 823. Thus, in 2000, Google began offering advertisers an ad buying tool called AdWords,[7] which initially enabled advertisers to place advertisements alongside Google search results. For many years,

[6] Pursuant to the Court's directive to "trim allegations that are unneeded," MDL Dkt. No. 1335 (Pre-Trial Order No. 20) at 2, this Section II of the joint allegations only briefly summarizes conduct that has already been adjudicated against Google. Consistent with that approach, on February 5, 2026, the Plaintiffs proposed a stipulation concerning the application of collateral estoppel to the Plaintiffs' cases. On February 9, 2026, Google responded that it would be premature to even discuss such a stipulation before Google files its Answer to the Consolidated Complaint. The Consolidated Complaint therefore provides further allegations regarding the fully-adjudicated conduct in Sections XXII–XXVI below ("Joint Allegations: Precluded Conduct").

[7] AdWords is now known as Google Ads. The channel within AdWords to purchase display advertising space is referred to as the "Google Display Network" or "GDN," and the ad tech industry often uses these terms synonymously with AdWords.

Google has had a monopoly over both the general search services market and the market for general text advertising, as recently confirmed in *United States v. Google LLC*, 747 F. Supp. 3d 1, 187 (D.D.C. 2024). Given Google's dominance in search advertising, AdWords controlled an enormous pool of advertiser demand. By 2007, AdWords had over one million advertiser customers.

45. Google harnessed this massive source of advertising demand to expand AdWords beyond search advertising to handle display advertising as well, thereby allowing AdWords advertisers to place ads on third-party websites. Because AdWords is primarily intended for and used by small and relatively unsophisticated advertisers, such advertisers typically cannot, or do not want to, split their advertising campaigns among multiple ad buying tools, opting instead to exclusively use AdWords as a one-stop-shop for their online advertising needs. By 2022, four million advertisers were using AdWords exclusively, and AdWords purchased over 45% of worldwide open-web display impressions that were not transacted through direct deals. Since AdWords exclusively aggregates and controls unique advertiser demand, access to AdWords demand is a "must have" for many online publishers, particularly those that rely on smaller advertisers. The *United States v. Google* court has accordingly found that:

> A primary source of Google's monopoly power in the ad exchange market is AdWords' uniquely large and diverse array of advertising demand . . . . By effectively restricting the unique advertising demand offered by AdWords advertisers to AdX, Google has ensured that publishers would lose significant revenue if they did not use AdX.

Liability Op., 778 F. Supp. 3d at 862–63.

B. *Google Acquires the Industry-Leading Ad Server (DFP) and a Nascent Ad Exchange (AdX).*

46. To leverage the growing dominance of AdWords, Google needed a way to connect AdWords advertising on the buy side with publishers on the sell side. Google

recognized that publisher ad servers set the rules for how and to whom ad inventory is sold, ultimately influencing how publishers value their inventory and assess the ad exchanges bidding on that inventory. Google therefore sought to enter the ad serving market by developing its own publisher ad server. However, recognizing the technological and competitive challenges posed by such development, Google quickly abandoned these efforts and—instead of developing an innovative product that would compete in the market to gain traction—used its financial might to acquire the leading incumbent publisher ad server. In 2008, Google completed an acquisition of DoubleClick. At the time of that acquisition, DoubleClick's ad server DFP already served roughly 60% of display ads (as measured by revenue) and was used by nine of the top ten U.S. publishers.

47. Google internally valued DoubleClick's business at between $1.8 billion and $2.2 billion. Nonetheless, Google agreed to buy DoubleClick for $3.1 billion—an overpayment of approximately $1 billion. Liability Op., 778 F. Supp. 3d at 858. Internal Google documents reveal that Google overpaid for DoubleClick to obtain control over a vital chokepoint in the ad tech stack—the most widely used ad server on the market. Google recognized that "the most important thing in display is having access to the right inventory," so "the most strategic battle is about the publisher platform." As the *United States v. Google* court has found, through its purchase of DFP, "Google was able to keep the sell-side control that DFP offered out of the hands of Microsoft, Yahoo, and other digital advertising rivals," and ultimately to "establish a dominant position on both sides of the ad tech stack." *Id.* at 825.

48. As part of the DoubleClick acquisition, Google also obtained AdX, a nascent ad exchange. AdX was integrated with DFP in a manner that allowed DFP to dynamically select the winning bid from the ad exchange when it offered a greater yield than a direct deal. At the

time of the acquisition, ad servers, including DFP, solicited bids from ad exchanges through a process known as a "waterfall". In that process, publisher ad servers offered inventory sequentially to one ad exchange or ad network at a time.

49. The waterfall process worked as follows. A publisher ranked ad exchanges based on historical average prices that the exchanges had bid for ad space and entered that information into the publisher's ad server.[8] These historical average bids functioned as price floors—fixed prices that each exchange or network would need to meet to win the ad space.[9] The publisher ad server then offered the ad space to one ad exchange at a time, in a sequential process, starting with the exchange that the publisher ranked first, until it found an exchange that could meet or exceed the price floor assigned to it. Each exchange was asked whether it could meet the price floor and provided a binary "yes"/"no" response. If the highest-ranked exchange failed to "clear" the ad space with a bid that met the price floor set by the publisher, the ad server then passed the ad space to additional exchanges in sequential order, stopping once an exchange met its price floor and "cleared" the ad space. Once an exchange "cleared" the ad space, the ad server filled the ad space with the advertisement corresponding to the winning bid. Other exchanges lower in the waterfall never had the opportunity to view the ad request or bid on the ad space that it represented—even though they may have had an advertiser willing to pay more for that ad space than the winning bid. This process favored exchanges that were ranked higher in the waterfall, because they not only had more opportunities to win impressions but also

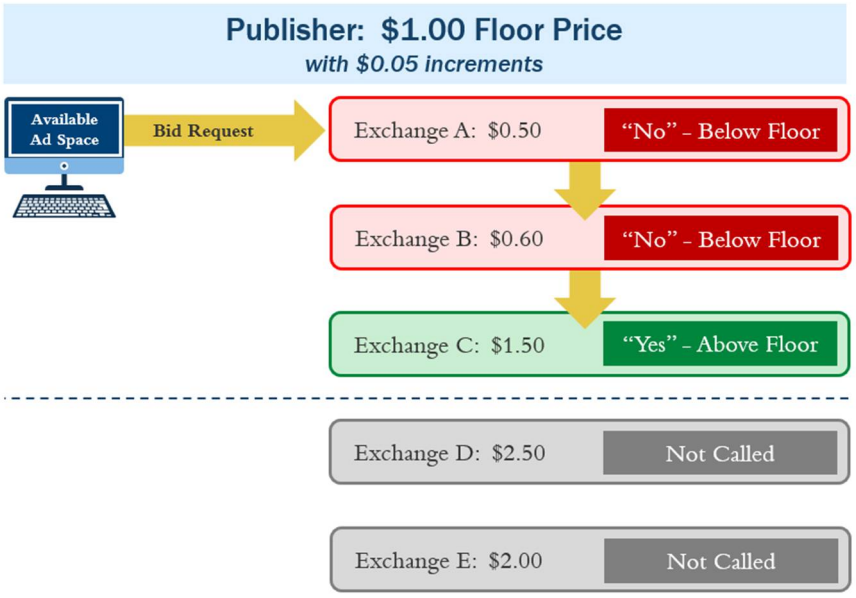
[8] Publishers could also rank ad networks in the waterfall, and many waterfall arrangements included both ad exchanges and ad networks. For simplicity, the waterfall processes described here identify only ad exchanges as the relevant demand sources.

[9] Eventually, many publishers used products called "yield managers" to determine which demand source to call. Yield managers made that decision using predictive algorithms rather than the historical average prices that exchanges had bid for a single publisher's ad spaces.

obtained data on ad spaces they were offered but ultimately lost. Exchanges understood the importance of being ranked highly in a publisher's waterfall and competed with one another for those higher placements.

50. Figure 2, below, provides an example of a waterfall auction among five ad exchanges: Exchange A through Exchange E. Based on historical bidding data, the publisher ranks the ad exchanges, with Exchange A first, Exchange B second, and so on. The publisher in this example sets a price floor of $1.00 for the first exchange in the waterfall, and reduces that floor by $0.05 increments, such that the second exchange in the waterfall would face a price floor of $0.95, the third would face a price floor of $0.90, and so on. In the waterfall process, if Exchange A has a maximum bid of $0.50—that is, no bid above the $1.00 price floor it faces—Exchange A would respond "no" to the ad request. The waterfall would then send the ad request to Exchange B, with a price floor of $0.95. If Exchange B's maximum bid is $0.60—below its price floor—Exchange B would likewise respond "no". But if Exchange C's maximum bid is $1.50—above its price floor—then Exchange C would respond "yes" to the ad request, win the ad space, and the competition for the ad space would terminate. In this scenario, Exchanges D and E would never receive the ad request or have the opportunity to submit a bid for the ad space, because they were ranked lower in the waterfall (based on their average historical prices). So even if other competitor exchanges had significantly higher bids than the $1.50 winning bid from Exchange C—for example, if Exchange D would have bid $2.50—those exchanges would not win the ad space because of the waterfall system.

Figure 2: The Waterfall Model



51. The waterfall system was inefficient for several reasons. *First*, the ad server received no real-time price signal from any ad exchange, only a binary "yes"/"no" response of whether the exchange had met the relevant price floor. That binary response hindered publishers from realizing the true value of their ad spaces. *Second*, ad spaces were sometimes sold to an ad exchange for less than a rival exchange could have paid—because the first ad exchange that met the price floor filled the ad space even if an exchange ranked lower in the waterfall could have paid more (in the example above, Exchange D could have paid $1.00 more than the winning bid, if given the opportunity). *Third*, the process of calling multiple exchanges in sequential order introduced latency into the process of filling an ad space, delaying display of the advertisement and potentially degrading the user's experience on the publisher's web page.

52. In short, because ad exchanges were called sequentially rather than concurrently, and on the basis of static price floors rather than real-time price signals, the waterfall matchmaking process introduced inefficiencies. Publishers often made less money, and ad spaces often did not go to the advertisers that valued them the most.

53. By early 2009, ad exchanges had begun to offer the ability to convey bids to ad servers in real time, rather than static bids. In September 2009, Google relaunched the AdX ad exchange it had acquired from DoubleClick as AdX 2.0, featuring the ability to transmit real time bids to DFP—a capability Google quickly took advantage of to tilt the playing field in favor of AdX and against the Plaintiffs. Specifically, as discussed in greater detail below, even though multiple ad exchanges had developed the ability to run real-time auctions (some of them *before* AdX did), DFP refused to accept real-time bids from any ad exchange other than AdX.

C. *Google Thwarts Competition by Tying Real-Time Bids from AdX to Its Own Ad Server (DFP).*

54. Google internal documents show that Google "[d]idn't buy DCLK [DFP] for the revenue (& growth) – [Google] bought it for enabling the [Ad] Exchange." In other words, Google acquired the industry-leading ad server so that it could exploit that ad server to build a monopoly in the ad exchange market. Google employees noted internally that if Google were to "lose [publisher ad server] platform share, [Google could] build the best GCN [Google Content Network, a component of AdWords] in the world but [would] still be at a severe risk of being disintermediated if Y[ahoo] [or] M[icrosoft] own the tag on the publisher page."[10] Google thus recognized the value of a dominant publisher ad server as the foundation of a "virtuous cycle" in which "more pub[lisher]s from DFP mean more attractive to advertisers" and "more advertisers mean more desire for pub[lisher]s to get on DFP." As the *United States v. Google* court has found, "Google's ad tech business thus benefited from network effects, as the more advertiser customers Google had, the more publishers wanted to use DFP, and the more publisher

[10] A "tag" is the code inserted into a publisher's webpage that contains information about an ad space to be filled and sends a request to a specific ad server to fill the ad space.

customers Google had, the more advertisers wanted to use Google's buy-side services, thereby creating a self-reinforcing positive feedback loop." Liability Op., 778 F. Supp. 3d at 825.

55. Following the acquisition of DoubleClick, Google deployed a "three pillar" strategy—Access, Aggregate, Monetize—to "protect our [DFP's] position" as the dominant "operating system for publishers globally": (i) Google required use of its publisher ad server "[p]latform to ACCESS the desired inventory"; (ii) Google used its "Ad exchange to AGGREGATE that inventory that the platform piece gives"; and (iii) Google forced advertisers on the "Google Content Network [AdWords] to MONETIZE the inventory [Google] aggregate[s] via [Google's] Ad Exchange." This three-pillar strategy cemented Google's monopolies up and down the ad tech stack, built a moat around these monopolies and foreclosed the Plaintiffs—both in the ad server and in the ad exchange markets—from effectively competing with Google, to the detriment of publishers and advertisers alike.

56. To execute on its three-pillar strategy, when Google launched AdX 2.0 in September 2009, Google interlocked the three levels of its ad stack through the introduction of two separate tying arrangements that compelled publishers to use DFP and AdX to obtain advertiser demand from AdWords. As the *United States v. Google* court has found:

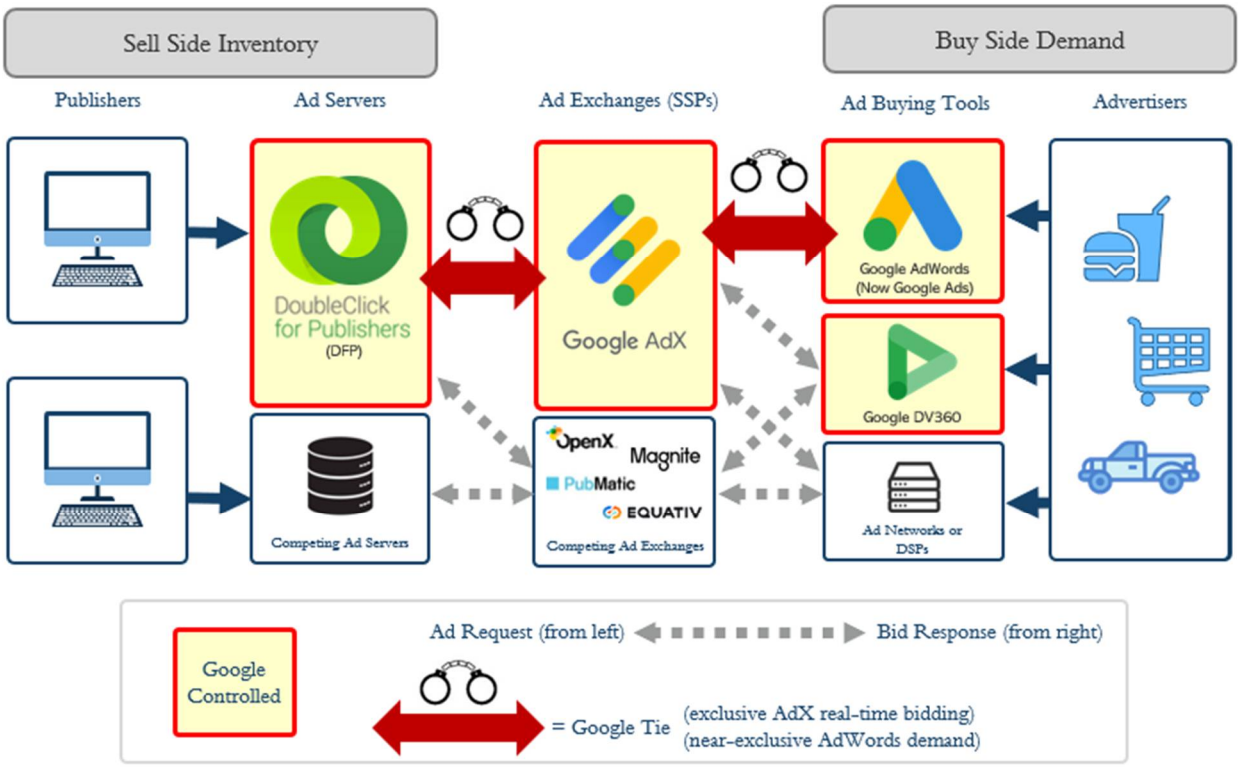
> After acquiring DoubleClick, Google implemented two policies that incentivized both advertisers and publishers to use AdX. First, with limited exceptions, Google made AdX the only ad exchange into which AdWords advertising demand was permitted to bid. Second, Google required publishers to use DFP as their ad server if they wanted to access real-time bids from AdX.

Liability Op., 778 F. Supp. 3d at 825.

57. Through these ties, Google essentially locked publishers into using DFP and AdX. Google then exploited its control over AdWords and DFP to install itself as the seller, buyer and auction house of a significant proportion of display ads transactions. Figure 3 below

shows a version of the ad tech stack (similar to Figure 1, *supra* ¶ 31) but with the key Google platforms operating within that stack: Google's ad buying tool (AdWords, now called Google Ads), its demand-side platform (DV360),[11] its ad exchange (AdX) and its publisher ad server (DFP).

Figure 3: The Ad Tech Stack: Google's Dominance



58. Over time, Google reinforced the coercive pressure of its tie, closing off loopholes. For example, a small number of publishers had contracts with Google that allowed them to access AdX demand without using DFP. In early 2018, Google began renegotiating publisher contracts to eliminate the few remaining AdX-only contracts in existence, requiring publishers to sign a combined contract that included both the DFP ad server and the AdX

[11] Demand-side platforms and DV360 are described further below. *See infra* ¶ 91.

exchange. Google decided to contractually "jam[] [DFP] and AdX together to ensure that we take the best of both worlds."

59. As the *United States v. Google* court has found:

> By forcing Google's publisher customers to use a product they would not necessarily have otherwise used, by making it difficult for rival publisher ad servers to compete on the merits, and by significantly reducing rivals' market share, the tying of DFP to AdX has had a substantial anticompetitive effect in the publisher ad server market for open-web display advertising. Accordingly, the AdX-DFP tie has violated both Section 1 and Section 2 of the Sherman Act.

Liability Op., 778 F. Supp. 3d at 864. And this Court has concluded that "Google is precluded from relitigating, inclusive of the balancing of procompetitive benefits and anticompetitive effects . . . that Google has engaged in the following anticompetitive conduct which supports the . . . claim that it willfully acquired and maintained its monopoly power in the ad server and ad exchange markets: Unlawful Tying." Collateral Estoppel Ruling at 32–33. This Court has further concluded that Google is precluded from relitigating that it "has unlawfully tied DoubleClick for Publishers and AdX in violation of section 1 of the Sherman Act". *Id.* The Plaintiffs therefore do not repeat all their allegations concerning the DFP-AdX tie here; additional allegations regarding the DFP-AdX tie are set forth *infra* Section XXIII.

D. *Google Employs Dynamic Allocation (First Look) To Exploit Its Tied Monopolies.*

60. In addition to ensuring that publishers were locked into using its ad server and ad exchange, Google altered the waterfall process for publishers using DFP by requiring publishers to prefer AdX over all other demand sources through a feature called Dynamic Allocation. In principle, the Dynamic Allocation feature promised to maximize publisher yield by ensuring that every impression went to the highest-paying source, whether from a guaranteed direct deal or programmatic demand. In practice, however, Google used Dynamic Allocation as a tool to favor

its own exchange, AdX. Google transformed the publisher-controlled waterfall, in which each bidder had acted independently, into a sequence in which AdX, and AdX alone, learned its competitors' predicted bids *and* was then given the opportunity to bid first—a **First Look** at inventory. Specifically, under First Look, DFP shared with AdX the predicted bids or price floors that publishers had assigned to every other ad exchange and ad network in the waterfall, providing AdX the opportunity to bid in real time against each of these price floors. Notably, the price floors for other ad exchanges were based on static, historic bids and therefore did not reflect any real-time information about the value of the specific ad space. This rigging of the waterfall allowed AdX to outbid any potential rival demand sources before they even had an opportunity to participate. Google's First Look manipulation allowed AdX to cherry pick the most valuable ad requests, which rival exchanges would never even see because Google could bid—and win—before those ad requests ever were offered to other ad exchanges.

61. The *United States v. Google* court provided an example of how First Look functioned and how it deterred advertisers from using other ad exchanges: If AdX offered $1.07 CPM for an impression, and that amount met or exceeded the publisher's floor price for the impression, AdX would win the ad space before any other exchanges' bids were examined, even if other exchanges would have offered $1.10 CPM and $1.08 CPM for the same impression. Thus, under First Look, advertisers using AdX could win the auction even if it did not offer the highest value for the impression.

62. The *United States v. Google* court recognized that First Look introduced "inherent inefficiency" to DFP that "limited the ability and incentive for advertisers using other ad exchanges to compete on price, and resulted in publishers not obtaining the maximum value for their impressions." Liability Op., 778 F. Supp. 3d at 827. The *United States v. Google* court

further found that First Look "impeded [rivals'] ability to enter the market, grow, and compete," gave Google a "data advantage" for training AdX's auction models, and "constituted anticompetitive conduct" that "resulted in less revenue for publishers, fewer impressions going to the advertisers who were willing to pay the most for them, enhanced AdX market power, and reduced competition in the ad exchange market." *Id.* at 827, 864, 869.

63. The *United States v. Google* court concluded that First Look was anticompetitive. Liability Op., 778 F. Supp. 3d at 864. And this Court has concluded that "Google is precluded from relitigating, inclusive of the balancing of procompetitive benefits and anticompetitive effects . . . that Google has engaged in the following anticompetitive conduct which supports the . . . claim that it willfully acquired and maintained its monopoly power in the ad server and ad exchange markets: . . . First Look . . . ." Collateral Estoppel Ruling at 32–33. The Plaintiffs therefore do not repeat all their allegations concerning First Look here; additional allegations regarding First Look are set forth *infra* Section XXIV.

E. *Header Bidding Threatens Google's Monopoly.*

64. Google's restrictive and anticompetitive conduct harmed publishers, competitors and advertisers alike. Even Google's own employees recognized, for example, publishers' "frustration that Google's ad tech products would not allow them to reach out to more than one exchange for simultaneous realtime auctions of their inventory."

65. After numerous discussions with publishers about their concerns with DFP, the Plaintiffs saw an opportunity to introduce additional competition into the market through an innovation called **header bidding** that would allow publishers to mitigate some of the effects of Google's anticompetitive restrictions. OpenX led the market in developing header bidding and obtained several patents related to header-bidding technology. PubMatic developed the industry's first free and open-source header bidding management solution called OpenWrap,

which helped publishers take even greater advantage of header bidding technology and dramatically improved their programmatic revenues. Magnite co-founded Prebid.org, an industry-wide open-source project that provided header bidding solutions for publishers.

66. Beginning in 2013, when OpenX first introduced it, header bidding allowed real-time competition among ad exchanges for ad space, "negating Google's First Look advantage." Liability Op., 778 F. Supp. 3d at 828. Header bidding allowed publishers to "inject" a real-time bid from an ad exchange into Google's ad server.

67. Header bidding worked as follows:

(i) the publisher would include a specific string of code in the header of its webpage;

(ii) upon a user launching the webpage in their browser, the code would solicit bids for a given ad space on that webpage from a non-Google ad exchange without involving Google's ad server;

(iii) that rival ad exchange would run an auction for that ad space and submit the winning real-time bid directly to the publisher;

(iv) the code on the publisher's webpage would then "inject" that winning bid from that ad exchange's auction as a real-time price floor into Google's ad server; and

(v) AdX would then need to beat that real-time price floor to win the ad space.

68. Header bidding effectively placed another real-time bid in competition with the real-time bid from AdX for the inventory of publishers that used DFP. Because AdX was forced to compete against a real-time bid as opposed to a static price floor, publishers obtained much higher bids that better reflected the true value of their inventory.

69. Publishers were quick to adopt header bidding because its effects were immediate and staggering; header bidding allowed publishers to increase their revenues by 20%–100%

overnight by simply adding code to their websites that forced AdX to compete against a real-time bid from a rival ad exchange.

70. After recognizing the spectacular results from early header bidding solutions, many ad exchanges began to offer their own versions of header bidding. As a result, publishers could solicit real-time bids from multiple ad exchanges, each holding its own independent auction. The code on the publisher's webpage would then inject the highest winning bid among all participating exchanges into DFP as the real-time price floor for AdX to beat.

71. Because header bidding allowed publishers to obtain real-time bids from ad exchanges before Google could provide its own ad exchange with an unfair First Look, header bidding forced AdX to compete on a more level playing field with its rivals. Moreover, because header bidding allowed non-AdX exchanges to conduct real-time auctions before AdX got its First Look, header bidding also let non-Google exchanges see and bid on far more inventory, not just the scraps that AdX had rejected.

72. Header bidding allowed multiple exchanges to see every ad request a publisher offered and to bid simultaneously for that ad request. This was an immense improvement over Dynamic Allocation and First Look. The increased flow of information allowed rival ad exchanges to better understand the full spectrum of available inventory and optimize their bidding over time, increasing their bids where appropriate. The price at which an ad space sold was now based on real time bids from more—and better informed—exchanges, and was therefore much more likely to approximate the inventory's true value. All told, header bidding increased competition and led to a dramatic increase in the revenues collected by publishers that chose to use it.

73. Industry participants recognized header bidding as a revolutionary breakthrough. It is sometimes characterized header bidding as a "workaround," Liability Op., 778 F. Supp. 3d at 828, or a "hack" that could mitigate some of the barriers erected by Google. Those characterizations reveal an important fact: By the time OpenX introduced header bidding in 2013, Google had rigged the ad tech stack to favor AdX to such an extent that the Plaintiffs could introduce a measure of greater competition only by partially circumventing Google's unfair policies and programs, such as First Look.

74. Header bidding's success, and the scale it provided to competing ad exchanges, posed a meaningful competitive threat to Google's dominance. An internal Google email summarized header bidding's competitive effect as follows: "Publishers felt locked-in by dynamic allocation in DFP, which only gave AdX ability to compete, so HB [header bidding] was born." In addition, Google recognized internally that "per-query bids from exchanges dramatically increases yield, so pub[lisher]s are clamouring for this functionality" and that "[o]ver[]time, other demand sources did not feel it was fair that AdX was given unique treatment in DFP. This led networks and subsequently exchanges to develop the ability to submit near real-time prices to DFP (and other ad servers) to inform ad serving logic via the technology called header bidding. This has also led to significant yield improvements for pub[lishers]."

75. Header bidding also benefited advertisers because it made it more likely that the highest-bidding advertiser would win the ad space, regardless of ad exchange. This adjustment greatly improved advertiser-publisher match quality compared to the waterfall process in which AdX, through First Look, could win any ad space simply by beating the static, predicted bid of rival exchanges. It also expanded advertisers' choices over which ad exchanges they preferred to

use, as they no longer were forced to use the rest of Google's ad tech stack in order to submit real-time bids to DFP.

76. Industry participants first developed their own proprietary "header bidding wrappers" for publishers to use. The proliferation of proprietary wrappers, however, threatened to undermine the efficacy of header bidding. Each wrapper performed the same basic functionality, but their proprietary nature meant that exchanges had to optimize for each header bidding wrapper used by their publisher customers. This process required substantial effort from exchanges but provided publishers with limited benefits because the different proprietary header bidding wrappers were all largely performing the same function, yet additional wrappers meant more lines of code and potentially more latency.

77. To solve this issue, industry participants quickly began collaborating to create an industry-wide open-source project called Prebid.org to support header bidding's growth. Magnite co-founded Prebid.org in 2017. Magnite has maintained an active presence in Prebid since its founding and served as its Board Chair since its inception. OpenX and PubMatic also have directors on Prebid's board. Prebid and its software, Prebid.js, saw widespread adoption among industry participants. The standardization provided by Prebid's solutions made it easier for industry participants to adopt header bidding on a broad scale. Today, nearly every major industry participant is a member of Prebid, including exchanges, DSPs, and publishers. Prebid members contribute to developing and maintaining Prebid's open source software, and the organization's structure and transparency are designed to ensure that individual members cannot gain outsized influence in any changes or updates to the software to prevent self-dealing. Google has repeatedly declined invitations to join Prebid.

78. To be sure, header bidding was not a panacea. Even with header bidding, the Plaintiffs were still fighting an uphill battle against AdX. Google still funneled the captive pool of AdWords advertiser demand almost exclusively through AdX, and, as detailed below, Google still used DFP to provide AdX with an informational advantage and a unique ability to bid last. Nonetheless, header bidding allowed the Plaintiffs new opportunities to compete.

79. Google steadfastly fought the innovation of header bidding and the threat it posed to Google's chokehold over the ad tech stack. Google fully recognized that header bidding was a market reaction to its own anticompetitive conduct: "The header [bidding] ecosystem relies on our unwillingness to open our systems to the types of transactions, policies, and innovations that buyers and sellers wish to transact." But rather than allow these "transactions, policies, and innovations" that its "buyers and sellers wish[ed]" to enjoy, Google sought to negate the procompetitive effect of header bidding—and, as further detailed below, sought to destroy the Plaintiffs who promoted header bidding in an anticompetitive campaign to protect AdX's dominance.

F. *Google Undermines Header Bidding Rivals with Last Look.*

80. Following the launch of header bidding, Google ensured that it kept an advantage over competing ad exchanges through Dynamic Allocation. Specifically, for ad spaces that were the subject of header bidding, Dynamic Allocation replaced AdX's First Look with **Last Look**. When a publisher using DFP sent ad spaces to a header bidding auction, the publisher still had to inject the winning bid from that header-bidding auction into DFP as a price floor. At that point, rather than allow AdX to simply compete on a level playing field, DFP *informed* AdX of the winning bid and allowed AdX—and AdX alone—a last chance to outbid the winner of the header-bidding auction.

81. As the *United States v. Google* court has found, "Last Look was another anticompetitive policy that entrenched Google's monopoly power, disadvantaged Google's publisher customers, and harmed the competitive process. This DFP feature, which gave AdX the ability to see competing exchanges' bids in an otherwise sealed auction before AdX would bid, harmed publishers, rival ad exchanges, and advertisers using non-Google ad buying technologies." Liability Op., 778 F. Supp. 3d at 864–65. And this Court has concluded that "Google is precluded from relitigating, inclusive of the balancing of procompetitive benefits and anticompetitive effects . . . that Google has engaged in the following anticompetitive conduct which supports the . . . claim that it willfully acquired and maintained its monopoly power in the ad server and ad exchange markets: . . . Last Look . . . ." Collateral Estoppel Ruling at 32–33. The Plaintiffs therefore do not repeat all their allegations concerning Last Look here; additional allegations regarding Last Look are set forth *infra* Section XXV.A.

G. *Google Augments Last Look through Sell-Side Dynamic Revenue Share.*

82. Google exploited its Last Look advantage to stealthily manipulate auctions to ensure AdX continued to win the most ad spaces and, in particular, to cherry pick the most valuable ad spaces. By 2014, Google implemented a program called **Sell-Side Dynamic Revenue Share ("SSDRS")**, which made the Last Look advantage even more powerful. Ad exchanges—including AdX—win ad spaces by submitting the highest net bid, *i.e.*, the gross bid offered by the advertiser less any fee charged by the exchange. Under SSDRS, AdX, with a line of sight into all competing bids, altered its own take rate—the percentage fee it charged—on an ad-space-by-ad-space basis. Thus, AdX could change the take rate it would charge on a transaction *after* seeing the highest bid from a competing exchange. In this way, Google could reduce its take rate in competitive circumstances in which a third-party exchange submitted a competitive (high) bid in the header bidding auction, allowing AdX to increase its net bid just

enough to exceed the winning bid from the header-bidding auction and win the ad space. And on the flip side, AdX could increase its take rate in less competitive auctions, making sure that Google's publishers, rather than Google itself, bore the cost of making AdX bids more competitive.

83. Google engineers aptly described SSDRS as "just yet another way for AdX to exploit the last look advantage," allowing AdX to "pay high and win whenever [a rival exchange] is present … and pay low when [the rival] bids low." Liability Op., 778 F. Supp. 3d at 870 (internal quotations omitted). Rival exchanges could not recreate such a dynamic pricing model because they did not have information on their competitors' bids to inform the decision of when to lower or raise their take rate. This meant that AdX was able to use the information advantage provided by the DFP-AdX tie to win more impressions and prevent its rivals from gaining share and scale to challenge its dominance.

84. Google concealed its manipulations of AdX's take rate through SSDRS. At first, Google concealed SSDRS entirely, operating it covertly for more than a year. Then, when Google finally disclosed SSDRS in the summer of 2016, Google said nothing about Google's ability to change AdX's take rate on a transaction-by-transaction basis. Instead, Google merely described SSDRS as a method to increase publisher's yields—a dubious statement at best. Overall, publishers' yields did not necessarily increase; AdX recouped any lost revenue from ad spaces on which SSDRS reduced AdX's take rate by charging a higher AdX take rate on other ad spaces. The result therefore was not an overall higher yield, but simply an overall diversion of transactions from the Plaintiffs' ad exchanges to AdX.

85. The Plaintiffs and other market participants had no reason to know of, and could not reasonably discover, SSDRS's manipulation of AdX's take rate on an

impression-by-impression basis. Because SSDRS manipulated AdX's take rate both up and down, AdX's average take rate was still 20%—the same rate that AdX had been charging before SSDRS's introduction. Competitors without access to Google's algorithms thus could not discover what SSDRS was doing.

86. As the *United States v. Google* court has found, "[t]he anticompetitive effects of Last Look have been compounded by Google's sell-side dynamic revenue share. By using the Last Look informational advantage to vary AdX fees and win impressions that it would have lost in a fair auction, Google has further enhanced AdX's market power at the expense of rivals, thereby reducing competition and harming its publisher customers' ability to diversify their revenue sources away from Google." Liability Op., 778 F. Supp. 3d at 865 (citation omitted). And this Court has concluded that "Google is precluded from relitigating, inclusive of the balancing of procompetitive benefits and anticompetitive effects . . . that Google has engaged in the following anticompetitive conduct which supports the . . . claim that it willfully acquired and maintained its monopoly power in the ad server and ad exchange markets: . . . Dynamic Revenue Share . . . ." Collateral Estoppel Ruling at 32–33. The Plaintiffs therefore do not repeat all their allegations concerning SSDRS here; additional allegations regarding SSDRS are set forth *infra* Section XXV.B.

H. *Google Deploys Project Poirot To Thwart Header Bidding.*

i. *Google Continues to Recognize Header Bidding as an "Existential Threat" to Its Monopolies Even with Last Look and SSDRS.*

87. Despite maintaining an unfair advantage in the header bidding environment through Last Look and SSDRS, Google still was unhappy that header bidding challenged AdX's market share and margins by forcing it to compete against real-time bids from other ad exchanges. By 2016, Google estimated that "[i]f we do nothing, pub[lishers] will adopt header

bidding en masse by EOY 2016." Indeed, given the widespread publisher adoption of header bidding, Google viewed header bidding as an "existential threat" to its complete domination of the ad exchange market—a threat that could have forced Google to do the one thing that it has steadfastly avoided for years: compete on the merits of its various products. As one Google employee put it:

> By invalidating the need for an ad server [to obtain real-time bids,] we are setting the stage for Google to actually have to compete alongside the SSPs [*i.e.*, other ad exchanges] (or whatever these platforms are called then) for any access to any publisher inventory in the future. And we'll be disadvantaged at that point because, unlike our competitors, pub[lisher]s have been viewing us as a necessary evil, instead of a responsive, innovative partner, so they are eager to figure out how to cut us out altogether.

88. Another Google employee wrote: "with header bidding we're finally entering a world of true, multi-sourced [real-time bidding] with all 'buyer participation' . . . is this basically a decentralized exchange where there is no authoritarian intermediary in the form of the exchange operator that inhibited buyer participation?" This signaled how Google viewed header bidding as a threat that could break through Google's manipulations to achieve a fairer and more efficient programmatic auction system.

89. Recognizing the threat that header bidding posed to its ad exchange and ad server monopolies, Google sought to "dry out" header bidding, embarking on a multi-year strategy to weaken header bidding and its proponents.

ii. ***Google Launches Project Poirot To Preserve AdX's Monopoly.***

90. In addition to sporadic misrepresentation, Google launched a systemic program to stunt header bidding's procompetitive effect: **Project Poirot**, a program intended to cripple header bidding's proponents and further entrench AdX. Google specifically targeted the

companies that had pioneered header bidding, including the exchanges controlled by the Plaintiffs.

91. To execute on its plan, Google utilized another demand source in its arsenal—DV360. In 2010, Google acquired Invite Media, which it renamed "DoubleClick Bid Manager" ("DBM") and later again renamed Display & Video 360 ("DV360"). DV360 is a Demand-Side Platform ("DSP"). As the *United States v. Google* court has found, DSPs "provide large advertisers with significant control over the sources of inventory from which they purchase impressions and how they bid on those impressions." Liability Op., 778 F. Supp. 3d at 817. Specifically, DSPs offer "a single interface for advertisers to manage programmatic and direct ad buying, to synthesize data about publisher inventory and users, and to bid into ad exchanges." *Id.* Although AdWords advertisers typically lack the resources to meaningfully resist Google's restriction on their ability to place bids on rival ad exchanges, DV360 is used primarily by larger and more sophisticated advertisers or ad agencies with significantly more know-how and leverage to manage advertising purchases. At the behest of these large buyers, who recognized the value of a competitive ad exchange market, Google had no choice but to allow DV360—unlike AdWords—to place bids on multiple ad exchanges. But by controlling one of the most important DSPs for large advertisers and agencies, Google possesses the ability to shape competitive outcomes in the exchange market. DV360 accounts for almost half of all impressions that are won by DSPs and is more than twice as large as the closest competing DSP. When DV360's "must have" demand is suppressed on rival exchanges or privileged for AdX, publishers lose access to one of their largest and most valuable revenue streams, and independent exchanges are deprived of the scale they need to compete.

92. In 2016, unbeknownst to its customers, Google embarked on a plan to use its control over demand from DV360 to further entrench AdX's monopoly and squash the procompetitive effects of header bidding.

93. At the start of this effort, Google considered stopping DV360 from bidding on header bidding queries altogether, to "put pressure on companies providing header bidding." Google thus ran several experiments that simply turned off DV360 spend on competing ad exchanges. But Google recognized that it could not "say with a straight face" to sophisticated buyers that stopping DV360 spend on header bidding exchanges—*i.e.*, tying DV360 demand to AdX, as Google has done with AdWords—"is the best for a buyer" unless it reduced margins on AdX, which it was not willing to do. Therefore, Google needed to find "a defensible way to change [DV360's] buying strategy to move spend from [rival ad exchanges] to AdX." In other words, Google needed to find a pretextual justification to shift spend from header bidding exchanges back to AdX.

94. Google launched Project Poirot as one supposedly "defensible way" to respond to header bidding and to tighten its grip on the exchange market by strengthening AdX's monopoly. Google decided on a simple but devastating solution to combat header bidding: rather than "stop bidding on HB [header bidding] queries, we could bid lower on HB queries." Thus, in 2017, Google surreptitiously began to reduce the bids that DV360 submitted to ad exchanges that participated in header bidding. In this way, Project Poirot significantly reduced the number of transactions conducted through exchanges that participated in header bidding. Internal documents show that Google's goal for Project Poirot was to "dry out" header bidding.

95. Google's internal documents first revealed at trial in *United States v. Google* demonstrate the goal of Poirot was not to protect advertisers or improve efficiency, but to shift

spend back to AdX and weaken rival exchanges. In an internal discussion focused on combating header bidding, a Google employee observed that "Poirot has actually been quite effective, resulting in DBM [DV360] spending 7% more on AdX and reducing spend on most other exchanges." Indeed, in an internal email falsely labeled as "Privileged and Confidential" in an attempt to protect its contents from disclosure, a Google employee wrote that "Poirot currently generates margins by shifting inventory to AdX (outcome of Poirot)." This was an obvious and intended effect of Project Poirot combined with Last Look; DV360 could lower an advertiser's bid into a rival exchange (referred to as "bid-shading") through Poirot, resulting in a lower floor price emerging from the header bidding auction, and then AdX could win the same impression through Last Look.

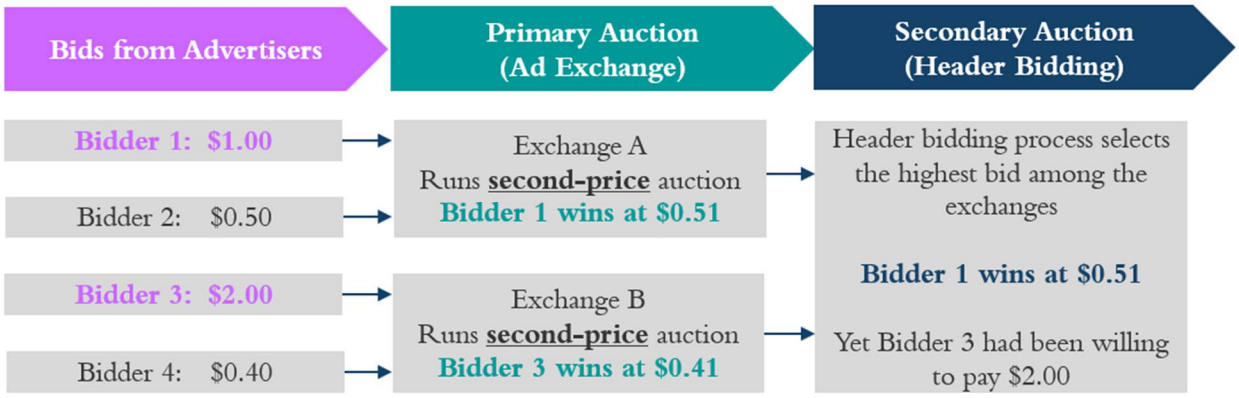
96. To achieve this goal, Google used the structure of header bidding auctions—which ironically arose in part as a response to Google's anticompetitive conduct—against header bidding's proponents. There are two general structures for programmatic auctions: first price and second price. First-price auctions and second-price auctions differ in a single important aspect—the price paid by the winning bidder. In a first-price auction, the winning bidder must pay the price it bid. In a second-price auction, by contrast, the winner must pay a price equal to, or just above, the second-highest bid (or the price floor, if that floor is higher than the second-highest bid). For example, if two bidders—Bidder 1 and Bidder 2—bid $1.00 and $0.50 respectively in an auction, Bidder 1 ($1.00) would win the auction, regardless of the auction format (*i.e.*, first-price versus second-price). In a first-price auction, Bidder 1 would then be required to pay $1.00—the price it bid. In a second-price auction, Bidder 1 would be required to pay $0.51—just above the second-highest bid in that auction (provided that the price floor is lower than both bids).

97. For years, ad exchanges ran second-price auctions, which were popular because they were simple. Each bidder could bid at the price that the bidder truly valued the ad space, without needing to guess whether a lower bid might suffice to win the auction. The waterfall system supported that logic. In the waterfall, each ad exchange ran a separate auction designed to answer a single question—whether any of its advertisers were willing to pay above that exchange's price floor. That would determine the ad exchange's "yes"/"no" response to the ad request; the clearing price would be at the price floor. In other words, the winning bid was judged only against the price floor in a single exchange's auction—not against bids from other exchanges.

98. In header bidding auctions, by contrast, the second-price format makes little sense. Each ad exchange submits its winning bid from its own primary auction into what is essentially a secondary auction, in which the winning bids from the primary auctions compete to determine the price floor to inject into DFP (where that winning bid then competes against the winning bid of the AdX primary auction). Therefore, each exchange's winning bid is judged against bids from other exchanges before it is ever injected as a price floor into DFP.

99. Figure 4, below, demonstrates the ensuing problem. Exchange A could run a primary auction between Bidder 1 ($1.00) and Bidder 2 ($0.50), while Exchange B could run a primary auction between Bidder 3 ($2.00) and Bidder 4 ($0.40). If both primary auctions are run using second-price mechanics, then Bidder 1 will win Exchange A's auction at $0.51 and Bidder 3 will win Exchange B's auction at $0.41. When those results are pitted against each other in the secondary header bidding auction, Exchange A will beat Exchange B—even though Bidder 3's bid of $2.00 into Exchange B was by far the highest bid overall.

Figure 4: The Problem with Using a Second Price in Multiple Auctions



100. Because of these sequential auctions, the advertisers in second-price auctions who were willing to pay the most could lose ad spaces to other advertisers who had bid less than them. Thus, to compete effectively in header bidding, almost every major ad exchange eventually moved to a first-price auction.

101. As of early 2018, only one major exchange had not yet shifted to a first-price auction: AdX. Unlike its competitors, AdX did not need to shift to a first-price auction for a simple reason: the informational and structural advantages that DFP afforded to AdX meant that it did not have to deal with the same competitive landscape as rival exchanges. The biggest of these advantages was Last Look.

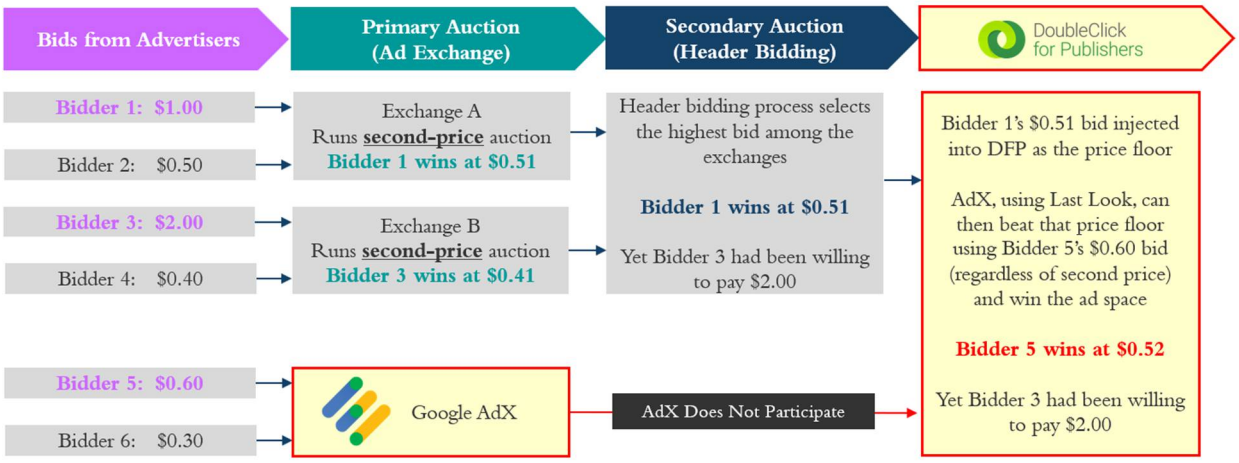
102. Absent insight into the winning price coming from header bidding afforded by Last Look, AdX would have been forced to move to first-price auctions at the same time as its competitors to avoid the same risk reflected above. Namely, AdX would have lost ad spaces when its second-highest bid was lower than the winning bid from header bidding, even if its highest bid exceeded that winning bid from header bidding. But because of Last Look, AdX could bid *after it was informed of* the winning bid from header bidding, which DFP presented to AdX as the price floor that it had to beat. And because of SSDRS, AdX could adjust its net bid higher to win any desirable impressions that yielded a higher floor than what was reflected in

Google's second price auction. Therefore, AdX could maintain its second-price format and still win the ad space as long as its highest bid exceeded the price floor, *i.e.*, the highest bid from the header bidding auction.[12] In other words, because of Last Look, AdX had all the advantages of a first-price auction when competing against header bidding, even while notionally running a second-price auction.

103. Figure 5 continues the example above to demonstrate AdX's Last Look advantage. Bidder 1 from Exchange A wins the header bidding auction at $0.51. The publisher injects that bid into DFP, and DFP informs AdX of that price as the price floor it needs to beat. AdX therefore wins so long as its highest bid exceeds the $0.51 price floor—even if its second-highest bid does not. If not for Last Look, then AdX's own second price of $0.31 would lose. Figure 5 also shows, however, that if the header bidding exchanges switched to a first-price auction, AdX could not win the ad space unless its highest bid was actually higher than the highest bid coming from header bidding—in this case, Bidder 3's bid of $2.00; at that point, AdX could only win the ad space at $2.01.

[12] As discussed below (*see* Section II.J), Google had projects in place that allowed it to win the impression using Last Look even when its highest bid was *lower* than the highest bid from the header bidding auction.

Figure 5: The Problem with Multiple Auctions and Google's Last Look



104. Google recognized that, within header bidding's more competitive landscape, (1) third-party ad exchanges had to transition to first-price auctions to make header bidding work effectively at scale; and (2) DFP's auction manipulations through Last Look meant that AdX—and AdX alone—could still maintain a second-price auction and consistently win ad spaces.

105. Google documents show that Google recognized that virtually "all [header bidding] is transacted through first-price auctions," making first-price auctions the perfect pretext through which to harm ad exchanges using header bidding, such as the Plaintiffs. In the words of one Google employee: "The problem isn't so much that DBM [DV360] is buying HB [header bidding] inventory -- the problem is that HB exists :)." Google developed Project Poirot to lower, or "shade," its DV360 bids into rival exchanges by up to 90%. And because DV360 bid into both AdX and rival ad exchanges, but Project Poirot lowered DV360's bids only into rival exchanges, Project Poirot both (a) decreased the likelihood that rival exchanges would win by lowering their bids and (b) increased the likelihood that AdX would win by lowering the floor price from header bidding that AdX had to beat given Last Look.

106. Project Poirot worked by systematically reducing bids into third-party exchanges that Google determined, through experiments, deviated from second-price auction behavior.

Those experiments naturally identified exchanges participating in header bidding because they had largely moved to first-price auctions. Those experiments also captured header-bidding exchanges that optimized price floors in second-price auctions to better reflect an ad space's true value, so as to maximize the opportunity for the ad exchange to win the ad space.[13] Google used a fixed threshold of deviation from second-price auction behavior to determine whether to apply Project Poirot to a specific ad exchange. Once applied, DV360 systematically reduced its bids into that exchange.

107. Project Poirot was not a typical bid-shading program. Standard bid-shading tools help DSPs optimize advertisers' ROI by strategically lowering bids on an impression-by-impression basis according to objective criteria. That is why DSPs typically disclose their use of bid-shading. It is a feature that can be attractive to advertisers, and some DSPs even charge for it. Bid shading became more important following the advent of first-price auctions, as DSPs worked to fine tune their bidding algorithms to avoid potentially over-bidding on specific impressions. Project Poirot, in contrast, was applied selectively and discriminatorily; its purpose was not to maximize ROI for DV360 advertisers, which is why Google hid it from the public.

[13] When header bidding exchanges, including the Plaintiffs, ran second-price auctions, they sometimes used dynamic floors because publisher-set price floors often undervalued ad spaces. When publishers set undervalued price floors in a second-price auction with few participants, the exchange's winning bid would clear at an artificially low price (typically the publisher's unduly low price floor plus one cent). At that price, the exchange had little chance to win the ad space when faced with competition from other header bidding exchanges and AdX.

AdX, by contrast, did not need to use dynamic floors to win ad spaces. After all, DFP always told AdX the actual price floor it needed to beat to win the ad space—whether that price floor originated from the publisher or (more likely) from actual real-time bids from header bidding exchanges. Nevertheless, AdX did employ techniques similar to dynamic floors, as discussed *infra* Section II.H.iii.

108. In contrast to DV360, other DSPs successfully adapted to the move to first-price auctions without reducing their spend on other exchanges. Advertisers and DSPs welcomed the move to first-price auctions because it was partially a response to advertisers demanding more transparency. Bid-shading programs implemented by other DSPs shaded bids on an impression-by-impression basis rather than reducing spend across the board on exchanges that ran first-price auctions. This strategy makes sense because the goal of a DSP should be to maximize advertisers' ROI, and independent DSPs would not benefit from reducing their spend only on independent exchanges. If Google's justifications for Project Poirot were accurate, it should have had similar effects on exchanges as the bid-shading programs of rival DSPs, but instead it almost exclusively favored AdX at the expense of other exchanges.

109. Project Poirot was incredibly effective at achieving its stated purpose to "dry out" header bidding. Indeed, Project Poirot was so effective at shifting DV360 spend from header bidding exchanges to AdX that Google became concerned that "AdX is now dominant to the point where we need to communicate to advertisers (and sometimes even to exchanges) why over 70% of DBM [DV360] spend happens on AdX." As the *United States v. Google* court has found, "Project Poirot resulted in advertisers that used DV360 spending an average of 9% more on AdX." Liability Op., 778 F. Supp. 3d at 830. Google employees "worr[ied] about AdX share shift," so they "proactively engaged PR to see if they wanted to get ahead of the story but they didn't want to call attention to this." All of this revealed what Google already knew: Project Poirot did not promote competition between rival exchanges and AdX, which increased advertiser choice, but instead protected AdX's market share at a time when its monopoly was most threatened.

110. Project Poirot harmed Google's own customers. Project Poirot exacerbated the anticompetitive effects of Last Look and limited the procompetitive effects of header bidding, which harmed publishers, rival ad exchanges and advertisers. Project Poirot further harmed advertisers by weakening competition between rival exchanges and AdX, thereby lessening advertiser choice.

iii. ***Project Poirot Did Not Target AdX, Despite Reserve Price Optimization.***

111. Although Google ostensibly designed Project Poirot to target all exchanges that deviated from second-price auctions, Project Poirot went on for years without targeting AdX, even as AdX itself deviated significantly from a pure second-price auction. Specifically, beginning in 2015, to maximize its revenue, AdX employed a floor boosting program called Reserve Price Optimization ("RPO"). RPO used AdX's robust and unique historical bid data to override the price floors that publishers set on AdX and generate advertiser-specific price floors based on those advertisers' historical bids. If the RPO floor exceeded the second-price bid, it acted as the clearing price, forcing advertisers to pay more than they otherwise would—and as a result, allowing AdX to collect higher fees. An internal Google document stated that the goal of RPO was to "select a reserve [or floor] price as close to the anticipated first price as possible in order to trade buyer for seller surplus."

112. Google employees acknowledged that RPO floors were "basically pushing our second price auction—that is supposed to be fair—toward a first priced auction." For example, one employee wrote in an email that RPO "undermine[s] the whole idea of second price auctions" because "if the publisher manufactures a floor price based on your bid to get you to pay more than the second price" then "[i]t'll transform the system into a 1st price auction where the bidder has a strong incentive to bid LESS than he's willing to pay. (Only just enough to win.)."

113. Project Poirot, if neutrally run, should have lowered DV360 bids into AdX because RPO caused AdX to deviate from a second-price auction. But armed with exclusive knowledge about the existence and inner workings of Project Poirot, and immunized by Last Look from the need to deviate from publisher-set price floors simply to win ad spaces, Google fine-tuned AdX's own auction mechanics to avoid triggering Project Poirot's algorithm. Internal documents reveal that AdX and DV360 teams at Google collaborated to design "less aggressive" auction strategies for AdX "to avoid things like Poirot." For example, Google considered launching a new version of RPO on AdX that "show[ed] significant scope for surplus [difference between value and cost] improvement" for advertisers. However, the launch team noticed a concerning result: "The production Poirot model doesn't react to this but the launch candidate does." In other words, if Google had made the change, Project Poirot would have begun systematically reducing DV360's bids into AdX, as it did for header bidding exchanges. Armed with this unique insight, the AdX team then adjusted its plans for the RPO algorithm to avoid triggering Project Poirot; other ad exchanges, of course, lacked the knowledge about Project Poirot that would have allowed them to adjust their auction practices in response. Nor could rival exchanges have remained competitive against AdX had they done so given the sequential auctions they faced in header bidding and against AdX's Last Look.

114. Google also resolved that it would modify Project Poirot's algorithm if needed to ensure that DV360 would not lower bids into AdX: "If AdX is going further down RPO, DBM [DV360] will refine Poirot." Ultimately, by secretly modifying AdX's auction dynamics to

exempt AdX from Project Poirot's effects, Google further exacerbated Project Poirot's anticompetitive effects. [14]

iv. ***Google Concealed Project Poirot from the Plaintiffs to Maximize Anticompetitive Harm.***

115. As discussed below, *see infra* Section VI.C, Google fraudulently concealed Project Poirot from the Plaintiffs. If Google had disclosed Project Poirot to the independent ad exchanges in addition to AdX, those exchanges could have explored options to adjust their auction logic to address Google's purported concerns about non-second-price auctions. Yet Google did not disclose Project Poirot because it did not *want* to give competing exchanges that opportunity. Internal documents reveal that Project Poirot was part of a broader plan to address the fact that header bidding "exists." The goal was not to shift the industry back to second-price auctions—which would not have made sense in the pro-competitive header bidding landscape. Rather, Google intended to shift demand back to AdX and away from the competitors that had threatened AdX's monopoly with header bidding.

116. Nor did Google disclose details about Project Poirot to its publisher or advertiser clients. Google concealed Project Poirot from advertisers who would have protested had they known that Google was purposefully weakening competition in the ad exchange market. The platform included a generic toggle labeled "bid optimization" without explaining that it involved

[14] Beyond RPO, SSDRS was another AdX manipulation that could have triggered Project Poirot. Yet AdX did not apply SSDRS to bids that AdX received from DV360—the bids within Project Poirot's scope. Theoretically, SSDRS could have triggered Project Poirot because it caused AdX to deviate from a second-price auction. As discussed above, SSDRS lowered AdX's take rate to increase some bidders' net bids above another exchange's winning bid, meaning that those bidders would ultimately pay a higher price than the price of the unaltered second-place bid. *See supra* Section II.G. Thus, bidders would have incentive to shade their bids into AdX when it employed SSDRS. Yet despite using SSDRS on bids from almost all other ad buying platforms, AdX turned off SSDRS for its own platforms, AdWords and DV360. So SSDRS did not trigger Project Poirot on DV360.

systematic bid suppression targeted at rival exchanges. The notice suggested routine campaign management rather than a practice that would materially alter how DV360 competed in header-bidding auctions. Unlike other DSPs, DV360 never disclosed the scope of its shading, never explained that it applied broadly to all impressions on independent exchanges (but not to impressions on AdX), and never offered advertisers the choice to opt out or calibrate the feature. This lack of clarity left advertisers unable to understand that their bids were being intentionally weakened in ways that harmed their campaign performance.

117. Although it occurred within DV360, Project Poirot was an AdX-driven project aimed at protecting AdX's monopoly power. By lowering DV360 bids into header bidding exchanges, but not into AdX, Project Poirot diverted transactions to AdX, further leveraging the unique advantages AdX enjoyed through Last Look and the superior information provided to it by DFP. Not unlike its decision to funnel AdWords demand almost exclusively through AdX, Project Poirot effectively ensured that the vast majority of Google's other major source of demand, DV360, would likewise be funneled through AdX—and not through competing ad exchanges that could place real-time bids in competition with AdX. As noted above, Project Poirot was designed to "combat the effects of header bidding", and combat them it did—by crushing competition in general and harming the Plaintiffs specifically.

118. For these reasons, the European Commission has now concluded that Project Poirot was anticompetitive and that less restrictive alternatives were available to achieve Google's goals. *See* Case AT.40670—Google–Adtech & Data-related practices, Eur. Comm'n, DG Competition Decision (Sept. 5, 2025) (the "EC Decision"). As that EC Decision explains, "Project Poirot cannot be considered as an 'objective' methodology and . . . alternative ways to design and implement [P]roject Poirot were possible." EC Decision ¶ 1139. For example,

Google could have given rivals like the Plaintiffs "the same information on the existence and workings of [P]roject Poirot as Google provided to AdX, including providing rivals with the same ability to test whether [P]roject Poirot applied to the features of their modified second price auctions, as well as to discuss with the team of project Poirot the adequacy of shading bids on certain features." *Id.* ¶ 2007. In so doing, Google would have given the Plaintiffs the chance to "adapt their auctions" like AdX did—including by staying away from "certain types of modification features considered at a given time too close to first price auctions." *Id.* ¶ 2008.

119. These alternative solutions would have brought advertisers the same purported benefit of extra surplus without necessarily disfavoring rival exchanges that employed header bidding. That Google did not implement these alternative solutions further demonstrates that Project Poirot was pretext for anticompetitive retaliation.

I. *Google Implements Open Bidding to Disadvantage Competing Ad Exchanges (Alleged by PubMatic and Equativ Only).*

120. Realizing the potential threat that header bidding posed to its stranglehold over the ad tech stack, Google devised a plan to coerce publishers away from header bidding and to force ad exchanges to submit bids directly to DFP. Google termed this effort "Project Jedi," after the fictional space knights of the Star Wars franchise who could use powers of mind control to trick others into doing things against their own interests. Google's personnel would continue to talk in Star Wars terms when discussing their plans for Project Jedi, for example calling a strategy to spread misinformation about competing ad exchanges and push publishers to abandon header bidding a "jedi mind trick."

121. Google rolled out Project Jedi in 2018 after two years of informal testing. Publicly, Google gave Jedi the innocuous-sounding name Exchange Bidding, which it later rebranded as Open Bidding. Open Bidding enabled ad exchanges to submit real-time bids

directly into DFP, but that access was coupled with onerous terms that ensured rival exchanges were prohibited from competing with AdX on a level playing field.

122. Google used a combination of coercion and deception to drive publishers that relied on DFP toward Open Bidding. Rather than competing to win publishers away from header bidding by offering them better services or lower prices, Google used opaque technical levers to make the service it provided *worse* for publishers who used DFP but also wanted to receive bids via header bidding.

123. For example, prior to 2018, Google provided publishers selling their inventory through DFP with detailed data fields that allowed them to compare the results of header bidding with bids received through Open Bidding. But as part of its effort to stifle the use of header bidding, Google began to deliberately degrade the ability of publishers to ascertain the value they were receiving through header bidding by redacting these previously available fields.

124. Google similarly segregated data related to bids and impressions in a manner that made it impossible for publishers to effectively understand the value of the bids submitted for each impression through header bidding. These degradation measures had no legitimate purpose or business justification other than to make it deliberately difficult for publishers to ascertain the value header bidding provided in comparison to Open Bidding.

125. On top of these anticompetitive measures, Google artificially throttled the ability of publishers using DFP to receive multiple competitive bids through header bidding. Within DFP, Google forces publishers to pre-designate the bid amounts they might be willing to accept as "line items." By limiting the number of line items available outside of Open Bidding, Google forced publishers relying on header bidding to list less-granular bid amounts they might otherwise be willing to accept. When a bid from an ad exchange participating in header bidding

was sent to DFP at an amount that did not correspond to a publisher's line item, Google would round the bid down to the nearest line-item amount. Publishers using DFP thus were harmed because Google prevented them from receiving the full amount of bids submitted through header bidding. Internally, Google recognized that deliberately corrupting lucrative bids received by their customers was problematic, and its personnel acknowledged that Google inflicted this harm to its own customers to "push these pub[lishers] to using Jedi"—Open Bidding.

126. In addition to using these opaque technological measures to degrade header bidding for publishers using DFP, Google resorted to the time-tested approach of simply lying. For example, Google falsely told a publisher in 2017 that it should stop sending impressions to OpenX via header bidding because interacting with the ad exchange via header bidding would put a "strain" on OpenX's servers. The publisher routed its impressions to OpenX through Open Bidding as a result.

127. Google's anticompetitive campaign of deprecation and deception succeeded in coercing publishers to move to Open Bidding. To submit bids for these publishers' impressions, ad exchanges likewise were forced against their interest to route bids through Open Bidding.

128. The financial costs and consequent economic damages for rival ad exchanges were heavy. Google imposed a 5% arbitrary and mandatory fee on every auction won through Open Bidding by a rival ad exchange. AdX, of course, was not subject to the same excise. In addition to the immediate reduction in revenue this caused to the other ad exchanges, this discriminatory extraction harmed rival exchanges' business in other ways. Google's imposition of higher transaction costs on rival ad exchanges had the effect of lowering net bids from advertisers on those exchanges by 5%, causing them to win fewer auctions for impressions from

publishers using DFP and further reducing the revenue and volume of impressions sold via competing ad exchanges.

129. As part of this scheme, Google also forced payments for bids made through Open Bidding to be unnecessarily routed through Google's ad tech systems, thereby eliminating a critical point of contact between ad exchanges and their publisher customers.

130. Google applied additional technical restrictions to prevent rival ad exchanges from routing bids into Open Bidding that originated from the rival exchanges' own DSPs or ad networks, not only depriving these exchanges of revenue they would have received from serving advertisers with these buy-side tools, but also diminishing exchanges' ability to provide valuable impression information to advertisers. As a condition of participating in Open Bidding, Google also forced competing ad exchanges to share their proprietary and competitively sensitive bid data with Google. This forced disclosure amplified Google's ill-gotten data asymmetries, which Google then leveraged to disadvantage competing exchanges in other ways. These measures adopted by Google in connection with Open Bidding had no legitimate business justification, and rather were the means that Google designed to insulate AdX from the forces of competition and ensure that it remained the dominant ad exchange.

131. The *United States v. Google* court held that "Open Bidding . . . discriminated against non-AdX exchanges, including by extracting a 5% fee from their bids, by prohibiting them from submitting any bids that originated from their own demand-side platforms or ad networks, and by requiring them to share their bid data with Google." Liability Op., 778 F. Supp. 3d at 829. The European Commission similarly found that the 5% Open Bidding fee appears to be "subtracted from the bids placed by the different [ad exchanges] before comparing them with the bids placed through AdX to which the fee does not apply, thus creating an unequal

treatment." EC Decision ¶ 1346. The European Commission also detailed how Open Bidding's contractual restrictions prevent vertically integrated rival ad exchanges "from benefiting from the better cookie matching they would have, if they could return bids from their own ad buying tools, as AdX can and actually does." *Id.* ¶ 1358. The European Commission concluded that, through onerous technical requirements and contractual restrictions, "Google has restricted participation in Open Bidding so as to keep it to the minimum size necessary in order not to undermine AdX's position in the market for [ad exchanges]." *Id.* ¶ 1409.

132. Google's Open Bidding thus succeeded in undermining ad exchange competition by deliberately stunting the growth of header bidding and maintaining AdX's dominance. Competing ad exchanges—including the Plaintiffs—were forced to participate in Open Bidding to reach publishers that used DFP. Open Bidding suppressed the Plaintiffs' revenues, unfairly taxed and depressed the bids of advertisers using the Plaintiffs' ad exchanges and consequently reduced the volumes of impressions sold through the Plaintiffs' ad exchanges, forced the Plaintiffs to surrender valuable competitively sensitive and otherwise confidential data to Google, and overall placed the Plaintiffs at a severe competitive disadvantage compared to Google's own AdX.

J. *Through Project Bernanke, Google Leverages Its Data Advantage to Squeeze Out Competing Ad Exchanges and Sources of Advertiser Demand.*

133. Starting in 2013, Google launched another secret program codenamed **Project Bernanke**. With Project Bernanke, Google again exploited the informational advantage Dynamic Allocation provided to AdX and Google's control over the massive and unique advertising demand it controlled through AdWords—which, again, bids almost exclusively into AdX—to further enhance AdX's monopoly in the ad exchange market. It did so by shortchanging publishers and overcharging advertisers in auctions in which AdWords submitted

the two highest bids into AdX, and then using the money it pocketed as a "cookie jar" to boost AdWords bids in more competitive auctions that would otherwise have been won by advertisers bidding through rival exchanges.

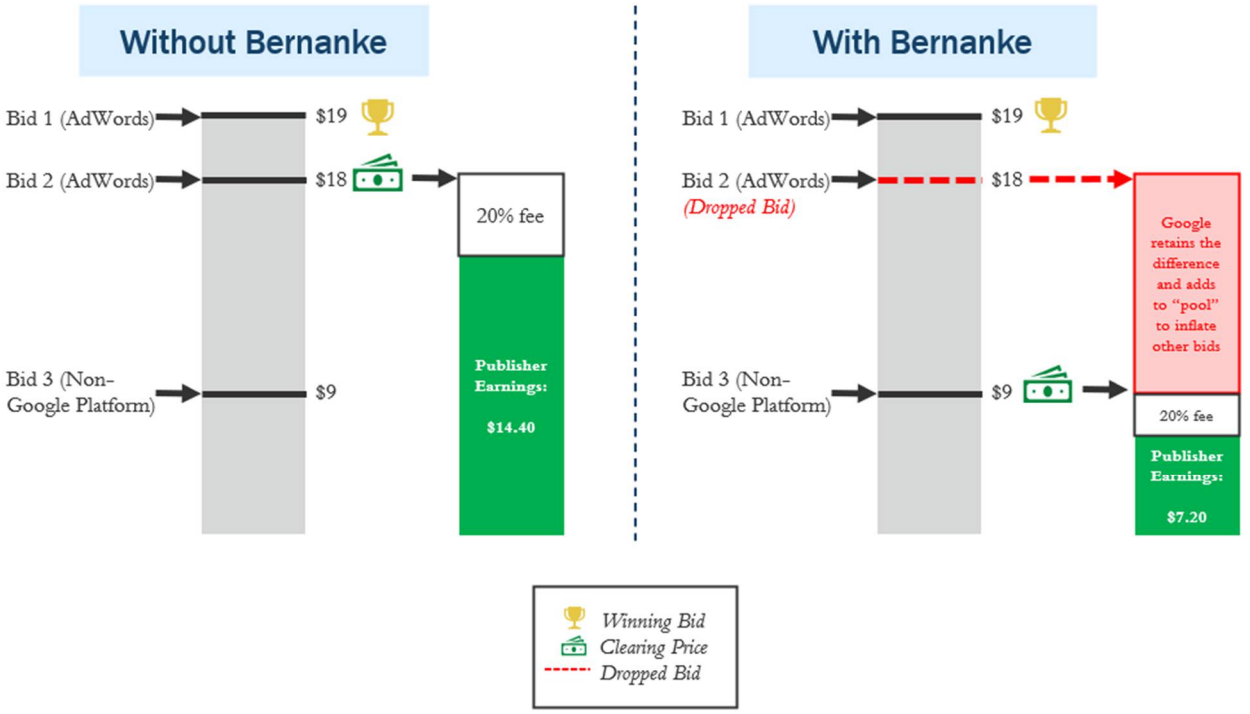
134. Project Bernanke exploited a quirk of how AdWords bids into AdX. When an ad space becomes available, AdWords runs an internal auction of its advertisers' bids. But even though it is in each advertiser's interest to compete against the smallest possible number of bidders, AdWords submits not one, but *two* bids into AdX. Although this was contrary to AdWords' advertisers' interests—the second-highest bid from AdWords had no chance of winning, but could increase the price the highest bidder had to pay in a second-price auction—Google took this unusual approach in order to increase the ultimate price of the topmost bid and thereby increase Google's own margins on both the buy side and the sell side. A 2013 study found that AdWords submitted the top two bids in 85% of the auctions it won, meaning its own bids set the price in the vast majority of auctions it won.

135. Relying on this double-bid system in AdWords, Google then used Project Bernanke to secretly vary the take rate it charged to AdWords advertisers to advance the interests of AdX. When Google identified a less competitive auction in which AdWords submitted the top two bids, it charged the top bidder the price bid by the second AdWords bidder, but then remitted to the publisher an amount equal to the *third* highest bid. Google internally referred to this differential between the second and third bids, which Google pocketed, as the Bernanke "pool." Conversely, when Google identified a competitive auction where the top AdWords bid would lose to bids submitted through other exchanges, Google would use the Bernanke pool to subsidize the topmost AdWords bid, thus allowing AdX to beat out bids from competing exchanges. Similar to SSDRS, Bernanke increased the volume of transactions clearing on AdX

and the win rate for AdWords, depriving rival ad exchanges of transaction volume and solidifying AdX's dominance without harming Google's own bottom line.

136. Figure 6 below depicts an example of Project Bernanke and its creation of "third-price" auctions. Assume a publisher's ad space is up for auction and the three highest bids sent to AdX are a $19 bid from Advertiser A using AdWords; a $18 bid from Advertiser B also using AdWords; and a $9 bid from Advertiser C using a non-Google buying platform. In a second-price auction, Advertiser A's $19 bid wins, and the clearing price is $18, which nets the publisher $14.40 ($18 minus Google's 20% exchange fee). But Bernanke changes the outcome, shifting revenue from the publisher to Google (and specifically to Google's Bernanke pool). Under Bernanke, AdX ignores the second-place $18 bid; so even though Advertiser A's $19 bid will still win, the clearing price AdX reports to the publisher is now the third-place $9 bid, which nets the publisher only $7.20 ($9 minus Google's 20% exchange fee). But importantly, Google still charges the advertiser the $18 second-place bid that it dropped. Google pockets the $9 difference and places it in its "pool" to inflate future bids in auctions with more competitive bids from non-Google buying tools and non-Google exchanges.

Figure 6: Project Bernanke



137. Overall, with Project Bernanke, Google secretly switched a substantial majority of AdX auctions—by some estimates, as much as 85% of auctions—from second-price to third-price auctions. By secretly running a third-price auction, Google reduced a typical publisher's revenue by around 40%, pocketing the difference. As one Google employee put it simply, "Bernanke is powerful."

138. The effect of Project Bernanke is that AdWords advertisers—and by extension, AdX—won auctions even when advertisers on other ad exchanges had submitted higher bids. By using funds extracted from less competitive auctions to subsidize bids in more competitive auctions, Google ensured that AdX would win impressions that otherwise would have cleared on rival exchanges at higher prices. In those auctions, advertisers bidding through competing exchanges, including the Plaintiffs' exchanges, were prepared to pay more for the impression than the unsubsidized AdWords bid. But Bernanke enabled Google to artificially inflate the

AdWords bid, displacing those rival exchanges and depriving them of transaction volume, revenue, and the associated data needed to compete. It also allowed AdX to clear publishers' most valuable ad spaces while leaving rival ad exchanges with fewer, less-valuable ad spaces.

139. While SSDRS allowed Google to manipulate the net bid presented to publishers by varying its sell-side take rate after observing rival bids, Bernanke allowed Google to manipulate the effective advertiser bid by retaining the spread between the second- and third-highest bids in AdX auctions and using that margin to subsidize future bids. Together, these programs gave Google two independent levers—one on the sell side and one on the buy side—to distort auction outcomes in favor of AdX. Armed with these dual levers, Google could ensure that AdX won in competitive auctions where its standard take rate and unmanipulated advertiser bid would not otherwise have sufficed. Rival exchanges lacked Google's informational advantage. So unlike Google, they could not adjust their bids after peeking at the bids submitted by the competition.

140. Google has continued to develop and expand Bernanke over time, giving the various iterations different codenames. In 2015, Google launched a revised iteration of the program: **Global Bernanke**. Whereas the original Bernanke kept the Bernanke pool siloed on a per-publisher basis, Global Bernanke created a single "global" pool that was applied to all publishers, greatly expanding the opportunities to manipulate bids across publishers. Google also applied Global Bernanke not only to the floors publishers themselves set in DFP, but also to the floors set through header bidding (that Google could beat through Last Look).

141. Meanwhile, in or around 2016, Google implemented another iteration of the Bernanke program, codenamed **Project Bell**, which changed how Google allocated the Bernanke savings pool. With Project Bell, Google sought to inflate bids for publishers that gave

preferential access to AdX and thereby leave rival exchanges with fewer, lower value impressions. To do so, Project Bell determined whether a publisher enabled certain preferences for Google to sell its ad spaces—for example, by using "Enhanced Dynamic Allocation" ("EDA").[15] If the publisher did not, Project Bell would structure the auction so that Google ran third-price auctions for that publisher (thereby depressing the publisher's payout), and withhold all Bernanke pool money from that publisher's future auctions. At the same time, Project Bell used the pool money to inflate bids sent to publishers who did give preferential access to AdX. Google hid Bell from publishers, instructing its employees to tell publishers, for example, to "just make sure [Enhanced Dynamic Allocation] is working" in the publisher's ad server, or that publisher could be punished in ways that were left undisclosed. Once again, Project Bell had the effect of channeling high-value impressions to AdX at the expense of rival exchanges.

142. In 2019, AdX formally shifted to a first price auction and Google implemented Unified Pricing Rules. In response to this shift, Google created **Project Alchemist**, a first-price version of Project Bernanke, to ensure that it would maintain its unfair advantage over rival ad exchanges under these new auction rules.

[15] If a publisher enabled Enhanced Dynamic Allocation, DFP could convert the publisher's direct deals into "temporary" CPMs, which DFP sent to AdX as a price floor. AdX could then bid for ad spaces which had been set aside for direct deals, even though those ad spaces had historically not been offered to ad exchanges at all. Enhanced Dynamic Allocation afforded AdX a right of first refusal over these ad spaces regardless of whether the publisher had yet fulfilled the terms of the direct contract.

Around the time that Bell began, some DFP publishers could avoid Enhanced Dynamic Allocation, but by 2016, Google had enrolled every DFP publisher. Google never created an "off" switch for Enhanced Dynamic Allocation, and while Google has observed it is "technically possible" for publishers to use a "workaround" to avoid it, Google does not believe that workaround is widely used.

143. Project Alchemist required significant changes in Bernanke's design to maintain its desired effect, but the goals remain the same—underpaying publishers and overcharging advertisers to build up a pool of funds that can be used to displace higher bids from AdX's competitors. In effect, Alchemist allows AdWords advertisers to "collude" to increase their bid shading into first-price auctions. Alchemist does so by sharing information among all of its AdWords bidders. Specifically, under Alchemist, Google "drops" the bids from all AdWords bidders except the topmost bidder, eliminating any internal competition. With those lower bids gone, and with the knowledge that those dropped bids would have been a significant source of competition given the high volume of AdWords demand, AdWords then shades the topmost bid more than it otherwise would have—but critically, still charges the top bidding advertisers the amount of their original, unshaded bid. Google then adds the difference between that higher charge to the advertiser and the lower (shaded) payout to the publisher to a pool. Google uses that pool money to boost future bids to have AdWords—and by extension, AdX—win auctions that rival exchanges would otherwise have won.

144. Project Alchemist was a new and independent act that had the effect of leaving rival exchanges with fewer, lower-value impressions.

145. According to the latest publicly available information, Google to this day continues to engage in iterations of Project Bernanke that depress revenue for publishers, cost more to advertisers, and create pools of funds that are then used to unfairly disadvantage competitors to AdX.

146. These projects did not serve the interests of anyone other than Google. The projects depressed revenue for Google's publisher customers by lowering the returns that publishers received for their impressions while also ensuring that rival exchanges could not win

impressions they would have won absent Google's manipulations. Moreover, Project Bernanke and its iterations interfered with the competitive process by overriding the higher price floors that publishers chose to set for AdWords compared to other buyers.

147. Google did not disclose the existence of these projects to publishers, advertisers, rival ad servers, or rival exchanges. And rival exchanges had no way of knowing that Google was using information from DFP to alter the bids channeled through AdX.

148. This Court has previously found that allegations regarding Google's use of Project Bernanke and similar projects that left rival exchanges "with fewer, lower-value impressions" plausibly resulted in harm to competition in the ad exchange market. *See In re Google Digit. Advert. Antitrust Litig.*, 627 F. Supp. 3d 346, 389 (S.D.N.Y. 2022) (denying motion to dismiss claims that Project Bernanke, Global Bernanke, and Bell "were anticompetitive measures that harmed competition in the ad-exchange market").

K. *Google Curtails Publisher Flexibility with Unified Pricing Rules.*

149. Because Google's anticompetitive conduct, including Last Look, SSDRS, Project Bernanke (and its iterations), and Project Poirot, diverted millions of transactions from the Plaintiffs' exchanges to AdX, many publishers became concerned about the increasing concentration in the market for ad exchanges and, more specifically, about their increasing reliance on AdX. To try to counter that increase in concentration, many publishers set lower price floors for bids from competing ad exchanges, including those operated by the Plaintiffs, as compared to the price floors they set for AdX, in an attempt to shift some transactions back to non-Google exchanges.

150. In response, in 2019, Google implemented **Unified Pricing Rules ("UPR")**. As its name suggests, UPR prevents publishers using DFP from setting a higher price floor for AdX compared to other ad exchanges. Contrary to what its name would suggest, however, the reverse

is not true: under UPR, publishers *are* allowed to set a lower price floor for AdX compared to other ad exchanges, creating a one-way ratchet for transferring yet additional transactions from competing ad exchanges, including those operated by the Plaintiffs, to AdX.

151. As the *United States v. Google* court has found, "Unified Pricing Rules is another example of Google exploiting its monopoly power and tying arrangement to restrict its customers' ability to deal with its rivals, thereby reducing its rivals' scale, limiting their ability to compete, and further compounding the harm to customers. Under these circumstances, Unified Pricing Rules constituted anticompetitive conduct because it involved Google using its coercive monopoly power to deprive its publisher customers of a choice that they had previously exercised to promote competition." Liability Op., 778 F. Supp. 3d at 865. And this Court has concluded that "Google is precluded from relitigating, inclusive of the balancing of procompetitive benefits and anticompetitive effects . . . that Google has engaged in the following anticompetitive conduct which supports the . . . claim that it willfully acquired and maintained its monopoly power in the ad server and ad exchange markets: . . . Unified Pricing Rules . . . ." Collateral Estoppel Ruling at 32–33. The Plaintiffs therefore do not repeat all their allegations concerning UPR here; additional allegations regarding UPR are set forth *infra* Section XXVI.

III. Google's Anticompetitive Conduct Exploits Scale, Network Effects, and Informational Disparities.

152. Ad exchanges benefit from indirect network effects because an exchange's success is based on its ability to connect publishers to advertisers and vice versa. Without simultaneous access to both publisher supply and advertiser demand at scale, an ad exchange will not be able operate (let alone grow), because advertisers are only willing to work with exchanges that offer significant publisher supply and publishers are only willing to work with exchanges that offer significant advertiser demand.

153. Publisher ad servers also benefit from indirect network effects because ad servers must connect their publisher clients to significant advertiser demand. Working with more publishers helps an ad server attract advertiser demand, and more advertisers increase the appeal of an ad server to publishers.

154. Access to data is essential to the successful operation of various products in the ad tech stack, including ad exchanges. Multiple types of data allow publishers, advertisers, and ad tech tools to optimize their performance. User data, including data concerning a user's demographics and interests, help publishers and ad exchanges properly value inventory and help advertisers and DSPs obtain optimal matches. Auction data, including data concerning bidding, available impressions and won impressions, enable ad tech products to improve their algorithms. Such data allow advertisers, publishers and ad exchanges to properly value ad spaces and ensure the best match between an ad space and an advertiser. Advertisers with greater information about each ad space can submit higher bids for the ad spaces that they value most. Ad tech tools with greater access to such data thus have an information advantage that attracts both publishers and advertisers. Conversely, a lack of access to such data is a barrier to competing effectively, particularly for an ad exchange.

155. As the European Commission found, scale is crucial to ad exchanges in generating new business, fine-tuning their algorithms, and tracking views of impressions. Google's anticompetitive conduct has deprived rival ad exchanges of crucial transaction volume and scale, while steering more transactions to AdX, creating a feedback loop that further disadvantaged rival exchanges. *See* EC Decision ¶¶ 1772–89.

156. Google has maintained a significant information advantage throughout the ad tech stack because it shares data between its dominant ad buying tools (AdWords and DV360), its

monopoly ad exchange (AdX) and its monopoly publisher ad server (DFP). No other industry player has anywhere near the level of access to user and auction data enjoyed by Google.

157. This data advantage has created a vicious cycle that benefits Google's ad exchange. An ad tech provider that sees a larger swath of inventory can adjust its bidding behavior accordingly. Google's control of DFP gives it a direct line of sight into all transactions for a given publisher's inventory, whether the transaction is completed through AdX or another exchange. And Google's conduct ensured that competing ad exchanges (and ad servers) have no visibility to the vast majority of ad sales.

158. Additionally, an ad tech provider that can see at scale who bids on inventory and at what prices can create bidding strategies to more reliably win future auctions for similar inventory. The *United States v. Google* court has recognized this feedback loop:

> Google's unparalleled scale in programmatic advertising has given it significant advantages over rival firms. Scale is a crucial factor for ad tech companies' ability to compete because of the importance of big data analytics for optimizing ad tech services and the significant network effects that exist in programmatic advertising. The unmatched scale that Google has achieved across the open-web ad tech stack helps the company test products more quickly and make higher-quality matches between advertisers and publishers. As ad tech products continue to integrate artificial intelligence and machine learning capabilities, Google's vast repositories of data about advertisers, publishers, and Internet users, combined with the company's scale and technical sophistication, will further benefit its open-web display advertising business.

Liability Op., 778 F. Supp. 3d at 832 (citations omitted).

159. Through its unlawful ties, Google has conditioned publishers' access to AdWords demand on using AdX and has conditioned publishers' access to real-time bids from AdX (and thus from AdWords) on using Google's own ad server, DFP. Google's conduct funneled an overwhelming volume of transactions through AdX, giving Google access to far more data than the Plaintiffs. That conduct allowed AdX to optimize its bidding behavior at scale more

effectively than its competitors. Google's conduct deprived rival ad exchanges operated by the Plaintiffs of scale, both in terms of publishers and advertisers participating in the exchange and in terms of transaction volume.

160. Google compounded this information asymmetry by exploiting its connections across the ad tech stack to benefit its own ad tech tools. For example, under First Look, DFP shared rival ad exchanges' historical bids with AdX and ensured that most inventory is not even visible to competing exchanges, who are placed further down the waterfall mechanism. Last Look similarly provided the winning bids from header bidding auctions to AdX, while not providing competitors with similar transparency into AdX's (or any other exchanges') bids. In short, whereas competing exchanges typically have insight into only the (relatively few) transactions they win, AdX has insight into the vast number of transactions it wins, *and* at least partial insight into the transactions it loses. Google's informational advantage created a vicious cycle for the Plaintiffs: as Google deployed anticompetitive programs to accumulate more data, it won more auctions, which in turn allowed it to accumulate even more data.

161. Moreover, Google exploits its control over the market's dominant ad server, DFP, to benefit its other ad tech products by sharing data with them but not with competing ad exchanges or with publishers (who could in turn share the data with competing exchanges to spur competition for their inventory). DFP sequesters some of the most valuable data—such as DFP user IDs—in the black box of Google's internal ad tech stack. Google is only able to do so because of its monopoly power. An ad server is a product that should serve and be responsive to the needs of publishers. No ad server in a competitive market would limit the valuable information it makes available to its publisher customers. Yet DFP tells publishers nothing about Google's take rate manipulations. Google thereby keeps publishers in the dark about the

manipulations of its transaction fees and bids that it uses to win ad spaces. And because of this opacity, Google's ad tech competitors, like the Plaintiffs, cannot access critical data—which publishers have an interest in sharing with them—to adjust their bidding strategies to compete more effectively with Google for publishers' inventory.

IV. Google Has Monopoly Power in the Worldwide Markets for Publisher Ad Servers and Ad Exchanges.

162. This case concerns Google's anticompetitive conduct weaponizing the ad tech tools used to deliver a specific type of ads—open web display ads. "Open-web display ads are display ads that run on websites that use third-party ad tech infrastructure to match advertisers' ads to publishers' inventory." Liability Op., 778 F. Supp. 3d at 821. Other advertising distinct from open-web display advertising (and thus not part of this case) includes ads on walled garden websites, in-app ads, social media ads, search ads and outstream video ads.

A. *Publisher Ad Servers for Open-Web Display Advertising.*

i. *Worldwide Publisher Ad Server Product Market.*

163. As the *United States v. Google* court has found, "publisher ad servers for open-web display advertising constitute a distinct relevant product market." Liability Op., 778 F. Supp. 3d at 833–34. And "the relevant geographic market for both publisher ad servers for open-web display advertising and ad exchanges for open-web display advertising is worldwide," excluding countries where the operation of ad tech companies is substantially restricted. *Id.* at 849. This Court has concluded that "Google is precluded from relitigating . . . the existence of separate and distinct markets for publisher ad servers and ad exchanges" and "that the ad server and ad exchange markets are worldwide in scope, excluding countries restricting access to the internet or subject to U.S. sanctions." Collateral Estoppel Ruling at 32–33.

ii. ***Google Has Monopoly Power in the Worldwide Market for Publisher Ad Servers.***

164. Google offers DFP, now part of the Google Ad Manager suite, as a publisher ad server in the relevant market. As the *United States v. Google* court has found, "Google possesses monopoly power in the publisher ad server for open-web display advertising market." Liability Op., 778 F. Supp. 3d at 850. And this Court has concluded that "Google is precluded from relitigating . . . that Google has engaged in . . . anticompetitive conduct which supports the . . . claim that it willfully acquired and maintained its monopoly power in the ad server and ad exchange markets." Collateral Estoppel Ruling at 32–33.

B. ***Ad Exchanges for Open-Web Display Advertising.***

i. ***Worldwide Ad Exchange Product Market.***

165. As the *United States v. Google* court has found, "ad exchanges for open-web display advertising constitute a distinct relevant product market." Liability Op., 778 F. Supp. 3d at 837. And "the relevant geographic market for both publisher ad servers for open-web display advertising and ad exchanges for open-web display advertising is worldwide," excluding countries where the operation of ad tech companies is substantially restricted. *Id.* at 849. This Court has concluded that "Google is precluded from relitigating . . . the existence of separate and distinct markets for publisher ad servers and ad exchanges" and "that the ad server and ad exchange markets are worldwide in scope, excluding countries restricting access to the internet or subject to U.S. sanctions." Collateral Estoppel Ruling at 32–33.

ii. ***Google Has Monopoly Power in the Worldwide Market for Ad Exchanges.***

166. Google offers AdX, now part of the Google Ad Manager suite, as an ad exchange in the relevant market. As the *United States v. Google* court has found, "Google possesses monopoly power in the ad exchange for open-web display advertising market." Liability Op.,

778 F. Supp. 3d at 852. And this Court has concluded that "Google is precluded from relitigating . . . that Google has engaged in . . . anticompetitive conduct which supports the . . . claim that it willfully acquired and maintained its monopoly power in the ad server and ad exchange markets." Collateral Estoppel Ruling at 32–33.

V. Google Has Market Power in the Worldwide Markets for Buy-Side Tools for Display Advertising (Alleged by Magnite, PubMatic, and Equativ Only).

A. *Buy-Side Tools for Display Advertising Worldwide Is a Relevant Antitrust Market.*

167. Google monopolized the worldwide markets for open-web display publisher ad servers and ad exchanges in part through conduct in the adjacent, but separate market for advertiser display ad-buying tools. That is a distinct market consisting of ad tech tools that enable advertisers to buy various categories of display ads, including open-web display ads, walled-garden display ads, in-app display ads, and social media display ads.

168. Products in the display ad-buying tools market include the buy-side of open-web display ad networks, such as Google's AdWords. It also includes DSPs, such as Google's DV360. The unifying characteristic of these products is that they are advertiser tools used to place bids on programmatic display ad inventory across one or more exchanges.

169. The relevant product market is defined by the functional interchangeability and competitive dynamics of advertiser tools that perform the same basic function: enabling advertisers to bid on and acquire programmatic display ad inventory. While these tools differ in interface, reach, and integration, they share core characteristics. Buy-side tools for display advertising provide advertisers with the ability to manage campaigns, set targeting parameters, and place bids in real time.

170. Substitutes outside this category, such as manual direct buys or traditional print advertising, are not reasonably interchangeable with buy-side tools for display ads because they

lack programmatic functionality and do not offer comparable efficiency, targeting, or scale. Nor are tools used for buying search ads a viable substitute for the products in this market. As the court ruled after the Google Search trial in *U.S. v. Google*, search and display ads have different characteristics and uses, and industry participants (including advertisers) and the public recognize them as distinct. *United States v. Google LLC*, 747 F. Supp. 3d 1, 127 (D.D.C. 2024).

171. As with publisher ad servers and exchanges, the market for buy-side display ad-buying tools is global in scope (with the same exclusion of countries where the operation of ad tech companies is substantially restricted). Advertisers with multinational campaigns require tools that allow for the purchase of impressions across geographies in real time. Vendors of these tools compete for business worldwide, and advertisers typically deploy a single DSP or campaign management platform across multiple regions rather than sourcing separate tools for each local market.

B. *Google Possesses Sufficient Power in the Market for Buy-Side Tools for Display Advertising to Constrain Competition in the Exchange Market.*

172. Google may not possess monopoly power in the market for buy-side tools for display ads, but it does have sufficient market power to enable it to restrict competition in the adjacent market for open-web display ad exchanges.

173. Google operates two buy-side tools for display ads: AdWords and DV360. AdWords, now known as Google Ads, aggregates demand from millions of mostly small and medium-sized advertisers, many of whom use it as their exclusive tool for buying digital advertising. Because AdWords advertisers are primarily interested in simple, turnkey campaigns and lack the resources to manage multiple buying platforms, access to AdWords demand is essential for publishers seeking to monetize their inventory.

174. DV360, by contrast, is Google's enterprise demand-side platform used by larger, more sophisticated advertisers and agencies. DV360 offers granular controls, data integrations, and optimization tools that allow these advertisers to run programmatic campaigns at scale across multiple exchanges. For many publishers, DV360 represents one of the single largest sources of programmatic demand. DV360 accounts for almost half of all impressions that are won by DSPs and is more than twice as large as the closest competing DSP.

175. From the perspective of publishers, both AdWords and DV360 are "must-have" sources of demand. Without access to the advertiser demand aggregated through these tools, publishers would lose substantial revenue. This dependence gives Google the ability to dictate how and where that demand flows.

176. The *United States v. Google* court explained that Google itself knew its control over AdWords demand gave it the power to coerce publishers on the other side of the exchange market:

> [AdWords'] ease of use, association with a preeminent Internet company, and ability to place targeted advertisements alongside Search results attracted millions of unique advertisers, including countless small and medium-sized businesses. Although publishers could offer their impressions on non-Google ad exchanges, large publishers were greatly attracted to the unique advertising demand offered by AdWords, and as a result viewed using DFP as essential because it was the only publisher ad server that could effectively access AdX and, consequently, AdWords demand. Google recognized the unique attractiveness of its extensive advertiser demand, and its employees understood that limiting access to AdWords demand in this way "compel[led] publishers" to use AdX and DFP.

Liability Op., 778 F. Supp. 3d at 826 (citations omitted).

177. The same dynamic applies to DV360. By controlling one of the most important DSPs for large advertisers and agencies, Google possesses the ability to shape competitive outcomes in the exchange market. When DV360 demand is suppressed on rival exchanges or

privileged for AdX, publishers lose access to one of their largest and most valuable revenue streams, and independent exchanges like the Plaintiffs are deprived of the scale they need to compete.

VI. Plaintiffs' Claims are Timely.

A. *The Limitations Period Is Tolled Based on the Complaint in* United States v. Google.

178. Although the statute of limitations in antitrust cases is generally four years, *see* 15 U.S.C. § 15(b), the Government's suit in *United States v. Google*, filed on January 24, 2023, tolled that statute of limitations during the pendency of those proceedings (which are still pending) and for one year thereafter, *see id.* § 16(i). As follow-on actions, the claims of the Plaintiffs are based at least in part on the matters complained of in *United States v. Google*. This Court has applied this statutory extension to claims "based in whole or in part on those brought by the" Government in *United States v. Google*. *See* MDL Dkt. No. 1336 (quotation omitted). Thus, all causes of action brought by Plaintiffs that accrued on or after January 24, 2019 are not barred by the statute of limitations.

179. Much of Google's anticompetitive conduct began after January 24, 2019, and continued thereafter. For example, in or around May 2019, Google leveraged its unlawful ties between DFP, AdX, and AdWords in a new way to implement Unified Pricing Rules. Similarly, Google launched Project Alchemist no earlier than the second half of 2019. Accordingly, the Plaintiffs' claims regarding Google's implementation of UPR, Project Alchemist, and any of Google's other anticompetitive acts on or after January 24, 2019, are timely as a result of the Sherman Act's statutory tolling provision.

B. *Claims Based on a Continuing Violation Are Timely.*

180. Under the continuing violation doctrine, claims based on Google conduct that began prior to the limitations period and continued into that period are also timely when Google committed an independent and overt act within the limitations period as part of a broader scheme that caused new and accumulating harm in the limitations period. Google employs anticompetitive conduct to win transactions for ad space away from the Plaintiffs millions of times every day. And Google's practices have continuously mutated over time, forcing the Plaintiffs to play "whack a mole" in uncovering and responding to each of Google's new manipulations, and have constituted a series of repeated and reasserted acts that have evolved over time in order to maintain Google's monopoly.

i. ***The AdWords-AdX Tie Is a Continuing Violation.***

181. As described above, "Google made AdX the only ad exchange into which AdWords advertising demand was permitted to bid," with limited exceptions. Liability Op., 778 F. Supp 3d at 825. Google has maintained that tie and applied it to billions of new auctions daily throughout the relevant periods and through the present. The billions of auctions Google unfairly won due to this tie were not the consequence of a static contract or some predetermined course of action. Rather, Google *chooses* to maintain the tie and prevent AdWords from submitting the vast majority of bids into non-AdX ad exchanges. Nor is this AdWords-AdX tie permanent in its effects or application—for example, in 2015, Google began allowing a sliver of AdWords demand to reach rival ad exchanges, thereby launching AwBid. Google then expanded AwBid beyond remarketing campaigns to include so-called "ICM verticals" in 2018 and to additional targeting types, such as so-called "CIM," after January 2019. Indeed, Google could decide at any given moment to route more or less AdWords demand to AdX, thereby relaxing or tightening the tie from one moment to the next as it sees fit. Accordingly, each

auction won by Google as a result of the tie is a new and independent overt act that causes continuing and accumulating harm to the Plaintiffs.

182. Google maintains this unlawful tie by continuously signing up new advertisers for AdWords and subjecting them to the same tying arrangement. Each time Google signs a new contract with an AdWords advertiser that prohibits the advertiser from using AdWords to submit most of its bids to rival exchanges, Google commits a new and affirmative instance of the tying arrangement. Google has signed up thousands of new advertisers to AdWords during the limitations period. The Plaintiffs suffer new injury each time an advertiser is subjected to this requirement, because the tying arrangement prohibits these advertisers from placing bids on rival exchanges.

ii. ***The DFP-AdX Tie is a Continuing Violation.***

183. The DFP-AdX tie likewise is a continuing violation. After acquiring DFP in 2008, Google required publishers to use DFP to access real-time bids from AdX. And beginning in 2018, Google prohibited publishers from accessing AdX without first going through DFP under Google Ad Manager. Today, Google continues to prevent rival ad servers from putting real-time bids from AdX in competition with real-time bids from other ad exchanges.

184. Each transaction governed by the DFP-AdX tie—whereby a publisher was forced to transact through DFP to access AdX demand and so did not use one of the Plaintiffs to effect the transaction—was a new and independent harm to the Plaintiffs by Google, which declines again and again to permit AdX to send real-time bids to other ad servers. DFP's software unfairly preferences AdX, including through Dynamic Allocation. Each time a new publisher signs up with DFP and is subject to the same tying arrangement, Google commits a new and affirmative act. Each time the Plaintiffs lose auctions to AdX that they otherwise would have won but for Google coercing publishers to use DFP to obtain access to AdX, they are harmed.

See MDL Dkt. No. 1336 at 20 (finding that Rumble "adequately alleged that the DFP-AdX product tie is an act that 'inflicted continuing and accumulating harm'" (citation omitted)).

185. Nor is Google's DFP-AdX tie permanent in any way. As Google itself put it, "we can decide to change the conditions of our offer suddenly and unilaterally." Google previously allowed some publishers to access AdX directly without using DFP. To reinforce the coercive pressure of its tie, Google forced publishers that previously had accessed AdX directly to sign new contracts that required them to access AdX only through DFP. Google continued renegotiating contracts to force publishers to access AdX through DFP after January 2019—an overt act within the limitations period that inflicted continuing and accumulating harm.

iii. ***Google's Overall Pattern of Conduct Is a Continuing Violation.***

186. Google's ties are not isolated conduct separate from other conduct described above, including First Look, Last Look, SSDRS, Project Poirot, Open Bidding, Project Bernanke (and its iterations), and UPR. All of this conduct worked together as a single, continuing, and ever-evolving scheme to maintain and entrench monopoly power in the markets for publisher ad servers and ad exchanges.

187. Google employed practices such as First Look, Last Look, SSDRS, Open Bidding, and UPR to complement the ties and ensure that publishers and advertisers alike were more likely to transact through AdX than through Plaintiffs' competing exchanges. With First Look, Last Look, and Open Bidding, for example, Google decided to unfairly favor AdX each time DFP sold ad space. With UPR, the *United States v. Google* court concluded that "Google implemented Unified Pricing Rules to enhance the AdX-DFP tie, and not for its proffered justifications." Liability Op., 778 F. Supp. 3d at 871. UPR was implemented into DFP "at the request of" the AdX team to limit publishers' ability to set floor prices for different buyers in DFP. *Id.*

188. Google launched Project Poirot to funnel ad requests from advertisers using DV360 through AdX and not through competing exchanges, including those owned by the Plaintiffs here. With Project Poirot, Google reduced DV360 bids to rival ad exchanges by up to 90%, by implementing an algorithm that was disclosed to AdX (and could be avoided by AdX) but concealed from all other exchanges. And after September 2019, when AdX had formally moved to a first-price auction, Google adopted a "risk aversion" factor within Project Poirot's algorithm that further increased AdX's win rate at the expense of rival exchanges.

189. Likewise, with Project Bernanke (and its iterations), Google has used AdX's informational advantage to allow it to work with AdWords to spend more on competitive auctions and less on less competitive auctions, thereby winning auctions unfairly against competing exchanges, including those owned by the Plaintiffs here. And here too, after September 2019, when AdX formally moved to a first-price auction, Google modified Bernanke by launching Alchemist, which generated the same pool of funds even though Google's auction dynamics have changed, thereby maintaining AdX's win rate at the expense of rival exchanges.

190. Ultimately, these programs have allowed AdX to win transactions away from the Plaintiffs through anticompetitive means. Each auction that AdX unfairly won as a result of the ties, Dynamic Allocation, Open Bidding, Project Bernanke (and its iterations), Project Poirot, and UPR, was a new and independent overt act by Google because Google has kept these anticompetitive programs active, and in many cases modified, updated, and enhanced them well within the statutory limitations period. Thus, the Plaintiffs have lost transactions because of Google's anticompetitive conduct every day—and each lost transaction is a new and accumulating harm.

191. Although each of the instances of conduct described above has (on their own) inflicted millions or billions of instances of harm to the Plaintiffs from millions or billions of affected transactions, none could work effectively on its own: they are all instrumental pieces of Google's broader anticompetitive plot, whereby it has schemed to monopolize the relevant markets for well over a decade. The European Commission recently concluded after extensive review that Google's anticompetitive conduct constituted a single, continuous infringement from at least January 2014 through the present. EC Decision ¶¶ 2076–77. The European Commission viewed Google's various types of conduct, including the imposition of Project Poirot and UPR, as a single continuing violation because "Google's different forms of conduct pursued an identical objective and were complementary . . . . Each of these forms of conduct did not individually last for the entire period of the Infringement, but they evolved over time, together forming a continuum of abusive behaviour[.]" *Id.* ¶ 2218. The previously described overt acts steered ad business to Google, further foreclosed competition, and in turn allowed Google to maintain a critical mass of ad tech customers while depriving ad exchange and ad server competitors of the same.

192. Overall, the story of Google's continuing conduct is one where the industry reacts with innovations intended to overcome Google's scheme; and Google then invariably adds new layers of anticompetitive conduct—*i.e.*, further overt acts—to negate industry efforts and further cement its monopolies. Prior to the introduction of header bidding, Google employed First Look so that AdX could offer bids to DFP publishers before any other exchange. When the Plaintiffs began to engage in header bidding to circumvent the effects of this anticompetitive behavior, Google then used Last Look to counter the procompetitive effects of header bidding. Google then employed SSDRS, which exacerbated the effects of Last Look. Each of these programs was

designed to lock publishers into using AdX over other exchanges (and extract additional revenue from those customers) and acted as reinforcements to the DFP-AdX tie. Google implemented and later updated Project Bernanke to shift impressions to AdX from other ad exchanges even where other exchanges' advertisers were willing to pay more for an impression. Google launched Project Poirot to further benefit its own exchange—a result that would not have been possible without Google's other anticompetitive conduct. But for Last Look, AdX would have been forced to move to a first-price auction much sooner than it did, and would have been targeted by Google's very own Project Poirot. When Google's customers revolted against Last Look and pushed back on that outcropping of the tie, Google instead introduced UPR to generate a similar effect. And after Google implemented UPR, it launched Project Alchemist to continue to use Google's data advantage to unfairly shift impressions from other exchanges to AdX in UPR's first-price auction. Ultimately, each of these programs built upon each other to allow Google to win transactions away from the Plaintiffs by enhancing the effectiveness of the DFP-AdX and AdWords-AdX ties as well as the monopolization of the ad exchange market more generally.

193. Over time, the implementation and evolution of these policies inflicted new and accumulating harm to the Plaintiffs, who were left to play "whack a mole" in uncovering and responding to each of Google's new manipulations. Each of these programs was an adjustment made to achieve the same result—eliminate competition. While the conduct described above are continuing violations on their own, they are also, taken together, new and independent overt acts in Google's larger scheme to maintain and entrench its own monopolies.

C. *Google Fraudulently Concealed SSDRS, Project Poirot, and Project Bernanke (and Its Iterations) into the Statutory Period.*

194. Google also fraudulently concealed three of the relevant instances of conduct, SSDRS, Project Poirot, and Project Bernanke (and its iterations) from the Plaintiffs. Two of these programs—SSDRS and Project Poirot—were highly opaque and not well-understood outside of Google, including by competitors, as well as customers of both the DFP and AdX. The Plaintiffs had no way to determine the truth regarding SSDRS and Project Poirot and their hidden algorithmic manipulations. And certain Plaintiffs directly *asked* Google to explain anomalous shifts in Google's DV360 spend—yet Google either professed ignorance, gave pretextual explanations, or affirmatively misled the Plaintiffs. In addition, Google designated these programs with cryptic code names to obscure their true nature. Meanwhile, Project Bernanke (and its iterations) went completely undisclosed outside of Google—as Google has admitted—until a government enforcement action revealed Google's scheme.

195. Starting in 2014, Google began opting its publishers into SSDRS without disclosing anything about the program to publishers or advertisers. By the fall of 2015, Google had opted all its publishers into the program without disclosing any information about it. Then, in the summer of 2016, Google told publishers it was launching a "revenue share-based optimization" that increased publishers' yields. Although Google was referring to SSDRS, Google's description of the program to publishers was false because SSDRS did not increase publishers' yields. Publishers were not told that AdX recouped any lost revenue from ad spaces on which SSDRS lowered AdX's take rate by charging a higher AdX take rate on other ad spaces. On top of that, because DFP concealed non-winning bids from publishers, publishers were unable to discover Google's auction manipulations. SSDRS's purpose and effect was to use AdX's information advantage from its tie-in with DFP to gain an anticompetitive advantage.

This concealed price manipulation harmed competition and ultimately suppressed publisher revenue.

196. Neither publishers nor rival exchanges—including the Plaintiffs—had any reason to know that SSDRS was actually a price-manipulation mechanism. Nor was there any ability for them to reasonably discover Google's misconduct. The auction mechanics of SSDRS were not previously made public. Google's invoices to publisher customers have not listed its take rate on an impression-by-impression basis, so it was impossible to glean information that would tip off publishers as to what Google was actually doing. Competing exchanges, including the Plaintiffs, were in an even worse position to investigate Google's conduct. *Cf. In re Google Digital Advert. Antitrust Litig.*, 721 F. Supp. 3d 230, 271–72 (S.D.N.Y. 2024) (denying Google's motion to dismiss Enhanced Dynamic Allocation ("EDA") claims as untimely where the plaintiffs alleged that Google "made 'false' representations for 'many years' about the purpose and effects of EDA," was unwilling to disclose sales data related to EDA, and where the implementation of EDA had a "secretive nature").

197. Google continues to make misrepresentations about SSDRS to this day. Google's website now states that "revenue share optimizations" were "paused" in September 2019. That statement is false or at best misleading, as SSDRS remained operative in DFP's user interface until at least 2021. Indeed, internally Google acknowledged that SSDRS was still active in 2020. Discussing SSDRS internally, Google bragged that while ad buyers would benefit, publishers would find the change hard to notice. Google employees also warned against referring to the specifics of SSDRS externally and disclosing details about how SSDRS actually worked, lest publishers disable it. For example, one internal document describing how SSDRS functioned instructed employees: "DO NOT SHARE EXTERNALLY." While today it appears that Google

quietly has removed SSDRS from DFP's user interface, and any mention of SSDRS from its help pages, there is still no indication that Google actually has disabled that functionality.

198. Google also fraudulently concealed Project Poirot, which was structured to avoid detection. Google introduced the first iteration of Poirot "gradually" over several phases and initially limited the amount that DV360 could shade bids into rival ad exchanges to 40%, making Project Poirot harder to detect on the exchange side. This produced more modest declines in spend that were difficult for rival exchanges to distinguish from ordinary "noise" or potentially legitimate bid-shading techniques. The Plaintiffs therefore had no way to determine the cause of any decline in DV360 spend on their ad exchanges, or to try to address such decline. Only later did Google ramp up its discriminatory shading to as much as 90%. By gradually increasing and dynamically varying the shading, Google made it impossible for competing exchanges to determine whether the decrease in DV360 spend was due to Google's manipulation or exogenous factors.

199. Google purposefully rebuffed or misled each Plaintiff from discovering the truth about Project Poirot. For example, in late 2018, after Project Poirot 2.0 resulted in a 40% decrease in year-over-year spend from DV360 to the OpenX Ad Exchange, OpenX repeatedly pleaded with Google—its largest source of advertiser demand—for an explanation of the decline. At one point, Tim Cadogan, OpenX's then-CEO, sent an email to Google showing the massive decline in DV360 spend on the OpenX Ad Exchange as of November 2018, adding "I don't need to belabor the significance of this for us. How can you help here?" Google never responded to Cadogan's email.

200. In fact, internal Google conversations reveal that Google had made an explicit decision to "stonewall" OpenX from discovering the truth about Project Poirot. When OpenX

tried to discuss the decline in DV360 spend with Google, Google offered only terse, inconsistent explanations that concealed more than they revealed. For example, Google blamed the European Union's General Data Protection Regulation and ads.txt—an unrelated technical standard—as reasons for the decline. For months, OpenX ran experiments to try to determine why DV360 had decreased its spend on the OpenX Ad Exchange. But because Google took so many steps to conceal Poirot, OpenX was unable to determine the real reason for the decline.

201. OpenX was disappointed by Google's responses to its inquiries given the parties' longstanding relationship. OpenX had worked with Google for years across multiple business segments on both the buy side and sell side. OpenX also was negotiating a major contract for Google Cloud services while Google was actively harming OpenX through Project Poirot, and OpenX even reached out to Google Cloud employees for guidance given the opaque responses that OpenX had received from Google's ad tech counterparts.

202. Likewise, Magnite worked internally to investigate why DV360's spend had dropped on its exchange, but Magnite could not determine the cause. Magnite tried its best to reverse the effects of Project Poirot (all while not knowing it had been implemented) by reviewing its internal data on bidding. Magnite reached out to the DV360 team at Google in an attempt to determine the cause of DV360's reduced spend into their exchange, but no one at Google would tell Magnite the cause of the reduced spend or reveal Project Poirot. Google employees told Magnite that they did not know why DV360's spend was reduced on Magnite's exchange, despite the fact that internally Google acknowledged that a goal (and effect) of Project Poirot was to lower spend on exchanges like Magnite. Eventually, in April 2019, a Google employee admitted in a conversation with a Magnite employee that DV360 would soon shift more spend to independent exchanges as a result of reduced bid-shading because Google was

facing pressure around antitrust concerns. That employee did not provide any details about Project Poirot to Magnite.

203. After PubMatic first noticed the decline in DV360 spend, PubMatic contacted Google in August 2017 to try to determine what was causing the decline. PubMatic informed Google that it had begun seeing a reduction in spending on PubMatic's exchange across multiple major buyers using DV360, provided reports demonstrating this decline, and asked Google to investigate the cause. After preliminary responses, Google fell silent for weeks and ignored PubMatic's repeated follow-ups. Eventually, Google offered a vague response that the decline PubMatic was experiencing was "due to filtration" by Google's "AdSpam team"—in other words, the inventory on which the bids would be placed had been flagged as fraudulent or spam. That explanation made no sense, particularly given that the decline related to inventory being offered by several of PubMatic's major publisher customers, including eBay and AOL. After PubMatic pointed this out, Google once again fell silent and ignored PubMatic's follow-ups in late 2017 and early 2018. At no point did Google disclose what was truly causing the decline: Project Poirot was shading DV360's bids placed on PubMatic's exchange.

204. PubMatic reached out to Google again in 2019. This time, PubMatic shared the results of an experiment PubMatic had conducted. The experiment involved PubMatic setting itself up as an advertiser in DV360 and running advertising campaigns. PubMatic directed some of the advertising campaigns only to PubMatic's ad exchange, and it made the other campaigns available to all ad exchanges. The results were dramatic. DV360 had no problem delivering the campaign offered just to PubMatic's ad exchange, and PubMatic's exchange won over 64,000 impressions, confirming there was no backend issue with communication between PubMatic's ad exchange and DV360. During the campaign offered to all exchanges, however, PubMatic won

just 304 of the available 53,195 impressions. AdX, meanwhile, won more than 26,000, which was approximately 15,000 more than the next closest competitor. This demonstrated that something was happening to the bids that DV360 was placing on PubMatic's ad exchange during auctions in which AdX was also participating. PubMatic presented the results of this experiment to Google and asked for help to uncover what was causing it. After a few preliminary exchanges, Google simply ignored PubMatic, despite repeated follow-ups. Once again, Google did not tell PubMatic that Project Poirot was shading DV360's bids or that this was causing the declines that PubMatic had experienced.

205. With respect to Project Bernanke, an internal Google conversation from June 2017 stated Google's disclosure policy plainly, with one employee observing that "the first rule about Bernanke is we don't talk about Bernanke . . . ." Another internal Google planning document made explicit that Google did not want anyone outside of Google to know that Project Bernanke existed, let alone understand how it functioned:

> **GDN buying change via Bernanke Doc (AdX Pub Side)**
>
> **NEVER USE THE WORD BERNANKE EXTERNALLY, EVER. PLEASE DO NOT EXPLAIN HOW IT WORKS TO PUBS EITHER. See below for comms**

The document continued: "There will be no external messaging on this . . . . Note: how Bernanke works should never be explained to publishers. This is internal bidding behaviour for GDN [AdWords] and is not to be shared." Google never disclosed Bernanke, Global Bernanke, Bell, or Alchemist to publishers, advertisers, or its competitors. In a related government enforcement action, Google has admitted publicly that it "did not specifically disclose bid optimization techniques such as Bernanke." Nor did Google's competitors or customers have a way to uncover the truth about Bernanke. Google deployed sophisticated hidden algorithms to manipulate its aggregate take rate over years, without reporting its actual take rate from each

auction. Because Google did not disclose the mechanics of its take rate manipulations with each auction, customers and competitors were not able to detect that Project Bernanke had inflated or deflated bids within the black box of its DFP-AdX-AdWords pipeline.

206. Google's practices of concealing relevant documents further contributes to the fraudulent concealment of SSDRS, Project Poirot, and Project Bernanke (and its iterations). By 2019, Google was being investigated by the Government for anticompetitive conduct. Despite being aware of the investigation, Google actively destroyed relevant evidence. Google used a default "history off" setting for internal chat conversations that auto-deleted messages, even those that were relevant to the Department of Justice's investigation and should have been preserved. Even though many employees were subject to litigation holds, Google encouraged its employees to use these "history-off" chats to discuss sensitive topics, including those specifically relevant to the anticompetitive effects on exchanges, would not be preserved and could not be discoverable. Employees that did not have "history-off" enabled because they were under legal holds routinely told other employees to hold conversations without them present so no record would be preserved. In addition to using "history-off" chats to exchange information that should have been preserved, Google employees were also directed to make pretextual claims of privilege, including marking documents as privileged or adding internal lawyers to email chains that did not contain or seek legal advice.

207. Ultimately, the Plaintiffs only discovered the anticompetitive nature of SSDRS, Project Poirot, and Project Bernanke (and its iterations) when the State of Texas included allegations about both projects in its Third Amended Complaint filed in its own case against Google on January 14, 2022. *See* MDL Dkt. No. 195. Even then, the details included in the Texas Complaint about Project Poirot and Project Bernanke were minimal and did not identify

the Plaintiffs as targets of Poirot or Bernanke. The Government's complaint in the Eastern District of Virginia, which was filed on January 24, 2023, also provided the Plaintiffs with additional details to ascertain what these programs were and how they had suffered anticompetitive harm.

VII. Anticompetitive Effects.

208. Despite the Plaintiffs' ground-breaking contributions to the development of digital advertising and the competitive products they offered, Google's anticompetitive acts repeatedly crippled the Plaintiffs' growth, market shares, revenues and profits. Google's ever-evolving series of anticompetitive and illegal strategies diminished the Plaintiffs' businesses and thwarted their ability to compete.

A. *Google's Tying Conduct.*

209. Google's tie between AdWords demand and AdX, as well as its tie between real-time bids from AdX and Google's ad server, harmed those Plaintiffs operating in the publisher ad server market (driving some of them out of the market entirely) and prevented the Plaintiffs from competing effectively in the ad exchange market.

210. *First*, because most bids from AdWords were available only to publishers using DFP as their ad server, and because publishers use a single ad server, the Plaintiffs' ad servers were foreclosed from the market. Simply put, publishers were not willing to forgo the enormous amount of revenue available from AdWords, even if one of the Plaintiffs' ad servers offered better terms, more control, better features or lower prices than DFP. The Plaintiffs' ad servers lacked effective access to most of the unique and valuable advertiser demand aggregated through AdWords and to any real-time bids from AdX. Without this critical access on the buy side, the Plaintiffs could not compete effectively with Google's ad server, DFP, for publisher customers on the sell side. Even though some publishers indicated that they preferred one of the Plaintiffs'

ad servers—including their ability and willingness to customize its ad server product to meet publishers' needs—publishers could not afford to lose the AdWords demand that was available only through DFP. *See* Liability Op., 778 F. Supp. 3d at 826. As a result, the Plaintiffs struggled to win new publisher ad server clients and lost prospective and existing clients to DFP. Put one way, as Tim Cadogan—OpenX's co-founder and former CEO—explained in sworn testimony in *United States v. Google*: "to work with the OpenX ad server would require [publishers] saying no to by far the largest source of advertising revenue that was available to them, which was the Google offering" via AdX, and "that's a choice almost no publisher could make because they couldn't go without that large source of revenue".

211. Google further chilled publishers' use of the Plaintiffs' ad servers because, as explained above, Google made real-time bids from AdX available only to its own ad server. Users of the Plaintiffs' ad servers could not compare bids from AdX to bids from other demand sources in real time, inhibiting their ability to maximize revenue. For example, even though OpenX sought to make real-time bids from AdX available to OpenX's ad server, Google did not accept this proposal.

212. *Second*, the Plaintiffs' ad exchanges could not effectively compete with AdX in attracting publishers or advertisers due to Google's anticompetitive ties. On the sell side, the Plaintiffs' ad exchanges could not give publishers access to most of the valuable advertiser demand offered by AdWords. On the buy side, the Plaintiffs' ad exchanges' inability to attract publishers at scale (because they needed access to AdWords) made them less attractive to other advertisers; this effect was exacerbated by the Plaintiffs' inability to submit real-time bids directly into DFP, or obtain critical data, such as auction data at the scale of AdX. As OpenX's Tim Cadogan testified, getting only "a sliver of [AdWords] demand . . . made our job a lot

harder" because "we're competing against someone who has a lot more scale in terms of the ad dollars that are sitting behind that exchange." As a result, the Plaintiffs could not gain sufficient scale to threaten Google's dominance.

B. *Dynamic Allocation.*

213. Dynamic Allocation (First Look and Last Look) harmed the Plaintiffs' ad exchanges because they were not able to compete effectively against AdX for ad spaces made available through DFP in light of AdX's ability to bid ahead of the Plaintiffs in the waterfall, know the Plaintiffs' (and all other exchanges') predicted bids, and cherry pick the most valuable ad spaces through First Look. Dynamic Allocation continued to harm the Plaintiffs' ad exchanges after the introduction of header bidding because DFP provided AdX with the winning bids from header bidding auctions and allowed AdX to bid last in an attempt to beat those bids through Last Look.

214. As the *United States v. Google* court already found: "First Look exacerbated the anticompetitive effect of the unlawful AdX-DFP tie by artificially advantaging AdX within DFP's auction logic at the expense of Google's publisher customers." Liability Op., 778 F. Supp. 3d at 864. "By giving AdX 'an advantage in winning the transaction,' . . . First Look 'made it difficult' for other exchanges 'to compete on a level playing field with AdX,' . . . thereby impeding their ability to enter the market, grow, and compete. . . . In addition to providing a revenue advantage, First Look also gave Google a data advantage that helped the AdX team train its auction bidding models more effectively." *Id.* at 827.

215. As this Court similarly has noted, First Look was a component of what has been referred to as Google's Dynamic Allocation. Collateral Estoppel Ruling at 16 n.10. As part of Dynamic Allocation, "Google used information accessible to it through its ad server to wall off exchange competition and guarantee that transactions were made on AdX." *In re Google Digit.*

Advert. Antitrust Litig., 627 F. Supp. 3d 346, 385 (S.D.N.Y. 2022). Dynamic Allocation, including First Look, "had the effect of controlling prices and excluding competition in the ad-exchange market." *Id.*

216. The *United States v. Google* court also found that "Google's Last Look . . . harmed publishers, rival ad exchanges, and advertisers using non-Google ad buying technologies." Liability Op., 778 F. Supp. 3d at 864. "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." *Id.* at 829 (citation omitted). Indeed, the *United States v. Google* court ruled that:

> The anticompetitive effects of Last Look have been compounded by Google's sell-side dynamic revenue share. . . . By using the Last Look informational advantage to vary AdX fees and win impressions that it would have lost in a fair auction, Google has further enhanced AdX's market power at the expense of rivals, thereby reducing competition and harming its publisher customers' ability to diversify their revenue sources away from Google.

Id. at 865.

217. Dynamic Allocation funneled transactions to AdX that the Plaintiffs would have won absent Google's anticompetitive conduct. Although the Plaintiffs' ad exchanges distinguished themselves in other ways—for example, as industry leaders in publisher quality, traffic quality and ad quality—Google's Dynamic Allocation rendered them unable to effectively compete. Because Dynamic Allocation allowed AdX to access and to clear more transactions than rival exchanges, AdX had greater insight into how advertisers were bidding than the Plaintiffs' ad exchanges. This greater access allowed AdX to optimize its bidding algorithms and win even more ad spaces than the Plaintiffs' ad exchanges. Conversely, the Plaintiffs lost the ability to bid—or even see—highly valued inventory, harming their ability to optimize their

bidding strategies. Google's conduct ultimately deprived the Plaintiffs' ad exchanges of the scale and revenue needed to compete effectively against Google.

C. *Sell-Side Dynamic Revenue Share.*

218. Google's SSDRS program allowed AdX to alter its take rate after seeing the winning bid from rival exchanges to boost (or minimize, as the case may be) its net bid, thus allowing AdX to win more of the most valuable ad spaces without sacrificing revenue. This program allowed Google to win ad spaces that it otherwise would have lost to one of the Plaintiffs. Through this conduct, Google funneled transactions away from Plaintiffs' ad exchanges and to AdX, causing the Plaintiffs to lose revenue and scale. The Plaintiffs could not replicate Google's anticompetitive advantages with SSDRS, and in fact did not even know SSDRS existed due to Google's deliberate concealment of the program from exchanges and publishers.

219. This Court noted that "information uniquely available" to Google through DFP enabled SSDRS and "the ability to alter bids in order to transact impressions [AdX] would have lost to rival exchanges." *In re Google Digit. Advert. Antitrust Litig.*, 627 F. Supp. 3d at 391. The European Commission similarly found that "[t]he Last Look advantage allowed AdX to divert impressions away from rival [ad exchanges] that participated in Header Bidding," EC Decision ¶ 1302, and that its effects were "amplified" by SSDRS. *Id.* ¶ 1309.

D. *Project Poirot.*

220. Google used Project Poirot as a way to extend the harms of its exclusionary AdWords-AdX tying strategy to DV360. As with the AdWords-AdX Tie, DV360's bid-shading implementation was designed not to optimize outcomes for advertisers, but to suppress bids placed on rival exchanges, like those of Plaintiffs, to retaliate against them for adopting header bidding as a competitive measure. Rather than employing impression-level shading algorithms

that would have treated all exchanges equally, DV360 imposed across-the-board reductions in bids routed to rivals. In a competitive market, DV360 would have sent higher bids to the Plaintiffs, enabling them to secure more transactions and expand their scale. Project Poirot's bid suppression—the existence of which was hidden from the Plaintiffs by Google—meant the Plaintiffs received lower bids than they should have, causing them to lose impressions and the associated fees.

221. The *United States v. Google* court observed that as a result of Project Poirot, "AdX's main competitors . . . saw their revenue from DV360 advertisers decrease by an average of 15%." Liability Op., 778 F. Supp. 3d at 830. "Internal Google documents stated that, following [an] expansion of [Project] Poirot, large ad buyers utilizing DV360 were spending 7% more on AdX and had reduced their spending on most other exchanges." *In re Google Digit. Advert. Antitrust Litig.*, 627 F. Supp. 3d at 397–98. One Google employee concluded that the combined effect of Project Poirot and the related Project Elmo "caused an average 21% revenue decrease on affected exchanges and a $300 million increase on AdX." *Id.* at 398.

E. *Open Bidding (Alleged by PubMatic and Equativ Only).*

222. Google's Open Bidding harmed competition and rival ad exchanges, including the Plaintiffs, in several ways. Google's 5% fee imposed on bids routed through Open Bidding directly reduced the revenue of rival ad exchanges. But the 5% fee also operated to lower the net amount of bids on rival exchanges relative to bids from AdX, unfairly causing AdX to win more and higher-value impressions, thus depriving competing ad exchanges like the Plaintiffs of revenue, scale, and high-value impressions.

223. Rival ad exchanges, including the Plaintiffs, also were harmed in their ability to compete with Google by other aspects of Open Bidding. Google forced ad exchanges participating in Open Bidding to route transactions through Google's systems, eliminating

important opportunities for those exchanges to maintain customer relationships. Google's use of Open Bidding to wring data from participating ad exchanges while simultaneously restricting those exchanges' ability to serve bids originating from the exchanges' affiliated DSPs and ad networks exacerbated Google's data advantage. Not only did this tactic deprive competing ad exchange operators of revenue they would have obtained by offering impressions to advertisers through their own buy-side tools. By creating a structure that disadvantaged competing ad exchanges in communicating to advertisers how ads were served for each impression, Google depressed the value of impressions sold through competing exchanges relative to AdX, buttressing AdX's dominance and further reducing competitors' revenue.

F. ***Project Bernanke and its Iterations.***

224. Project Bernanke and its many iterations, including projects Global Bernanke, Bell, and Alchemist, harmed competition and competing ad exchanges by leveraging Google's data advantage to unfairly shift the sale of high-value impressions away from rival ad exchanges, including the Plaintiffs, to AdX. These clandestine projects resulted in Google shifting impressions to AdX even where advertisers using competing ad exchanges valued an impression more and had submitted higher bids than advertisers on AdX. These projects reinforced AdX's dominance, reduced revenue and scale for competing ad exchanges such as those operated by the Plaintiffs, and diminished the quality of impressions that remained on those exchanges.

G. ***Unified Pricing Rules.***

225. As a result of UPR, Google again shifted more transactions onto AdX, winning many transactions that one of the Plaintiffs would have won but for UPR. This in turn further contributed to the loss of scale and revenue by the Plaintiffs' ad exchanges.

226. The *United States v. Google* court also held that the "Unified Pricing Rules increased the number of impressions AdX won and the revenue it received, while decreasing

impressions won and revenue received by third-party exchanges. . . . The overall result of Unified Pricing Rules was that Google's ad tech products continued to gain scale in the display advertising space while rival ad tech products lost scale." Liability Op., 778 F. Supp. 3d at 831. "[A Google] internal memo stated that a unified pricing rule would cause more DV360 transactions on AdX at a higher margin," corroborating the *United States v. Google* court's finding. *In re Google Digit. Advert. Antitrust Litig.*, 627 F. Supp. 3d at 400. One publisher observed that after Google implemented its Unified Pricing Rules, "Google's ad-buying tools began to win three to four times as many impressions as before the rule change." *Id.* at 401.

INDIVIDUAL ALLEGATIONS: OPENX

VIII. OpenX Seeks To Compete Through Innovation.

227. Although the digital advertising industry originated as the online version of print advertising, it has undergone a profound transformation in the past two decades to better monetize publisher ad spaces and improve matches between publishers and advertisers. OpenX has been at the forefront of innovation transforming the ad tech industry for decades, but its efforts have been repeatedly stymied by Google.

228. Around 2008, two tech entrepreneurs, Tim Cadogan and Jason Fairchild, began exploring the possibility of revolutionizing sales of open-web display advertising.

229. Cadogan was a former management consultant at BCG with degrees from the London School of Economics, Oxford, and Stanford. Fairchild was an early executive at several startups, including EarthLink Network, where he had worked out of a converted dentist's office in Los Feliz, California, using the x-ray room as his personal office. Fairchild grew EarthLink Network from 20 to 1,500 employees and to a billion-dollar valuation.

230. Cadogan and Fairchild worked together at Overture, formerly known as GoTo.com, an early search advertising company. Overture was the pioneer in developing search

advertising—the sale of text-based advertisements to accompany search results on search engine results pages. Overture sold search ads to partners like MSN, AOL, and Yahoo!. In 2003, Overture was acquired by Yahoo! for over a billion dollars. Cadogan subsequently ran the search business and, later, most of the advertising business at Yahoo!.

231. At Overture, Cadogan and Fairchild witnessed firsthand the efficiency of search advertising auctions, which allocated each search ad to the highest bidder for that ad. Cadogan and Fairchild sought to bring similar efficiencies to the then-woefully inefficient marketplace for display advertising, where the dominant model was the sale of inventory in bulk, either through direct deals or an ad network aggregator, with no optimization of price at the single ad space level.

232. To carry out their vision, in 2008, Cadogan and Fairchild took over OpenX, then a small UK-based company. At the time, OpenX had a single product—a limited-functionality, open-source ad server.

A. *OpenX Develops an Innovative Ad Server.*

233. When Cadogan and Fairchild took over OpenX, its open-source ad server was a niche player in the ad-serving space. The dominant player in the space was DFP, which was the mainstay ad server for display advertising among most large publishers. But at that time, DFP relied on legacy technology from the 1990s; required a large team of ad operations professionals to manage forecasting, scheduling, and reporting; had data control limitations; and was not optimized for new ad formats. Accordingly, Cadogan and Fairchild decided to make their first foray into the display advertising space by developing a new and improved ad server that would challenge DFP.

234. In 2008, OpenX released its first enterprise ad server, the culmination of millions of dollars of investment and months of work. OpenX's enterprise ad server was highly

customizable, allowing publishers to maintain control of ad campaigns while still optimizing for yield. That is, OpenX's ad server helped publishers maximize revenue by optimally allocating ad spaces between direct deals and indirect sales channels, while maintaining the publisher's standards for acceptable advertisements. For example, OpenX's ad server considered how many additional ad spaces a publisher had to fill to satisfy the terms of a direct deal. It weighed that need against the expected value of selling an ad space through an ad exchange or an ad network before deciding whether to allocate an ad space to the direct deal, the ad exchange, or the ad network. These allocation algorithms helped publishers maximize revenue. OpenX's ad server also allowed publishers to set their own rules about which advertising demand sources could bid on ad spaces. Recognizing the advantages of OpenX's technology, several major publishers adopted OpenX's ad server, including Southwest Airlines, Business Insider, Groupon, and Vox Media.

B. ***OpenX Introduces a Revolutionary Ad Exchange.***

235. OpenX's release of its ad server was only the first step in fulfilling Cadogan and Fairchild's vision: to transform display advertising so that every ad space would be valued competitively and sold separately. This vision, once fulfilled, would separate display advertising from traditional print advertising by bringing to bear the vast advantages online advertising has in terms of data and the ability to target specific consumers and display ads alongside specific web page content in real time.

236. To realize that vision, in early 2009—a year after releasing its enterprise ad server, and a full six months before Google released AdX 2.0—OpenX launched the OpenX Ad Exchange, which was the first ad exchange ever to offer real-time bidding ("RTB") into an ad server. OpenX spent tens of millions of dollars to develop the OpenX Ad Exchange. Through the use of RTB, OpenX sought to eliminate the inefficiencies inherent in the waterfall process.

OpenX's RTB technology represented a paradigm shift in digital advertising. With RTB, for the first time, advertisers received real-time information about each ad request. That information allowed them to value the ad space more accurately and to optimize their bids in light of the unique characteristics of the webpage content and the user they were targeting for an ad. In response, publishers received an instantaneous price signal from an advertiser tailored to each individual ad space and user, as opposed to simply learning whether a given demand source had met its price floor through a binary "yes"/"no" response. RTB therefore allowed the publishers to consider the price of the winning bid from the OpenX Ad Exchange for a specific ad space and compare it in real time against other demand sources, such as direct deals, *before* deciding which source would fill the ad space.

237. Over time, RTB has become the standard for how most indirect sales are completed in digital advertising. Following OpenX's development of RTB, publishers were no longer required to allocate inventory solely on the basis of ad exchanges' predicted bids, which could be inaccurate. Instead, they could consider the winning bid from a real-time auction among advertisers before deciding how to fill a given ad space. OpenX's RTB technology provided publishers with much more information about the value of their ad spaces and significantly increased publisher revenues. For example, a publisher using the OpenX ad server could compare a real-time bid from the OpenX Ad Exchange against the price at which the same ad space would be sold if it were included in a direct deal, and thus maximized the chances that each ad space would be sold at the highest possible price. In short, OpenX's RTB allowed publishers to more properly value their inventory at the level of the individual ad space. OpenX's RTB technology has been integrated into the OpenRTB protocol, a standard that is now used across the digital advertising industry, including by Google.

238. OpenX's introduction of its ad exchange product made OpenX's ad server the first ad server on the market to obtain real-time bids on ad spaces from an ad exchange. But OpenX, unlike Google, did not control must-have advertising demand nor did it seek to avoid competition on the merits; OpenX's ad server therefore provided publishers with maximum flexibility, allowing publishers to freely determine the order of demand sources in their waterfall and choose to include the OpenX Ad Exchange either as a source of real-time bids or as a source called using a static price floor (*i.e.*, one that is based on historic price information). OpenX hoped that by providing its ad server customers the unique opportunity to access real-time bids from its ad exchange, its ad server would thrive in the marketplace. Unfortunately for (and unbeknownst to) OpenX, its innovation promptly put OpenX in Google's crosshairs, with one senior Google executive privately commenting that "we need to take [OpenX] even more seriously than the other exchanges / yield managers that are gaining traction out there."

C. *OpenX Develops Header Bidding.*

239. OpenX's innovations were attractive to publishers, as evident by the market shares OpenX it captured in its early days. But OpenX's pioneering ways quickly met with Google's anticompetitive ties and First Look.

240. In the face of these anticompetitive forces, in 2013 OpenX once again transformed the industry, when it developed header bidding, allowing publishers to compare multiple competing real-time bids from multiple advertisers bidding through multiple ad exchanges, despite Google's efforts to foreclose such competition. OpenX developed header bidding following numerous discussions with publishers about their concerns with DFP, and the demand in the market for additional competition that would allow publishers to mitigate some of the effects of Google's anticompetitive restrictions.

241. Header bidding technology was quickly adopted by the vast majority of publishers. OpenX's header bidding innovations—including several covered by patents issued to OpenX—led to higher revenues for publishers and a better return on investment for advertisers. Early results of header bidding at OpenX were "spectacular." One publisher remarked that "[q]uite simply, [header bidding] worked. We've seen such high CPMs that it's like [OpenX] Bidder is our 2nd most successful salesperson." Another publisher whose revenue increased over 50% said that it "found the implementation of the OpenX [header bidding solution] to be efficient and effortless and the results very rewarding." Consequently, the OpenX Ad Exchange's market share rose significantly from 2014 to 2015, and revenues grew 40% from $100 million in 2014 to $140 million in 2015.

IX. OpenX Was Harmed by Google's Anticompetitive Conduct.

242. In addition to the anticompetitive harms described above (*supra* Section VII), OpenX sustained unique harms from Google's conduct. Despite its innovations, because of Google's ties, OpenX's ad server could not compete effectively with Google's ad server for publisher customers. Although OpenX had a significant share of the ad serving market in 2012, by 2014 its market share had declined materially. As a result, over time, OpenX was forced to reduce its investment in its ad server, further harming its ability to compete. It ultimately shut down its ad server altogether in mid-2019 and has been unable to re-enter the ad server business because of Google's continuing anticompetitive conduct.

243. The shutdown of OpenX's ad server also harmed the OpenX Ad Exchange. The OpenX Ad Exchange won more transactions and earned more revenue per transaction when it could submit a real-time bid for an ad space. Prior to the advent of header bidding, the OpenX Ad Exchange could submit real-time bids only to OpenX's ad server given Google's refusal to

integrate into DFP real-time bids from third-party ad exchanges, including the OpenX Ad Exchange. Even after the introduction of header bidding, the OpenX Ad Exchange performed better on OpenX's ad server than on DFP, where it had to contend with Last Look, SSDRS, Project Bernanke (and its iterations, including Alchemist), UPR, and Google's denial of user-specific information from DFP to third-party exchanges. Thus, upon the shutdown of OpenX's ad server, the OpenX Ad Exchange lost a source of ad spaces unburdened by Google's anticompetitive conduct.

244. With the introduction of header bidding, OpenX was able to partially mitigate some of the constraints Google imposed on publishers through its illegal ties. Specifically, it allowed the OpenX Ad Exchange, through a major inventive workaround, to provide real-time bids to publishers that used DFP. As a result, despite Google's continued advantages through Last Look and SSDRS, the OpenX Ad Exchange's market share grew substantially from 2014 to 2015.

245. But OpenX's success was cut short once again by Project Poirot. OpenX largely made the shift from employing second-price auctions to first-price auctions in late 2017, after many competing exchanges had already done so, to ensure it could continue to compete effectively in header bidding auctions. OpenX made this change publicly, after months of working in partnership with its DSP partners—including DV360—to ensure a smooth transition.

246. Project Poirot targeted OpenX by lowering DV360 advertisers' bids to exchanges participating in header bidding, while ensuring that those same advertisers' bids on AdX were not lowered. OpenX—the holder of several patents covering header bidding and a leading proponent of the technology—was hit especially hard. During the relevant period, DV360 has been the largest source of advertiser demand for OpenX. When Google introduced Project

Poirot in 2017, it found that Project Poirot reduced DV360 spend on non-AdX exchanges by about 10% but decreased spend on the OpenX Ad Exchange by a brutal 30%. In late 2018, Google launched Poirot 2.0, which decreased DV360 spend on rival ad exchanges by as much as 90%. Google predicted that Poirot 2.0 would decrease revenues to OpenX by 42%—more than any other ad exchange. Consistent with that Google internal forecast, by December 2018, OpenX had experienced a 40% decrease in year-over-year DV360 spend on the OpenX Ad Exchange. Most of that decline was diverted to AdX. Overall, OpenX, the pioneer and foremost proponent of header bidding, was harmed more than any other exchange by Project Poirot and Poirot 2.0.

247. Project Poirot exacerbated the anticompetitive injuries caused to OpenX by Google's other conduct, which continued in parallel with Project Poirot until at least the fall of 2019. As a result of the compounded effects of Google's conduct, OpenX had to cut costs significantly in the form of reducing the company's staff. Between October 2018 and March 2019, through two rounds of layoffs, OpenX experienced a total reduction of 210 employees representing nearly 50% of OpenX's workforce. This reduction in OpenX's staff harmed OpenX both publicly and internally. Publicly, such a massive reduction in force suggested to the market that OpenX lacked the resources to support its goals, harming its goodwill, its reputation, and its ability to keep existing customers and attract new ones. Internally, with fewer staff, OpenX could not innovate or develop new product features at the rate it did before. OpenX also found it harder to acquire talent and lost much of the historical knowledge critical to developing new and better products. Project Poirot, together with Google's other anticompetitive conduct laid out above, ultimately reduced OpenX's ability to compete with Google by significantly reducing OpenX's operations and scale. After Google launched Project Poirot, OpenX's market share in

the ad exchange market began to drop substantially. The OpenX Ad Exchange's market share remains affected by the aftermath of Project Poirot.

248. OpenX did not just suffer lost sales and customers to Google; it also suffered significant capital losses. Google's anticompetitive conduct destroyed OpenX's ad server business entirely, ultimately causing it to shut that business down as a going concern in 2019. And through anticompetitive means having nothing to do with the merits of its products or its business acumen, Google also caused suffer reputational harm and loss of goodwill. Currently, OpenX has only a tiny percentage of the ad exchange market.

INDIVIDUAL ALLEGATIONS: MAGNITE

X. Magnite's Role in the Ad Tech Ecosystem.

249. After AdX, Magnite operates the largest open-web display exchange. Magnite began its life as two companies: the Rubicon Project, which was founded in 2007 and operated one of the earliest ad exchanges for open-web display, and Telaria, an exchange focused on connected television ("CTV") and online video advertising. The two companies merged and rebranded as Magnite in 2020. In 2021, Magnite acquired SpotX, an exchange focused on CTV and online video advertising, and SpringServe, an ad server focused on CTV and online video advertising. This Complaint refers to the Rubicon Project and Magnite throughout as "Magnite" for consistency. The Complaint refers to "Telaria," "SpotX," and "SpringServe" for allegations specific to each entity prior to the 2020 merger for Telaria or the 2021 acquisitions for SpotX and SpringServe.

A. *The Rubicon Project.*

250. The Rubicon Project was founded in 2007 in Los Angeles by a group of entrepreneurs who saw an opportunity to bring more efficiency and transparency to online advertising. At the time, publishers were struggling to manage a growing number of ad

networks, which led to elevated integration costs and an inability to properly allocate advertising inventory to maximize revenue. The founders recognized that publishers needed a single platform to manage demand sources at scale, optimize yield, and restore balance to a marketplace that had become increasingly opaque and fragmented.

251. Magnite's vision was to build a technology-driven "marketplace for digital advertising" that would allow publishers to consolidate their relationships with multiple buyers and maximize the value of their impressions. From the outset, Magnite branded itself as an open, publisher-centric alternative to the closed, network-driven model that dominated the industry at the time. Its goal was not simply to sell ads but to build a fair, efficient exchange where publishers and advertisers could transact openly.

252. Magnite was one of the earliest entrants in this emerging ad exchange ecosystem. Magnite pioneered technologies to match impressions to demand more efficiently, helping publishers increase yield and reduce waste. Magnite's first product, launched in 2007, was a yield-optimization platform designed to help publishers manage their relationships with dozens of ad networks. This platform automatically allocated impressions among competing networks based on performance, ensuring publishers captured the highest possible revenue for each impression. The service quickly gained traction, particularly among mid-sized publishers who lacked the scale to negotiate directly with the largest advertisers but still offered valuable audiences.

253. Magnite invested heavily in real-time bidding infrastructure, analytics, and auction tools designed to give publishers more control and better outcomes. Early revenues were reinvested into developing the infrastructure for a true exchange. By 2010, Magnite had begun operating a real-time marketplace where display impressions could be sold individually rather

than in bulk. This required building systems capable of processing billions of bid requests in milliseconds. The company built out its data centers, engineering teams, and proprietary algorithms to handle the complexity of real-time auctions.

254. As programmatic advertising grew, so did Magnite's reputation as a trusted and independent exchange committed to transparency, innovation, and the long-term health of the open web. Magnite's innovation earned it early credibility as it attracted major publishers and a growing roster of DSP clients. Unlike ad networks, which obscured pricing, Magnite provided publishers with clear reports on pricing, buyer participation, and performance. The ability to better understand the value of their own inventory was groundbreaking for publishers at the time, and it established Magnite as a trusted partner rather than just another opaque intermediary.

255. To sustain its growth, Magnite invested heavily in data analytics. It built systems capable of analyzing impressions across sites and buyers, enabling publishers to more intelligently set pricing floors and extract greater value from their inventory. These data tools became another hallmark of the company's offering, reinforcing its reputation for empowering publishers with actionable intelligence.

256. Magnite also began forging partnerships with premium publishers, including major news organizations and media properties. Winning the confidence of such publishers signaled that Magnite's exchange could be trusted to successfully monetize the most valuable digital real estate on the open web. These relationships further enhanced the company's credibility and helped it scale its marketplace.

257. As the 2010s progressed, Magnite's technical capabilities and publisher reach allowed it to operate on a global scale and positioned it as one of the largest independent ad exchanges in the world. It processed billions of daily transactions, managed relationships with

thousands of websites, and provided advertisers with broad access to open-web inventory. Magnite's ad exchange was increasingly viewed as a necessary counterweight to the dominance of Google's AdX, particularly for publishers seeking more independence and higher yields.

258. By 2014, Magnite was serving over 500 sellers of digital advertising, including approximately 40% of the U.S. ComScore 100 (a list of the top U.S. digital ad sellers by reach). In March of that year, the company went public, raising over $100 million through an initial public offering. Yet even in these formative years, Magnite faced challenges that went beyond normal competition. Despite its early leadership and continued investment, Magnite eventually came to a sobering realization: its opportunity for meaningful growth in open-web display was effectively capped.

259. The open-web display advertising market was dominated by Google. Google had entrenched its control over the most critical buy-side and sell-side tools and tied them together to exclude rivals like Magnite. Magnite's ability to win market share in open-web display advertising had always been stymied by the fact that Google writes (and rewrites) the rules of the game in its own favor. While Magnite could still grow modestly alongside the overall expansion of digital advertising by competing with other independent exchanges for whatever market share escaped Google's grasp, it could not hope to displace or materially compete with Google's ad exchange business. Even though Magnite had built a strong and innovative business, it was forced to operate in a market already tilted by Google's anticompetitive conduct. Google leveraged the dominant publisher ad server, its exclusive access to AdWords demand, and its control over one of the leading DSPs (DV360) to deny independent exchanges like Magnite a fair chance to compete.

260. As a result, despite its early success and credibility, Magnite was never able to realize its full potential. Publishers and advertisers valued Magnite's innovations, but the structural barriers erected by Google's tying arrangements and auction manipulations ensured that Magnite's growth was constrained from the start. Even as it rose to become the largest independent ad exchange, Magnite was competing not on a level playing field but for the limited share of impressions that Google's exclusionary scheme left available.

261. The barriers Google erected through the open-web display markets were not merely technological—they were systemic. Google boxed Magnite and other independent exchanges out of the highest-value impressions, deprived them the ability to connect publishers to Google's vast advertiser demand, and routinely undercut them using DFP's auction mechanics. As a result, Magnite was no longer truly competing against Google for impressions. Rather, Magnite was competing against other independent exchanges for the residual inventory and budgets that remained after Google had taken the first cut. The result was a race for the remainder, in which Magnite was forced to price aggressively, sacrifice margin, and operate under constant threat of being sidelined by another one of Google's policy or product changes.

262. Recognizing the structural limits it was facing, Magnite began looking beyond the open-web display exchange market for new growth opportunities. Company leadership understood that its long-term success could not depend solely on challenging Google's monopoly head-on. Initially, Magnite began investing in developing more advanced features around other advertising formats, including audio, mobile in-app, and digital out-of-home. However, reduced revenues from Google's anticompetitive conduct hindered Magnite's ability to invest in the necessary technical work to expand those product offerings, which hindered adoption of these

emerging formats. Magnite eventually had to reprioritize or delay these efforts after it was forced to reduce its workforce.

263. Next, Magnite sought to diversify into adjacent digital advertising markets—particularly in streaming video and CTV—that had not yet been captured by Google's ecosystem. These formats were growing rapidly, driven by shifts in consumer behavior and the migration of advertising dollars away from traditional television. Again, Magnite attempted to build out its product offerings internally, assigning product managers and performing work to begin building an exchange that could function in the CTV market. As with other formats, Magnite quickly found that it lacked the resources to invest fully in building products internally because its revenues and cashflows were continually being impacted by Google's conduct, including reduced DV360 spend caused by Project Poirot, which Google concealed from Magnite in 2018 and 2019, which were crucial years for Magnite's efforts to expand its product offerings into other formats.

264. Magnite's strategic shift led to the 2020 merger with Telaria, a company with a strong presence in streaming video and CTV advertising.

265. The merger is what transformed Rubicon Project into "Magnite," which represented a combination of the company's legacy open-web display infrastructure with Telaria's video capabilities to form what was then the largest independent sell-side platform. While Magnite would continue competing in the open-web display stack, the merger reflected a recognition by the company that its ability to grow in that market would always be constrained by Google's exclusionary conduct. The merger was thus designed to enable Magnite to diversify revenue and seek growth opportunities in new digital advertising channels that Google had not yet dominated.

B. *Telaria.*

266. Telaria began as Tremor Video, a video ad network that serviced both advertisers and publishers looking to fill online video ad inventory, with a focus on streaming video. In 2017, Telaria sold its buy-side business and focused its efforts on publishers as a supply-side platform for video. In that same year, Telaria began to focus on serving the emerging CTV format.

267. CTV advertising allows advertisers to place video ads on televisions that stream content over the internet. CTV advertising has many similarities to other types of digital advertising, such as open-web display advertising, because it allows advertisers to programmatically bid on impressions for specific users watching content, rather than traditional television advertising where ad space is bought in advance with no concrete information on which users might view the content the ads appear alongside.

268. Telaria had immediate success in CTV, signing major publisher clients like Hulu and Sling TV. Telaria's CTV solutions allowed those publishers to sell their inventory through programmatic marketplaces, rather than through direct sales.

269. By 2019, prior to its merger with the Rubicon Project, Telaria was a leader in programmatic CTV, one of the fastest-growing digital advertising channels.

C. *SpringServe and SpotX.*

270. After the Rubicon Project and Telaria merger, Magnite made two important acquisitions in 2021 to further support its growing CTV business. First, Magnite acquired SpotX, another leading supply-side platform in CTV. After the SpotX acquisition, Magnite acquired SpringServe, which owned one of the largest CTV ad servers. CTV ad servers operate much like an open-web display ad server, managing publisher's inventory, scheduling and

managing both direct and programmatic sales campaigns, and creating detailed reports on inventory performance.

D. *Magnite is a Nascent Potential Competitor in the Market for Publisher Ad Servers for Open-Web Display Advertising Worldwide.*

271. Magnite is a likely entrant and nascent competitor in the worldwide market for open-web display publisher ad servers. Although historically focused on its exchange business, Magnite has operated one of the leading ad servers for CTV since acquiring SpringServe in 2021. This CTV ad server demonstrates that Magnite possesses the technical expertise, engineering talent, and product credibility necessary to design and operate ad serving systems at scale.

272. Magnite's success in CTV ad serving reflects its broader capabilities as an independent technology provider. Publishers and advertisers recognize Magnite as a trusted partner with deep experience in real-time bidding, auction design, inventory management, and yield optimization. Those are the same functions at the heart of open-web display publisher ad servers. In a competitive market, Magnite would be a natural candidate to expand from CTV ad serving into open-web display ad serving, bringing innovation and much-needed rivalry to a segment long dominated by Google.

273. Google has blocked Magnite's entry, however, through its exclusionary conduct. By tying AdX to DFP, denying rival ad servers access to critical demand and data, and leveraging its buy-side power to foreclose competition, Google has ensured that no independent company, even one with Magnite's expertise and credibility, can viably challenge DFP's dominance. In the absence of Google's unlawful restraints, Magnite would have had a meaningful opportunity to expand into open-web display ad serving.

274. Indeed, the Rubicon Project considered entering the publisher ad server for open-web display market several times before and after its merger with Telaria, either through building its own ad server or through a strategic acquisition. Prior to its merger with the Rubicon Project, Telaria had been forced to scale back its operations in open-web advertising because of Google's dominance. When Magnite acquired SpringServe's CTV ad server in 2021 it would have been well positioned to expand its ad serving capabilities to open-web display given its status as the largest independent exchange in open-web display. But Magnite could not enter the open-web display publisher ad server market because Google, through DFP, had already used its dominance to lock in nearly every potential customer. Every time the Rubicon Project, Telaria, or the combined Magnite considered the possibility of entry into the open-web display ad server market the conclusion was the same: Google's insurmountable monopoly position made entry untenable.

E. *Magnite Competes in the Market for Ad Exchanges for Open-Web Display Advertising Worldwide.*

275. Magnite is a direct competitor in the worldwide market for ad exchanges for open-web display advertising worldwide. Over the years, Magnite invested heavily in auction design, yield optimization, and data analytics, positioning itself as the largest independent ad exchange. Magnite competed by offering publishers and advertisers an open alternative to Google's vertically integrated stack. Publishers turned to Magnite for tools such as header bidding and quality controls that increased competition and improved monetization of their ad inventory. Advertisers valued Magnite's reach across premium publishers and its efforts to create a more transparent, efficient, and brand-safe marketplace.

276. Google was able to artificially constrain Magnite's growth despite Magnite's innovations and credibility with publishers and advertisers. Google's tying of AdX to its

publisher ad server, its preferential routing of AdWords demand, exclusionary restrictions, and manipulation of ad spend through DV360 deprived Magnite of fair access to the scale and demand needed to compete effectively.

277. Telaria and SpotX were also likely entrants and nascent competitors in the worldwide market for open-web display publisher ad exchanges. Although historically focused on streaming video advertising and CTV, both companies supported open-web display video and had the capability to expand their exchange offerings to support other formats of open-web display advertising, but Google's conduct made it impossible to justify the required investment.

XI. Magnite Was Harmed by Google's Anticompetitive Conduct.

278. Magnite was a well-positioned rival with proven technology, publisher trust, and innovative tools. But Google's exclusionary scheme relegated Magnite to a secondary status in the exchange market, competing against other independent exchanges for the impressions Google did not take. By restricting competition in the ad server market, Google also prevented Magnite from competing in that market and undermined Magnite's exchange business by preventing it from winning ad impressions and earning the associated revenue. Google also prevented Magnite from serving programmatic direct and PMP deals and earning the associated revenue from those transactions. Magnite suffered substantial damages as a direct and proximate cause of Google's anticompetitive conduct, for reasons that have nothing to do with the merits of Google's products.

279. Google's anticompetitive conduct has caused significant harm to Magnite's business for more than a decade. In 2016, Magnite was forced to cut costs by terminating over 100 of its employees, representing more than 13% of its workforce, to address reduced revenues caused in part by Google's anticompetitive conduct. Magnite further reduced its headcount in 2017 and 2018 by terminating an additional 150 employees.

280. Magnite brings this action as a follow-on to *United States v. Google* to recover the lost profits it sustained due to Google's unlawful monopolization and to seek whatever other relief is necessary to restore fair competition to the ad tech ecosystem. As one of the leading independent exchanges, Magnite was positioned to grow and compete. But Google's exclusionary tactics stifled that potential. By tying AdX to DFP, preferring its own bids from its ad-buying tools, and depriving rival exchanges of critical scale and data, Google systematically blocked Magnite from competing on a level playing field. The result was a prolonged and compounding loss of business opportunities for Magnite. But for Google's unlawful conduct, Magnite would have captured significantly more volume, revenue, and market share. Instead, it suffered extensive lost profits and enduring competitive harm.

281. Magnite does not seek special treatment—only the opportunity to compete on the merits in a market free from artificial restraints. Reintroducing true competition to the ad exchange market will not only help to redress the injuries that Magnite has suffered, but will also benefit publishers, advertisers, and consumers who depend on a healthy, open web.

282. Google's conduct did not just harm Magnite; it harmed customers on both sides of the market. Google deprived publishers of the benefits of genuine competition among exchanges and ad servers, including higher yields, better transparency, and more control over how their inventory was monetized. Google also harmed advertisers because Google's restraints meant their bids were not routed to the channels where they could generate the greatest value. By suppressing competition, Google insulated itself from pressure to improve quality, lower fees, or provide greater visibility into auction mechanics. The result was lower revenues for publishers, higher costs for advertisers, and less innovation throughout the ad tech stack.

A. *Google's Tying Conduct.*

283. Google's tying conduct injured Magnite by preventing it from entering and competing effectively in the publisher open-web display ad server market. Magnite had the expertise, technology, and credibility to expand into ad serving. It was already one of the largest independent exchanges and, through its CTV business, developed and operated an ad server with functionality analogous to publisher ad servers for display. Magnite thus possessed the technical capabilities and customer relationships necessary to compete in this adjacent market.

284. In a competitive environment, Magnite would have been a natural entrant into open-web ad serving. Its reputation for transparency, publisher trust, and innovation made it a logical alternative to Google's DFP. By leveraging its existing exchange relationships, Magnite could have offered publishers a fully integrated platform that combined ad serving and exchange services, enhancing competition on both price and quality. Indeed, Magnite has had success with its integrated ad server and exchange offerings in CTV, a market that does not suffer from Google's dominance and anticompetitive conduct.

285. But Google's exclusionary conduct made such entry commercially infeasible. By tying AdX exclusively to DFP and withholding critical demand from rival ad servers, Google eliminated the viability of any new ad server, regardless of its merits. Publishers considering an alternative ad server faced a prohibitive penalty: losing access to AdWords demand, the single largest pool of advertiser spending. As a result, Magnite—despite its readiness and capability—was foreclosed from expanding into ad serving and lost the revenue, scale, and competitive opportunities that such an expansion would have brought.

B. *Dynamic Allocation.*

286. Google's Dynamic Allocation features (including First Look and Last Look) caused harm to Magnite. Through "First Look," AdX was allowed to see and buy impressions

before rival exchanges, including Magnite, could even place a bid. This meant Magnite lost impressions even when its advertisers were willing to pay more. Google compounded the harm with "Last Look," which withheld AdX's final bid until after all competing bids were submitted. Last Look guaranteed AdX the ability to outflank Magnite at the last second, displacing Magnite even when its advertisers had initially submitted the highest bid.

287. Last Look also made advertisers more reliant on AdX because Last Look allowed AdX to increase its win rate across all auctions. Advertisers and their agencies began to run more of their advertising campaigns through AdX because they viewed it as providing a better chance of success. AdX's increased win rate made it difficult for Magnite to strike individualized deals with advertisers or ad agencies (often called supply path optimization or SPO deals) because Google's actions deprived Magnite of the necessary scale to fulfill these deals.

C. ***Sell-Side Dynamic Revenue Share.***

288. SSDRS worked in tandem with Last Look to steer lucrative impressions to AdX even if Magnite's exchange had offered a higher bid than AdX's bidders were prepared to offer. Magnite could not replicate Google's anticompetitive advantages with SSDRS, and in fact did not even know SSDRS existed due to Google's deliberate concealment of the program from exchanges and publishers.

D. ***Project Poirot.***

289. Google used Project Poirot as a way to extend the harms of its exclusionary AdWords-AdX tying strategy to DV360. As with the AdWords-AdX Tie, DV360's bid-lowering implementation was designed not to optimize outcomes for advertisers but to suppress bids placed on independent exchanges like Magnite and slow the growth of header bidding. Project Poirot's artificial suppression—its existence hidden from Magnite by Google—meant

Magnite received lower bids than it should have, causing it to lose impressions and the associated fees. In a competitive market, DV360 would have sent higher bids to Magnite, enabling it to secure more transactions and expand its scale.

E. ***Project Bernanke and Alchemist.***

290. Project Bernanke allowed Google to win impressions even when Magnite's exchange submitted a higher bid. Project Bernanke allowed Google to take excess funds from inflated fees on less competitive transactions and use those funds to increase AdX's bid for competitive transactions. Absent this auction manipulation, Magnite would have won more impressions. When Google moved AdX to a first-price auction in 2019, it installed Project Alchemist, or first-price Bernanke, to ensure that it could continue to inflate its take rate on less competitive transactions and use the excess funds to beat out Magnite on competitive transactions. This caused Magnite to lose impressions it otherwise would have won, lowering its revenue and reducing its scale.

F. ***Unified Pricing Rules.***

291. After Google implemented Unified Pricing Rules in DFP, AdX began to win even more impressions while Magnite won fewer impressions and received lower revenues. The AdWords-AdX-DFP ties also became stronger because it became more difficult for publishers to diversify their revenue streams and direct inventory to rival exchanges that offered publishers superior terms. Internally, Google acknowledged that UPR caused a "decline in spend" on Magnite's exchange.

G. ***Programmatic Direct and PMP Transactions.***

292. In addition to the challenges that Google's tactics imposed on Magnite's open auction business, the other area where Magnite faced challenges was in facilitating "programmatic direct" and "private marketplace" ("PMP") transactions. In these "programmatic

deals," publishers use the exchange to package and offer inventory to selected advertisers under customized deal terms that are negotiated directly between the publisher and advertiser—such as fixed floors, audience targeting parameters, special units, or other specifications—while advertisers access the deal through their DSPs. The exchange provides the technical infrastructure that enforces those terms, executes the auction, and handles clearing, reporting, and payment. By doing so, exchanges enable publishers and advertisers to run high-value, curated transactions alongside the open auction, giving publishers greater control over pricing and placement and offering advertisers improved brand safety and transparency.

293. Google's tying of AdX to its monopoly DFP undermined Magnite's ability to service programmatic open-web display direct and PMP transactions. AdX enjoyed exclusive access to proprietary DFP APIs necessary for delivering programmatic direct and PMP deals. It was far easier for publishers to set up and run their programmatic direct and PMP deals through AdX. In a competitive market, an ad server would have every incentive to make APIs equally available to all qualified exchanges because these Open APIs would make their product more attractive to publisher clients and make publishers more money. But under Google's exclusionary scheme, publishers that wanted to execute PMP deals through Magnite or other independent exchanges faced significant additional operational burdens. Setting up the same deals outside of AdX required far more manual intervention and effort from publishers' ad operations teams, making it impractical at scale.

294. Google also used its ad server monopoly to steer programmatic direct and PMP deals into AdX and away from rivals. Publishers using DFP were pressed to establish those deals within AdX's system, rather than through Magnite or another exchange. When Magnite approached DFP publishers to run programmatic direct or PMP deals on its platform, Google

warned publishers that doing so would trigger higher fees or less favorable treatment in DFP. In a competitive market, publishers could have turned to another ad server that would not exert such coercion. But with DFP as the only viable ad server, Google was able to channel programmatic direct and PMP deal flow to AdX and foreclose Magnite from competing on equal terms.

295. Due to Google's monopolization of the ad server market, most DFP publishers defaulted to running their programmatic direct and PMP deals through AdX, depriving Magnite of the opportunity to compete for this business and denying it the transaction fees it would have earned in a fair market.

INDIVIDUAL ALLEGATIONS: PUBMATIC

XII. PubMatic Is an Early Innovator in Digital Advertising.

296. The Internet thrives on the free flow of information, supported by dynamic digital advertising markets. PubMatic was at the forefront of the digital advertising revolution, pioneering breakthrough technologies that enabled website publishers to maximize their advertising revenue and deliver engaging content to users.

A. *PubMatic Develops Groundbreaking Technology to Help Publishers.*

297. Before PubMatic's entry into the market in 2006, the economics of digital advertising for open-web display were fundamentally misaligned against publishers. Ad networks—dominated by a few entrenched providers—were built for the convenience of advertisers, not for maximizing publisher revenue. In the early days, publishers sold their most valuable impressions directly and were left with vast amounts of remnant inventory, which static integrations with ad networks failed to monetize effectively. This structural imbalance left publishers without the tools, data, or leverage to unlock the full value of their audiences. PubMatic was founded to address that imbalance.

298. The founders of PubMatic were skilled entrepreneurs starting at an early age. In college, the Goel brothers founded a custom-built golf equipment website, Chipshot.com, backed by Silicon Valley giant, Sequoia Capital. Through the Goel brothers' leadership, Chipshot.com earned upwards of $30 million in annual revenue. After Chipshot.com, and after working for other companies for brief periods, the brothers came together to discuss their next venture. After significant research and development, the Goel brothers conceived what turned out to be a disruptive innovation.

299. In 2006, the Goel brothers founded Komli Media. Komli Media housed two separate business lines: (1) an Asia-based ad network; and (2) a business focused on helping publishers optimize their ad sales (a type of business that would later be called "yield management"). Within a year, the businesses split. The ad network portion retained the name Komli Media, and eventually became India's leading digital marketing platform company. The yield management portion became PubMatic, whose name is a combination of the words "publisher" and "automatic."

300. PubMatic was a radical new business concept. PubMatic's founders recognized a significant opportunity to empower publishers through technology. Based on this recognition, PubMatic made it its mission to give publishers something they had never had before: the ability to manage and optimize every impression, increase revenue, and gain unprecedented visibility and control over their inventory—all while maintaining independence and transparency.

301. In short, PubMatic's founders recognized that the 2006 model of selling remnant ad inventory was not working well to get publishers the best prices for their advertising spaces. At the time, publishers were stuck using the inefficient waterfall bidding process described earlier.

302. PubMatic transformed the waterfall model by creating software that automated and eased the process of reordering the ad networks in the waterfall. PubMatic used data-driven predictions based on machine learning to dynamically route impressions to the ad networks from which they would earn the highest return. PubMatic's algorithms predicted the highest-paying buyer for each impression based on gathered data and routed inventory accordingly. PubMatic also allowed publishers to manage multiple waterfalls and change sequencing more frequently (hourly instead of weekly or monthly) by automating the pull of pricing data from ad networks. This approach gave publishers unprecedented control over their inventory and higher yields.

303. It was clear from the start that PubMatic addressed a significant need in the digital advertising industry. In 2007, PubMatic launched at the TechCrunch 40 Innovator Conference in San Francisco, for which it had been selected as one of just a few dozen up-and-coming startup companies to be featured. By the time the conference arrived, PubMatic had developed an easy-to-set-up platform on which any publisher could sign up, configure an account, and start earning revenue within hours. The market reaction was extraordinary: over 1,000 publishers registered overnight.

304. The immediate influx of publisher registrations was proof that PubMatic had identified and solved a deep, systemic problem in the market. Knowing that its hard work had paid off, from that moment, PubMatic doubled down on a practice that would define its culture—it resolved to never stop engaging directly with publishers to understand what they needed and building features to cater to that need. The technology introduced by PubMatic eventually delivered publishers millions in incremental revenue that had previously been unattainable.

305. Of course, building a new company—and indeed a new type of business in an emerging technology space—was no easy feat. PubMatic raised more than $63 million over several fundraising rounds just to survive, not including the additional capital PubMatic devoted to research and development.

B. *PubMatic Revolutionizes the Ad Tech Stack with Real-Time Bidding.*

306. Two years later, PubMatic transformed the ad tech industry again. PubMatic implemented the first-ever real-time transaction between disparate companies using disparate technologies, spearheading a disruptive technology that has become the staple of the ad tech stack, and of ad exchanges in particular. True to form, PubMatic's Rajeev Goel came to the idea of real-time bidding while brainstorming another way to help publishers.

307. In the waterfall environment discussed above, Rajeev noticed that each step in the waterfall caused information about the bid opportunity to be lost. Specifically, bid opportunities were passed to each ad network, which would then pass them back if the ad network chose not to bid, so that they could be passed to the next ad network. Rajeev noticed that every time an ad network passed back an ad opportunity, it passed it back with less information than it had had before. In other words, while ad network A might have known that the ad opportunity was for a middle-aged woman who had recently shopped for shoes, ad network D might not have received the same information by the time its turn to bid came. As a result, ad network D might not bid as much as it otherwise would. Rajeev reasoned that it would be better for publishers if PubMatic could ask all the ad networks to respond to the same ad request at the same time, with as much information available as possible.

308. PubMatic drafted a plan for how it would like to provide buyers each ad opportunity at the same time, and how they should respond. PubMatic emailed that plan out to several key partners, including connections at MediaMath and Invite Media, who represented

advertisers. The first real-time transaction then took place between PubMatic and Invite Media in late 2008.

309. By mid-2009, it was clear that real-time bidding was the future. By sharing rich data with buyers in real time, real-time bidding enabled advertisers to identify and bid aggressively on the exact impressions they wanted, creating a marketplace where price discovery and competition worked in both the publishers' and advertisers' favor. Several different companies began working on ad exchanges with real-time bidding. And PubMatic became, not just a yield manager, but a modern ad exchange.

310. Real-time bidding was a fundamental redesign of how digital advertising transactions occurred on the open web, completely overhauling the imbalance of power in digital advertising. By enabling open, real-time competition for every impression, PubMatic essentially erased the historical disadvantages publishers faced, giving them an increased ability to monetize through improved precision, speed, and data access and revolutionizing an industry that had long favored the buy side in the process. Although real-time bidding was initially proprietary, it soon became subject to an open-source protocol to reduce maintenance costs and foster industry growth.

XIII. Google's Anticompetitive Conduct Harms PubMatic.

A. *Google's Unlawful Tying Conduct Harms PubMatic.*

311. Google's unlawful tie between AdX and AdWords and its unlawful tie between AdX and DFP has harmed PubMatic and the competitive process.

312. For years, Google's tie between AdX and AdWords severely restricted PubMatic's access to Google's enormous group of advertisers on AdWords by preventing those advertisers from purchasing open-web display ads via PubMatic's exchange. Given Google's power over advertisers looking to advertise on open-web advertising space—which was nearly

the largest source of digital advertising demand in the world—PubMatic thus struggled to compete in the ad exchange market for open-web display advertising. As a result, PubMatic lost significant revenue, as well as opportunities for growth and scale. PubMatic also struggled to meet its primary mission of helping publishers maximize revenue and fairly compete in the digital advertising market.

313. Google's tie between AdX and DFP also inflicted substantial harm on PubMatic. Google required all publishers that wished to send real-time bid requests to AdX (and thus, to advertisers on AdWords) to use Google's DFP publisher ad server, refusing to provide access to real-time bids from AdX to any publishers using rival ad servers. This artificially increased publishers' dependence on Google, empowering Google to engage in further anticompetitive conduct to tilt the competitive landscape in favor of AdX. This made it much more difficult for PubMatic to compete fairly against AdX, obtain scale, or acquire market share.

314. Stunted in its ability to compete in the ad exchange market for open-web display advertising by Google's unlawful ties, PubMatic tried to grow in other markets. In 2014, PubMatic launched its own publisher ad server through its acquisition of Mocean Mobile. The acquisition price was publicly reported as $15.5 million. Unfortunately, Google's exclusionary conduct was so pervasive and effective that it foreclosed even major industry players like PubMatic from entering the publisher ad server market. Despite PubMatic's technical capabilities, financial resources, and established publisher relationships, Google's unlawful tying arrangements and anticompetitive practices created insurmountable barriers to entry. PubMatic's publisher ad server venture was ultimately unsuccessful, and was shut down after a couple of years.

B. *Google's First Look Harms PubMatic.*

315. First Look is one of many examples of Google's use of the tie between AdX and DFP to favor AdX to the detriment of competitors like PubMatic.

316. First Look gave AdX a tremendous data advantage over other ad exchanges. Google had more opportunities to bid on the impression and more information about the impression than ad exchanges like PubMatic had, giving Google integral data about the value of the ad space unknown by any other ad exchange. Because DFP was blocked from allowing any other ad exchange to bid in real time, other ad exchanges (including PubMatic) were deprived of a valuable dataset about the ad space, user, and other exchanges. What's more, because Google controlled DFP, AdX alone could view the clearance price of every advertisement. This enabled Google to improve its algorithms and ability to predict pricing far beyond that of any other ad exchange—an advantage that AdX enjoyed even if First Look were unavailable. By hoarding all this information, Google placed AdX in a position of enormous strength unobtainable by PubMatic due to its unique supply of information, to the detriment of the entire market.

317. First Look also increased advertisers' reliance on AdX, reinforcing Google's dominance. For example, if an advertiser placed identical bids for the same impression on both AdX and PubMatic's exchange, AdX would win the auction by exploiting First Look. As a result, advertisers were led to believe that AdX could win auctions with bids placed in that amount, but PubMatic's exchange could not. This, in turn, made advertisers believe that they must bid on AdX to successfully deliver their advertising campaigns, further entrenching Google's dominant position and funneling advertising transactions away from PubMatic and to AdX.

318. Many publishers complained to both PubMatic and directly to Google about the costs of First Look. Yet, despite requests that Google disable First Look, the functionality remained.

319. Moreover, because the opportunities PubMatic was given to even see these bid requests substantially decreased, the data PubMatic had to optimize bids vastly decreased, thus severely hindering its opportunity to compete in the marketplace. PubMatic's data disadvantage was compounded by Google's control over DFP (which, as described earlier, gave AdX the ability to see the clearance price for every advertisement and other publisher data) and Google's unified privacy policy. Under Google's unified privacy policy, Google had the ability to use all the data collected from any of its consumer-facing products—Gmail, Google Maps, Google Docs, Google Search, YouTube, and others—to improve its products in the open-web display advertising market. But Google refused to share this data with others, thereby giving itself an insurmountable data advantage.

320. PubMatic was at the forefront of the concept of data sharing as a way to improve efficiency and monetization. Data sharing was thus an industry standard at that point. Not being granted access to the data collected by Google, or even just the additional data AdX had access to via First Look, impacted PubMatic's ability to effectively compete. As the *United States v. Google* court found, "First Look [] gave Google a data advantage that helped the AdX team train its auction bidding models more effectively" than rivals like PubMatic. Liability Op., 778 F. Supp. 3d at 827.

321. To alleviate some of the harm posed by Google's information hoarding, PubMatic unsuccessfully sought from Google on many occasions access to valuable data typically shared in the industry. Specifically, starting in around 2009, PubMatic repeatedly sought API

(Application Programming Interface) access to Google's DFP to better optimize yield across direct-sold and remnant inventory. Google consistently denied this access, without providing a reason to PubMatic. PubMatic was shocked by Google's refusal, because information sharing was standard, benefited the entire industry, and the technical difficulty required to create the requested integration would have been low to moderate. But each time that PubMatic sought API access to Google's DFP, Google denied access. Google's refusal to share data about the transactions—which did not belong to Google—hindered PubMatic's ability to fully optimize and manage 100% of a publisher's inventory, including direct-sold and remnant inventory, which would benefit publishers by maximizing yield.

C. *Google's Last Look Harms PubMatic.*

322. Last Look gave AdX a new advantage—the ability to see all submitted real-time bids *before* placing its own bid. Beyond the obvious advantage of being able to more efficiently win advertising auctions, AdX's new ability to see competing real-time bids was an informational treasure trove. AdX could use that data—collected from trillions of auctions over time—to improve its algorithm, better identify the most valuable advertising space, and calibrate the bids it submitted. In other words, as the *United States v. Google* court determined, Last Look "provided Google and its advertising customers with a significant informational advantage that significantly disadvantaged other competitors in the ad exchange space." Liability Op., 778 F. Supp. 3d at 829 (quotations and citations omitted). That information advantage enabled AdX to scale even further, capturing more and more share of the market at the expense of other ad exchanges like PubMatic.

323. The unfair advantage that AdX enjoyed under Last Look thus harmed PubMatic and other ad exchanges in a new way. Not only could AdX now use Last Look to efficiently funnel advertising transactions away from competing ad exchanges by bidding just one cent

more, it could also view the real-time bids that PubMatic and other exchanges were submitting and ingest that data into AdX's algorithms. In doing so, Google deprived PubMatic and other competing ad exchanges of the additional revenue, relationships, and valuable data that would accompany those transactions. And it starved PubMatic and other ad exchanges of additional resources they could use to further improve their products and compete with Google.

324. Last Look also increased advertisers' reliance on AdX. By virtue of Last Look, AdX was able to increase its win rate across all auctions. As individual advertisers or ad agencies perceived this, they came to believe that AdX's scale and abilities must far outstrip those of competing ad exchanges, and so they must run more of their advertising campaigns through AdX for the best chance of success. This made deals between individual advertisers or ad agencies and PubMatic (often called supply path optimization or SPO deals) less desirable for advertisers, preventing PubMatic from entering into as many of these deals as it otherwise would have done without Last Look. AdX's increased win rate also affected the DSPs that advertisers used. To appeal to their advertiser customers, DSPs strive to be as efficient as possible. The more that DSPs placed bids on PubMatic that lost due to AdX's unfair advantages, the less likely those DSPs were to bid onto PubMatic's exchange in the future. Instead, the DSPs would focus their bids with AdX because it was winning auctions at a higher rate. This resulted in DSPs allocating less traffic to PubMatic's exchange and more to AdX, reducing PubMatic's revenue and growth rate even further.

D. *Google's Sell-Side Dynamic Revenue Share Harms PubMatic.*

325. SSDRS gave AdX another new, and secret, capability. With SSDRS, AdX could manipulate its take rate from one auction to another. SSDRS thus enabled AdX to manipulate its take rate from auction to auction, ensuring AdX won more of the most valuable ad spaces and

leading publishers to sell those ad spaces through AdX rather than through PubMatic or other competing ad exchanges.

326. Neither PubMatic nor anyone else outside of Google could discover AdX's manipulation of its take rate, because DFP hid all non-winning bids. PubMatic had no reason to believe that AdX was engaging in this activity, particularly given Google's hard stance against deviating from AdX's 20% take rate in negotiations with publishers. Indeed, Google has maintained that "supracompetitive" 20% take rate "[f]or over a decade." Liability Op., 778 F. Supp. 3d at 852. Without access to Google's internal systems, PubMatic and others simply could not discover what SSDRS was actually doing behind the scenes to manipulate AdX's take rate and enable AdX to win more auctions. This is particularly so given that, through its manipulation of the take rate, AdX's average take rate across all transactions was still 20%. There was thus no way for PubMatic or others to reasonably discover that AdX was manipulating the take rate on individual transactions without direct access to AdX's algorithms and code.

327. The new advantages that SSDRS gave AdX exacerbated anew the harms suffered by PubMatic and other exchanges. As the *United States v. Google* court noted, "[b]ecause third-party exchanges did not have Last Look to 'see all the bids' and vary their take rate accordingly, they lost scale and revenue from AdX's use of sell-side dynamic revenue share." Liability Op., 778 F. Supp. 3d at 829–30. This enabled Google to "further enhance[] AdX's market power at the expense of rivals, thereby reducing competition and harming its publisher customers' ability to diversify their revenue sources away from Google." *Id.* at 865.

E. *Google's Open Bidding Harms PubMatic.*

328. Beginning in 2016, Google developed a mechanism called Exchange Bidding, which was later renamed Open Bidding—a tool that resembled header bidding, but occurred

entirely within Google's DFP and facilitated real-time bidding auctions with competing ad exchanges. Despite Google's contrary suggestions, competing ad exchanges still could not compete on a level playing field with AdX within Open Bidding, because Google imposed several major drawbacks that harmed PubMatic.

329. One such drawback was the mandatory 5% fee that Google charged on every advertising transaction won by a competing ad exchange within Open Bidding. Ad exchanges already impose a take rate on advertising transactions to generate revenue, so Google's decision to charge an additional fee on top of what PubMatic already charged effectively reduced PubMatic's net bid relative to AdX's bid. In contrast, AdX was not subject to this additional 5% fee if it won the bid through Open Bidding. The result of this was that bids from AdX were generally more attractive to publishers than bids from PubMatic or other non-Google ad exchanges, which resulted in AdX winning even more auctions.

330. Another drawback that Google imposed within Open Bidding was that, even if PubMatic won the auction, Google facilitated payment to the publisher. Ordinarily, when PubMatic wins an auction, PubMatic pays the publisher directly—a significant touchpoint between PubMatic and its publisher customer. When PubMatic won an auction on Open Bidding, PubMatic was required to pay Google in the amount of the winning net bid, and Google would then transfer payment to the publisher. Google thus effectively disintermediated PubMatic from publishers, making those publishers ever more reliant on Google.

331. A third drawback was that Google could see the bids of every rival exchange participating in Open Bidding for each impression, further increasing Google's data advantage. PubMatic could not see that same data, diminishing its ability to effectively compete with AdX.

332. Given Open Bidding's significant drawbacks, PubMatic initially refused to participate in Open Bidding. By 2018, however, PubMatic was compelled to change course. As a result of Google's unlawful ties across the ad tech stack and anticompetitive conduct that favored AdX over competing rivals, more and more publishers refused to work with PubMatic unless PubMatic participated in Open Bidding. Google's anticompetitive conduct had resulted in publishers growing more dependent on AdX. Publishers needed to access the significant AdWords advertising demand, which was only available through AdX. Publishers' dependency would not have occurred in a healthy competitive market.

333. PubMatic thus had no choice but to join Open Bidding to access the increasing number of publishers (and advertisers) enthralled to Google as a result of its unlawful ties. PubMatic invested significant resources to build the technology to integrate with Open Bidding. In the years after PubMatic joined Open Bidding, one-fifth of PubMatic's net revenue was derived through advertising transactions that occurred on Open Bidding. And yet, PubMatic had little control over those transactions. Google ran the auctions, prevented PubMatic from paying publishers directly, and charged an additional fee on top of PubMatic's take rate that made PubMatic's net bids less competitive than they would otherwise have been in a header bidding auction.

F. ***Google's Project Poirot Harms PubMatic.***

334. Project Poirot only affected bids placed with rival exchanges. Bids placed on Google's AdX were never reduced. This was true even if DV360 bid on the same impression on both AdX and a rival exchange; the bid placed on the rival exchange was reduced, but the bid placed for the same impression on AdX was not. This all but ensured that AdX would win the auction, transitioning ever more inventory to Google's ecosystem and further cementing Google's stranglehold of the digital advertising economy.

335. The shift in DV360 advertising spend away from non-Google ad exchanges and towards AdX negatively impacted PubMatic in a new way. Google's earlier anticompetitive acts—First Look, Last Look, SSDRS, and Open Bidding—restricted PubMatic's ability to compete with AdX by influencing the sell-side of the market, reducing the quality or amount of publisher inventory available for PubMatic to bid on. Project Poirot was different. It restricted the highest end of the buy-side of the market, impacting the bids placed on PubMatic's exchange by the largest advertisers.

336. Historically, a substantial portion of advertising transactions occurring on PubMatic's platform involved bids placed by DV360. This is particularly true given the illegal tie Google had created between AdWords and AdX, thereby cutting off PubMatic's access to the AdWords advertising demand. For the most part, the only advertising demand available to PubMatic (outside of Open Bidding) was: (1) the relatively few small- to medium-sized advertisers not using AdWords; and (2) the large, sophisticated advertisers using DSPs (the largest of which was DV360). The advertiser demand on DV360 thus represented a large swath of PubMatic's business.

337. During the months following Project Poirot's introduction, PubMatic suffered a decline in spending from DV360 of at least 30%, depriving PubMatic of millions of dollars of additional revenue. PubMatic also suffered a corresponding decline in its win rate for bids received by DV360 advertisers, because those bids were now being won by AdX. As many DV360 advertisers shifted away from PubMatic and to AdX, PubMatic was also deprived of the valuable data it could have collected had it been able to compete fairly with AdX and maintain or improve the DV360 advertising spend that PubMatic was receiving before Project Poirot's introduction.

338. At the time, PubMatic had no idea what was causing this decline in DV360 advertising spend on PubMatic's exchange. In the ad exchange market, it can be extraordinarily difficult to determine the cause of any such decline, because PubMatic only has access to its own data. For instance, declines in advertiser spending could be caused by, among other things, a technical issue within the DSP, changes that PubMatic's competitors made to their algorithms, lagging business performance by an advertiser leading to a reduced advertising budget, seasonal trends, publishers removing inventory from the market, or the content of bids placed by PubMatic's competitors. PubMatic has only limited or no access to any of this information, particularly in real time. Without that information, and especially without access to the internal data of Google or data from other market participants, PubMatic could not uncover the cause of the decline in DV360 spend that PubMatic was seeing after Project Poirot was launched in 2017. This is especially so because Google launched Project Poirot gradually in a way that would help it avoid detection.

339. PubMatic also had no reason to believe that the decline was caused by a secret, nefarious act by Google. Although Google had previously granted itself unfair advantages, all of those advantages came through DFP and AdX. To PubMatic's knowledge, Google had never before given itself an unfair advantage through a policy it implemented within DV360.

340. Even though it was almost impossible to determine the cause of the decline in DV360 spending in real time, that did not stop PubMatic from trying. PubMatic's diligent efforts, however, were stymied by Google's affirmative concealment of Project Poirot. Google never disclosed Project Poirot's existence or methodology to PubMatic. To the contrary, Google concealed the fact that Project Poirot was systematically shading bids placed by DV360 on

competing ad exchanges. On several occasions, Google even affirmatively misled PubMatic and PubMatic's advertiser-customers to hide what Project Poirot was doing.

341. For instance, after PubMatic first noticed the decline in DV360 spend in 2017, PubMatic contacted Google in August 2017 to try to determine what was causing the decline. PubMatic informed Google that it had begun seeing a reduction in spending on PubMatic's exchange across multiple major buyers using DV360, provided reports demonstrating this decline, and asked Google to investigate the cause. After preliminary responses, Google fell silent for weeks and ignored PubMatic's repeated follow-ups. Eventually, Google offered a vague response that the decline PubMatic was experiencing was "due to filtration" by Google's "AdSpam team"—in other words, the inventory on which the bids would be placed had been flagged as fraudulent or spam. That explanation made no sense, particularly given that the decline related to inventory being offered by several of PubMatic's major publisher customers, including eBay and AOL. After PubMatic pointed this out, Google once again fell silent and ignored PubMatic's follow-ups in late 2017 and early 2018. At no point did Google disclose what was truly causing the decline: Project Poirot was shading DV360's bids placed on PubMatic's exchange.

342. PubMatic reached out to Google again in 2019. This time, PubMatic shared the results of an experiment PubMatic had conducted. The experiment involved PubMatic setting itself up as an advertiser in DV360 and running advertising campaigns. PubMatic directed some of the advertising campaigns only to PubMatic's ad exchange, and it made the other campaigns available to all ad exchanges. The results were dramatic. DV360 had no problem delivering the campaign offered just to PubMatic's ad exchange, and PubMatic's exchange won over 64,000 impressions, confirming there was no backend issue with communication between PubMatic's ad

exchange and DV360. During the campaign offered to all exchanges, however, PubMatic won just 304 of the available 53,195 impressions. AdX, meanwhile, won more than 26,000, which was approximately 15,000 more than the next closest competitor. This demonstrated that something was happening to the bids that DV360 was placing on PubMatic's ad exchange during auctions in which AdX was also participating. PubMatic presented the results of this experiment to Google and asked for help to uncover what was causing it. After a few preliminary exchanges, Google simply ignored PubMatic, despite repeated follow-ups. Once again, Google did not tell PubMatic that Project Poirot was shading DV360's bids or that this was causing the declines that PubMatic had experienced.

343. Google went beyond failing to be forthright with PubMatic. Google also misled PubMatic's advertiser customers. One of those customers was a major agency holding company ("AHC"). In or around 2019, PubMatic had negotiated a supply-path optimization deal with AHC. Under the deal, AHC agreed to consolidate a portion of certain ad budgets onto PubMatic's exchange. These types of supply-path optimization deals are an innovative method by which PubMatic expands its relationships with key advertiser customers to attract additional advertising revenue. From PubMatic's perspective, these deals are profitable only if the additional bids actually flow to PubMatic's exchange, so that PubMatic can collect its take rate on the bids that win the auctions for advertising space.

344. After PubMatic and AHC finalized their supply-path optimization agreement in or around 2019, PubMatic expected to see an increase in transaction volume and advertising revenue from AHC. But no such increase occurred. After investigating the issue, PubMatic and AHC discovered that, despite AHC preferencing PubMatic's exchange within the DV360 platform, the vast majority of AHC's bids were going through AdX. AHC reported that number

as 90%. Neither PubMatic nor AHC knew why this was happening at the time, though it later became clear that it was due to Project Poirot shading AHC's bids that were submitted to PubMatic's exchange.

345. AHC contacted Google to ask why nearly all its bids were still going through AdX. Rather than come clean about Project Poirot, Google obfuscated. Google first told AHC that a "viewability" feature within DV360 had identified AdX as a better exchange, and so directed bids to AdX. AHC informed Google that it had its own viewability solutions and asked Google to turn off DV360's viewability feature, which Google ostensibly did. But that did not fix the problem. After that conversation, approximately 80% of AHC's bids were still flowing to AdX rather than to PubMatic. When AHC contacted Google again, Google came up with a different excuse. This time, Google said that a fraud detection feature had prevented the bids from going to PubMatic's exchange. Because AHC had its own fraud-detection solutions, it asked Google to turn off this feature as well. But that did not fix the issue either.

346. Eventually, PubMatic could not implement a supply-path optimization deal with AHC that incentivized routing of AHC's advertising campaigns to PubMatic when using DV360 (as many advertisers increasingly wanted to use given Google's self-preferencing). Despite AHC preferencing PubMatic's exchange within DV360, AHC's bids were not flowing through PubMatic's exchange but were instead flowing to AdX. Google never disclosed the real reason why this was happening: Project Poirot was reducing AHC's bids placed via DV360 with PubMatic's exchange, making the bids placed with AdX much more desirable to publishers. AdX was thus winning those auctions, earning the associated revenue, and deepening its relationship with both publishers and AHC at PubMatic's expense. Project Poirot thus caused PubMatic to lose out on the revenue and other benefits it expected to earn from this deal with

AHC and from all other deals with AHC or other buyers for whom DV360 was the DSP that was to implement the buyers' advertising campaign.

347. PubMatic believes that Project Poirot likely caused other, similar deals to fail, depriving PubMatic of even more revenue, relationships, and data by shifting transactions away from PubMatic to AdX. Indeed, in 2018 and 2019 (when Project Poirot was active), PubMatic experienced an overall decline in its revenue growth rate. Many of its previously profitable customer accounts became unprofitable during this period, such that approximately 25% of PubMatic's customer accounts were not profitable. Because PubMatic could not determine or reverse the root cause of this decline in profitability (*i.e.*, Project Poirot), PubMatic was forced to stop doing business with those accounts.

348. At the time, PubMatic did not know Project Poirot was causing these harms to PubMatic. Indeed, PubMatic did not discover the reduction in DV360 bids that Project Poirot was accomplishing until those details became public as a result of the lawsuit that the United States filed against Google in 2023. Before then, Google actively concealed Project Poirot's details, and used Project Poirot to surreptitiously capture even greater market share for AdX. This harmed both PubMatic and other ad exchanges, including by reducing their market share accordingly.

349. Through Project Poirot and its concealment thereof, Google was able to entrench and expand AdX's substantial market share and further Google's campaign to undermine the threat posed by header bidding. In sum, Project Poirot channeled DV360 advertising spend through AdX, stifling PubMatic's and other ad exchanges' abilities to compete on equal footing with Google. In addition, because PubMatic was forced to conduct layoffs to stay solvent, PubMatic's commercial and technological innovation slowed. This slowdown came at a critical

time for PubMatic, when it was trying to go public. PubMatic was forced to delay its initial public offering until near the end of 2020.

G. *Google's Project Bernanke Harms PubMatic.*

350. Project Bernanke and its later iterations—Global Bernanke, Project Bell, and Project Alchemist—were also anticompetitive acts that harmed PubMatic and the competitive process.

351. As described earlier, Google used Project Bernanke both on its own and in conjunction with Google's other anticompetitive practices to artificially direct higher-quality impressions to AdX, leaving rival ad exchanges like PubMatic with lower-quality impressions. The quality of an impression is of paramount importance to publishers and advertisers alike. Publishers and advertisers decide which ad exchanges to use based partly on their perception of the quality of impressions available on those ad exchanges. As a result, because Project Bernanke and its progeny diminished the quality of impressions available to PubMatic, PubMatic's ad exchange was less attractive to publishers and advertisers than it otherwise would have been in a healthy, competitive market.

352. Through Project Bernanke, Google was thus able to further entrench its market and monopoly power, increase publishers' and advertisers' dependence on Google, and deprive PubMatic of revenue, scale, and the substantial benefits of network effects.

H. *Google's UPR Harms PubMatic.*

353. UPR was yet another tactic by Google to: (1) reinforce the ties between AdWords, AdX, and DFP; and (2) combat other parties' attempts to make the exchange market more competitive. It increased AdX's scale advantage even more, harmed customer choice, harmed competition by other ad exchanges like PubMatic, and reduced publishers' revenue.

354. Like some of Google's earlier anticompetitive policies, UPR was made possible by Google's unlawful ties involving AdX and its drastic market power. But UPR was also markedly different from Google's earlier actions, because UPR made header bidding virtually impossible for publishers who wanted to access AdWords advertising demand. This, in turn, greatly diminished the ability for PubMatic and other ad exchanges to compete with AdX.

355. UPR thus harmed PubMatic anew. UPR nearly eliminated PubMatic's ability to compete on equal footing with AdX via header bidding. Publishers that previously favored PubMatic's ad exchange for particular impressions by setting a lower floor price could no longer do so. As a result of UPR, even more transactions that would have occurred on PubMatic's exchange shifted to AdX, depriving PubMatic of revenue, touchpoints with its publisher customers, and the valuable data that PubMatic could garner from advertising transactions completed on its exchange. Indeed, following the introduction of UPR, PubMatic's revenue decreased by a significant margin as more advertising transactions were funneled away from PubMatic and to AdX. In October 2019 alone, PubMatic estimated that UPR decreased PubMatic's overall platform spend by roughly 10% and decreased the spend on particular PubMatic tools by roughly 16% to 28%. As the *United States v. Google* court already found, UPR "increased the number of impressions AdX won and the revenue it received, while decreasing impressions won and revenue received by third-party exchanges." Liability Op., 778 F. Supp. 3d at 831. The result: "Google's ad tech products continued to gain scale in the display advertising space while rival ad tech products lost scale." *Id.*

XIV. PubMatic May Recover Damages That Were Previously Too Speculative

356. As described above, PubMatic's claims are not barred by the statute of limitations due to (i) the Sherman Act's statutory tolling provision; (ii) the continuing wrong doctrine; and (iii) Google's fraudulent concealment.

357. The revival doctrine also permits PubMatic to recover damages in this action that would have been too speculative to recover had PubMatic brought suit earlier. For example, if PubMatic had attempted to bring suit regarding the tie between DFP and AdX in 2013, PubMatic would have had no way to predict the damages that tie would cause many years later, particularly when compounded with the various additional antitrust harms described above.

358. PubMatic is thus able to seek, now, those damages based on Google's growing, changing pattern of illegal conduct that it could not have reasonably sought earlier.

INDIVIDUAL ALLEGATIONS: EQUATIV

XV. Equativ Is an Industry-Leading Provider of Omnichannel Ad Tech Platforms, Including an Ad Server and Ad Exchange.

359. Equativ is an industry-leading omnichannel platform that offers products at multiple levels of the ad tech stack. Equativ facilitates advertising on over 100,000 websites, mobile apps, and connected TV apps worldwide.

360. Equativ's mission is simple yet ambitious: To facilitate effective, innovative, sustainable, and human-centric advertising that helps maintain access to free, high-quality content, the preservation of a free press, and the open, independent internet.

361. With high-quality, low-cost ad tech tools, Equativ matches publishers with the best-fitting ad for any given impression, which means greater revenues for the publisher and more effective impressions for the advertiser. By unlocking value for publishers and advertisers alike, Equativ is proud to encourage the free flow of information and content across the internet.

362. Equativ is a true pioneer in the ad tech space and first launched its publisher ad server, formerly known as Smart AdServer, nearly 20 years ago. Ever since, Equativ has continually innovated, improved, and optimized its ad server to increase demand for its publisher customers, provide actionable data, and maximize yield for publisher inventory. Today, a wide

array of publishers use Equativ's ad server to manage the advertising that funds their operations, including notable media companies like Sony Interactive Entertainment, Imgur, Tumblr, and more

363. Over time, Equativ has diversified its business and began to operate an ad exchange, Equativ SSP. Equativ's ad exchange currently offers a suite of solutions that optimize performance and pricing, providing unparalleled value to publishers and advertisers.

364. Despite Google's anticompetitive conduct, the superior quality of Equativ's ad exchange has managed to attract some of the world's most prominent brands as advertisers, including Paramount, Condé Nast, the Washington Post, and more. Customer survey data confirms that the quality of Equativ's ad exchange is best in class, with one customer remarking that Equativ has the "best user interface of all SSPs for ease of use," and another considering Equativ the "best platform out there."

365. Consistent with the high quality of its products and the service it provides, Equativ has received numerous recognitions in the ad tech industry, including for example the Digiday Awards of Europe Best Digital Product Innovation for 2024, AdExchanger's 2024 Programmatic Power Players award for Top 50 Strategic Partners, the 2024 AdExchanger Award for Best Sustainability Initiative, the 2023 European Video Awards for Best Video Ad Tech Innovation, and the Digiday Technology Awards Best Sustainable Ad Tech Platform for 2022.

366. Reflecting its growing ambitions, in 2024, Equativ acquired Sharethrough and its flagship product, the Sharethrough Exchange ("STX"), which focused on matching premium inventory with ads that were more likely to capture a user's attention. Because of Sharethrough's emphasis on quality and placement, users who clicked on ads placed by

Sharethrough tended to spend 50% to 200% more time on the advertised website than users who arrived via other open-web display ads.

367. Sharethrough prioritized the design and layout of ads to maximally capture user attention, and curated ads to ensure that its high-quality ads appear in relevant contexts to drive consumer engagement. Equativ SSP and Sharethrough STX are now in the process of merging into a single ad exchange that would further enhance Equativ's offerings by combining the strengths of both legacy products.

XVI. Google Deploys Project Elmo to Thwart Header Bidding.

368. In tandem with Project Poirot, Google deployed Project Elmo to protect against header bidding and decrease overall ad spend on rival exchanges. Header bidding functions in part by allowing multiple exchanges to bid for a single impression. Project Elmo relied on cookies to detect when an impression was being routed to multiple exchanges at the same time, and thus was likely being offered through header bidding. Google was able to learn which ad exchanges were participating in header bidding, and then would cause DV360 to sharply reduce its bids on those exchanges, causing the exchanges to win fewer auctions and diverting impression volume to AdX.

369. According to internal Google emails, Project Elmo leveraged cookies to reduce ad spend on exchanges that benefited from header bidding, and also decreased publisher revenue. One Google employee noted that the combined impact of Project Elmo and Project Poirot in March 2018 was on average a 21% revenue decrease on affected rival ad exchanges, and a 16% increase in revenue for AdX. Another internal 2018 Google document reflects that Project Elmo reduced spend across rival exchanges by 44%.

370. Project Elmo, like Project Poirot, starved rival ad exchanges who participated in header bidding, including Equativ and Sharethrough, of revenue, volume, and scale. Google had no legitimate business justification for Project Elmo, which reduced revenue available to Google's own publisher customers. Project Elmo's sole purpose was to use Google's information advantage to unfairly shift business from rival ad exchanges to AdX in order to maintain AdX's dominance.

371. Google concealed Project Elmo from the public, including Equativ and Sharethrough, using a code name to refer to it internally and treating it as a clandestine project. Project Elmo was, by its nature, secret—it relied on Google's internal modifications to alter DV360 bidding across multiple ad exchanges; its purpose and effects were unknowable to its victims and could not be estimated or quantified at the time of its implementation. Equativ and Sharethrough could not learn of Project Elmo until seventeen states filed a complaint in 2022 that described Project Elmo publicly for the first time. *See* MDL Dkt. No. 195.

XVII. Google's Anticompetitive Conduct Has Harmed Competition and Injured Equativ and Sharethrough.

372. Equativ and Sharethrough have repeatedly attempted to win business from Google in the relevant markets by continually innovating and improving their products. But at every turn, they have been thwarted by Google's restraints. As a result of Google's anticompetitive conduct, and despite their best efforts, Equativ and Sharethrough have lost customers and transaction volume; have failed to win customers and transactions that they would have won in a competitive market; earned reduced profits on the business they kept; and were prevented from effectively competing and building the scale that is truly reflective of the strength of their ad tech products.

373. By deliberately limiting AdWords and DV360 advertiser demand to AdX and limiting access to AdX's real-time bids to DFP, Google has made it virtually impossible for competing ad servers, including Equativ's, to compete with Google's DFP on the merits. The dominant share of advertiser demand unfairly captured by Google's programmatic buying tools—AdWords and DV360—is "must-have" for the vast majority of publishers. To gain effective access to this essential demand through AdX, publishers must use Google's DFP. As the *United States v. Google* court found: "For all practical purposes, . . . Google's tying DFP to AdX communicated to publishers that if they used a rival publisher ad server, they would be shut out of AdX's core functionality." Liability Op., 778 F. Supp. 3d at 861.

374. Time and time again, Equativ has lost business to Google due to the company's anticompetitive conduct, or failed to win new business, for the expressly stated reason that the customer must use DFP and AdX to effectively access AdWords and DV360 demand. This lost business includes customers who were dissatisfied with Google's ad server product and who actively sought out superior alternatives like Equativ's, only to ultimately conclude that they had no choice but to stick with Google's otherwise inferior product.

375. For example, in late 2022, following Google's hollow commitments to the French Competition Authority to cease some of its anticompetitive restraints, a major publisher customer of Google's switched from DFP to Equativ's ad server with the hopes of benefiting from Equativ's superior product. But only a year later, the publisher reluctantly returned to Google. The customer explained to Equativ that it had no choice but to return to Google because without using Google's tools, the customer could not access advertiser demand through AdX and could not transact certain programmatic guaranteed deals with DV360 advertisers.

376. As another example, after years of struggling to acquire new publisher ad server customers in the face of Google's anticompetitive conduct, Equativ launched a "Google Replacement Program" to seek to win business from DFP. Equativ invested substantial resources in the program, including hiring a strategy advisor who had close connections with large publishers and whom Equativ tasked with the singular mission to convert Google ad server clients to Equativ. Over the course of roughly two years, Equativ pitched over 25 large publishers to migrate their ad server business.

377. As Equativ's CEO, Arnaud Créput, reported in testimony in the *United States v. Google* proceedings: "[W]e had more than 25 shots . . . . Each time, this was a no-go. . . . [I]t was never about product features. It was never about level of service, which [is] considered by our clients as much better than [DFP]. . . . [I]t was always for two reasons. Number one, switching costs. Google makes it very [difficult] to switch from their solution to other solutions. And number two [wa]s the fear of losing revenues [due to losing] access to . . . Google AdX[,] . . . Google Ads and DV360."

378. Equativ also sought to persuade Google to make real-time bids from AdWords advertisers available to users of Equativ's ad exchange and ad server. Google refused.

379. By coercing advertisers to use AdX and by cutting off rival ad servers' access to that advertiser demand, Google destroys the possibility for rival ad servers like Equativ to compete on the merits for publishers' business. Indeed, as the *United States v. Google* court found, "almost '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." Liability Op., 778 F. Supp. 3d at 864.

380. In addition, Google's Project Poirot, Project Elmo, Project Bernanke and its progeny, SSDRS, UPR, First Look, Last Look, AdX-DFP tie, Open Bidding, and conditioning certain transaction types from DV360 advertisers to using DFP and AdX ensured that publishers using rival ad servers faced headwinds in monetizing their inventory, thereby further eroding the competitive viability of the rival ad servers.

381. When Equativ loses (or fails to gain) a publisher ad server customer due to Google's anticompetitive restraints, it suffers damage at numerous levels of its business. Most directly and immediately, Equativ loses publisher ad server business. But Equativ also loses the ad tech transaction data associated with that customer, which hampers its ability to compete effectively with Google's DFP. When Equativ loses an ad server customer to Google's DFP, it often loses corresponding ad exchange business, because DFP artificially favors AdX over rival ad exchanges. And Equativ reaps lower profits from the business it retains.

382. Meanwhile, Google's restraints favoring AdX over rival ad exchanges have significantly hampered the ability of rival ad exchanges, including Equativ and Sharethrough, to compete. Whether taking the form of coercing AdWords and DV360 advertisers to use AdX; First Look; Project Bernanke and its progeny; the handicaps Open Bidding placed on rival ad exchanges; Last Look; SSDRS; Project Poirot; Project Elmo; Unified Pricing Rules; or any of its other anticompetitive acts, Google's restraints had similar anticompetitive effect: They insulated AdX from competition, blocked rival ad exchanges like Equativ from gaining business, enabled AdX to capture a majority share of the ad exchange market despite its comparatively rudimentary capabilities, and allowed AdX to charge supracompetitive take rates. Google's anticompetitive practices, taken together, have enabled it to amass and maintain monopoly power in the relevant ad server and ad exchange markets to the exclusion of rivals including Equativ

and Sharethrough. Google's conduct that coerces publishers to use Google's DFP instead of rival ad servers directly harms competition and rivals in the relevant ad server markets and reverberates in the relevant ad exchange markets. The more broadly publishers use DFP, the greater the effects of Google's harnessing of DFP to artificially advantage AdX and exclude rival ad exchanges.

383. Likewise, Google's conduct that coerces advertisers to use AdX and that confers artificial advantages on AdX directly harms competition and rivals in the relevant ad exchange markets. However, this conduct has also impacted competition in the relevant ad server markets. The more widely AdX is used and the greater the volume of impressions it handles, the harder it is for publishers to utilize competing alternatives. Currently publishers are left with no choice but to use DFP in order to effectively access AdX demand with each of Google's anticompetitive practices mutually reinforcing and amplifying the others, both within and across the relevant markets.

384. Google's conduct impacted the various programmatic transaction types, including open auction, programmatic direct, programmatic guaranteed, preferred deals, and private marketplace transactions. For publishers selling impressions via open auctions, effective access to AdX demand is essential. Google's AdX-DFP tie thus drives the majority of publishers to DFP. DFP in turn prevents competition by favoring AdX to win DFP's auctions, for example by extracting a tax for the use of a rival ad exchange in Open Bidding and by preventing the publisher from implementing a lower price floor for a rival ad exchange. This conduct drives an artificially higher number of open-auction transactions through AdX, depriving rivals like Equativ of the revenues and scale they need to effectively compete.

385. With other types of programmatic transactions such as programmatic direct and programmatic guaranteed deals, the advertiser and the publisher may agree on specific terms such as a guaranteed volume of impressions at a set price, but they still use the programmatic tools of the ad tech stack—including a publisher ad server and ad exchange—to transact and ultimately serve the deal. In a market untainted by Google's restraints, the advertiser and publisher could freely choose which ad server and ad exchange to use to facilitate those deals, and often they would opt for the non-Google ad tech provider that facilitated the deal in the first place.

386. For example, Equativ routinely curates unique inventory from publishers with specific advertisers' needs in mind and seeks to facilitate the match between the publishers and the advertisers. Prior to its acquisition by Equativ, Sharethrough's business similarly involved building partnerships with large publishers and advertisers for premium inventory. Publishers may desire to take advantage of such offerings and may prefer to transact programmatic direct, programmatic guaranteed, and other variations on programmatic advertising transactions through Equativ's ad server and ad exchanges. However, Google has used its anticompetitive AdX-DFP tie to force the majority of publishers—and advertisers seeking to buy their impressions—to use Google's ad tech stack for *all* of their programmatic advertising transactions.

387. Further, due to Google's Unified Pricing Rules, publishers were unable to cause DFP to route an impression through Equativ's or Sharethrough's ad exchange by setting a lower floor price than for AdX. As this Court observed, the "tying of DFP to AdX permitted Google to impose the Unified Pricing Rules" which in turn "prohibited publishers from setting price floors for AdX that were higher than for other exchanges." *In re Google Digit. Advert. Antitrust Litig.*, 2025 U.S. Dist. LEXIS 211787, *97–98 (S.D.N.Y. Oct. 25, 2025). This anticompetitive conduct

affected not only open auctions, but other varieties of programmatic advertising such as programmatic guaranteed deals that relied on differential price floors to function.

388. As a result of these restrictions, Google deprived Equativ's ad server and ad exchanges of crucial volume and substantial revenue. Notably, programmatic direct, programmatic guaranteed, private marketplace, and other variations on programmatic auctions offer publishers and advertisers various benefits, including optimized pricing and placement and brand safety. Because these programmatic transactions may involve volume commitments and may be worth more to advertisers, they similarly can bring greater revenues to ad tech providers like Equativ. Despite both Equativ and Sharethrough building and differentiating their businesses by pursuing such deals, Google's conduct has prevented Equativ from serving many of these valuable transactions and impressions. Equativ's ad server has been left to host only those publishers prepared to forgo access to AdX and thereby AdWords demand, losing not only open auction volume but also the other programmatic transactions it would otherwise win through its superior quality, transparency, and service. Meanwhile, Equativ and other independent ad exchanges have been left to compete primarily for the remnant publisher inventory and advertiser budgets left over after Google's self-preferencing and cream-skimming.

389. As a result of Google's anticompetitive conduct, Equativ's ad server and ad exchanges have handled fewer impressions, have earned lower profits on the impressions they did process, and achieved a fraction of the scale and market share they would have achieved in the absence of Google's anticompetitive restraints. Google's restraints also have insulated Google from competition from rivals like Equativ and Sharethrough, enabling Google to degrade its services and charge supracompetitive prices with little consequence to Google.

XVIII. The Speculative Damages Doctrine Supports Further Tolling of Equativ's Claims.

390. Equativ also is entitled to recover damages resulting from Google's pre-January 24, 2019 anticompetitive conduct because claims based on that conduct would have been too speculative to recover if Equativ and Sharethrough had filed their complaints sooner. For example, had Equativ or Sharethrough filed a complaint against Google in 2013 for violations of the Sherman Act based on Google's restriction of AdWords demand to AdX and restriction of AdX real-time bids to DFP, their resulting past and future damages from that conduct—particularly when combined with and magnified by Google's later but then-unforeseeable conduct—would have been sheer conjecture and impossible even to estimate.

391. Not only did Google's secrecy make some of its most pernicious conduct impossible to detect; Google deployed an array of overlapping, ever-evolving tactics designed to achieve Google's long-term goals. The effects from many of Google's auction manipulations, including SSDRS, Project Bernanke and its progeny, Project Poirot, and Project Elmo would have been impossible to perceive, understand, or predict contemporaneously because they did not achieve their aims from impression to impression. Rather, only after Google had the opportunity to implement and adjust the programs over a period of time were their aims realized. Moreover, because of the temporal overlap between these programs, their effects would have been impossible to isolate. Thus, the combined effect of these tactics could not have been ascertained until all the programs were publicly revealed and a thorough and lengthy examination of their effect on markets involving complex auctions had been undertaken.

392. For example, the clandestine, complex, and variable nature of Google's SSDRS program rendered the accrual of harms based on the program speculative, and the amount and nature of SSDRS's effects essentially unprovable until June 2021 at the earliest.

393. After the launch of SSDRS in 2016, Google misrepresented on its website and elsewhere the purpose of SSDRS. Google publicly represented that the program was merely intended to provide a yield benefit to publishers, even while acknowledging internally that if they ran SSDRS well, it would likely "result in lower publisher overall revenue." Google personnel also acknowledged internally that because of the data that AdX accessed through DFP, competing ad exchanges would be powerless to respond to the advantage SSDRS conferred on AdX.

394. Further, the design of SSDRS rendered the precise effects of this clandestine program unknowable and unprovable by market participants until long after its implementation. The underlying mechanical operation of SSDRS itself involved a constantly shifting, algorithm-driven manipulation that was, in Google's own words, "dynamic." And in practice the actual amounts by which Google would selectively increase or reduce its revenue share from its aggregate target varied from impression to impression. It is now clear that Google's goal was not to achieve a set margin on each impression sold, but rather to achieve aggregate targets over a period of time. It would have been impossible for a rival transacting with Google intermittently to detect, let alone quantify, understand, or predict, the impact of SSDRS on its business.

395. Google also continually altered the structure of SSDRS, going through several versions of the program over a course of years. Even for the astute contemporaneous observer, the mechanics, purpose, and aggregate effects of SSDRS were wholly inscrutable. Only until the inner workings of SSDRS were made public through government investigations and its aggregate effects over time could be observed was it possible to begin to understand the unfair advantage that Google had conferred on AdX through the program.

396. Equativ learned the purpose and mechanics of Google's SSDRS—and the harms it caused to Equativ—only after a decision by the French Competition Authority finding that Google abused its dominance in the ad server market in June 2021. Had it even been possible to detect any influence from this program on Equativ's business before 2021, Equativ would have only been speculating as to how and to what extent it had been damaged by Google's use of SSDRS, and could not have begun to reasonably estimate SSDRS's effects.

397. Project Bernanke, with its many iterations, provides yet another example of a concealed and constantly evolving scheme by Google with anticompetitive impacts that were impossible to ascertain until thoroughly investigated by government agencies with the benefit of subpoena power and retrospectively documented.

398. Project Bernanke, like SSDRS, involved intricate dynamic bidding manipulations. Google adjusted Project Bernanke several times, even coming up with variants distinct enough to warrant their own code names. Within each iteration of Project Bernanke, Google adjusted the scope of its manipulations, starting with a focus on its take rates from individual publishers and then later seeking an aggregate take rate across all publishers, before shifting yet again to a tactic that targeted individual publishers Google believed were guilty of fostering competition and favoring AdX's competitors. Google also continuously shifted the magnitude and direction of its manipulations, sometimes inflating bids and at other times depressing them.

399. Through Project Bernanke, as with SSDRS, Google did not seek to achieve its internal and clandestine margin goals on every auction. Rather, Google deployed sophisticated algorithms to manipulate its aggregate take rates only over prolonged timeframes. Because Google designed Project Bernanke to hit a constantly moving target that sought to achieve its aims over the course of a period of time rather than with each auction, it would have been

impossible to detect, let alone ascertain or predict, the full effects of this manipulation contemporaneously. Only after assessing the aggregate effect of Google's rigging of auctions over the long term, and after the fact—with the benefit of government lawsuits to expose Project Bernanke's inner workings—did it become possible to understand the effects and quantify the harm caused by the scheme.

400. Similarly, Equativ learned of Project Poirot only after the Government filed its suit against Google in 2023. Google had concealed Project Poirot, failing to disclose the nature or scale of its surreptitious bid shading to publishers, the ad exchanges who received the lower bids, or even the advertisers whose bids Google reduced. Like Google's other auction manipulations, Google's application of Project Poirot morphed over time as Google adjusted the program to achieve its long-term goals and to harmonize the tactic with the company's other algorithmic manipulations.

401. For example, Google shifted the amounts by which it shaded bids into the targeted ad exchanges. As the European Commission noted in finding Project Poirot to be part of Google's anticompetitive scheme to favor AdX, "the methodology followed by [P]roject Poirot was based on mutable and subjective considerations, which evolved over time . . . . Google itself has made several changes to [P]roject Poirot with significant consequences for the resulting bid shading strategies." EC Decision ¶ 1139.

402. Project Poirot's mechanisms and impacts were so complex and ineffable that even Google faced challenges in understanding the effects of its bid manipulations in real time. As a result, throughout the period during which Google was implementing Project Poirot, its sell-side and buy-side teams coordinated intimately to plan and test the interactions between the pieces of

their manipulations, "not knowing from the outset how the new features of AdX and [P]roject Poirot would have impacted on each other." EC Decision ¶ 1147.

403. Where even Google struggled to understand and control the effects of its own inconsistently applied, clandestine algorithmic manipulations, it was wholly impossible for competitors such as Equativ even to deduce that they had been harmed by some sleight of hand, let alone understand or predict the amount and nature of the harm or reasonably estimate damages. Only with the benefit of years of data regarding the project's effects on auctions, internal Google documents summarizing the results of the clandestine program, and government investigations exposing Google's machinations could Equativ begin to evaluate and quantify the harm it suffered Google's from Project Poirot.

XIX. The United States is a Relevant Geographic Market.

404. The U.S. markets for publisher ad servers for open-web display advertising and ad exchanges for open-web display advertising are additional distinct relevant submarkets within the respective worldwide markets for each product. Market participants recognize this in the ordinary course of business. While Google, Equativ, and certain other market participants offer these ad tech products both within and outside the United States, there are differences in publisher and advertiser preferences, language, and regulatory frameworks depending on the country in which a website or advertisement is meant to be viewed, and prices can vary by geography.

405. As Google conceded with respect to the ad tech stack in its proposed findings of fact and conclusions of law in the *United States v. Google* case, a "relevant geographic market is the United States." Google's Proposed Findings of Fact ¶ 703, *United States v. Google LLC*, No. 1:23-CV-108-LMB-JFA (E.D. Va. Nov. 4, 2024). "[C]ompetitive conditions for display

advertising vary by geography . . . [as a result of] the number of different languages spoken across countries . . . [and] as a result of regulatory regimes that vary between geographies . . . ." *Id.* ¶¶ 710-12.

406. To serve customers in the United States, a publisher ad server or ad exchange provider generally must establish a physical presence in the United States, including employing engineers and a sales force that speaks English and can cater to the preferences of U.S.-based customers. For example, when Equativ entered the U.S. market around 2014, it did so not by simply beginning to sell its ad server product from overseas, but by spending considerable resources in establishing a physical presence domestically, hiring U.S.-based salespeople and other critical employees, and developing local relationships with U.S.-based customers. Thus, U.S. customers do not readily switch between publisher ad server and ad exchange providers based overseas and those based in the United States, making the United States a distinct relevant geographic submarket.

407. A hypothetical monopolist of publisher ad servers for open-web display advertising or ad exchanges for open-web display advertising in the United States could profitably impose a small but substantial, non-transitory increase in price or decrease in quality from the prices and quality that would prevail in a competitive U.S. market.

XX. Google Has Monopoly Power in the U.S. Market for Publisher Ad Servers for Open-Web Display Advertising.

408. Google participates in the U.S. market for publisher ad servers for open-web display advertising through its ad server DFP.

409. Google's monopoly power in the U.S. market for publisher ad servers for open-web display advertising is demonstrated by its ability to repeatedly and significantly degrade the quality of service provided by DFP over publishers' objections, without fear of losing those

publisher customers to competing ad servers. For example, Google conducted its own internal analysis to gauge the potential impact of applying Unified Pricing Rules to deprive publishers of the ability to set a lower price floor for competitors of AdX. Google concluded that there was no meaningful risk that publishers would switch away from DFP, notwithstanding their dissatisfaction with the change. This internal assessment proved to be correct. Indeed, despite frequently acting in ways that frustrate and reduce choice and revenue for its publisher customers, DFP has maintained a persistent U.S. market share between 86% and 92%.

410. Google has also estimated internally that it possesses sufficient monopoly power such that the "market w[ould] bear" a significant increase in fees for DFP while simultaneously improving DFP's profitability, further indicating lack of meaningful competitive restraints in the market Google has unlawfully monopolized. Liability Op., 778 F. Supp. 3d at 852.

411. The U.S. market for publisher ad servers for open-web display advertising presents significant barriers to new entry or expansion, not least of which is the immense effort and cost to a publisher of switching ad servers. In addition to switching costs, "building a publisher ad server is a complex, resource-intensive process, even for a large corporation," and "it is very challenging to gain publisher ad server customers." Liability Op., 778 F. Supp. 3d at 850–51. Through its anticompetitive conduct, Google has erected further barriers to entry and expansion of new competitors, reinforcing the durability of its market power.

412. As a result of Google's acquisition of its monopoly and the use of its monopoly power to maintain its position in the market for publisher ad servers for open-web display advertising, rivals such as OpenX have either left the ad server business or pivoted to other markets. Even the tech giant Meta shut down its project to build a publisher ad server due to the impossibility of gaining scale in a market unlawfully monopolized by Google.

XXI. Google Has Monopoly Power in the U.S. Market for Ad Exchanges for Open-Web Display Advertising.

413. "Google possesses monopoly power in the ad exchange for open-web display advertising market." Liability Op., 778 F. Supp. 3d at 852.

414. Google's ad exchange, AdX, has long been the dominant ad exchange for open-web display advertising. AdX maintains a durable share of roughly 50% of the U.S. market.

415. Google's ability to maintain its market share while degrading service for its customers and charging supracompetitive prices is direct evidence of its monopoly power in the U.S. ad exchange market. Google recognizes that it imposes an extraordinarily high take rate of 20% for transactions on AdX—significantly higher than the take rate of rival ad exchanges, which often charge closer to 10%. And Google has profitably maintained AdX's 20% take rate even when other exchanges decreased their take rates as the market matured. Despite lower rates and innovative products, Google's competitors have been unable to discipline Google's high prices. Google typically refuses to negotiate AdX's take rate and offers only minimal discounts to a small number of large customers. Internally, Google estimated that it could adjust its take rate significantly without meaningfully affecting its market share.

416. Barriers to entry and expansion also inhibit other ad exchanges from challenging Google's monopoly. "Scale and network effects are crucial for ad exchanges . . . ." Liability Op., 778 F. Supp. 3d at 856. The need for scale poses a chicken-and-egg problem for Google's putative ad exchange challengers, who must grow large enough to attract publishers and advertisers without already enjoying a critical mass of business.

417. Google has utilized its market power in adjacent segments of the ad tech ecosystem to further raise entry barriers in the ad exchange market by deliberately making it difficult for advertisers and publishers to switch to existing and potential ad exchange

competitors. For example, Google's policies have made AdX the only ad exchange with meaningful access to AdWords, a source of unique advertising demand that publishers highly value. This anticompetitive policy foreclosed an entire segment of the addressable market from potential ad exchange competition. Internally, Google employees have observed that Google's anticompetitive restraints left both publishers and advertisers with very little choice but to keep using AdX.

JOINT ALLEGATIONS: PRECLUDED CONDUCT

XXII. Additional Allegations re: Google Thwarts Competition by Tying AdWords Demand Exclusively to Its Own Ad Exchange (AdX).

418. Since 2009, Google has funneled nearly all AdWords open-web display demand through AdX, thereby requiring publishers to use AdX if they wish to access AdWords' massive and unique buyer demand.

419. Google's decision to funnel nearly all AdWords demand through AdX was harmful to AdWords' own customers. Google effectively blocked AdWords' advertiser customers from buying inventory through non-Google ad exchanges, even if those competing ad exchanges offered higher quality inventory or lower prices. Google's internal documents acknowledge as much. For example, Google's internal documents demonstrate that its restriction "is purely a decision to hold back a set of advertisers [AdWords customers] in order to promote [AdX]." A Google employee explained Google's strategy: "[W]e appear to be running a buyside-subsidizes-sellside model: we are artificially handicapping our buyside (GDN [AdWords]) to boost the attractiveness of our sellside (AdX). Specifically, we have chosen to

limit GDN buying only on AdX, an exclusivity that only makes AdX more attractive to sellers."[16]

XXIII. Additional Allegations re: Google Thwarts Competition by Tying Real-Time Bids from AdX to Its Own Ad Server (DFP).

420. Since 2009, Google also has tied real-time bids from AdX to use of its publisher ad server DFP, creating a multi-level tie of its products across the ad tech stack.

421. Google imposed this second tie by refusing to provide access to real-time bids from AdX to publishers using rival ad servers. If a publisher opted to use another ad server—for example, OpenX's ad server or Equativ's ad server—the publisher would lose the ability to obtain real-time price signals from AdX and, as a result, from AdWords' massive demand.

422. Instead of real-time bids, a publisher relying on a non-DFP ad server could only offer an ad space to AdX using a static price floor, through an AdX Direct tag. AdX would then provide a binary "yes"/"no" response and fill the ad space only if it could meet the price floor. As one internal Google document explained, "AdX does not pass through realtime bids to . . . other ad servers (instead it passes through a 'dumb' flat CPM based on historical averages)." Therefore, publishers using non-Google ad servers could not obtain real-time bids from AdWords demand, nor could they obtain real-time bids from non-AdWords demand flowing through AdX. Google fully understood that publishers using competing ad servers were denied access to important data about advertisers' valuation of their inventory, as well as the opportunity to maximize the price of their inventory through real-time auctions.

[16] In 2015, Google launched AdWords Cross Exchange Bidder (AWBid), which slightly relaxed Google's total ban on AdWords bidding for inventory on third-party ad exchanges. But "[b]ecause AWBid focused on a small set of impressions related to specialized advertising campaigns, AdX remained the 'nearly exclusive' source of AdWords demand." Liability Op., 778 F. Supp. 3d at 825 n.15.

423. Google's non-real-time AdX Direct product was not an economically viable substitute to accessing AdX through DFP because it 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.

424. By requiring publishers to use DFP to access real-time bids from AdX, and by funneling nearly all AdWords demand through AdX, Google has locked publishers into using both its AdX and DFP products. As one Google employee wrote, "AdX can serve as a tool to pull publishers onto [D]FP." In other words, as explained by one Google executive, "the glue that seals DFP to GCN [AdWords] is AdX." Google further recognized that the "value of Google's ad tech stack is less in each individual product, but in *the connections across all of them*."

425. Google's plan worked. Publishers were unable to forgo the valuable AdWords demand that was effectively only available to DFP customers. Multiple major newspaper publishers indicated that their hands were tied; even if they were unhappy with DFP, they could not switch to a competing ad server because that would mean they would lose access to AdWords demand and thereby experience a massive revenue loss. Google's ties prevented other ad servers from gaining customers and scale.

426. Google's tying of real-time demand from AdX to publishers' use of DFP was anticompetitive. By forcing Google's publisher customers to use a product they would not necessarily otherwise have used, by making it difficult for rival publisher ad servers to compete on the merits, and by significantly reducing rivals' market share, the tying of DFP to AdX has

had a substantial anticompetitive effect in the publisher ad server market for open-web display advertising.

427. Google's tying conduct harmed its own customers. The unique value of real-time access to AdWords through AdX has essentially forced Google's publisher customers into the purchase of a tied product that they either did not want at all, or might have preferred to purchase elsewhere on different terms. Likewise, Google effectively limited its programmatic open-web advertisers in AdWords to bidding for inventory from publishers that used AdX and DFP. Google did this despite knowing that its advertiser customers would benefit from AdWords' bidding for open-web display ad inventory on non-Google exchanges.

XXIV. Additional Allegations re: Google Employs Dynamic Allocation (First Look) To Exploit Its Tied Monopolies.

428. Before Google acquired DoubleClick, the DFP product served the interests of publishers by giving them more informational control over their auctions. To take one example, DFP allowed publishers to take the unique user IDs that it assigned to website visitors and share those IDs with ad exchanges and ad buying tools to improve user identification and tracking. That sharing allowed ad tech tools—even those not owned by DoubleClick—to identify the best matches between advertisers and publishers, leading to higher publisher revenue. But after Google acquired DoubleClick, Google reconfigured DFP to prohibit publishers from sharing DFP-assigned user IDs with non-Google ad exchanges and ad buying tools. That restriction made it harder for non-Google tools, like the exchanges controlled by the Plaintiffs, to identify users and achieve the best match between a user and an advertiser. Meanwhile, DFP continued to share user IDs with AdX, enabling AdX to identify better matches and bid more for publisher inventory.

429. Google was able to cherry pick the most valuable ad requests by employing a mechanism known as Dynamic Allocation. Under Dynamic Allocation, Google preferred AdX over non-Google ad exchanges within DFP by giving AdX an exclusive first right of refusal—aptly called First Look—for each ad space offered by DFP, regardless of AdX's historical bids or the publisher's placement of AdX in the waterfall. Dynamic Allocation thus gave AdX the First Look at all inventory flowing through DFP. This meant that AdX did not have to compete with other ad exchanges on the merits for a higher position in the waterfall. Instead, Google provided AdX an exclusive First Look ahead of all other ad networks and ad exchanges, such as the exchanges controlled by the Plaintiffs. Importantly, AdX received a First Look at DFP impressions even if the publisher preferred other exchanges and wanted to rank them first.

430. Google also configured DFP to share with AdX the predicted bids or price floors that publishers assigned to every other ad exchange and ad network in the waterfall, providing AdX with the opportunity to bid against each of these price floors (which declined sequentially down the waterfall). Notably, the price floors for other ad exchanges were based on static, historical bids and therefore did not reflect any real-time information about the value of the specific ad space. Under Dynamic Allocation, the highest predicted bid for a non-AdX demand source in the waterfall was passed to AdX as a price floor. AdX would then run a real-time auction before the ad request reached any other demand sources. If any AdX buyer submitted a real-time bid that was higher than the highest predicted bid—which, again, AdX was told in advance—AdX would win the ad space. If not, the ad space would be offered to the first non-AdX demand source in the waterfall. If that top-ranked demand source could not meet the publisher's price floor, then the process would repeat. AdX would win the ad space if its bid was higher than the predicted bid for the second-highest demand source in line; if not, the ad space

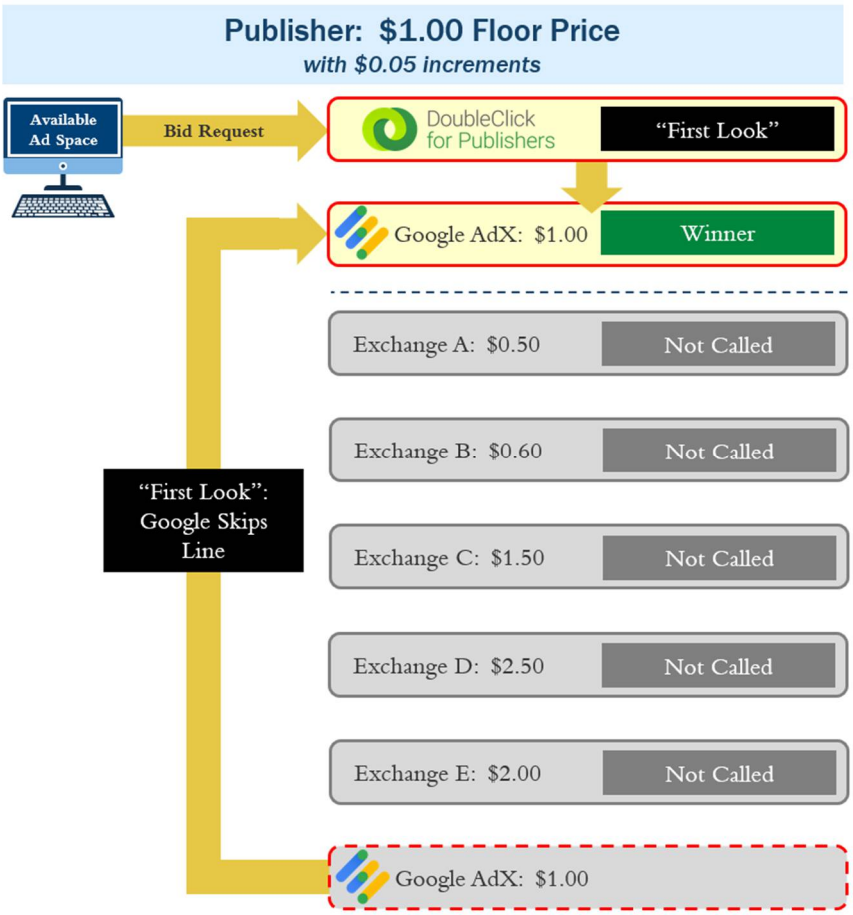
was offered to that demand source, and so on. Thus, AdX would have a full view of both real-time information about the ad request *and* the predicted bids of all other demand sources in the waterfall, whereas other ad exchanges would not even receive the ad request, let alone have the opportunity to bid on it, unless AdX did not win the ad space before the request reached that exchange in the waterfall. By receiving more ad requests and winning more ad spaces, AdX had the opportunity to see, and learn from, far more ad requests than did any other ad exchange.

431. Under Dynamic Allocation, AdX benefited from real-time information about the value of the ad space while other exchanges—which were assigned priority and price floors on the basis of static, historical bids—did not. Other exchanges did not benefit from this information because DFP refused to allow any ad exchange other than AdX to bid in real time. Google refused to integrate real-time competition from rival ad exchanges into DFP to further insulate AdX's growing position in the ad exchange market, despite knowing that more real-time competition would have increased publisher revenues and overall market efficiency. For example, when OpenX asked Google to allow OpenX to integrate real-time bids from the OpenX Ad Exchange into DFP, Google rejected OpenX's proposal, even though doing so would have increased publisher revenues by bringing more real-time competition.

432. Figure 7, below, provides a simplified example of Google's First Look. It shows the same waterfall setup from Figure 2 (*see supra* ¶ 50), but adds AdX. AdX's competitors—Exchange A through Exchange E—cannot submit real-time bids into DFP, not because of any meaningful technological barrier, but rather because DFP does not accept real-time bids from them, relegating them to the legacy static waterfall process reflected in Figure 2. Further, under First Look, DFP places AdX first in line and asks AdX to meet the predicted bids of the other exchanges, but based on an information-rich, real-time bid. In this example, Exchange A has a

predicted bid of $1.00, which becomes a price floor for AdX to beat. AdX can win the ad space right away by simply matching the price floor of $1.00. Or, if AdX cannot beat the price floor from Exchange A, and Exchange A does not clear the price floor either, then AdX will be given another opportunity to beat Exchange B's price floor of $0.95. And AdX can win with a $1.00 bid (or a $0.95 bid, etc.) even if another exchange further down the waterfall could have bid much higher, such as $2.50.

Figure 7: Google's First Look



433. In effect, because AdX alone had the ability to assess the value of an ad space in real time while all other exchanges competed on the basis of outdated, historical bids, Dynamic Allocation gave AdX the opportunity to cherry pick the most valuable ad spaces for itself and

left other ad exchanges, such as those operated by the Plaintiffs, to fight over the proverbial scraps.

434. Over time, Dynamic Allocation and AdX's ability to cherry pick ad spaces led to a vicious cycle in which publishers were forced to transact more of their inventory (especially their highest-value inventory) with AdX. In turn, only the less valuable ad spaces would proceed down the waterfall and be offered to other ad exchanges like those operated by the Plaintiffs, a process which lowered the average prices at which those exchanges won ad spaces. Publishers therefore lowered the predicted bids for those other exchanges in the waterfall, in turn lowering the price floor at which AdX could win ad spaces away from these exchanges. That made it even easier for AdX to win ad spaces by beating those lowered static bids for other exchanges, thereby reinforcing AdX's competitive advantage. Conversely, without the opportunity to bid on and win as many ad spaces, the exchanges operated by the Plaintiffs had less auction data, thereby hindering their ability to optimize their bids for future ad spaces.

435. Google executives have recognized the unfair advantage that Dynamic Allocation gave AdX over other ad exchanges. In one internal document, a Google executive noted that First Look "made it difficult for [rival ad exchanges] to compete on a level playing field with AdX." First Look thereby impeded rival exchanges' their ability to enter the market, grow, and compete. In addition, by diverting transactions from rival exchanges to AdX, First Look also gave Google a data advantage that helped the AdX team train its auction bidding models more effectively than rival exchanges. Google's conduct ultimately deprived the exchanges operated by the Plaintiffs of the scale and revenue needed to compete effectively against Google.

436. With First Look, Google used its monopoly power to impose artificial technical limitations that made it harder for customers to do business with rivals, regardless of the

technical and commercial merits of those rivals' offerings. First Look consequently had pernicious effects: it resulted in less revenue for publishers, fewer impressions going to the advertisers who were willing to pay the most for them, enhanced AdX market power, and reduced competition in the ad exchange market.

437. First Look also harmed Google's own customers. First Look exacerbated the anticompetitive effect of the unlawful AdX-DFP tie by artificially advantaging AdX within DFP's auction logic at the expense of Google's publisher customers and regardless of (and often over) those customers' preferences.

438. Ad exchanges must submit real-time bids to DFP via Open Bidding. However, because of the restrictions Google placed on auctions in UPR, ad exchanges still direct some bids into DFP via waterfall, for example for premium inventory or certain curated advertising deals. Bids placed by ad exchanges through the waterfall system today, however, still face the disadvantages that Google imposed on rival ad exchanges before the advent of Open Bidding or UPR. These bids are confined to static, not real-time bids. AdX retains its First Look advantage with respect to these bids, and can still win these impressions without being placed in real-time competition with the rival ad exchanges bidding into the waterfall.

XXV. Additional Allegations re: Google Maintains an Unfair Auction Despite Header Bidding.

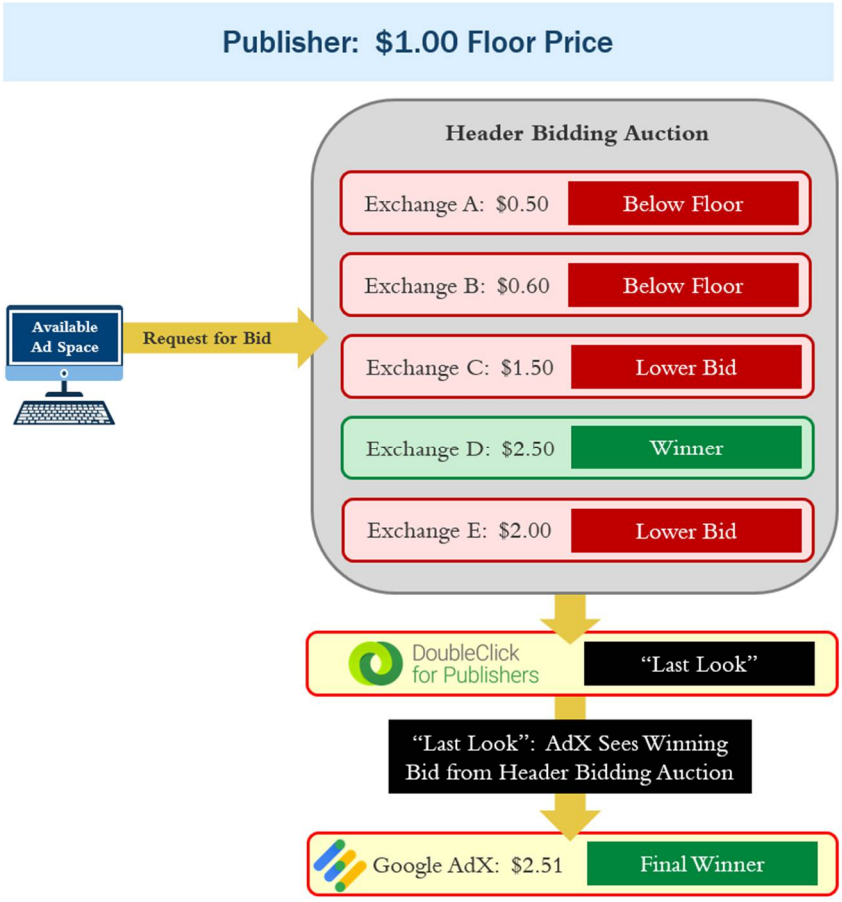
A. *Additional Allegations re: Google Undermines Header Bidding Rivals with Last Look.*

439. Header bidding increasingly threatened the advantage AdX had enjoyed through First Look. With header bidding, all ad exchanges could compete in real time for an impression. However, Google ensured that it advantaged AdX even in the presence of competing real-time bids from header bidding, by using Dynamic Allocation to convert First Look into Last Look.

440. Last Look gave AdX an unfair opportunity on the backend, after a header bidding auction was complete and with full information about the results of that header bidding auction. Thus, while header bidding auctions were done blindly, with no ad exchange knowing the results of the auction from another exchange, under Last Look, DFP allowed AdX (and AdX alone) to view the winning bid placed by a competing header bidding ad exchange before AdX placed its own bid. With that information, AdX could then adjust its bid to exceed the winning bid by just one cent and win the ad space.

441. Figure 8, below, provides an example of Google's Last Look. Similar to the examples of the waterfall from Figure 2 (*see supra* ¶ 50) and First Look from Figure 7 (*see supra* ¶ 432), in this example five ad exchanges participate in the header bidding auction. The winning bid among those five exchanges is from Exchange D at $2.50. That "winning" bid from Exchange D is injected into DFP, and AdX is then given the opportunity to bid on the same ad space. But whereas Exchanges A through E performed their auctions and put in their bids with no line of sight into each other's bids, DFP provided Exchange D's winning bid to AdX as a price floor (*i.e.*, the price AdX would have to beat to win the ad space). Thus, in the example here, AdX could see the price of the "winning" bid of $2.50 and choose whether to bid $2.51 (or more) to win the ad space or decline to do so.

Figure 8: Google's Last Look



442. By using Last Look, AdX could beat any winning bid from the header bidding auction, including a bid from one of the Plaintiffs, by offering one cent more for the ad space. In essence, AdX could see the results of the otherwise-sealed header bidding auction—involving all other market participants—and adjust its bid to win the ad space at the lowest possible cost. Google thus exploited its ability to share information between DFP and AdX to provide AdX with an unfair advantage in bidding, while the Plaintiffs were forced to bid blindly. 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.

443. Offering a single preferred exchange a Last Look at impressions makes no economic sense from the perspective of an independent publisher ad server. Doing so introduces inefficiencies that lower publishers' revenues because the favored exchange can win impressions at a lower price than it would bid if it lacked inside information about its rivals' bids. But for Google, which controlled the dominant ad server and exchange, Last Look made perfect economic sense because it significantly undermined the competitive threat posed to AdX by header bidding.

444. Last Look created an unfair competitive advantage for AdX, allowing it to win transactions away from competitors despite the introduction of competitive real-time bids from other exchanges through header bidding auctions. Thus, even with the advent of header bidding, Dynamic Allocation still funneled transactions away from rival ad exchanges to AdX. This conduct deprived the Plaintiffs of the scale and revenue needed for their ad exchanges to compete more effectively against Google. Last Look was another anticompetitive policy that entrenched Google's monopoly power, disadvantaged Google's publisher customers, and harmed the Plaintiffs and the competitive process.

B. *Additional Allegations re: Google Augments Last Look through Sell-Side Dynamic Revenue Share.*

445. Last Look allowed Google the opportunity to gauge the competitiveness of AdX's bids relative to the competition and make AdX more competitive—for example, by lowering its take rate across the board or for certain publishers to ensure AdX wins more impressions generally or of certain types. But competing on price would be a costly endeavor, even on a tilted playing field. Google therefore sought a way to divert as many transactions from the Plaintiffs' ad exchanges to AdX *without* shouldering that cost. Google therefore decided to use the informational advantage AdX had through Last Look to manipulate auctions one by one; that

way, Google could ensure AdX continued to win the most ad spaces and, in particular, the most valuable ad spaces, while shifting to its publisher customers the cost of having to compete with real-time bids from header bidding.

446. The mechanism Google used to that end was a program called SSDRS. Ad exchanges—including AdX—win ad spaces by submitting the highest net bid, meaning the gross bid offered by the advertiser less any fee charged by the exchange. One way for AdX to win more bids, as noted above, would have been to lower its fees across the board, which AdX could fine tune using the informational advantage it had through Last Look. SSDRS took that idea one anticompetitive step further, allowing AdX to alter its take rate—the percentage fee it charged—on an ad-space-by-ad-space basis. Thus, AdX could change the take rate it would charge on a transaction *after* seeing the highest bid from a competing exchange. In this way, Google could reduce its take rate in competitive circumstances in which a third-party exchange submitted a competitive bid in the header bidding auction, allowing AdX to increase its net bid just enough to exceed the winning bid from the header-bidding auction and win the ad space. At the same time, SSDRS allowed Google to *increase* its take rate in less competitive auctions, thereby protecting its average take rate. In essence, SSDRS allowed Google to ensure it won more ad spaces—and more of the most valuable ad spaces—by constantly manipulating its take rate, without bearing any of the costs of such price competition. Publishers ended up selling their most lucrative ad spaces through AdX, making header bidding exchanges appear to be less effective to publishers and advertisers than they would have been absent SSDRS.

447. Continuing the example of Last Look in Figure 8 (*see supra* ¶ 441), Google could use SSDRS to beat Exchange D's bid of $2.50. Because AdX knows from Last Look that the price to beat for the ad space is $2.50, it could manipulate its net bid to outbid the Exchange D

bid of $2.50. As an example, if an AdX advertiser was willing to pay $3.00 for the ad space, that bid would typically translate to an AdX bid of $2.40, net of Google's 20% take rate. However, Google could use SSDRS to lower its take rate in this example from $0.60 to $0.49, thus submitting a winning bid of $2.51 and outbidding Exchange D's bid of $2.50. AdX would then make up the $0.11 difference by charging a higher take rate in less competitive auctions in which its net bid was already above the price floor. For example, where AdX's internal winning bid was $3.00, AdX would typically present that bid as a $2.40 bid, reflecting Google's typical 20% take rate; if the header bidding bid was only $2.25, *i.e.*, not very competitive, AdX could present its $3.00 winning bid as a net bid of only $2.29 (rather than $2.40), pocketing the extra $0.11 above its standard 20% take rate and shifting the extra cost to its publisher customer.[17]

448. SSDRS further exacerbated the effects of Last Look. Because third-party exchanges did not have Last Look to "see all the bids" and vary their take rate accordingly, they lost scale and revenue from AdX's use of SSDRS. This was anticompetitive; by using the Last Look informational advantage to vary AdX fees and win impressions that it would have lost in a fair auction, Google has further enhanced AdX's market power at the expense of rivals, thereby reducing competition and harming its publisher customers' ability to diversify their revenue sources away from Google. Even after Google ended Last Look, publishers knew that Google

[17] In addition to manipulating its take rate for AdX, Google could manipulate the margin AdWords charged to advertisers. AdWords charges an advertiser based on the number of times that internet users click on that advertiser's ad (cost-per-click ("CPC") pricing). But AdWords bids into AdX based on the number of ad impressions displayed to a user, regardless of whether the user clicks on the ad (impression-based (*e.g.*, CPM) pricing). AdWords does not disclose to advertisers the bids that it submits on their behalf or the fees that it retains for any particular ad or click. Therefore, Google can selectively reduce both its AdWords margin *and* its AdX take rate to secure high-value ad spaces. Google wins more ad spaces by pulling not one, but two margin levers (AdX and AdWords) after DFP feeds all competitors' bids to AdX through Last Look. Google's control over multiple nodes in the ad tech stack made this conduct possible.

could continue using its superior data to model rivals' bids and cherry-pick impressions. In essence, Google had accumulated so much data from its publisher ad server monopoly that it no longer needed Last Look to advantage AdX. Now, it could predict with great accuracy what rival exchanges were likely to bid for any particular impression.

XXVI. Additional Allegations re: Google Curtails Publisher Flexibility with Unified Pricing Rules.

449. In 2019, Google imposed yet another restriction on the way advertisers and publishers interact with each other. Its objective, again, was to add barriers that would prevent publishers from transacting effectively through competing ad exchanges. Google did so by implementing UPR. UPR is a mandatory program designed to force publishers to prefer (or at least not disfavor) AdX. The AdX team explicitly pushed DFP to implement Unified Pricing Rules as "an opportunity to significantly limit the ability of publishers to set floor prices per buyers" once Last Look was gone.

450. Prior to the adoption of UPR, publishers using DFP had the flexibility to set whatever price floors they wanted, including by adjusting price floors over time, among different ad spaces—or, to Google's chagrin, among different ad exchanges. Most specifically, publishers could set a higher price floor for AdX than for third-party exchanges, making it harder for AdX to win an ad space. Publishers took advantage of that flexibility to try to mitigate the effects of Google's anticompetitive schemes and shift at least some transactions from AdX back to rival exchanges, including those controlled by the Plaintiffs.

451. Publishers had set higher price floors for AdX than for third-party exchanges for multiple reasons. Many publishers using DFP had been setting higher pricing floors for AdX than for other exchanges so that they could reduce their high dependence on Google's ad tech stack. Google itself recognized that "pub[lisher]s are also rational[] when they decide to

diversify their sources of revenue" to "keep Google at bay and put pressure on us", given that "we can decide to change the conditions of our offer suddenly and unilaterally." Publishers also sometimes set higher floors for AdX to steer transactions to other ad exchanges that charged a lower take rate. Publishers also set higher floor prices on AdX to screen out low-quality ads, which were more likely to originate from smaller advertisers using AdWords. Still others raised AdX price floors to increase competitive pressure on AdX, forcing AdX to work harder and bid higher to win ad spaces given its built-in advantages. In short, publishers' control over their price floors was a primary tool that publishers had used to maintain revenue diversity and mitigate Google's dominance of the ad exchange market.

452. With UPR, publishers using Google's ad server are no longer able to set lower price floors for bids from non-Google ad exchanges relative to AdX. As a result, publishers, despite their desire to do so, may not set different price floors to drive ad spaces away from AdX and toward the ad exchanges controlled by the Plaintiffs. Importantly, this limitation was a one-way ratchet; despite its name, Unified Pricing Rules did not require a level playing field between exchanges because it did allow publishers to set a price floor for AdX that is *lower* than the price floor set for other exchanges. Thus, UPR essentially permits publishers to preference AdX, while *preventing* them from preferencing a non-Google exchange.

453. Publishers were outraged by the introduction of UPR, which further degraded the quality of DFP by eliminating a feature that they valued and relied on. For example, Stephanie Layser of News Corp. testified before the court in *United States v. Google*: "I told [Google] that I believe that they were doing UPR in the best interests of Google and not in the best interests of their publishers." Felix Zeng of Weather.com noted that UPR took away publishers' ability to cut deals with non-AdX exchanges in which they promised a certain volume of transactions in

exchange for a lower take rate. Jana Meron of Business Insider told Google that "[t]his was built for Header Bidding NOT to exist," a statement applauded by other publishers. During a meeting at which Google employee Rahul Srinivasan announced the introduction of UPR to publishers, the feedback was so overwhelmingly negative that Jay Glogovsky of *The New York Times* told him: "I hope the Googlers in the back buy you a really stiff drink later." Srinivasan responded: "I think I need it right now."

454. Of course, publishers could not switch to a different ad server in response to UPR because they could not afford to lose real-time bids from AdX, including bids representing the extremely valuable AdWords demand that Google made available almost exclusively to publishers using DFP through its dual ties. As Layser of News Corp. wrote to Google in 2019: "AdX is currently tied to DFP functionality leaving me to be forced into using the adserver should I want full access to AdWords . . . . That behavior [] seems like a way that Google is forcing publishers onto their adserver and hindering fair competition in the adserver market and freedom to switch should the publisher community be unhappy with changes."

455. UPR does not benefit publishers. For example, the *Daily Mail* found that "AdX is monetising roughly 3x the amount of our inventory post UPR, but we don't see much change in revenue."

456. The impact of UPR on the Plaintiffs has been devastating. UPR increased the number of impressions AdX won and the revenue it received, while decreasing impressions won and revenue received by third-party exchanges. The overall result of Unified Pricing Rules was that Google's ad tech products continued to gain scale in the display advertising space while rival ad tech products lost scale.

457. UPR is another example of Google exploiting its monopoly power and tying arrangement to restrict its customers' ability to deal with its rivals, thereby reducing its rivals' scale, limiting their ability to compete, and further compounding the harm to customers. UPR constituted anticompetitive conduct because it involved Google using its coercive monopoly power to deprive its publisher customers of a choice that they had previously exercised to promote competition.

VIOLATIONS ALLEGED

COUNT I (All Plaintiffs)
Monopolization and Monopoly Maintenance of the Publisher Ad Server Market in Violation of Sherman Act § 2 (15 U.S.C. § 2)

458. Plaintiffs restate, reallege, and incorporate by reference each of the allegations set forth in paragraphs 1 through 119, 133 through 166, 178 through 221, 224 through 226, and 418 through 457 as if fully set forth herein. OpenX further restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 227 through 248 as if fully set forth herein. Magnite further restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 167 through 177 and 249 through 295 as if fully set forth herein. PubMatic further restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 120 through 132, 167 through 177, 222 through 223, and 296 through 358 as if fully set forth herein. Equativ further restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 120 through 132, 167 through 177, 222 through 223, and 359 through 417 as if fully set forth herein.

459. As the *United States v. Google* court has found, "Google has violated Section 2 of the Sherman Act by willfully acquiring and maintaining monopoly power in the open-web display publisher ad server market . . . ." Liability Op., 778 F. Supp. 3d at 810. And this Court has concluded that "Google is precluded from relitigating . . . that Google has engaged in the

following anticompetitive conduct which supports the . . . claim that it willfully acquired and maintained its monopoly power in the ad server and ad exchange markets: Unlawful Tying, First Look, Last Look, Dynamic Revenue Share and Unified Pricing Rules . . . ." Collateral Estoppel Ruling at 32–33.

460. Publisher ad servers for open-web display advertising worldwide constitute a relevant antitrust market, and Google has monopoly power in that market.

461. A relevant antitrust submarket exists for publisher ad servers for open-web display advertising in the United States, and Google has monopoly power in that market.[18]

462. Google has unlawfully monopolized the publisher ad server market through the course of exclusionary conduct described herein. Each of Google's actions increased, maintained, or protected its publisher ad server monopoly and/or market power. Although each of Google's acts is anticompetitive in its own right, these interrelated and interdependent actions also have had a cumulative synergistic effect that harmed competition and caused substantial damages to the Plaintiffs. The following exclusionary conduct, taken together, played a particularly important role in unlawfully establishing or maintaining an ad server monopoly:

i. the AdWords-AdX Tie;

ii. the AdX-DFP Tie;

iii. First Look;

iv. Last Look;

v. SSDRS;

vi. Open Bidding;[19]

[18] Alleged by Equativ only.

[19] Alleged by PubMatic and Equativ only.

vii. Project Poirot;

viii. Project Elmo;[20]

ix. Project Bernanke (and its iterations); and

x. Unified Pricing Rules.

463. Google's conduct serves no legitimate or pro-competitive purpose that could justify its anticompetitive effects.

464. Google's conduct violated Section 2 of the Sherman Act, which prohibits "monopoliz[ing], or attempt[ing] to monopolize, or combin[ing] or conspir[ing] with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations . . . ." 15 U.S.C. § 2.

465. OpenX was a competitor in the market for publisher ad servers for open-web display advertising before it was forced to shut down its ad server in 2019. Magnite is a likely entrant and nascent competitor in the worldwide market for open-web publisher ad servers. Equativ is a competitor in the market for publisher ad servers for open-web display advertising. Google's exclusionary conduct foreclosed OpenX's, Magnite's, and Equativ's abilities to compete in the market for publisher ad servers for open-web display advertising.

466. Google's exclusionary conduct is made possible by Google's monopoly power in the publisher ad server market, which significantly diminished the Plaintiffs' ability to compete against Google for open-web display advertising transactions and their ability to compete in the ad exchange market. Google's conduct has caused the Plaintiffs to lose business, fail to win new business, and earn lower profits on the business that remains. The Plaintiffs have been harmed by Google's anticompetitive conduct in a manner that the antitrust laws were intended to

[20] Alleged by Equativ only.

prevent. The Plaintiffs suffered substantial damages and irreparable injury, and such damages and injury will not abate until the Plaintiffs are awarded damages and an injunction ending Google's anticompetitive conduct is issued.

COUNT II (All Plaintiffs)
Monopolization and Monopoly Maintenance of the Ad Exchange Market in Violation of Sherman Act § 2 (15 U.S.C. § 2)

467. Plaintiffs restate, reallege, and incorporate by reference each of the allegations set forth in paragraphs 1 through 119, 133 through 166, 178 through 221, 224 through 226, and 418 through 457 as if fully set forth herein. OpenX further restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 227 through 248 as if fully set forth herein. Magnite further restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 167 through 177 and 249 through 295 as if fully set forth herein. PubMatic further restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 120 through 132, 167 through 177, 222 through 223, and 296 through 358 as if fully set forth herein. Equativ further restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 120 through 132, 167 through 177, 222 through 223, and 359 through 417 as if fully set forth herein.

468. As the *United States v. Google* court has found, "Google has violated Section 2 of the Sherman Act by willfully acquiring and maintaining monopoly power in . . . the open-web display ad exchange market.". Liability Op., 778 F. Supp. 3d at 810. And this Court has concluded that "Google is precluded from relitigating . . . that Google has engaged in the following anticompetitive conduct which supports the . . . claim that it willfully acquired and maintained its monopoly power in the ad server and ad exchange markets: Unlawful Tying, First Look, Last Look, Dynamic Revenue Share and Unified Pricing Rules . . . ." Collateral Estoppel Ruling at 32–33.

469. Ad exchanges for open-web display advertising worldwide constitute a relevant antitrust market, and Google has monopoly power in that market.

470. A relevant antitrust submarket exists for ad exchanges for open-web display advertising in the United States, and Google has monopoly power in that market.[21]

471. Google has unlawfully monopolized the ad exchange market through the course of exclusionary conduct and anticompetitive acts described herein. Each of Google's actions increased, maintained or protected its ad exchange monopoly. Although each of Google's acts is anticompetitive in its own right, these interrelated and interdependent actions also have had a cumulative synergistic effect that further harmed competition and caused substantial damages to the Plaintiffs. The following exclusionary conduct, taken together, played a particularly important role in unlawfully establishing or maintaining an ad exchange monopoly:

i. the AdWords-AdX Tie;

ii. the AdX-DFP Tie;

iii. First Look;

iv. Last Look;

v. SSDRS;

vi. Open Bidding;[22]

vii. Project Poirot;

viii. Project Elmo;[23]

ix. Project Bernanke (and its iterations); and

[21] Alleged by Equativ only.

[22] Alleged by PubMatic and Equativ only.

[23] Alleged by Equativ only.

x. Unified Pricing Rules.

472. Google's conduct serves no legitimate or pro-competitive purpose that could justify its anticompetitive effects.

473. Google's conduct violated Section 2 of the Sherman Act, which prohibits "monopoliz[ing], or attempt[ing] to monopolize, or combin[ing] or conspir[ing] with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations . . . ." 15 U.S.C. § 2.

474. The Plaintiffs are competitors in the market for ad exchanges for open-web display advertising.

475. Google's exclusionary conduct foreclosed the Plaintiffs' ability to compete in the market for ad exchanges for open-web display advertising, and also harmed OpenX's, Magnite's, and Equativ's abilities to compete in the ad server market. Google's conduct has caused the Plaintiffs to lose business, fail to win new business, and earn lower profits on the business that remains. The Plaintiffs have been harmed by Google's anticompetitive conduct in a manner that the antitrust laws were intended to prevent. The Plaintiffs suffered and will continue to suffer substantial damages and irreparable injury, and such damages and injury will not abate until the Plaintiffs are awarded damages and an injunction ending Google's anticompetitive conduct is issued.

COUNT III (All Plaintiffs)
Unlawful Tying of AdX and Google's Ad Server in Violation of Sherman Act §§ 1 and 2 (15 U.S.C. §§ 1, 2)

476. Plaintiffs restate, reallege, and incorporate by reference each of the allegations set forth in paragraphs 1 through 119, 133 through 166, 178 through 221, 224 through 226, and 418 through 457 as if fully set forth herein. OpenX further restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 227 through 248 as if fully set forth

herein. Magnite further restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 167 through 177 and 249 through 295 as if fully set forth herein. PubMatic further restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 120 through 132, 167 through 177, 222 through 223, and 296 through 358 as if fully set forth herein. Equativ further restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 120 through 132, 167 through 177, 222 through 223, and 359 through 417 as if fully set forth herein.

477. As the *United States v. Google* court has found, Google "has unlawfully tied its publisher ad server (DFP) and ad exchange (AdX) in violation of Sections 1 and 2 of the Sherman Act." Liability Op., 778 F. Supp. 3d at 810. And this Court has concluded that "Google is precluded from relitigating . . . that Google has unlawfully tied DoubleClick for Publishers and AdX in violation of section 1 of the Sherman Act." Collateral Estoppel Ruling at 32–33.

478. Google's tying arrangement substantially foreclosed competition in the publisher ad server market. Google's conduct has caused the Plaintiffs to lose business, fail to win new business, and earn lower profits on the business that remains. Google's tying arrangement further caused OpenX, PubMatic, and Equativ substantial damages as a direct and proximate cause of this unlawful conduct because Google prevented OpenX, PubMatic, and Equativ from gaining publisher customers and gaining scale for their publisher ad server products for reasons that have nothing to do with the merits of Google's ad server. Google's tying arrangement further harmed OpenX, Magnite, and Equativ in the ad exchange market by impairing their ability to offer customers both an ad server and ad exchange. Google's tying arrangement prevented Magnite from competing in the publisher ad server market. Google's tying

arrangement further caused OpenX substantial damages as a direct and proximate cause of this unlawful conduct as it ultimately caused the shutdown of OpenX's ad server product and foreclosed OpenX from staying in or reentering that market.

479. Google's tying arrangement caused OpenX substantial damages as a direct and proximate cause of this unlawful conduct as it harmed the OpenX Ad Exchange product because OpenX lost the benefit of providing its customers with an integrated ad server and ad exchange product.

COUNT IV (PubMatic Only)
Violation of California's Unfair Competition Law ("UCL") Under California Business and Professions Code §§ 17200, *et seq.*

480. PubMatic restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 1 through 226, 296 through 358, and 418 through 457 as if fully set forth herein.

481. California's UCL provides a private right of action against any person who engages in "unfair competition." Any person who has "suffered injury in fact and has lost money or property as a result of the unfair competition" may bring suit. Cal. Bus. & Prof. Code § 17204. The UCL has three prongs, prohibiting any "unlawful," "fraudulent," or "unfair" business act or practice. *Id.* § 17200.

482. Google has violated the "unlawful" prong because its anticompetitive conduct violates the Sherman Act, as described above.

483. Google has also violated the "fraudulent" prong. For years, Google concealed much of the anticompetitive conduct that it was engaging in behind the scenes. For instance, Google did not publicly disclose SSDRS when it was first implemented, hid Project Poirot's bid-shading effects, and concealed details about Project Bernanke and its progeny. Google also affirmatively misrepresented its anticompetitive conduct. For example, Google misleadingly

described SSDRS in public announcements and concocted false explanations for the decreased performance PubMatic experienced in the wake of Project Poirot. Google engaged in this fraudulent conduct so that its anticompetitive self-preferencing would not be discovered. And Google was largely successful. Many details of Google's anticompetitive conduct were unknown to PubMatic and other market participants until they were publicly described in the Government's complaint against Google or testified about during trial in the Eastern District of Virginia.

484. Google has also violated the "unfair" prong by engaging in oppressive conduct that has made it impossible for PubMatic to compete with Google on an even playing field and that violates public policy. Through all the anticompetitive conduct described above, Google artificially constrained publishers and advertisers to funnel advertising transactions through AdX rather than through rival exchanges, such as PubMatic. This significantly diminished PubMatic's ability to compete with AdX and skewed the market in Google's favor.

485. Google's unlawful, fraudulent, and unfair practices have caused and continue to cause substantial and irreparable competitive and commercial injury to PubMatic. PubMatic has lost and will continue to lose sales, profits, scale, network effects, customers, and goodwill as a result of Google's conduct. Google also has incurred and will continue to incur increased costs to counter Google's conduct.

486. PubMatic's substantial injuries are not outweighed by any countervailing benefits to consumers.

487. Unless restrained, Google will continue to cause further competitive and commercial harm to PubMatic and other market participants.

488. PubMatic has no adequate remedy at law to compensate PubMatic for all the irreparable harm caused by Google's misconduct, particularly in light of the significant scale and network effects that Google has enjoyed as a result of the superior data and informational advantage it has been able to acquire through its unlawful acts. PubMatic is therefore entitled to injunctive relief and restitution.

COUNT V (Equativ Only)
Attempted Monopolization of the Ad Exchange Markets in Violation of Sherman Act § 2 (15 U.S.C. § 2)

489. Equativ restates, realleges, and incorporates by reference each of the allegations set forth in paragraphs 1 through 226 and 359 through 457 as if fully set forth herein.

490. Ad exchanges for open-web display advertising worldwide constitute a relevant antitrust market. A relevant antitrust submarket exists for ad exchanges for open-web display advertising in the United States.

491. Equativ competes with Google in the worldwide and U.S. markets for ad exchanges for open-web display advertising.

492. Google has attempted to monopolize the ad exchange markets through the course of exclusionary conduct and anticompetitive acts described herein. Google undertook these acts with the specific intent of achieving a monopoly. This Court has concluded that "Google is precluded from relitigating . . . that Google has engaged in . . . anticompetitive conduct which supports the . . . claim that it willfully acquired and maintained its monopoly power in the ad server and ad exchange markets . . . ." Collateral Estoppel Ruling at 32–33.

493. Google's conduct serves no legitimate or pro-competitive purpose that could justify its anticompetitive effects. Although Google seeks to frame its anticompetitive conduct as an attempt to balance the interests of various market participants, in practice Google's

unlawful conduct only benefited Google while harming advertisers, publishers, and competitors. Google's conduct has harmed the market as a whole.

494. Google's anticompetitive acts created a dangerous probability of success in achieving a monopoly in the relevant ad exchange markets, as demonstrated by its high, durable shares of these markets despite periodically degrading service for its customers.

495. Google's conduct violated Section 2 of the Sherman Act, which prohibits "attempt[ing] to monopolize . . . any part of the trade or commerce among the several States, or with foreign nations" 15 U.S.C. § 2.

496. Google's exclusionary conduct foreclosed Equativ's ability to compete in the worldwide and U.S. markets for ad exchanges for open-web display advertising, and also harmed Equativ's ability to compete in the ad server markets. Equativ has been harmed by Google's anticompetitive conduct in a manner that the antitrust laws were intended to prevent. Equativ suffered and will continue to suffer substantial damages and irreparable injury, and such damages and injury will not abate until Equativ is awarded damages and an injunction ending Google's anticompetitive conduct is issued.

REQUEST FOR RELIEF

497. Wherefore, Plaintiffs respectfully request that the Court enter judgment in favor of each of the Plaintiffs and against Google:

i. Declaring, adjudging, and decreeing that Google has committed the violation(s) of Sherman Act Sections 1 and 2 alleged herein;

ii. Issuing an injunction prohibiting Google's anticompetitive conduct and mandating that Google take all necessary steps to cease such conduct and restore competition pursuant to 15 U.S.C. § 16;

iii. Declaring that the restraints complained of herein are unlawful;

iv. Awarding, as monetary relief pursuant to 15 U.S.C. § 15(a), compensatory, consequential, and punitive (including treble) damages for injuries directly and proximately caused to Plaintiffs by Google, as described herein, according to proof, as well as the costs of suit, including attorneys' fees, incurred herein;

v. Entering structural relief as needed to cure any anticompetitive harm;

vi. Awarding any other equitable relief necessary to prevent and remedy Google's anticompetitive conduct; and

vii. Granting such other and further relief as the Court deems just and proper.

REQUEST FOR A JURY TRIAL

498. Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiffs demand a trial by jury on all of the claims asserted in this Complaint that are so triable.

Dated: February 23, 2026

Respectfully submitted,

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