

Online platforms and digital advertising market study

Observations on CMA's Interim Report

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I. Introduction

We are pleased to hereby submit our personal observations on the CMA's Interim Report on its Market Study on Online platforms and digital advertising (the "Interim Report").

As a starting point, we are very impressed by the quality of the Interim Report as it correctly identifies the competition issues raised by digital advertising and accurately discusses the complex mechanisms involved in digital advertising including real-time bidding ("RTB"). The CMA's analysis is very much in line with our own research work on online display advertising,¹ which is the area on which our comments will focus.

Our observations are structured as follows. **Part II** contains some general observations on the Interim Report's analysis of open display advertising. **Part III** discusses certain aspects of Google's recent switch to a single unified first-price auction (the "Unified Auction"), which in our view warrant further investigation. **Part IV** provides our preliminary thoughts on Chrome phasing out third-party cookies. **Part V** concludes.

II. General observations

In this Part we present our general observations on the Interim Report's analysis of open display advertising. We generally consider that the Interim Report describes the mechanics of the open display market accurately and identifies all the relevant competition law concerns:

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¹ Damien Geradin and Dimitrios Katsifis, "An EU competition law analysis of online display advertising in the programmatic age", (2019) 15 European Competition Journal 55, available at <https://www.tandfonline.com/doi/full/10.1080/17441056.2019.1574440>; Damien Geradin and Dimitrios Katsifis, "Trust me, I'm fair: analysing Google's latest practices in ad tech from the perspective of EU competition law", forthcoming European Competition Journal, available at <https://doi.org/10.1080/17441056.2019.1706413>.

First, the Interim Report correctly observes that while vertical integration in open display advertising may be a source of efficiencies, it can also give rise to **conflicts of interests** that may undermine competition.² In the ad tech ecosystem, a single firm, namely Google, is the most prominent marketplace, while at the same time it acts on both the buyer and the seller sides. We are not aware of any other market, where one company would be allowed to perform these multiple roles. In addition, as Google not only charges commissions to advertisers and publishers, but may also capture the margin between what Google Ads advertisers pay for their ad to be displayed to a user and the price at which the impression is finally sold, it is not clear whether Google acts in the best interest of advertisers and publishers.

Second, the Interim Report is right to observe that evidence suggests that Google’s vertical integration has allowed it to engage in **self-preferencing** by, for instance, leveraging its market power in DoubleClick for Publishers (“DFP”, now part of Google Ad Manager or “GAM”) to favour its own exchange (Google Ad Exchange or “AdX”, now part of GAM).³ In turn, Google’s dominant position in the ad serving market for publishers is protected by the fact that AdX may compete against other exchanges in real-time *only* if the publisher uses DFP as its ad server.⁴

Third, we agree with the Interim Report’s finding that the **lack of transparency** in open display advertising “*has the potential to create or exacerbate a number of competition problems.*”⁵ There is indeed quasi-unanimous support for the view that open display is opaque. Not only does Google run its auctions in a non-transparent manner (e.g. Open Bidding is a black box; Google Ads has considerable discretion when converting CPC bids to CPM bids), but it also deprives publishers of certain categories of data, preventing them from optimizing their monetization strategies.

Fourth, we encourage the CMA to “*carry out further work to investigate money flows along the intermediation chain in the second half of [its] study.*”⁶ There are indeed strong reasons to

² Interim Report, paragraph 52.

³ Interim Report, paragraphs 5.219-5.224. The Interim Report states (paragraph 5.221) that, as part of its migration to the Unified Auction, “*Google has made the policy decision to remove AdX’s ability to observe the bids submitted by header bidding SSPs before running its own auction, the so-called ‘last look’ advantage.*” In the absence of concrete evidence we remain sceptical as to whether “last look” is indeed gone, for the reasons explained in our paper “Trust me, I’m fair: analysing Google’s latest practices in ad tech from the perspective of EU competition law”, *supra* note 1.

⁴ Interim Report, paragraphs 5.214-5.215.

⁵ Interim Report, paragraph 50.

⁶ Interim Report, paragraph 2.59.

suspect that **Google charges undisclosed fees on top of its disclosed commissions.**⁷ We therefore support the CMA’s plan to “*analyse transaction-level data from Google to understand better where Google earns its revenues from different parts of the intermediation chain, and to investigate claims that Google is able to earn ‘hidden fees’ by arbitraging its position on both the buy side and sell side of the ad tech stack.*”⁸

Finally, the CMA is also right to consider the case for a “*range of separation remedies*” to address concerns relating to Google’s conflicts of interest and self-preferencing in the open display market.⁹ As observed in Prof. Geradin’s personal submission on the Statement of Scope, the competition concerns raised by Google’s practices in open display advertising are unlikely to be sufficiently addressed through any single remedy. Instead, the CMA should not hesitate to pursue a **combination of structural and behavioural remedies** aimed at curtailing Google’s market power.

Our main disagreement with the Interim Report concerns the CMA’s intention not to make a Market Investigation reference. Although we are not experts on UK competition law, **we find it hard to understand why the CMA considers not to propose to make a Market Investigation reference**, at least as far as open display is concerned. The Interim Report identifies a series of problematic issues, which – in our view – should be addressed through a full Market Investigation. While we agree with the Interim Report that “*there is a strong argument for the development of a pro-competitive regulatory regime to regulate the activities of online platforms funded by digital advertising,*”¹⁰ it is not clear how some of the issues identified by the Interim Report – in particular those linked to vertical integration – could be addressed through a code of conduct.

Considering that the “Digital Unit” suggested by the Furman Report has not been set up yet and that it will likely take several years for this Unit to adopt a code of conduct in collaboration with market actors designated as having “Strategic Market Status”, Google will be allowed to pursue for several additional years its *prima facie* anticompetitive behaviour to the detriment of advertisers, publishers, other ad tech vendors and ultimately consumers. Thus, while it makes sense to leave issues such as those linked to algorithmic search rankings to codes of conduct, the serious concerns identified with respect to open display advertising deserve a Market Investigation, which could conclude with the adoption of specific interventions aimed at restoring competition.

⁷ Damien Geradin and Dimitrios Katsifis, “An EU competition law analysis of online display advertising in the programmatic age”, *supra* note 1.

⁸ Interim Report, paragraph 2.59.

⁹ Interim Report, paragraph 84.

¹⁰ Interim Report, paragraph 65.

III. Google's switch to the Unified Auction

In this Part we would like to draw the attention of the CMA to certain aspects of Google's switch to the Unified Auction – in particular, the rollout of Unified Pricing Rules and the introduction of the “minimum bid to win” feature – which we think merit further investigation. Our starting point is the observation that publisher revenue seems to have decreased after the migration to the Unified Auction.

On the one hand, in September 2019, and while the migration to the Unified Auction was still ongoing, then Product Management Director at Google J. Bigler stated that according to internal tests first price auctions have on average “*a neutral to positive impact*” on publisher revenue compared to second price auctions:

“Over the last few months, we’ve been testing the performance of this change and the results show that on average, first price auctions have a neutral to positive impact on a publisher’s total revenue—revenue from all their advertising sources—when compared to second price auctions.”¹¹

That seemed in line with what industry commentators had predicted, namely that the switch to the Unified Auction would in the short-term increase CPMs, while in the long run CPMs would stabilize as buyers would resort to bid shading techniques to avoid overpaying.¹²

But on the other hand, evidence collected after the full transition to the Unified Auction seems to suggest otherwise. According to a White Paper released by Adomik in November 2019, Google's migration to the Unified Auction has led to a material decrease in CPMs in the UK and France in the range of 10%.¹³ Adomik observes that in the case of Authorized Buyers (what was previously Ad Exchange for buyers, namely the buyer-facing side of AdX) the decrease in CPMs “*is very strong in some situations (up to 50%)*.”¹⁴ Another important finding is that “*buyers are massively bidding close to the floor, and the activity ‘far’ above the floor is almost*

¹¹ J. Bigler, “Rolling out first price auctions for Google Ad Manager partners”, 5 September 2019, available at <https://www.blog.google/products/admanager/rolling-out-first-price-auctions-google-ad-manager-partners/>.

¹² S. Sluis, “Google Is Moving To First-Price, But Big Questions Remain”, *AdExchanger*, 13 March 2019, available at <https://www.adexchanger.com/platforms/google-is-moving-to-first-price-but-big-questions-remain/>, stating that “[m]ost of the sources AdExchanger spoke with – buyers, sellers and vendors – predicted that prices will rise temporarily, then stabilize or even fall in the long-term. At least that’s what happened when the rest of the ecosystem standardized on first-price auctions before Google. While CPMs initially rose, they’ve dipped in recent quarters as buyers started aggressively bid shading – a fact confirmed by many publishers and borne out in Rubicon Project’s [earnings](#). Eventually, CPMs likely stabilize and find an equilibrium as both sides adapt.”.

¹³ <https://blog.adomik.com/google-migration-to-1st-price-our-insights-part-2/>.

¹⁴ Id.

zero. *This is a situation with little competition that leaves room to bid shading*".¹⁵ Our informal conversations with publishers tend to confirm Adomik's findings.

This evidence prompted us to consider whether certain aspects of the Unified Auction could decrease publisher revenue – and if yes, whether that should have any implications under competition law.¹⁶ Our research suggests there are two candidates: (a) the rollout of Unified Pricing Rules and (b) the introduction of the “minimum bid to win” feature. We first present a brief technical description of the real-time auction organized by Authorized Buyers (Section A), before examining in more detail the Unified Pricing Rules (Section B) and the “minimum bid to win” feature (Section C). We conclude this Part by explaining why a potential decrease in publisher revenue as a result of the Unified Auction may be problematic under competition law (Section D).

A. Technical considerations

Each time an impression is available for sale, Authorized Buyers send **bid requests** to participating buyers (which are typically DSPs or trading desks). The bid request announces that an impression is available and discloses certain important pieces of information relating to the impression, including the reserve price for this auction (the price floor configured by the publisher, e.g. £ 0.25 CPM), page URL (the webpage of the publisher), IP address of the user and user ID (alphanumerical value stored in a cookie, used to identify the particular browser e.g. xy45GabgwDn72s).¹⁷ The buyer's software evaluates the information and provides its **bid response** according to the parameters selected by the buyer within the time-limit set by the exchange (in the case of Authorized Buyers, between 120 and 300 milliseconds).¹⁸ For instance, if the user falls within the target group selected by the buyer when setting a campaign (e.g. female, age 20-30, interested in books) and there is available campaign budget, the software will submit its bid. For the purposes of calculating the optimal bid, bidding software typically relies on sophisticated bidding algorithms.

The exact types of data disclosed to buyers depends on the bidding protocol used to send bid requests. Authorized Buyers support three bidding protocols: (1) the Google protocol, which is the original Authorized Buyers-proprietary protocol, (2) the OpenRTB Protobuf, which is

¹⁵ <https://blog.adomik.com/google-migration-to-1st-price-our-insights-part-2/>.

¹⁶ In the absence of concrete data, we are not in the position to definitely say whether the switch to the Unified Auction has indeed decreased publisher revenue, and if yes, to which extent. We are nevertheless confident that the CMA will use (if it has not done already) its information-gathering powers to determine the precise impact of Google's switch to the Unified Auction on publisher revenue.

¹⁷ In the case of app inventory there are no cookie IDs. Instead, the user is identified through a resettable mobile device advertising identifier – the IDFA for iOS and the AAID for Android.

¹⁸ <https://developers.google.com/authorized-buyers/rtb/start>.

an implementation of the OpenRTB specification developed by IAB using Protobuf and (3) the OpenRTB JSON, which is an implementation of the OpenRTB specification using JSON.¹⁹ In the case of Open Bidding (formerly known as Exchange Bidding), bid requests are sent using a modified version of the Google protocol or the OpenRTB protocol buffer.²⁰

The price at which the auction closes (and on which the publisher’s revenue share is calculated) is generally determined by the following parameters: (a) the model of the auction (e.g., in a first-price auction the winner pays what it bids while in a second-price auction the winner pays what is required to rank above the second highest bid), (b) the price floor configured by the publisher; and (c) the level of competition among buyers (which is related to their willingness to pay for the particular impression, e.g. because they can identify the user as belonging to their target group).

As to the model of the auction, the Unified Auction is a first-price auction, whereby the winner pays the amount it bids. In theory, that should translate in higher closing prices and thus higher revenue for publishers. However, ever since the introduction of first-price auctions most DSPs (and in some case even SSPs) have relied on machine learning to offer “bid shading” services to help buyers avoid overpaying for impressions. In the case of bid shading, *“DSPs or exchanges look at where auctions normally close, and try to estimate whether they can reduce that bid without reducing the probability of winning.”*²¹ For this reason some commentators had predicted that while CPMs might initially increase as Google migrates to a first-price auction, they would eventually stabilize at their prior levels as buyers would resort to bid shading.²² We would thus consider Google’s switch from a second-price to a first-price auction as having most likely an overall neutral impact on publisher revenue.

B. Unified Pricing Rules

Broadly speaking, the price floor acts as the reserve price for the auction, i.e. the minimum price that the publisher accepts for selling the impressions.²³ Setting the price floor at the

¹⁹ <https://developers.google.com/authorized-buyers/rtb/start#select-a-protocol>, last accessed on 12 February 2020.

²⁰ <https://support.google.com/admanager/answer/7128958?hl=en>, last accessed on 12 February 2020.

²¹ S. Sluis, “Everything You Need To Know About Bid Shading”, *AdExchanger*, 15 March 2019, available at <https://www.adexchanger.com/online-advertising/everything-you-need-to-know-about-bid-shading/>.

²² S. Sluis, “Google Is Moving To First-Price, But Big Questions Remain”, *AdExchanger*, 13 March 2019, available at <https://www.adexchanger.com/platforms/google-is-moving-to-first-price-but-big-questions-remain/>.

²³ Price floors can be “hard” or “soft”. For an overview, see “Understanding Hard and Soft Price Floors in Programmatic Media Buying”, *Aarki*, available at <https://www.aarki.com/blog/understanding-hard-and-soft-price-floors-in-programmatic-media-buying>.

optimal level is a complex task, as too high floors may ultimately result in the publishers missing on bids and thus generating lower revenue.

Before Google’s migration to the Unified Auction, publishers could set buyer-specific floors (in the form of Open Auction pricing rules within AdX), i.e. different floors accounting for the buyer’s willingness to pay, in order to optimize revenue. We understand that many publishers would use this possibility to place a higher floor for Google demand (and in particular Google Ads), as it is generally considered able to bid higher for particular impressions. The higher willingness to pay of Google Ads advertisers compared to non-Google Ads advertisers may be explained by the fact that Google Ads offers unique targeting capabilities by reason of its tight integration with Authorized Buyers, which results in minimal cookie match losses.²⁴

However, under the Unified Pricing Rules, an integral part of the Unified Auction according to Google’s internal documents,²⁵ publishers can no longer set buyer-specific floors. Instead, once they set a floor for one demand source, the same floor applies uniformly across all demand sources. Considering the risk that setting a high floor for everyone (as opposed to e.g. one particularly strong buyer such as Google Ads) might result in missing out on bids, we understand that publishers have little choice but to lower their floor for everyone, *including* Google Ads. That effectively means that publishers’ ability to react to what they may perceive as lack of competition among buyers by setting higher floors is now severely limited.

The introduction of Unified Pricing Rules could thus explain why publisher revenue seems to have dropped after the switch to Unified Auction. If Google Ads previously bought impressions at a higher floor, which is then lowered (as it is now uniform, applying to less strong buyers) then Google Ads may simply buy the same impressions at a lower price. If, as Adomik observes, buyers tend to bid massively close to the floor, then the lower the floor the lower the bids, which in turn translate in less revenue for publishers.

Google’s justification for introducing the Unified Pricing Rules is hardly convincing. Google submitted to the CMA that “*under the newly introduced unified first-price auction per-buyer floor [sic] are less relevant*”.²⁶ However, if that was indeed the case, we would expect

²⁴ <https://support.google.com/admanager/answer/7014770?hl=en>, noting that “Google Ads and Display & Video 360 perform best when buying inventory on Ad Exchange, because these buying platforms share the same infrastructure with Ad Exchange. That means the cookie matching loss that might occur when Google Ads and Display & Video 360 buy on other exchanges is minimized when buying on Ad Exchange. So, when Google Ads and Display & Video 360 buy on Ad Exchange, there is a higher likelihood they’ll find impressions that meet their targeting criteria, creating greater auction pressure and demand for the publisher’s inventory.”

²⁵ Appendix H, paragraph 30.

publishers to simply stop using per-buyer floors. We find it hard to understand why Google should decide for its customers and proactively take the most drastic measure, namely removing the ability to set buyer-specific floors in the first place.

At the same time, Google no longer allows publishers to join various Data Transfer files from Google Ad Manager, to the effect that they do not have a clear view of the bid landscape. We understand that this interferes with publishers' ability to optimize their monetization strategies. As a result of the imperfect information made available, publishers find it increasingly harder to properly analyse the bid landscape and make intelligent business decisions e.g. about how to set their (uniform) floor.

C. Minimum bid to win

Another factor which could influence publisher revenue is the introduction of the so-called “minimum bid to win” feature. On 13 March 2019, as part of its switch to the Unified Auction, Google updated the protocol used to send bid requests to Authorized Buyers and Open Bidding buyers to include an additional field called “**minimum bid to win**”.²⁷ This information is provided to Authorized Buyers and Open Bidders *after* the auction is completed,²⁸ provided that the buyer submitted a bid exceeding the floor.²⁹ On the contrary, this information is *not* shared with header bidding demand partners.

A potential concern could be that, by increasing bidding transparency, “minimum bid to win” may help buyers coordinate on lower bids. Google does not seem to contest that “minimum bid to win” increases bidding transparency. In its web support manager, it states that this feature is part of the bid data sharing feature which

“allows Authorized Buyers and Open Bidders to receive useful bid data from other participating buyers in the auction. Specifically, when a bidder submits a valid bid into the auction, they will receive back the minimum value they would have had to bid in

²⁶ Interim Report, footnote 272.

²⁷ <https://developers.google.com/authorized-buyers/rtb/relnotes#updates-2019-03-13>, last accessed on 12 February 2020.

²⁸ In particular, this information is provided in a subsequent bid request to the same buyer in the form of real-time feedback. See <https://developers.google.com/authorized-buyers/rtb/request-guide#real-time-feedback>, last accessed on 12 February 2020.

²⁹ See Google's real-time bidding guide, available at <https://developers.google.com/authorized-buyers/rtb/realtime-bidding-guide>, stating that “*This field [minimum bid to win] will only be populated if your bid participated in a first-price auction, and will not be populated if your bid was filtered prior to the auction or if it set use_bid_translation_service to true.*” As explained in the same guide, the bid is filtered before the auction if it is lower than the price floor. When explaining the `minimum_cpm_micros` field, the guide states: “*Minimum CPM value that you can bid to not be filtered before the auction.*”

order to win that auction, whether they lost or won. [...] For buyers, the “minimum bid to win” field gives insight into the bid price that was needed to win an individual auction after the fact and can be useful in refining bidding algorithms.”³⁰

Assume in a hypothetical highly stylized scenario that an impression is up for sale on Authorized Buyers with a price floor of £ 0.50 CPM. Buyer A values the impression highly as the user belongs to its target group, hence it submits a bid of £ 0.75 CPM. Buyer B is also interested in this impression but has a lower willingness to pay, and thus places a bid of £ 0.54 CPM. Buyer C is not interested (e.g. because the user does not belong to its target group) and does not submit a bid (or submits a bid below the floor, e.g. £ 0.10 CPM). Given that Authorized Buyers runs a first-price auction, Buyer A wins and is charged £ 0.75 CPM.

The next time Buyer A participates in an auction run by Authorized Buyer, it will receive in the bid request the minimum bid that was required to have won the past auction – in our example, £ 0.55 CPM. Buyer A may use this information so that the next time an impression with similar characteristics (e.g. in terms of price floor or audience segment to which the user belongs) is up for sale it will bid lower, e.g. £ 0.56.

Now, were Google found to disclose the *same* piece of information (in our example £ 0.55 CPM) to all eligible Authorized Buyers and Open Bidders, that could give rise to a hub-and-spoke arrangement, whereby Google as the central hub facilitates information exchange among competitors (buyers).³¹ The information exchange would increase bidding transparency and could ultimately facilitate buyer coordination.³²

³⁰ <https://support.google.com/authorizedbuyers/answer/2696468?hl=en> last accessed on 12 February 2020.

³¹ Note that in this case competitors would not need to have the intention to collude. Instead, case-law on software-driven collusion suggests it suffices that competitors are aware of the feature leading to coordination and do not publicly distance themselves. That was made clear in Case C-74/14 “*Eturas*” *UAB and Others v Lietuvos Respublikos konkurencijos taryba*, a case concerning an online travel booking system licensed by Eturas, which allowed travel agencies to offer bookings on their websites. In that case, the administrator of the system informed travel agencies of a new feature of the system that had the effect of capping the discounts that could be given by those agents to their clients. Although the agents were simple users of an algorithm that was provided by a third-party, the CJEU made clear that the awareness of this feature along with the absence of reaction against it could be taken as evidence that travel agents had concerted to restrict competition.

³² While in the case of a physical, real-world auction (e.g. an art auction organized by Sotheby’s) the probability of buyers gradually coordinating on lower bids based on information provided ex post might seem low, RTB auctions display two unique characteristics, namely (a) frequency and (b) bidding algorithms. The frequency in which RTB auctions take place exceeds even that of stock exchange transactions. While Sotheby’s may run e.g. 20 auctions per day, an ad exchange typically runs billions of auctions each day. As the CMA notes (Appendix H, paragraph 128), DSP Beeswax estimates there are 5-10 million queries per second (QPS) outside of China. As DSPs participate in billions of auctions on a daily basis, it would not take much for their bidding software to use the disclosed information to train bidding algorithms and gradually coordinate on lower bids. Here comes into play the second unique characteristic of RTB: the use of machine learning. DSPs deploy sophisticated algorithms which evaluate each impression, map it against the criteria set by the buyer when creating the campaign, calculate the appropriate bid and submit their response. Data from past auctions

However, upon further inspection of Google’s documentation, it seems that Google does not disclose the *same* piece of information to all buyers. Instead, it seems that Google discloses two different types of information, depending on whether the buyer to whom the information is disclosed won or lost the auction. Google’s real-time bidding guide states the following:

“If your bid won the auction, this [the minimum bid to win] is the second highest bid that was not filtered (including the floor price). If your bid did not win the auction, this [the minimum bid to win] is the winning candidate's bid.”³³

Therefore, in the example mentioned above Google would inform Buyer A that the “minimum bid to win” was £ 0.55 CPM, but it would inform Buyer B that the “minimum bid to win” was £ 0.75 CPM (it would not inform Buyer C as its bid was filtered before the auction). In that case it seems that, while Buyer A would have the incentive to bid lower in future auctions similar to the one it won, Buyer B would have the incentive to bid higher in future auctions similar to the one it lost.

As we are not experts in auction theory, we find it hard to determine whether the fact that the information disclosed through “minimum bid to win” differs according to the buyer winning or losing prevents buyers from coordinating on lower bids. Responding to that question would require access to certain data, such as the average number of losing buyers that receive the “minimum bid to win” information per auction.³⁴ We would nevertheless urge the CMA to use its information-gathering powers to investigate this matter further.³⁵

(e.g. the price at which the auction closed, the performance of the campaign in terms of clicks etc.) is fed into the bidding algorithm which is constantly refined to calculate the optimal bid. When considering the implications of “minimum bid to win”, one must thus adopt a *dynamic* perspective instead of narrowly focusing on each individual auction. The fact that this information is provided ex post does not mean that it cannot influence bidding behavior in future auctions.

³³ <https://developers.google.com/authorized-buyers/rtb/realtime-bidding-guide>.

³⁴ For instance, if on an average auction ten buyers bid above the floor, then nine of them would be informed that they should have bid higher and one of them would be informed that it could have bid lower and still won, so the net effect would seem to be that most buyers are encouraged to bid higher. If, on the other hand, on an average auction only one buyer submits a bid above the floor, then the information disclosed will encourage it to bid lower in the future (as close to the floor as possible), and there will be no losing buyer encouraged to bid higher to counteract such effect.

³⁵ In any event, we believe that the CMA should closely scrutinize “minimum bid to win” also for its potential to undermine header bidding. It is recalled that the “minimum bid to win” information is not provided to header bidding demand partners. As we observed in one of our papers – and as acknowledged by the CMA (Interim Report, paragraph 5.224) – buyers may thus be incentivized to shift their ad spend away from header bidding and towards Google-controlled channels, namely Authorized Buyers and Open Bidding, as this extra piece of information will at the very least help them refine their bidding algorithms. The “minimum bid to win” feature could thus be a mechanism used by Google to disadvantage header bidding and entice buyers to participate in its own solutions (Authorized Buyers or Open Bidding) instead. Given that header bidding constitutes a significant competitive threat to Google – and essentially represents the sole non-Google-controlled path to publisher inventory – measures taken to undermine it may prompt antitrust concerns under

D. Summation

To sum up, we are concerned that a combination of features of the Unified Auction – the rollout of Unified Pricing Rules and the Data Transfer file restrictions, and the “minimum bid to win” feature– might lead to a decrease in publisher revenue, to the apparent benefit of buyers. Indeed, Google seems to take steps which favor buyers (e.g. giving additional insights in the form of “minimum bid to win”) while at the same time limiting the ability of publishers to react (e.g. preventing them from setting buyer-specific floors or joining Data Transfer files to make informed business decisions).

One might of course argue that this should not be problematic under competition law, as any negative impact on publishers (e.g. lower CPMs) would be offset by a corresponding benefit for buyers (e.g. buying impressions at a lower price), and as long as total consumer welfare is not reduced, any transfer of wealth between the two groups should be of no particular concern. Yet we find this approach wrong for the following reasons.

First, one should appreciate that Google happens to be among the buyers benefitting from any deflationary effect on publisher CPMs. In fact, it is the strongest buyer on Authorized Buyers (with Google Ads and DV360). We are skeptical as to whether Google passes on e.g. to Google Ads advertisers the lower price at which it captures impressions. As we have shown, the Google Ads internal auction suffers from considerable opacity (e.g. it is not clear how Google converts CPC bids to CPM bids, and the Google Ads revenue share is undisclosed).³⁶ Thus, to the extent Google may buy impressions at a lower price, we have no indication that this will be to the benefit of advertisers: it may simply increase the margin captured by Google. The CMA seems to be aware of this concern, as it notes that according to some publishers, the introduction of Unified Pricing Rules may increase arbitrage opportunities.³⁷ Google has an incentive to use its role in the sell-side and as the auction venue to depress prices, so that it can enlarge its own margin on the buy-side. Eventually, the combined effect of Unified Pricing Rules, “minimum bid to win” and the new Bid Data Transfer file may be just another manifestation of Google’s conflict of interests, arising from its presence across the value chain. That would make the argument for adopting separation solutions even stronger.

Second, we find it hard to comprehend why Google should be entitled in the first place to tilt the balance in favor of one customer group (buyers) to the detriment of the other (sellers). The

Article 102 TFEU. See Damien Geradin and Dimitrios Katsifis, “Trust me, I’m fair: analysing Google’s latest practices in ad tech from the perspective of EU competition law”, *supra* note 1.

³⁶ Damien Geradin and Dimitrios Katsifis, “An EU competition law analysis of online display advertising in the programmatic age”, *supra* note 1.

³⁷ Interim Report, paragraph 5.196.

intermediary’s role should be that of helping the two customer groups transact under fair conditions, not deciding what the value exchange between them should be. We cannot imagine that prioritizing the interests of one customer group over those of the other would be acceptable in more traditional forms of exchanges, such as a stock exchange.

IV. Chrome phasing out third-party cookies

In this Part we lay down our preliminary thoughts on Google’s decision to phase out third-party cookies on Chrome. On 14 January 2020 Justin Schuh, Director, Chrome Engineering, announced in a blog post that Google plans to phase out support for third-party cookies in Chrome within two years.³⁸ As an alternative, Google is planning to develop a set of Application Programming Interfaces (APIs) as part of its “Privacy Sandbox” initiative with the objective to “*fundamentally enhance privacy on the web.*”³⁹

The basic concept behind the Privacy Sandbox is to store all user data on the browser where it will be kept and processed. In order to maintain the ability of advertisers to target their campaigns and measure their effectiveness, they – and the intermediaries they use – will be able to access aggregated user information through a set of APIs. Google is planning to develop these APIs in a collaborative manner by engaging with the ad tech community via the web standards body W3C.⁴⁰ By turning these APIs into open web standards, they could in the end be adopted by vendors of other browsers, such as Apple and Mozilla.⁴¹

The following APIs Google is developing are likely to be particularly important for the ad tech community:

- The *conversion measurement* API would allow advertisers to measure and report on ad click conversions and ad performance without using cross-site trackers. This API should thus allow an advertiser to learn that a user saw its ad and eventually landed on the advertiser’s page without the intervention of third-party cookies.

³⁸ See “Building a more private web: A path towards making third party cookies obsolete”, available at <https://blog.chromium.org/2020/01/building-more-private-web-path-towards.html>

³⁹ Id.

⁴⁰ See, The Privacy Sandbox, How to Participate, available at <https://www.chromium.org/Home/chromium-privacy/privacy-sandbox>

⁴¹ Seb Joseph, WTF is Google’s Privacy Sandbox?, Digiday, 17 January 2020, available at <https://digiday.com/marketing/wtf-googles-privacy-sandbox/> Note, however, that it is not clear why Apple or Mozilla would collaborate given their existing privacy solutions (Intelligent Tracking Prevention or “ITP” and Enhanced Tracking Protection or “ETP” respectively), which are popular with their users and more restrictive than Google’s proposals.

- The *Federated Learning of Cohorts* (FLOC) API would rely on machine learning to study browsing habits and generate groups of similar users, which would be assigned to a cohort in order to enable interest-based advertising.
- The *PIGIN* (which stands for private interest groups, including noise) would allow each Chrome browser to track a set of “interest groups” that it believes its user belongs to. Cryptography would be used to ensure that there are at least 1,000 users in an interest group, and the browser would limit the disclosure of the number of interest groups to which the user belongs to five at a time.
- The *privacy budget* API would limit the amount of data that websites can obtain from Google’s APIs by giving each one of them a budget.
- The *trust* API would be Google’s alternative to CAPTCHAs. It would ask Chrome users to fill out a CAPTCHA once and then rely on “trust tokens” to prove that they are human in the future.

Although privacy groups have expressed some concerns about the FLOC and PIGIN APIs,⁴² Google’s efforts to comply with its obligations under the General Data Protection Regulation (GDPR) – or more generally to enhance privacy while at the same time supporting ad-funded content – should be welcome.

However, given Google’s tendency to invoke privacy as a pretext to deprive publishers, advertisers and other intermediaries of data,⁴³ the CMA should not ignore the potential competitive implications of Chrome’s phasing out of third-party cookies on the ad tech ecosystem.

First, as many industry commentators have observed, the banning of third-party cookies from Chrome will further strengthen Google and Facebook because of their large addressable first-party audience at scale.⁴⁴ While the removal of third-party cookies might hurt the ability of publishers on the open web to monetize their content (as very few, if any, of them have large addressable first-party audience at scale), it will not have any effect on Google, Facebook and

⁴² See Bennett Cyphers, Don't Play in Google's Privacy Sandbox, Electronic Frontier Foundation, 30 August 2019, available at <https://www.eff.org/deeplinks/2019/08/dont-play-googles-privacy-sandbox-1>.

⁴³ See Damien Geradin and Dimitrios Katsifis, “Trust me, I’m fair: analysing Google’s latest practices in ad tech from the perspective of EU competition law”, *supra* note 1, with regard to Google invoking user privacy to justify its decision to prevent publishers from linking Data Transfer files from Google Ad Manager.

⁴⁴ See, e.g., Sara Morrison and Rani Molla, “Google Chrome’s cookie ban is good news for Google — and maybe your privacy”, Vox, 16 January 2020, available at <https://www.vox.com/recode/2020/1/16/21065641/google-chrome-cookie-ban-advertisers> ;

other walled gardens. On the contrary, walled gardens would be expected to be preferred by advertisers given their intact ability to target users.

Second, it is not clear whether under the Privacy Sandbox proposals Google's demand sources (Google Ads and DV 360) will have access to the same aggregated user data that will be offered to advertisers, publishers and other intermediaries. Given Google's history of engaging in self-preferencing tactics as we have shown in our papers⁴⁵ and as recognized by the Interim Report,⁴⁶ legitimate questions can be raised as to whether this will be the case.

Third, by making advertisers, publishers and other intermediaries dependent on its Privacy Sandbox, Google will effectively control another part of the ad tech ecosystem. In fact, Google's approach here is not unlike its controversial decision to rely on the GDPR to prohibit marketers from exporting data from its demand-side facing products.⁴⁷ This killed independent attribution and forced marketers to use Google's own analytics solution, "Ads Data Hub", which is part of the Google Cloud suite of products.⁴⁸ While there may be already good reasons to be concerned about Google's control of the ad tech ecosystem, the Privacy Sandbox will further strengthen Google's grip on it.

Fourth, because Google's own inventory (e.g., YouTube) is competing with third-party publishers for ad revenue, it is subject to question whether Google will invest in the APIs that will allow advertisers, publishers and rival ad tech vendors to access aggregated user data stored on the browser. Should the ability of advertisers to accurately target their ads on non-Google inventory decrease, they might increasingly turn to walled gardens since, as noted above, their targeting ability will remain intact.

Finally, while Google's collaborative narrative with respect to the development of its APIs may sound appealing, it remains to be seen how much influence other ad tech companies (or more broadly advertisers and publishers) will really have in the process. At the end of the day, Google may simply impose its will on others whether or not they agree with the approach pursued.

⁴⁵ See Damien Geradin and Dimitrios Katsifis, "Trust me, I'm fair: analysing Google's latest practices in ad tech from the perspective of EU competition law", *supra* note 1.

⁴⁶ Interim Report, at paragraph 5.202.

⁴⁷ See Alison Weissbrot, "Google Sharply Limits DoubleClick ID Use, Citing GDPR", AdExchanger, 27 April 2018, available at <https://adexchanger.com/platforms/google-sharply-limits-doubleclick-id-use-citing-gdpr/>.

⁴⁸ Martin Kihn, "Did Google Just Kill Independent Attribution?", AdExchanger, 7 May 2018, available at <https://adexchanger.com/analytics/did-google-just-kill-independent-attribution/>; Robin Jurzer, "Google to Stop Media Buyers from Using DoubleClick IDs, Keeping Measurement & Attribution Within its 'Walled Garden'" *MarTech Today* (11 May 2018), available at <https://martechtoday.com/google-to-stop-media-buyersfrom-using-doubleclick-ids-keeping-measurement-attribution-within-its-walled-garden-215246>.

In light of the above, we would recommend the CMA to pay close attention to Google's decision to phase out third-party cookies, store aggregated user data in its browser and make it available to third parties through APIs. While this approach may sound good on paper, it may eventually increase Google's control of the ad tech ecosystem, make advertisers, publishers and ad tech vendors even more dependent on Google's solutions, and expose them to further risk of self-preferencing on Google's behalf.

V. Conclusions

The CMA should be commended for the effort it has put in understanding the complex mechanics of online advertising, and in particular open display advertising. Considering the strong indications of anti-competitive conduct in ad tech and the importance of open display advertising in funding free content online, we would urge the CMA to launch a Market Investigation and not hesitate to adopt a bundle of structural and behavioural remedies aimed at restoring competition if Google's anticompetitive conducts are confirmed. While a code of conduct would go some way addressing the concerns identified, we remain sceptical as to whether it would be effective in addressing the heart of the problem, namely Google's market power across the ad tech ecosystem.
