



Digital advertising services inquiry

Interim report

December 2020



Australian Competition and Consumer Commission
23 Marcus Clarke Street, Canberra, Australian Capital Territory, 2601
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ACCC 12/20_20-48

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Executive summary

Australians are spending more time than ever viewing content on internet-connected devices. Advertising frequently accompanies and helps fund that content. Despite the impact of COVID-19, Australian digital advertising expenditure (including classified, search and display advertising) reached AU\$9.1 billion in the 2019-20 financial year.¹

Digital display advertisements are the images or videos that appear before or alongside content viewed online. This Inquiry considers the advertising technology (or ‘ad tech’) services that deliver personalised digital display advertising on websites and apps, and associated advertising agency services.² The Inquiry does not consider online search advertising and does not focus on advertising sold by businesses such as Facebook that is not sold through the ad tech supply chain.

Ad tech services are critical to the digital economy. They enable the near-instantaneous delivery of \$3.4 billion in display advertising opportunities in Australia each year.³ Effective competition in the ad tech industry is important for Australian consumers. If advertisers pay too much for digital advertising, the costs will be passed on to consumers in the form of higher prices for goods and services. If publishers receive too little revenue for their advertising inventory, consumers will face a reduction in the quality and variety of online content.

This report focuses on concerns identified by online publishers, advertisers, industry groups, academics and ad tech providers with the supply of ad tech services in Australia. The main themes explored in the report are:

- Google’s industry-leading position. While there are a large number of ad tech providers across the supply chain as a whole, Google is by far the largest provider of each of the four key ad tech services considered. The report considers the reasons for, and implications of, Google’s position
- concerns about opacity in the operation and pricing of ad tech and ad agency services. This has been a key issue for both online publishers and advertisers, and raises multiple questions. First, with so many different ad tech services used to deliver an ad to a consumer, how much advertising spend on digital display is being retained by ad tech providers, and how much is flowing through to publishers? Secondly, are advertisers and publishers getting enough information about how the whole supply chain operates to make informed choices about which suppliers to use? Thirdly, how should transparency and competition in the supply of ad tech services be promoted while ensuring consumer privacy is protected?

A number of governments and regulatory agencies have previously released reports that include consideration of the ad tech industry.⁴ This Inquiry builds on that body of previous work and describes the issues as they relate to Australia.

The ACCC is seeking stakeholder views on the proposals outlined in this report, which reflect the ACCC’s initial views of measures that may be effective in addressing competition

¹ IAB Australia, [Australian Digital Advertising Market Experiences Double Digit Decline In Q2 2020 Due To Impact Of COVID-19](#), 23 August 2020, accessed 16 October 2020. In addition to display advertising, this figure includes spending on search and classifieds.

² The inquiry focuses on the ad tech services that are used to deliver advertisements on the websites and apps that do not operate their own integrated ad-tech services, rather than companies which sell their own ad inventory to advertisers entirely through their own ad tech services (such as Facebook). Further, the inquiry does not consider search advertising.

³ IAB Australia, [Australian Digital Advertising Market Experiences Double Digit Decline In Q2 2020 Due To Impact Of COVID-19](#), 23 August 2020, accessed 17 December 2020.

⁴ See, e.g., Competition and Markets Authority (UK) *Online platforms and digital advertising market study*, Autorité de la concurrence (France) *Opinion 18-A-03 of March 06, 2018 on data processing in the online advertising sector*, Japan Fair Trade Commission *Interim Report Regarding Digital Advertising*.

and transparency issues in the supply of ad tech services. There is close alignment between these proposals and those discussed in overseas reports into the industry. The ACCC considers that the success of any proposed interventions in this industry is likely to be enhanced, and the regulatory costs minimised, if policymakers collaborate and coordinate policy solutions across national borders.

The ACCC is closely following recent overseas enforcement actions in relation to digital platforms and the supply of ad tech services. On 16 December 2020, the Texas Attorney-General on behalf of nine US states filed a complaint against Google, alleging Google has monopoly power and forecloses competition in US markets for the supply of ad tech services.

The alleged anti-competitive conduct includes unlawful tying arrangements, exclusionary conduct, market allocation and price fixing arrangements. The complaint alleges Google's exclusionary conduct has foreclosed competition and harmed consumers, evidenced by the exit of rival firms and limited and declining entry rates. The filed complaint also alleges the existence of an unlawful agreement between Google and Facebook and deceptive trade practices in breach of some states' consumer protection laws.

Most of the allegations and concerns raised with the ACCC and discussed in this Interim Report are set out in the complaint filed by the US states. The ACCC will continue to consider these issues during this Inquiry, including whether enforcement proceedings under the *Competition and Consumer Act 2010* (Cth) (**CCA**) are required.

Users of digital advertising services

Digital advertising technology services have developed to interact with three groups: individual consumers of digital content, publishers, and advertisers.

Consumers

Individual Australians do not use ad tech services. Nonetheless, they are the end consumers of the digital advertising supply chain. Examples of situations where individuals may view display advertising include:

- image or video ads shown while viewing a website in a browser on a desktop or mobile device
- image or video advertising integrated into the content of a mobile app, and
- videos shown during the 'ad breaks' in the 'catch-up' video streaming services of major commercial television networks.

Advertising shown in these contexts is likely to be targeted to the specific consumer, at least to some degree, based on their characteristics, preferences and interests.

Individuals aren't just the end consumer. They also, through their various online and offline activities, generate much of the data that is used to target the advertising. Sophisticated software and processes have been developed to enable large volumes of data to be collected, analysed, and then have its insights made available for use by businesses and organisations in targeting advertising to individuals viewing digital content. The data used to target ads is often de-identified by replacing any personal details with anonymous identifiers, though there are risks that de-identified data may be matched with other datasets in ways that lead to the data being re-identified.

Publishers

The term 'publisher' is used in this report to refer to anyone with an online property on which display advertising might be supplied and includes owners of websites (such as news

websites and video streaming sites or services), mobile apps, and social media platforms that show digital display advertising.

Publishers use ad tech services to attempt to maximise the revenue that they can obtain from selling advertising space on their online property (e.g. website, app, video stream, etc.).

Publishers use two or three main types of ad tech service: publisher ad servers and supply-side platforms (or SSPs) or ad networks, discussed below.

Advertisers

Advertisers include businesses of all sizes and across all industries, non-profit organisations, and government departments and agencies.

Advertisers are interested in purchasing advertising opportunities that will be viewed by consumers who are most likely to be interested in their products, services, or message. They use ad tech services to target their ads to consumers who are most likely to be interested in their products, and to determine how much they are willing to pay for an advertising opportunity, assisting them to use their advertising budgets efficiently.

Advertisers use two main types of ad tech service: advertiser ad servers and demand-side platforms (or DSPs), discussed below.⁵

Advertiser ad tech services typically rely on substantial amounts of data to target their ads to consumers in real-time. Advertisers use data that they have collected directly from interactions with customers (e.g. visits to the advertiser's website, past purchases, participation in loyalty programs or mailing lists, etc.) and data from third-party sources (e.g. online profiles or audience segments made available by DSPs or other market participants).

Advertisers may choose to utilise the services of an ad agency to help them plan and purchase digital advertising.

Further information

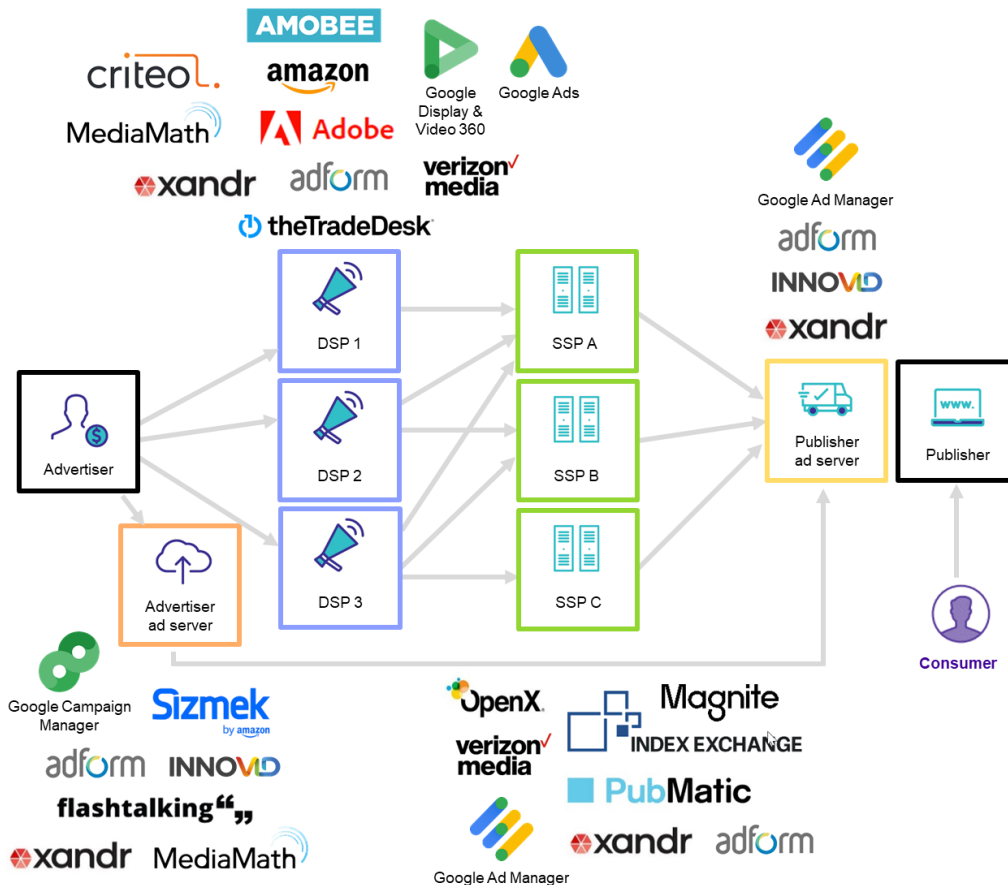
Further background information about the users of ad tech services, descriptions of the services, and the role and importance of data in facilitating the services, is provided in chapters 1 and 2.

Competition in the supply of digital advertising technology services

This report primarily considers the extent of competition in the supply of four services: advertiser ad servers, demand-side platforms, supply-side platforms and publisher ad servers.

A simplified representation of the ad tech supply chain along with a sample of the main market participants in Australia is provided below.

⁵ Beyond these core services, advertisers may also use data management platforms to collect and manage their use of data, as well as verification and attribution services to monitor the performance of ad tech services.



While there are a large number of ad tech providers across the supply chain, Google is by far the largest provider of each of the four key services considered. The ACCC’s estimates of Google’s share of revenue and impressions for particular ad tech services in Australia for 2019, are provided below.⁶

	Advertiser ad server	Demand side platform	Supply side platform	Publisher ad server
Google	<div style="display: flex; justify-content: space-between;"> NA 80-90% </div>	<div style="display: flex; justify-content: space-between;"> 60-70% 70-80% </div>	<div style="display: flex; justify-content: space-between;"> 50-60% 60-70% </div>	<div style="display: flex; justify-content: space-between;"> NA 90-100% </div>

= Share of revenue
 = Share of impressions

Source: ACCC analysis of data provided by ad tech providers.⁷

⁶ The basis for the ACCC’s estimates is explained in more detail in chapter 3.

⁷ The information used to estimate these shares of revenue and impressions is based on the total revenue earned and total impressions traded or served in relation to digital display advertising served to users in Australia in 2019.

Multiple factors contribute to Google's market leading position in the supply of ad tech services

The ACCC's inquiries indicate that there are a number of factors which contribute to Google's strong position in the supply of ad tech services, including:

- enabling access to a larger group of advertisers and publishers, as well as better access to greater volume and particular types of ad inventory (which comes from Google's presence across the supply chain as well as its ownership of key ad inventory such as Google Search and YouTube),
- ad targeting capability, which is linked to the breadth and depth of the data available to Google as a result of its activities across consumer-facing and advertising markets,
- ease of use and integration with Google's other services, and
- the performance, quality and price of its services.

Google's acquisitions of ad tech providers and related services (including YouTube, DoubleClick, AdMob and AdMeld) have contributed to Google's strong position in the supply of ad tech services and assisted its expansion into related markets.

Advertiser ad servers

Advertisers use advertiser ad servers to manage their digital ad campaigns. This primarily involves tracking and managing the performance of an advertiser's ads by collecting and reporting on the websites or apps where the advertiser's ads are served and how those ads performed. Advertiser ad servers also host the creative content for the advertiser's ads and deliver that content to a publisher ad server when the advertiser's ad is to be displayed.

The ACCC estimates that Google Campaign Manager held an 80-90% share of impressions for advertiser ad server services in Australia in 2019. Other suppliers with a much smaller presence include Sizmek (owned by Amazon), Adform, Innovid, and Flashtalking.

Google's high share of impressions suggests that the competitive constraints on Google are not substantial. There are number of potential barriers to entry and expansion in the supply of advertiser ad server services including the degree of single-homing, the magnitude of switching costs, and the degree of vertical integration. The ACCC is seeking further information on the extent to which these barriers may prevent competitive entry and expansion by smaller rivals.

Demand-side platforms (DSPs)

Advertisers use DSPs to help with buying ad inventory programmatically according to parameters set by the advertiser. DSPs use automated algorithms to make buying and bidding decisions for advertisers, including deciding which ad impressions to bid on and deciding on the optimal bid in response to each ad impression as it becomes available. DSPs submit their bids into auctions run by SSPs.

The ACCC estimates that Google's two DSPs (Google Ads and Display & Video 360) together held a 60-70% share of revenue for DSP services in Australia in 2019. Other DSPs in Australia with a smaller presence include Amobee, Criteo, Adobe, MediaMath, Amazon, The Trade Desk, Verizon Media, and Xandr.

Google's large share of revenue (and impressions) appears to be underpinned by its access to significant ad targeting data, exclusive ad inventory and vertical integration in the ad tech stack. Information suggests that the incentive to single-home with a DSP provider is significant and may be a key barrier to entry and expansion. The ACCC is continuing to examine the role of data and vertical integration as a barrier to entry and expansion.

Supply-side platforms (SSPs)

SSPs run auctions for the sale of a publisher's advertising space, as it loads in front of a particular individual. They connect to services that bid for that space on behalf of advertisers (DSPs), and send information about the winning bid of an auction back to the publisher's ad server. A publisher may use multiple SSPs simultaneously to increase the pool of advertisers bidding on the publisher's ad inventory.

Google is the largest supplier of SSP services in Australia, with the ACCC estimating that it held a 50-60% share of revenue in 2019. There are a number of other significant suppliers in Australia, including Index Exchange, Magnite (formerly Telaria and The Rubicon Project), OpenX, PubMatic, and Xandr, though most of them are much smaller than Google.

The ACCC's inquiries indicate that Google's share seems to be underpinned by its near-exclusive access to demand from Google Ads (one of Google's two DSPs) and its vertical integration with other ad tech services. The ACCC is continuing to examine a number of factors relevant to the competitive dynamics of SSP services, including the impact of header bidding,⁸ access to data, and potential incentives to multi-home.

Publisher ad servers

Publisher ad servers organise and manage ad inventory on a publisher's online properties. This involves:

- providing information to SSPs about the individual visiting the property, and the context in which ad space is being made available, to allow SSPs to run auctions for an advertising opportunity
- making decisions about how to rank different options for selling a particular advertising opportunity – for example, does the publisher use the highest winning bid from an auction run by an SSP, or give the spot to an advertiser that has a long lasting direct contractual relationship with the publisher?
- showing the chosen ad (e.g. displaying it in the correct spot on the publisher's website), and
- collecting, analysing and reporting on data to allow the publisher to better understand advertiser demand for its ad inventory.

The ACCC estimates that Google's publisher ad server (Google Ad Manager) held a share of impressions of 90-100% for publisher ad server services in Australia in 2019. The ACCC is only aware of limited other options available in Australia, including Xandr.

Google's high share likely indicates that competition for publisher ad server services is not vigorous. High switching costs combined with the tendency for publishers to single-home may constitute a significant barrier to entry and expansion. The ACCC is continuing to consider whether the interaction between Google's publisher ad server and its SSP may further limit the competitive constraint on Google's publisher ad server.

Further information

Further information about the extent of competition in the supply of ad tech services is provided in chapter 3.

⁸ Header bidding is a process that allows multiple SSPs to bid on the same ad inventory at the same time, with the winning bid selected via auction.

Vertical integration and conflicts of interest

The ACCC considers that, due to Google's presence across the ad tech supply chain, its strong position in the supply of certain services, and the opacity of the supply chain, Google is likely to have the ability and incentive to favour its own related business interests (self preferencing).

Allegations of anti-competitive behaviour

The ACCC has received submissions during the course of the Inquiry alleging that Google's position across the supply chain may have allowed Google to engage in conduct which has limited competition in the supply of ad tech services. Particular allegations include that:

- *Google restricts access to YouTube:* Stakeholders allege that by selling YouTube ad inventory exclusively through its own DSP, Google has made its DSP services a 'must have' products for many advertisers.
- *Google channels Google Ads demand to Google's SSP:* Stakeholders allege that by channelling demand from its own DSP (Google Ads) to its own SSP, Google has advantaged its SSP in a potentially anticompetitive way.
- *Google preferences own supply side services:* Stakeholders are also concerned about the way Google's SSP and publisher ad server services operate. In particular that Google preferences its own services in a way which may have anti-competitive effects. Specific concerns include the way that Google participates in header bidding, fees it charges to participate in Open Bidding (Google's header bidding 'solution'), and its Unified Pricing rules.

In each of these cases, it is alleged that the ability and incentive for Google to engage in the conduct comes from its position as a supplier of vertically-integrated ad tech services and its strong position in the supply of these services. Stakeholders have also raised concerns regarding Google's restrictions on other ad tech providers' ability to access data, such as restricting access to Google's unique identifiers and Google's proposal to block the use of third-party cookies on its Chrome web browser.

The ACCC is still considering the effect that this conduct may be having on competition across the ad tech supply chain and whether enforcement proceedings under the CCA are required.

Conflicts of interest

An ad tech provider's presence across multiple services in the supply chain can give rise to conflicts of interest. Conflicts can exist in multiple scenarios in the ad tech supply chain. One key example is where an ad tech provider could be providing services to both advertisers and publishers for the same transaction. This could occur where a provider supplies both DSP and SSP services. Here a conflict could arise because:

- the advertiser customers will want the DSP to buy ad inventory for the lowest possible price, and
- the publisher customers will want the SSP to sell its ad inventory for the highest possible price.

If the DSP and the SSP are both part of the same company, it is difficult for that ad tech provider to fully serve the interests of its advertiser and publisher customers at the same time.

The ACCC is concerned that the presence of conflicts of interest can result in poor outcomes for advertisers and publishers. Google's leading position across the entire ad tech supply

chain means it has attracted conflict of interest concerns of this kind. However, other smaller ad tech providers may have similar conflicts by virtue of their own vertical integration.

Further information

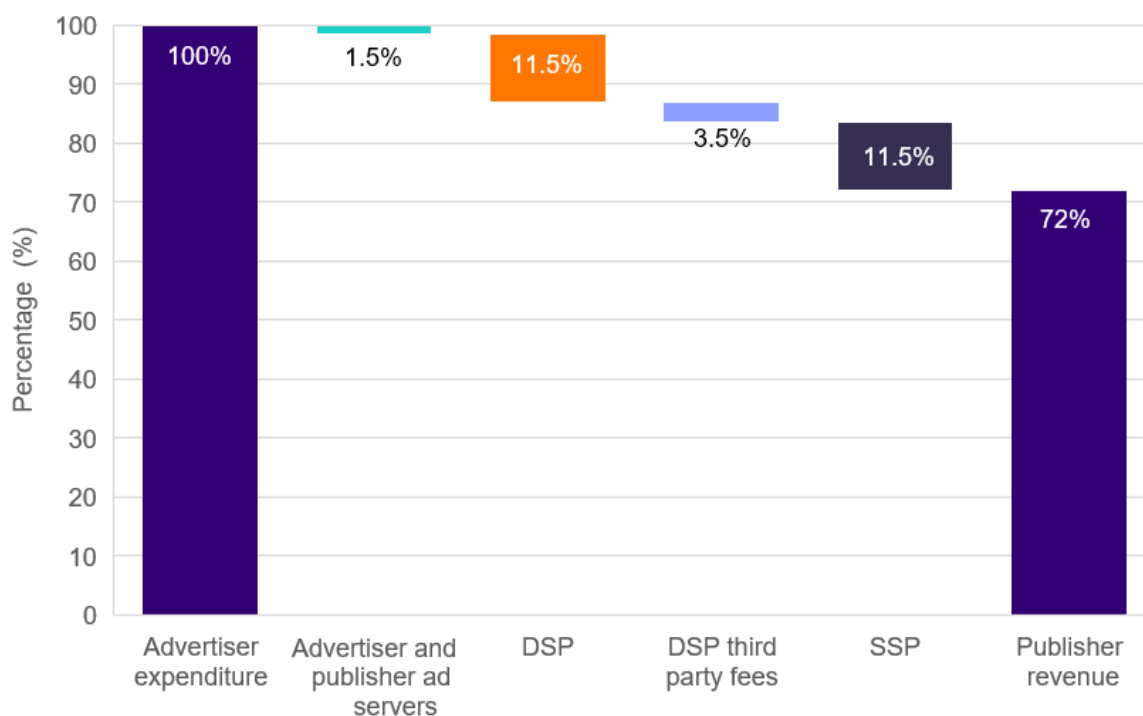
Further information about the impact of vertical integration on the efficiency and competitiveness of the supply of ad tech services is provided in chapter 4.

Pricing of ad tech services

Stakeholders have raised concerns regarding the fees charged across the ad tech supply chain, which affects the revenue received by publishers for their ad inventory.

A significant amount of advertiser spend is clearly retained by ad tech providers. Based on information gathered by the ACCC during the Inquiry, the ACCC estimates that on average, fees for ad tech services directly involved in the trading and serving of ad impressions made up 28% of advertiser expenditure on display advertising impressions in Australia in 2019.⁹

The ACCC is considering whether greater competition in the supply of ad tech services is likely to increase efficiency and lower prices to the benefit of both publishers and advertisers.



Source: ACCC analysis of information provided by ad tech providers.

Further information

Further information about pricing, fees and margins in the supply of ad tech services is provided in chapter 5.

⁹ The total amount of advertiser expenditure retained by ad tech providers across the supply chain is likely to be higher than this estimate. This is because this analysis does not capture amounts that may be retained by any ad tech providers that are not disclosed, or fees for other services such as ad agency services and trading desks, data services and verification services that are not charged through a DSP, and fees for proprietary server-side header bidding (e.g. Open Bidding).

Opacity in the supply of digital advertising technology services

For effective competition in the supply of ad tech services, advertisers and publishers need to be able to make informed choices about which services they will use. To do this, they need to be able to assess the price and quality of ad tech providers' services so that they can effectively compare providers and choose the provider that best suits their needs.

The speed and complexity of the ad tech supply chain can make it difficult for advertisers and publishers to fully understand how the services within the ad tech supply chain interact and how money moves through the chain. Advertisers and publishers typically cannot directly observe the operations of ad tech services, which means they rely on information provided by the ad tech providers themselves, and sometimes third parties, to assess the price and quality of services.

The ACCC has considered the extent to which advertisers and publishers have visibility or obtain sufficient information over the price and quality aspects of the ad tech services they acquire. The ACCC is concerned that shortcomings in the information available to advertisers and publishers may be limiting competition and efficiency in the ad tech supply chain.

Opacity in the pricing of ad tech services

The transparency of the prices charged for ad tech services has long been a heated issue in the industry.

Price transparency can mean different things. There is some publicly available information on the average level of fees, or amounts retained across the supply chain.¹⁰ However, fees charged by different ad tech providers can vary significantly by size and metric. Consequently, industry-wide averages, or historical point-in-time figures publicly released for particular products, do not allow advertisers and publishers to fully understand what happens with the ad inventory they are buying or selling.

Advertisers do not know how much of their own advertising spend reaches publishers, and publishers do not know how much advertisers are paying for their own inventory. Greater transparency over fees or the total amounts retained at each level of the supply chain may also address concerns about ad tech providers retaining 'undisclosed fees' in the operation of sequential auctions.

Advertisers and publishers consider that not having such information affects their ability to make optimal decisions about how to use ad tech services. Specifically:

- advertisers are able to purchase display advertising through channels other than open auction, such as through a direct contract with a publisher. A lack of knowledge about what the other side is paying for ad tech services can make it harder to know if mutually-beneficial direct deals ought to be pursued, instead of relying on real-time auctions.
- understanding "take rates" across the supply chain would enable advertisers and publishers to focus their expenditure and interactions with the most efficient service providers. For example, as publishers decide which ad should be served on net bids (the advertisers bid less the SSP's fee), visibility of SSP's fees could make it easier for advertisers to select the cheapest way to secure inventory, and for DSPs to decide where to bid.

¹⁰ ISBA, [ISBA Programmatic Supply Chain Transparency Study](#), May 2020; CMA, [Appendix R: fees in the adtech stack](#), 1 July 2020

Opacity of the operation and performance of ad tech services

Both publishers and advertisers can view a wide variety of metrics from their ad tech providers about the performance of their products. The ACCC has identified concerns where publishers and advertisers claim they have insufficient transparency over the operation and performance of services provided to them.

Publishers have raised concerns about the degree of detail that they receive from Google about its reporting of auction outcomes and ads served on the publisher's website.¹¹ This prevents publishers from properly assessing the performance of, and the incremental revenue provided by, each SSP. Google has publicly stated that the decision not to allow the datasets to be linked in this way was made to protect user privacy, by preventing bid data from being tied to individual users.¹²

The ACCC has also found that in some cases there are issues with advertisers' ability to assess the performance of the ad tech services they use. While services exist that allow advertisers to assess the performance of most ad tech services they use, advertisers can find it difficult to assess and compare the performance of Google's DSPs with its competitors, and track how effective ad campaigns are more generally, because of restrictions in the detail and type of data that Google makes available for this purpose.

Reported tension between consumer privacy and transparency and/or greater competition

These examples illustrate a recurring theme in this industry: a tension (real or claimed) between consumer privacy on the one hand and transparency and competition on the other. In each example, publishers or advertisers (as applicable) claim that they need greater access to raw data about the operation of the ad tech service to properly evaluate how well their service providers are performing, and therefore to make effective choices on which services to use. However, Google often publicly claims that privacy legislation, or consumer expectations of privacy, prevent it from releasing the data sought. But without access to the more detailed information, publishers and advertisers consider that they have to make decisions based on trust that the service is operating as claimed, which is unacceptable in a commercial relationship.

A similar issue is claimed to arise in relation to Google's proposed changes to the treatment of third-party cookies by its Chrome browser. Google's stated purpose for the change is to enhance consumer privacy. Google says that its proposed replacement service (as set out in the Google Privacy Sandbox) will allow targeted advertising to continue, but without allowing consumers' data to leave the Chrome browser, thereby preventing it from being passed on to third parties. Other market participants have criticised this proposal on the basis that advertisers will not be able to see or verify the data used for targeting by the Chrome browser, and it will therefore reduce transparency and heighten the industry's dependence upon Google's services.

This is a difficult issue that can be considered at two levels. First, the specifics of each proposed or current practice can be explored – how accurate is the claim that the further requested information cannot be provided without impinging on consumer privacy law or expectations? The ACCC will further investigate these claims and whether they are motivated by privacy considerations and are not aimed at reducing competitive restraints.

¹¹ While Google allows publishers to download files, called data transfer files that provide publishers with detailed information about the operation of its supply-side services, publishers claim that the files produced by Google's publisher ad server cannot be matched precisely to the files produced by Google's supply-side platform: <https://support.google.com/admanager/answer/1733124>.

¹² J. Bigler, *Google Blog*, '[Rolling out first price auctions to Google Ad Manager partners](#)', 5 September 2019.

Secondly, at a conceptual level, if a company takes an action which appears designed to promote consumer privacy which also has negative effects on transparency, how should that conduct be evaluated? In a competitive market, if customers are unhappy with their ability to evaluate the effectiveness of a service provider they will find a different supplier. Given the concentration in the supply of ad tech services, relying on the market alone to provide customers with improved service offerings to deliver transparency appears an unrealistic and insufficient response.

The ACCC is continuing to explore the concerns raised in relation to these examples and other practices as part of this Inquiry. However, the ACCC considers that the development of practices and policies that protect consumers' privacy without impairing competition is essential to resolve this issue.

Further information

Further information about the role of data in the supply of ad tech services is provided in chapter 2. Further information about the price and transparency of ad tech services is provided in chapters 5 and 6.

Ad agencies

Ad agencies perform a key role in purchasing ad inventory, including the purchase of programmatic digital advertising but may also add a layer of opacity to the ad tech supply chain.

Conflicts of interests between ad agencies and their advertiser clients may materialise in some pricing and performance transparency issues relating to the disclosure of rebates, discounts and incentives, and the use of ad tech services that are owned by the agency or holding company.

However, the ACCC's preliminary view is that regulatory intervention is not required in relation to the pricing and disclosure practices of ad agencies. The ACCC's preliminary conclusion is that potential issues relating to ad agency conduct may be mitigated through advertisers informing themselves about the impact of certain practice (e.g. rebates, discounts and incentives, agency-wide fee models, and whether the agency owns any ad tech services) and seeking protections in contracts to ensure their contracting agency acts in their best interests.

Further information

Further information about ad agency services is provided in chapter 7.

Proposals for consultation

The ACCC invites stakeholder views on a range of possible proposals that it is considering to address the issues identified in this report. These proposals are based on suggestions received during this inquiry, and the ACCC's assessment of industry developments.

If ultimately recommended by the ACCC, many of these proposals could be implemented through industry arrangements. Should industry participants be unable to reach agreed industry solutions, the ACCC may consider it appropriate to make further recommendations.

The ACCC also considers it critical that prior to the adoption of any measures of the type outlined below for consultation careful scrutiny is undertaken to ensure those measures could be implemented in a way that sufficiently safeguards the privacy of consumers.

Proposals to reduce data-related barriers to entry

As outlined above, the ACCC has identified preliminary concerns about the level of competition in the supply of various ad tech services. The ACCC considers that one of the factors contributing to the current situation is the breadth and depth of data available to Google, compared to its competitors. The ACCC is considering two potential recommendations to reduce data-related barriers to entry and expansion in the supply of ad tech services.

Proposal 1: Measures to improve data portability and interoperability

The ACCC is considering measures aimed at increasing data portability and interoperability, to reduce barriers to entry and expansion and promote competition in the supply of ad tech services. Any such measures would require safeguards to ensure that consumers have sufficient control over the sharing and processing of their data.

Data portability measures refer to tools that would increase data mobility at the request of a consumer or advertiser. For example, this could mean a user would be able to instruct Google or Facebook to make certain types of data on their interactions on those platforms available to a news publisher or to another social network on request via a user-friendly interface.

Data interoperability measures refer to tools that would increase the data mobility between firms without a request from a consumer. For example, requiring firms with a significant data advantage to offer access to rival firms in adjacent markets to specified types of data in a standardised format, in certain circumstances. Another example is the introduction of a secure common transaction ID or user ID (as discussed at Proposal 5 and Proposal 6 below), which would enable ad tech providers to link together disparate datasets for use in performing ad targeting functions.

The ACCC considers that increasing data portability and interoperability may promote competition in the supply of ad tech services by enabling market participants to more easily access and use information held by large platforms with a significant data advantage. The ACCC notes, however, that any measures to increase data mobility should be carefully designed to ensure that there are effective mechanisms to manage the risks that de-identified data may become re-identified and to ensure that consumers have effective controls over the sharing of their personal data.

As part of its consultation on this proposal, the ACCC welcomes suggestions and feedback from market participants about specific measures of this kind.

Proposal 2: Data separation mechanisms

The ACCC is considering the extent to which data separation mechanisms, such as data silos or purpose limitation requirements, may be effective in levelling the playing field between large platforms with a significant data advantage and rival ad tech providers.

In order to promote competition by levelling the playing field in relation to the data advantage of large digital platforms, the ACCC is considering measures directed at mandating data separation within companies in limited circumstances. This would prevent data gathered in the context of supplying one service from being used in the supply of a different service. chapter 2 of this report expands on different options of this kind.

Data separation measures were recently recommended by the Competition and Markets Authority (CMA) as part of the powers to make pro-competitive interventions that have since received in-principle support from the UK Government.¹³ However, the ACCC recognises the

¹³ Competition and Markets Authority, [Appendix Z to Online platforms and digital advertising market study final report](#), Appendix Z, pp. Z35-36, Department for Business, Energy & Industrial Strategy and Department for Digital, Culture Media

burden involved with introducing data separation requirements on businesses and the potential reduction in efficiency that would likely result from introducing constraints on the internal handling of data within businesses.

Before recommending a measure of this kind, the ACCC would need to be satisfied that these disadvantages would be outweighed by longer-term benefits associated with increasing the ability of smaller firms and new entrants to compete with incumbent firms which currently benefit from a significant data advantage.

Proposal to address concerns around conflicts of interest and self-preferencing

Many of the concerns raised by stakeholders such as alleged self preferencing by Google have the potential to infringe the misuse of market power provision in the *Competition and Consumer Act*. The ACCC has not yet reached a view on whether any of the conduct discussed in this report breaches the CCA, but will continue to examine these issues during the Inquiry.

In many cases, relying on enforcement action may not always be the most effective means of addressing potentially problematic conduct in the ad tech supply chain. The ACCC therefore considers, based on the range of issues raised in stakeholder submissions, that it is worthwhile to seek views on whether specific measures are required to address the risk of self-preferencing.

Further, section 46 of the CCA does not address all the concerns which can arise from vertical integration in ad tech. In particular, issues which stem from the apparent conflict of interest which arise when ad tech providers act for both an advertiser and publisher in relation to the same transaction. Potential “rules” designed to address the risk of self preferencing could address the market concerns arising from conflicts of interest.

Proposal 3 – Rules to manage conflicts of interest and self-preferencing in the supply of ad tech services

The ACCC is considering whether rules should be introduced that would aim to prevent and manage the competition and other issues that can arise from vertical integration. In particular such rules could prevent self-preferencing, and manage conflicts of interest. The high-level obligations which could be covered by these rules include:

- requirements to put measures in place to manage conflicts of interest, such as preventing the sharing of information between ad tech services, or obligations to act in the best interest of publisher or advertiser customers
- requirements to provide equal access to ad tech services (i.e. level playing field obligations to prevent self-preferencing), and
- requirements to increase the transparency of the operation of the supply chain.

Rules could help address potential problems arising from vertical integration across the supply chain in the following ways.

- Requirements to manage conflicts of interest, such as preventing sharing of information, or best interests obligations, could help to prevent self preferencing conduct, and also provide advertisers and publishers with some confidence that their suppliers are acting in their best interests. This could help to address issues that may arise where a single ad tech provider is acting on behalf of both a publisher and advertiser.
- Requirements to provide equal access to ad tech services would also help to prevent self-preferencing by ensuring that ad tech providers apply the same rules and give the

& Sport, (United Kingdom), [Response to the CMA's market study into online platforms and digital advertising](#), November 2020.

same information to all market participants. This would help to prevent an ad tech provider in a strong position in the supply of an ad tech service from using that position to provide themselves with a competitive position in another ad tech service. It could also help to prevent a provider from acting in their own interests rather than that of a customer.

- Requirements to increase transparency would reduce vertically integrated ad tech providers' ability and incentive to engage in self-preferencing or otherwise act contrary to the interests of their customers. This is because where their customers are able to see whether such conduct is occurring, they will be more likely to switch to another provider.

There are a number of options for the implementation and application of such rules. For example, the ACCC notes that proposals recently put forward by the CMA and the European Commission envisage a range of obligations on those digital platforms which meet certain thresholds to prevent self-preferencing and ensure interoperability:

- The European Commission's proposed Digital Markets Act, released on 15 December 2020, proposes a range of obligations on gatekeeper firms in respect of 'core platform services'. That is, those services which act as an important gateway for business users to reach end users such as advertising services, which includes 'any advertising networks, advertising exchanges and any other advertising intermediation services'.¹⁴
- The CMA has proposed an enforceable code of conduct to apply to those digital firms with strategic market status. In respect of a code applicable to firms holding strategic market status in relation to digital advertising, the principles envisaged by the CMA include obligations on a firm holding strategic market status not to influence competitive processes or outcomes in a way that self-preferences their own services and not to bundle services in markets where the platform has market power with other services.

The ACCC seeks feedback on whether rules of this kind are necessary, and if so, whether an industry-led solution is practical, as well as which aspects of current international proposals may be appropriate in Australia.

Proposals to address issues of supply chain opacity

The ACCC is considering, and seeking stakeholder views on, measures to address the transparency concerns identified by market participants including:

- the ability for publishers to access information necessary to make informed decisions regarding bidding in auctions and auction results,
- the ability for advertisers and publishers to have access to information necessary to understand and verify prices charged for the purchase or sale of ad inventory, and the prices charged across the ad tech supply chain, and
- the ability for advertisers to independently verify ads displayed on Google's owned and operated inventory, specifically YouTube, and conduct attribution through independent third party providers.

Proposal 4 – Implementation of a voluntary industry standard to enable full, independent verification of DSP services

To enable advertisers to assess DSP services fully and independently and encourage competition, industry should develop a standard that allows full and independent verification of DSP services.

This standard should set out minimum requirements for this, along with the categories of data necessary to enable third-parties to provide full and independent viewability, fraud and brand safety verification services.

¹⁴ European Commission, [Proposal for a regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector \(Digital markets Act\)](#), *Explanatory Memorandum*, 15 December 2020, p. 2.

The ACCC considers that this should initially be left to industry to develop and implement, but that other options could be considered if this was not successful.

As noted earlier, advertisers currently find it difficult to assess and compare the performance of Google's DSP services with its competitors because of restrictions in the detail and type of data that Google makes available for this purpose. These limitations may be affecting the ability of other companies to effectively compete with Google in the supply of DSP services.

This proposal seeks to help to address potential issues with advertisers not being able to fully and independently assess the performance of Google's ad tech services, and thereby enhance competition in the supply of DSP services.

The ACCC understands that many DSPs already provide for this, and consequently, this proposal would primarily be necessary only to address issues with advertisers' ability to fully and independently verify DSP services where it is not currently available.

Proposal 5 – Implementation of a common transaction ID

Industry should implement a common system whereby each transaction in the ad tech supply chain is identified with a single identifier which allows a single transaction to be traced through the entire supply chain. This should be done in a way that protects the privacy of consumers.

A fifth proposal the ACCC is seeking stakeholder views on is the introduction of a common transaction ID system in the ad tech supply chain. The ACCC considers that such a recommendation could help to address issues around the transparency of auctions and fees or take rates across the supply chain.

A common transaction ID would allow providers across the supply chain, as well as advertisers and publishers, to follow individual ad impressions across the supply chain and better observe the performance of their ad tech services. Further, where advertisers and publishers wish to compare data about their own ad tech services, to see if new mutually-beneficial arrangements can be reached between them, they can at times be prevented from doing this due to difficulties in matching data sets. A common transaction ID could help overcome these issues by providing a unique data field that would apply to all aspects of a transaction for a particular ad impression.

Proposal 6 – Implementation of a common user ID to allow tracking of attribution activity in a way which protects consumers' privacy

Introduction of a secure common user ID, which ad tech providers would be required to assign to any data used for attribution purposes. This should be done in a way that protects the privacy of consumers.

The sixth proposal the ACCC is seeking submissions on is whether the introduction of a common user ID could be used to improve the ability of third parties to provide independent attribution services. A common user ID is different to a transaction ID, in that it allows the tracking of a user (subject to privacy protection) rather than the bids for a particular advertising impression.

This proposal has the potential to enable attribution providers to more easily interpret and use data about ads delivered across DSPs. Currently, multi-touch attribution can be difficult if DSPs use different user IDs. If users were assigned common IDs accessible to all third-party attribution providers, they would be able to track all ads seen by a user, regardless of the DSP that served each ad. Overall this would improve the ability of attribution providers to provide full and independent attribution of ads served using all DSPs, including Google's DSPs. This could help to improve transparency over the performance of ad tech services and thereby promote competition in the provision of DSP services more broadly.

Again, an important consideration in deciding whether a common user ID should be used is whether it can be done in a way that protects user privacy. Such an ID would increase the data available to track consumers across the internet, and improve the ability of ad tech providers to build consumer profiles. The ACCC is carefully considering these issues and seeks stakeholder feedback.

The ACCC's previous recommendations

The ACCC's previous Digital Platforms Inquiry recommended that the *Competition and Consumer Act 2010* be amended to include a prohibition on certain unfair trading practices, and the establishment of an ombudsman scheme to resolve complaints and disputes with digital platforms. The ACCC continues to support these previous recommendations.

While consumers are not customers of ad tech services, the data produced by their online activities is a critical input into many ad tech services. The widespread collection and use of targeting data also has the potential to cause consumer harm, particularly for vulnerable consumers, in circumstances where consumers are not sufficiently informed or have sufficient control over how their data is collected and used for ad targeting purposes. Such behaviour could undermine the integrity of the entire ad tech supply chain. The relationship between consumers and ad tech providers is an example of a relationship that ought to be protected by a prohibition on unfair trading practices.

Consumers continue to be harmed by online scam ads, with Australians losing over \$634 million to scams in 2019. The delivery of scam ads can also harm a publisher's reputation and give rise to legal risks. Digital platforms should be appropriately accountable for preventing the delivery of fraudulent and scam ads. The ACCC considers that the establishment of an independent ombudsman scheme to investigate complaints in relation to scam ads delivered on digital platforms could provide consumers with an effective avenue for complaint and dispute resolution in relation to the delivery of scam ads on digital platforms.

Next steps

The ACCC welcomes submissions on the issues raised in this interim report. Submissions are due by 26 February 2021.

The ACCC will complete the inquiry and provide a final report to the Treasurer by 31 August 2021.

Introduction

On 10 February 2020, the Treasurer directed the Australian Competition and Consumer Commission (ACCC) to hold an inquiry into the markets for the supply of digital advertising technology services and digital advertising agency services (the Inquiry). The terms of reference for the Inquiry specify that the ACCC take certain matters into account in holding the inquiry into these markets. These matters include:

- the intensity of competition in the markets, taking into account a range of matters, such as:
 - the availability of information on activities in the market
 - the revenue of, and share of advertiser expenditure retained by, ad tech providers
 - concentration of power in the markets and between suppliers
 - auction and bidding processes
 - mergers and acquisitions
 - supplier behaviour
- the relationships between suppliers and customers in the markets
- whether services are being provided to the satisfaction of all market participants.

The full terms of reference for the inquiry are included at Appendix A of this report.

Our approach to the inquiry

This is the first of two reports that the ACCC is required to provide to the Treasurer as part of the Inquiry. Our final report for the inquiry will be provided by 31 August 2021.

In March 2020 the ACCC released an Issues Paper seeking stakeholder views on a range of issues relevant to the Inquiry. In response the ACCC received 42 public submissions. Statutory notices under s 95ZK of the *Competition and Consumer Act 2010* were also issued to a range of ad tech providers, requiring recipients to provide information and documents to the ACCC. This information has helped to form the preliminary views outlined in this report.

The ACCC will continue to consider the issues identified in this report, and additional matters raised by stakeholders in 2021.

Structure of the report

The majority of the report focuses on the supply of ad tech services. Relatively few concerns were raised in relation to ad agency services and these issues are distinct from those in the supply of ad tech services. As a result, ad agency issues are predominantly discussed in the final chapter of the report.

The report is structured as follows:

- **Chapter 1 – Industry background:** Chapter 1 provides background information on the supply of display advertising and ad tech services in Australia. This includes an overview of how advertisers and publishers buy and sell display advertising, the different channels for the supply of display advertising, the functions of key market participants along the supply chain, how data is used in the supply of ad tech services, and the role of programmatic auctions.
- **Chapter 2 – The role of data:** Chapter 2 sets out the ACCC's preliminary findings regarding the role and use of data in the supply of ad tech services and how this impacts competition and consumers. This includes a discussion of the value of data in carrying out ad targeting, ad verification and ad attribution functions. It also discusses the extent

to which data may constitute a competitive advantage in the supply of ad tech services, stakeholder concerns relating to access to data, and potential consumer impacts.

- **Chapter 3 – Industry structure and competition assessment:** Chapter 3 identifies the main ad tech providers in Australia and discusses the ACCC’s preliminary observations about competition for the supply of each ad tech service and Google’s position in the supply of ad tech services in Australia. It also considers barriers to entry and expansion, and the extent of countervailing power held by advertisers and publishers for ad tech services.
- **Chapter 4 – Vertical integration and conflicts of interest:** Chapter 4 discusses the advantages and disadvantages of vertical integration in the ad tech supply chain, and potential issues that can arise from vertical integration, such as self preferencing and conflicts of interest. It then discusses stakeholder concerns arising from Google’s vertical integration and proposals that could be used to address such issues.
- **Chapter 5 – Pricing and margins:** Chapter 5 examines prices and fees for ad tech services in Australia. This includes the ACCC’s analysis of prices and fees for ad tech services in 2019 in the context of concerns about prices for ad tech services and potential ‘undisclosed fees’ which may increase providers’ margins.
- **Chapter 6 – Transparency in the operation, pricing and performance of ad tech services:** Chapter 6 examines the ability of advertisers and publishers to assess the price and quality of ad tech services by examining the level of transparency in the operation, pricing, and performance of the ad tech services. It considers whether a lack of transparency in these areas is impacting competition and efficiency in the ad tech supply chain.
- **Chapter 7 – Ad agency services:** Chapter 7 discusses the role of ad agencies in purchasing ad inventory using the ad tech supply chain. Specifically, this chapter considers how pricing and performance transparency issues relating to the choice of ad inventory or publisher, and the use of ad tech services that are owned by the agency or holding company, may arise from potential conflicts of interests between ad agencies and their advertiser clients.

Making a Submission

The ACCC welcomes submissions on the issues raised in this Interim report. In particular we are seeking views on:

- a number of questions to stakeholders which are highlighted throughout the report, and
- the proposals for consultation.

You may provide your submission to the ACCC in the form of a public or confidential submission (see section below on treatment of confidential information). You are encouraged to speak with our team before providing a confidential submission if you have any questions at all regarding the ACCC’s processes for dealing with confidential information.

Written submissions to should be emailed to AdTechInquiry@acc.gov.au and are due by **26 February 2021**.

Treatment of confidential information

The ACCC invites interested parties, where appropriate, to discuss confidentiality concerns with the ACCC in advance of providing written material.

The Inquiry is a public process and feedback (written and oral) will generally be posted on the ACCC website.

The *Competition and Consumer Act 2010* allows interested parties that provide feedback to the Inquiry to make claims for confidentiality in certain circumstances.

The ACCC can accept a claim of confidentiality from a party if the disclosure of information would damage their competitive position, the ACCC is satisfied the confidentiality claims are justified, and it is not necessary in the public interest to disclose the information. The ACCC will consult with a party where possible and appropriate prior to publishing any information over which that party has claimed confidentiality.

Making a claim of confidentiality

1. So that the ACCC can consider whether the confidentiality claim is justified, you must provide reasons why the information is confidential and why disclosure of the information would damage your competitive position.
2. If you are claiming confidentiality over all of your submission, you must provide reasons why all of the information in your submission is confidential. As the Inquiry is a public process, please consider whether there are any parts of your submission that may be published without damaging your competitive position.
3. If you are claiming confidentiality over a part of your submission, the confidential information should be provided in a separate document and should be clearly marked as 'confidential' on every relevant page. Alternatively, you may wish to provide (1) a public version for publication on the ACCC website with the confidential information redacted, and (2) **a confidential version** with all of the confidential information clearly marked.
4. Contact us at AdTechInquiry@acc.gov.au if you have any questions regarding making a submission containing confidential information.

1. Industry background

Key points

- Programmatic trading refers to the use of algorithms to automate the buying and selling of digital advertising. The speed and volume of algorithmic decision-making processes used along the ad tech supply chain results in considerable complexity and opacity for advertisers and publishers.
- There are different channels of supply for display advertising, including open auctions, private marketplaces, programmatic guaranteed, and direct deals, which rely on programmatic trading and involve ad tech providers to different extents.
- Advertisers use advertiser ad servers and demand-side platforms (DSPs) to buy and serve display advertising. Larger advertisers and ad agencies running multiple ad campaigns may contract with more than one DSP to broaden their access to ad inventory, though most advertisers tend to use one DSP per ad campaign.
- Publishers use publisher ad servers and supply-side platforms (SSPs) to sell and serve display advertising. Publishers are unlikely to use more than one publisher ad server but larger publishers may connect to multiple SSPs to be able to access more advertisers to buy their inventory.
- Data services providers in the ad tech supply chain include data management platforms, ad verification and attribution providers, and data providers. These providers assist with targeting ads to users who are most likely to find them relevant and measuring the performance and impact of ads on consumers.
- Data is an important input in the supply of display advertising and ad tech services because it enables the performance of ad targeting, ad verification and ad attribution functions.
- The auctions running along the ad tech supply chain are a critical component of the supply of display advertising, particularly via open auction and private marketplace channels. The automated nature of programmatic auctions enable significant volumes of ad inventory to be sold in real-time.
- The sale of display advertising via open auction involves up to three levels of automated auction or ranking processes that may take place in the DSP, the SSP and the publisher ad server.

This chapter provides background information on the supply of display advertising and ad tech services in Australia. It is structured as follows:

- **Section 1.1** discusses the supply of digital display advertising, including an overview of how advertisers and publishers buy and sell display advertising in Australia.
- **Section 1.2** discusses the supply of ad tech services, including the different channels for the supply of display advertising and the functions of key market participants.
- **Section 1.3** describes the role of data in the supply of display advertising and ad tech services, including how it is used to assist with the targeting, verification and attribution of digital advertising.
- **Section 1.4** outlines the role of auctions in the ad tech supply chain, which are a key feature of the supply of display advertising using ad tech services.

Stakeholder feedback sought

The ACCC invites further stakeholder views regarding the key points in this chapter including, in particular:

- the extent to which video and non-video display advertising are substitutable
- the extent to which advertisers use more than one advertiser ad server, demand-side platform, or ad verification and attribution provider and the factors that inform their decision, and
- the extent to which publishers use more than one publisher ad server or supply-side platform and the factors that inform their decision.

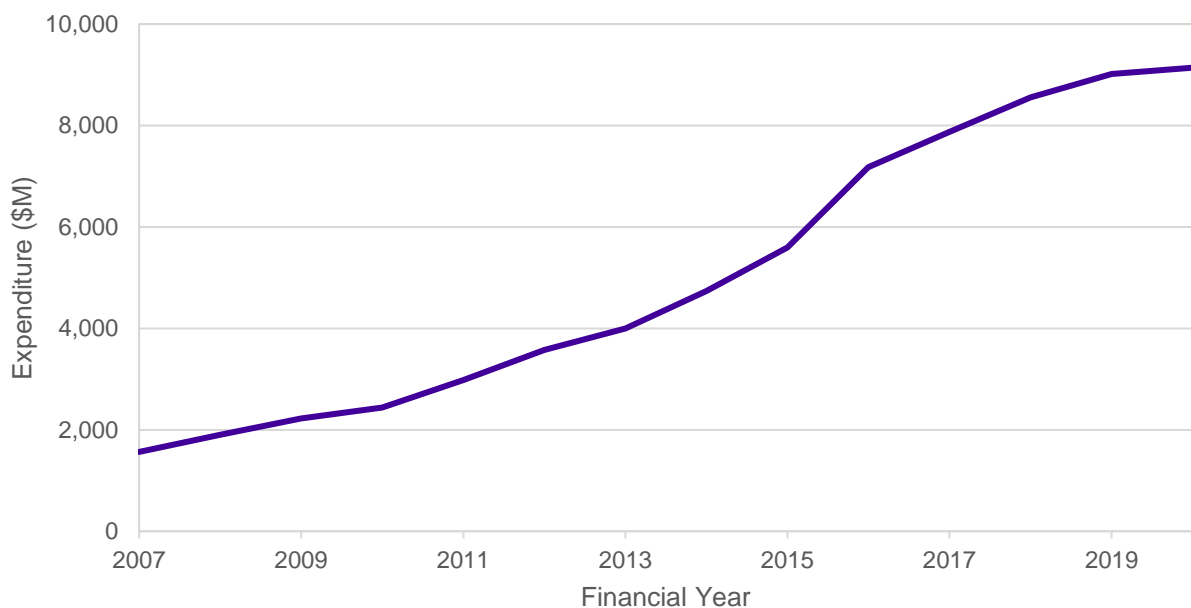
1.1. The supply of digital display advertising in Australia

1.1.1. Rise of digital advertising

As consumers spend increasing amounts of time online, advertising expenditure in Australia has similarly shifted online. This has resulted in considerable growth in spending on digital advertising in Australia over the past decade.¹⁵

Digital advertising expenditure reached \$9.1 billion in the 2019-20 financial year, despite the impact of COVID-19 on ad spend¹⁶ – see figure 1.1. In 2019, digital advertising comprised 53.2% of the \$16.6 billion spent on advertising in Australia.¹⁷

Figure 1.1: Digital advertising expenditure in Australia



Note: Amounts are shown in 2020 dollars.

Source: IAB Australia, ACCC analysis.

Digital advertising can be split into three broad types:

- (a) **search advertising**, when a user performs a search query on a general search engine (such as Google and Bing) or a specialised search engine (such as Amazon or Expedia)

¹⁵ See further discussion in *ACCC Digital Platforms Inquiry Final Report*, chapter 3, pp.121-122.

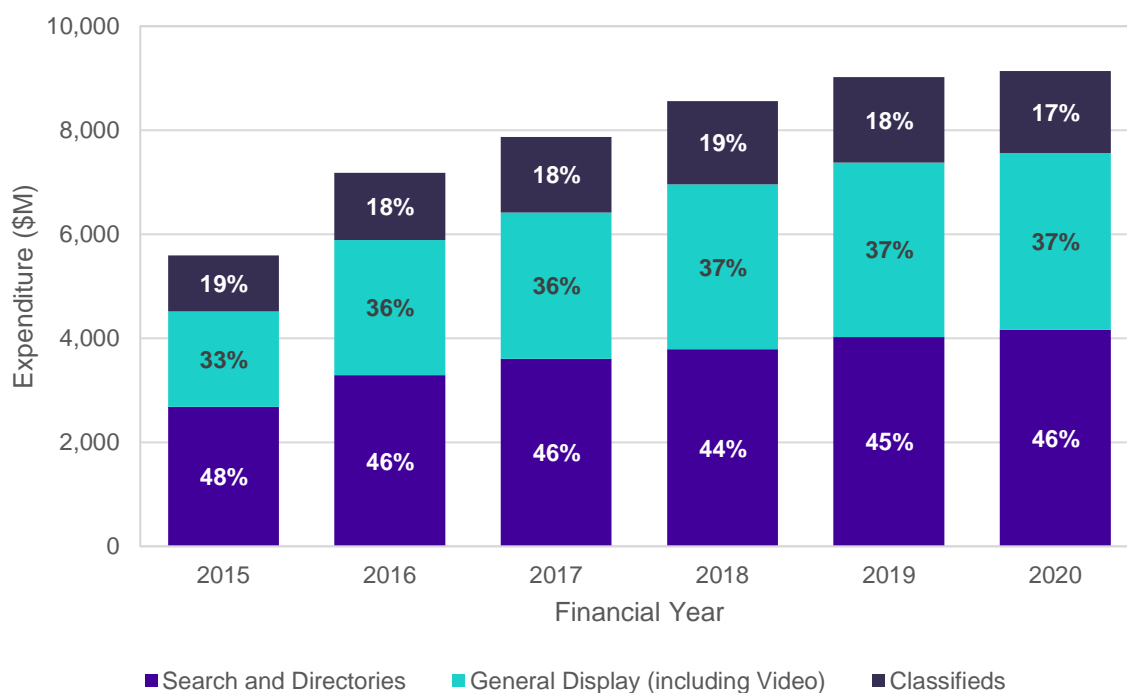
¹⁶ IAB Australia, [Australian Digital Advertising Market Experiences Double Digit Decline In Q2 2020 Due To Impact Of COVID-19](#), 23 August 2020, accessed 16 October 2020.

¹⁷ IAB Australia, [Australian Mobile Advertising Market Report](#), 2019, p. 8.

- (b) **classified advertising**, appear on general classifieds websites (such as Gumtree) or specific classifieds websites (e.g. Seek or Domain), and
- (c) **display advertising**, all other types of online advertising, including advertising in banners or videos on webpages, in mobile apps, and alongside social media content.

As required under the Ministerial Direction, this Inquiry focuses on the supply of display advertising in Australia.¹⁸ In the 2019-20 financial year, display advertising made up 37% of total digital advertising expenditure, as shown in figure 1.2 below.¹⁹

Figure 1.2: Categories of digital advertising expenditure in Australia



Note: Amounts are shown in 2020 dollars.

Source: IAB Australia, ACCC analysis.

1.1.2. Different display advertising formats and modes of delivery

(a) Overview of areas of focus

This section discusses the different formats and modes of delivery for the supply of display advertising in Australia, including differences between how display advertising is supplied:

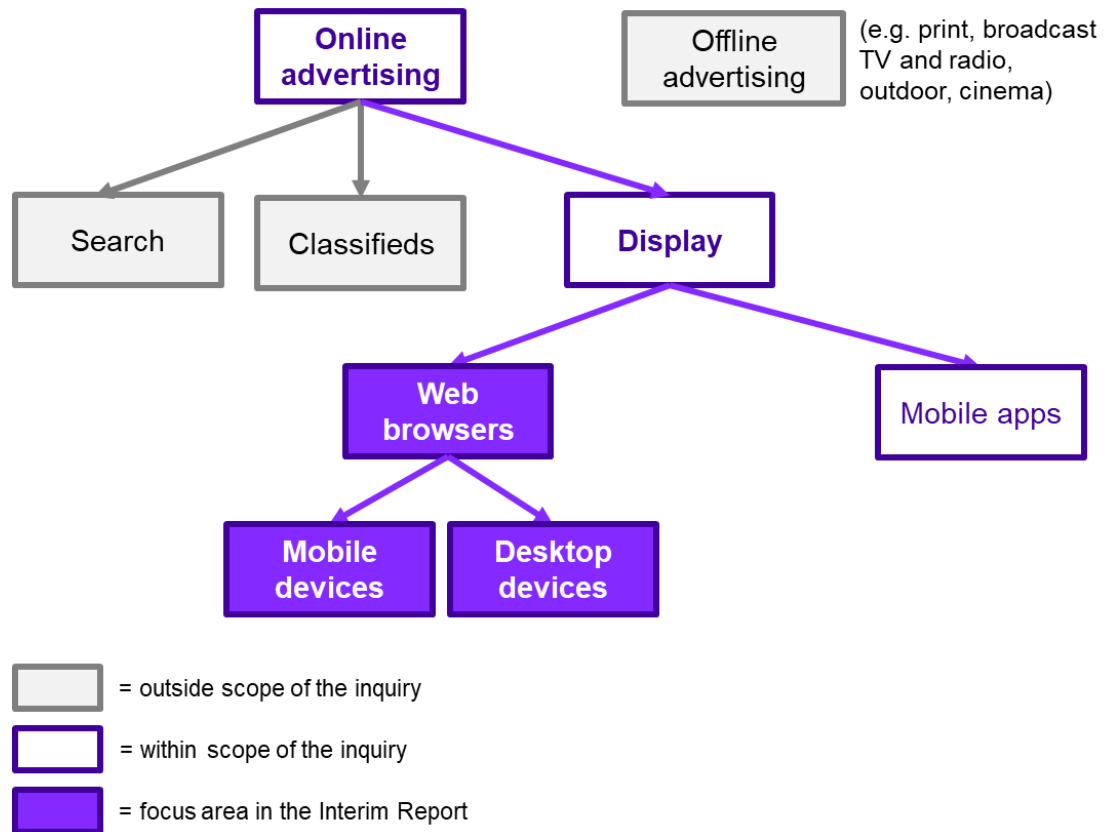
- in video and non-video formats
- on mobile and desktop devices, and
- on web browsers and mobile apps.

Figure 1.3 below summarises the types of digital advertising that are within the scope of the Inquiry and the areas that are the main focus of this Interim Report.

¹⁸ The Ministerial Direction directing the ACCC to commence this Inquiry requires the Inquiry to be held in relation to goods and services that include **digital display advertising services**, which are defined as 'the supply of opportunities for the placement of advertising, by way of the internet, other than classified advertising and search advertising. For example, this includes the supply of advertising opportunities in banners, or in videos, on a webpage; within mobile apps; and in conjunction with social media content'. Digital display advertising services will be referred to throughout this report as **display advertising**.

¹⁹ ACCC, [DPI Final Report](#), 26 July 2019, p. 90-91.

Figure 1.3: Areas of focus in Interim Report



(a) Video and non-video formats

Display advertising can be shown to consumers in many different formats including banner ads (image-based ads that often appear at the top and sides of websites), native ads (paid ads designed to match the rest of the content in the webpage), rich media ads (ads that involve some user interaction); and video ads.

Table 1.1 sets out some examples of these different display advertising formats, divided into **video formats** and **non-video formats** based on text or images.

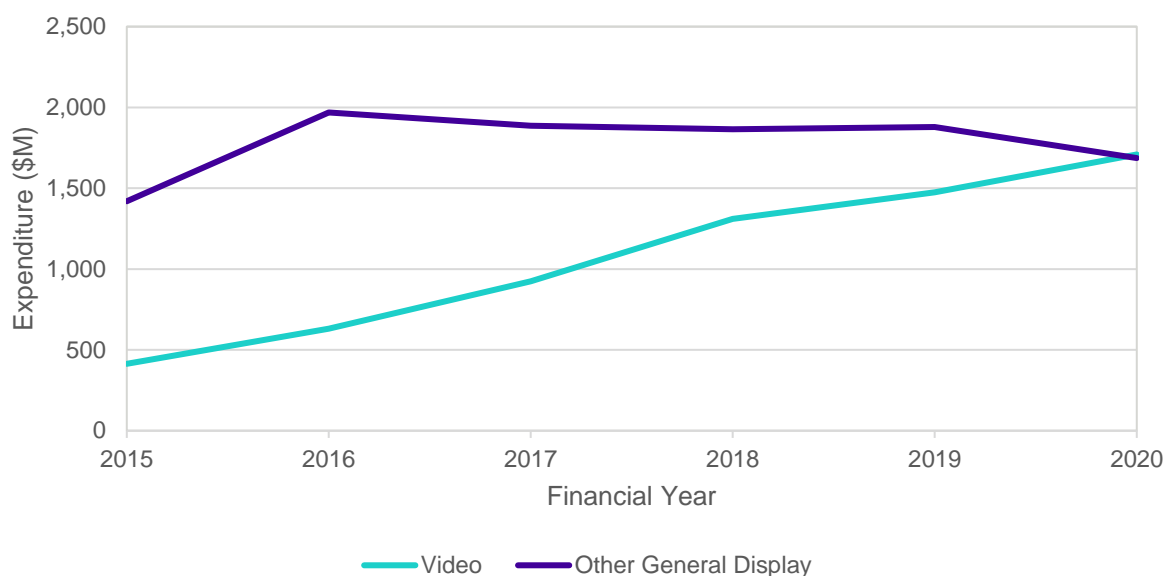
Table 1.1: Video and non-video display advertising formats²⁰

Format	Description	Example
Video ads		
In-stream video	Video ads shown before, during or after video content.	30-second video ads shown within programming on ITV Player. 6-second video ads shown before YouTube videos.
Out-stream video	Video ads shown outside of a video-player.	Video ads shown on a pop-up on article-based websites.
Stories	Mobile-first, swipeable, brand-created longer form video, vertical video montages	Video ads displayed on Snapchat, Instagram, etc.
Non-video ads		
Banner	Ads shown in standard display units on webpages or in apps - ad content may include images and animations. Ads may appear at the top, bottom, down the side of webpages and includes takeover ads.	Banner ads appearing at the top of a news publisher website.
Native or sponsored content	Ads that adjust to match the format and function of the surrounding content, such as promoted posts in social feeds or paid-for recommendations on webpages.	Sponsored product links appearing on an Instagram feed 'Promoted links from around the web recommended by Outbrain' appearing below articles on The Guardian app
Rich media ads	Ads that involve an interactive element, e.g. by expanding across or floating down a webpage.	A banner ad that expands to fill the screen when a user's cursor scrolls over the ad space.

Although display advertising formats evolve as rapidly as other online content, there appears to be a particularly significant distinction between video and non-video display advertising formats. Video display advertising is one of the fastest growing digital advertising segment, comprising 50% of all display advertising expenditure in the 2019-20 financial year compared to 24% in the 2014-15 financial year (see figure 1.4).

²⁰ See, e.g., IAB Australia, [Video Landscape Report 2019](#); and IAB US, [IAB Video Advertising Spend Report](#), April 2019.

Figure 1.4: Video and other display advertising expenditure in Australia



Note: Amounts are shown in 2020 dollars.

Source: IAB Australia, ACCC analysis.

There is evidence to suggest that video and non-video ad formats are differentiated products for advertisers. One reason is that the choice between video and non-video formats is driven by decisions about which type of advertising would convey the advertiser's message in the best way.²¹ In addition, because this decision is made early in the campaign-planning process, advertisers have a limited ability to switch between video and non-video format for ads once the creative content for the ads have been created. For these reasons, the UK Competition and Markets Authority (CMA) has found that there is limited substitutability for advertisers between video and non-video display advertising formats.²² In addition, Facebook (via Facebook and Instagram) and Google (via YouTube) each have substantial shares of video display advertising revenue. In particular, stakeholders have raised concerns regarding Google's vertical integration as an ad tech provider and a provider of ad inventory on YouTube – see discussion in section 4.2 in chapter 4.

The ACCC has not yet made any findings in relation to the substitutability between video and non-video formats, though this issue is continuing to be monitored in the ACCC's Digital Platform Services Inquiry.²³ The ACCC welcomes views from stakeholders regarding the substitutability of video and non-video display advertising.

(b) Mobile, desktop and other devices

The different display advertising formats can be delivered to consumers via a range of different devices including **mobile devices** (e.g. smartphone or tablet) and **desktop devices** (e.g. desktop or laptop computers).

Display advertising on mobile devices is a particularly fast-growing area of display advertising, almost doubling since 2017 to \$4.2 billion in 2019. This represented 25% of total Australian advertising expenditure in 2019 (\$16.6 billion).²⁴ Mobile display advertising in

²¹ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 218.

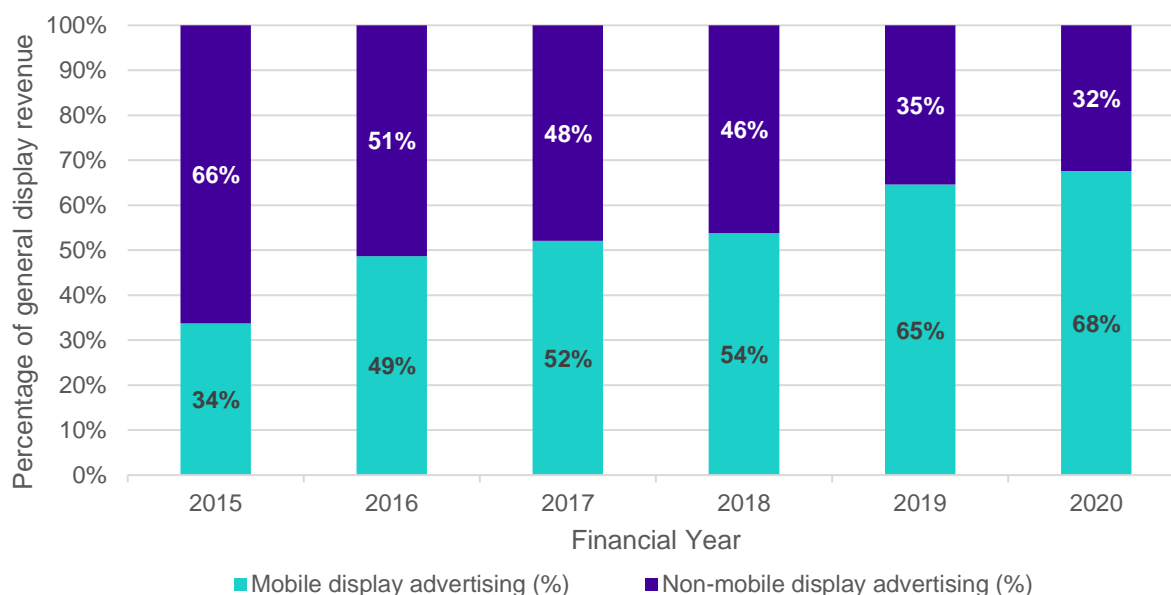
²² Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 218.

²³ ACCC, [Digital platform services inquiry – September 2020 interim report](#), September 2020, p. B12.

²⁴ IAB Australia, [Australian Mobile Advertising Market Report](#), 2019, p. 8.

2019 comprised 68% of all display advertising, nearly doubling from 34% in 2015 (see figure 1.5).²⁵

Figure 1.5: Proportion of display advertising on mobile devices



Source: IAB Australia, ACCC analysis.

Increasingly, devices for the delivery of display advertising are expanding to include other devices such as connected TVs, voice assistants, wearable devices (such as smart watches), and digital-out-of-home billboards. In particular, 23% of Australian video advertising expenditure in 2019 related to video ads served via connected TVs.²⁶

To date, stakeholder submissions to the Inquiry have focused on the supply of display advertising delivered on mobile or desktop devices. As such, this Interim Report also focuses on mobile and desktop devices.

(c) Web browsers and mobile apps

Display advertising can be delivered on both mobile and desktop devices via **web browsers** (e.g. Safari, Chrome, Firefox, Brave) or within **mobile apps** on smartphones or tablets. The ACCC understands that the delivery of ads on web browsers uses a similar ad tech supply chain, regardless of whether the web browsers are on mobile or desktop devices. However, it appears a different set of ad tech providers are necessary to serve ads within mobile apps.

Most stakeholder concerns to date have focussed on display advertising delivered via web browsers, which will be the main focus of this Interim Report.

²⁵ IAB Australia, [Australian Mobile Advertising Market Report](#), 2019, p. 6.

²⁶ IAB Australia, [Video Landscape Report 2019](#), p. 4.

1.1.3. Buyers of display advertising

(a) Advertisers

Advertisers include commercial businesses of all sizes and across all industries, non-profit organisations, and Government agencies.

The size of an advertiser's advertising budget can result in differences in how they buy advertising:

- **Advertisers with larger advertising budgets** are more likely to use media agencies and more sophisticated tools to buy ad inventory from multiple sources. This may include using more complex ad tech services that allow for greater control. However, these ad tech services generally require more technical expertise or connecting with ad tech providers who may offer more features, and are also more likely to have minimum spend requirements. Advertisers with larger budgets are also more likely to have the ability to negotiate direct deals with publishers in relation to premium ad inventory due to their relatively greater bargaining power and technical expertise compared to smaller advertisers.
- **Advertisers with smaller advertising budgets** are less likely to use media agencies or to buy ad inventory from multiple sources, because of the proportionately higher transaction costs of doing so.²⁷ These advertisers are more likely to use the simpler, self-service interfaces offered such as Google Ads and Facebook Ads.

(b) Ad agencies

Advertisers often use **ad agencies** to create, plan and manage their ad campaigns. Ad agencies provide a range of services to advertisers including design, media strategy, and media buying. This may include the planning and management of ad campaigns across different modes of delivery, including broadcast TV or radio, print media, digital, outdoor, and cinema. Specialist ad agencies may focus on assisting with digital ad campaigns and programmatic advertising.²⁸

Some ad agencies, which are part of holding groups, often work with the holding group's **trading desk** to manage and carry out the programmatic purchase of online ads. Trading desks are usually responsible for functions such as coordinating and executing purchases of online ads and controlling how a programmatic advertising budget is spent.

The ACCC notes that this Inquiry is directed *not* to extend to the supply of creative input for advertising. Instead, this Inquiry focuses on the media buying services supplied by ad agencies (and their trading desks) that assist advertisers with the optimisation and purchase of online display advertising.

More detailed discussion on the role of ad agencies can be found in chapter 7.

(c) Advertisers' objectives in buying advertising

There are three broad objectives for which advertisers may choose display advertising:²⁹

1. The most common objective is **increased brand awareness amongst a specific audience group**. Ad campaigns with this objective use key performance indicators that focus the reach achieved by the ad campaign within the audience group (e.g. number of views or clicks within a target demographic).

²⁷ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 215.

²⁸ Plum Consulting, [Online advertising in the UK: a report commissioned by the Department for Digital, Culture, Media & Sport](#), 12 February 2019, p. 47.

²⁹ See, e.g., Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 243 and ACCC, [DPI Final Report](#), 26 July 2019, June 2019, pp. 92-93.

2. Another objective is to drive **specific consumer actions** (e.g. product sales or subscriptions). Ad campaigns with this objective seek to influence the purchasing decisions of consumer who are already in the market for a particular type of product or service. Key performance indicators for this objective relates to actions taken by a consumer (e.g. a consumer purchase or subscription).
3. Finally, advertisers also use display advertising for **general brand awareness**. Ad campaigns aimed at general awareness also use key performance indicators measuring reach and engagement but more broadly across all consumer groups.

An advertiser may have a mix of different objectives for an ad campaign. These objectives will be an important factor in the advertiser's decisions about what types of advertising to buy, the ad format, and its mode of delivery.

1.1.4. Sellers of display advertising

Sellers of display advertising include anyone with online properties such as websites and apps on which display advertising might be supplied and include:

- **online publishers and other website operators** that display ads via their websites or apps (e.g. The Age, Crikey, BuzzFeed, Gumtree, domain.com.au).
- **broadcasters and video websites** that display ads alongside, or that are embedded within, online video content (e.g. 9Now, SBS On Demand, YouTube).
- **social media platforms** that display ads alongside social media content (e.g. Facebook, Twitter, Snapchat).
- **app developers:** software developers making advertising-funded mobile apps for mobile devices (e.g. King (a developer of cross-platform games such as Candy Crush), Halfbrick Studios (a developer of cross-platform games such as Fruit Ninja)).

Similar to advertisers, there are some broad differences in how publishers of different types and sizes sell display advertising:

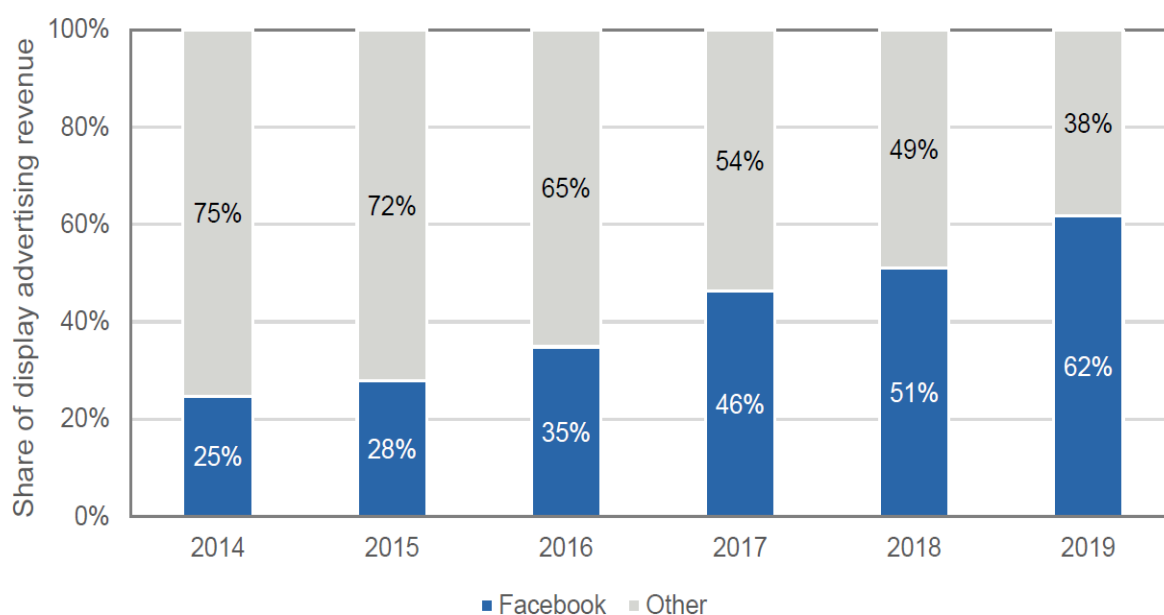
- **Publishers with owned-and-operated inventory** are publishers who have their own ad tech services and sell their own ad inventory to advertisers entirely through their 'owned-and-operated' ad tech services. For example, Facebook's ad inventory (e.g. ads shown on Facebook or Instagram) is sold through Facebook Ads, and ads on Google's platforms (e.g. YouTube and Gmail) are sold through Google's own ad tech services.
- **Publishers with more ad inventory and wider reach** (e.g. major news/digital native publishers) are more likely to use ad tech providers that allow for more control over how ad inventory is sold but that may be more complex to set-up and require more technical expertise to use. Larger publishers also commonly have direct sales teams which communicate and negotiate direct deals with advertisers.
- **Smaller publishers** are less likely to use ad agencies and more likely to use simpler self-service interfaces such as Google AdSense which require less technical knowledge to implement and function as an all-in-one product.

As noted above, Facebook is a significant supplier of owned-and-operated display advertising inventory and has a substantial share of the overall supply of display advertising in Australia. In 2019, Facebook had a 62% of display advertising revenue in Australia³⁰ – see figure 1.6 below. However, the owned-and-operated display advertising supplied by Facebook is only available to advertisers through its own ad tech services, which function as an end to end ad buying solution for advertisers looking to purchase Facebook's ad

³⁰ ACCC, [Digital platform services inquiry – September 2020 interim report](#), September 2020, p. B11.

inventory. The extent of competitive constraint that Facebook imposes on the other ad tech services described in this report is discussed in chapter 3 section 3.1.1.

Figure 1.6: Facebook’s share of display advertising revenue in Australia³¹



Source: ACCC, [Digital platform services inquiry – September 2020 interim report](#), September 2020, p. B11 (figure B.4).

1.2. The supply of ad tech services

1.2.1. The ad tech supply chain

Every day, billions of online ads are traded programmatically through real-time auctions that take place in milliseconds and involve numerous ad tech providers.³² This ‘**programmatic trading**’ refers to the automated buying and selling of ad inventory using software programs, which often involves a sequence of auctions operated by algorithms in milliseconds.

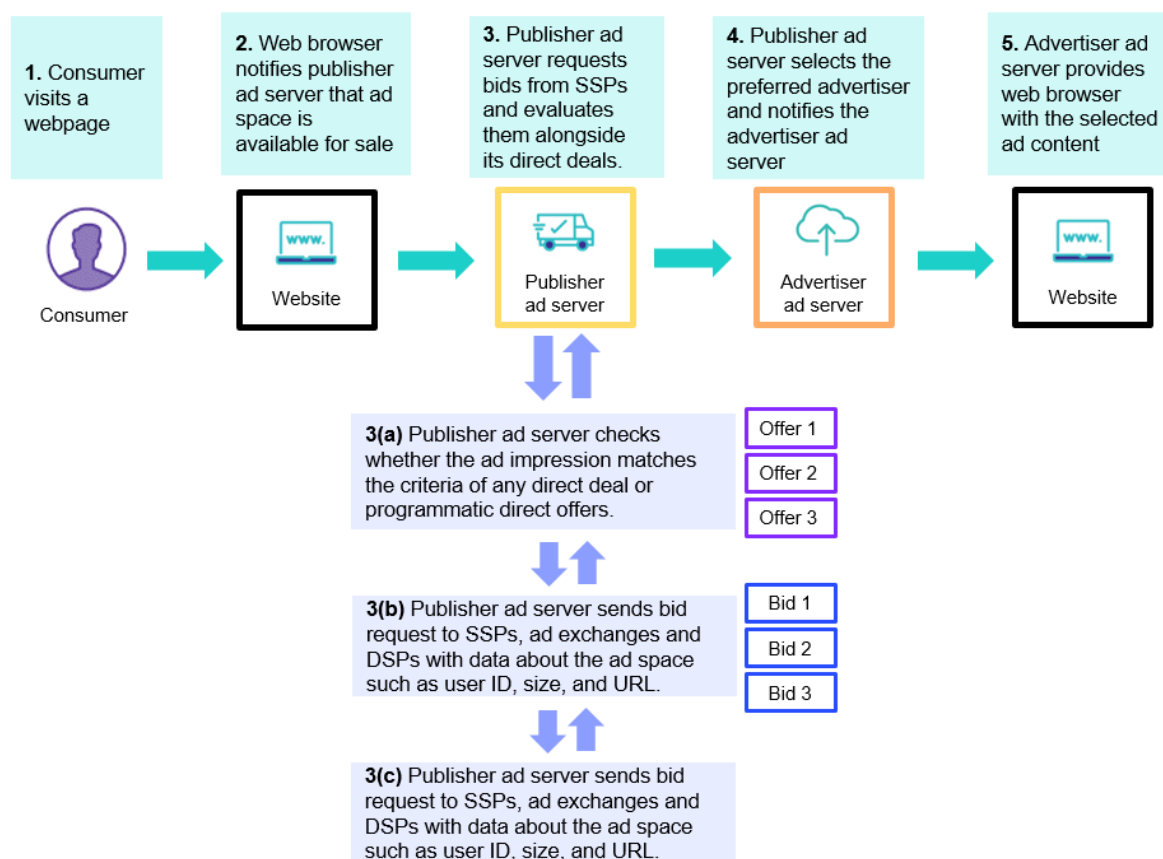
The automated decision-making enabled by programmatic trading is what allows the large volume of ad inventory to be traded between publishers and advertisers in ‘real-time’ (that is, in the milliseconds after a consumer clicks on a website and waits for it to load). It is also the reason why advertisers and publishers rely on ad tech providers to provide the technologies and inputs required to execute their bidding and pricing strategies.

When a consumer loads a website showing display ads, the website will notify the publisher’s ad tech providers, which prompts a series of automated decisions that ultimately determine the ads to be displayed on the webpage. A simplified example of the processes that take place when serving a display ad, including some of the automated bidding processes, is shown at figure 1.7.

³¹ ACCC, [Digital platform services inquiry – September 2020 interim report](#), September 2020, p. B11 (figure B.4).

³² UK Information Commissioner’s Office, [Update report into adtech and real-time bidding](#), June 2019, p. 3.

Figure 1.7: Programmatic ad serving of display advertising³³



The key functions of the main ad tech providers mentioned are discussed at section 1.2.3 and an overview of key auction and bidding processes will be provided at section 1.4.

1.2.2. Channels for the sale of display advertising

There are different channels for display advertising to be bought and sold, including:³⁴

- **direct deals** that involve direct negotiation between a publisher’s sales team and an advertiser to agree on a fixed price for a fixed volume of ad inventory, which are then manually filled with the advertiser’s ads. Ad tech providers are minimally involved in the supply of display advertising using direct deals
- **programmatic guaranteed**³⁵ where the advertiser and publisher directly negotiate for a fixed volume of ad inventory at a fixed price, but use ad tech providers to automate the delivery of the ads (that is, the decision to serve the ads to consumers are made in real-time and for each impression)³⁶
- **private marketplaces**³⁷ that refer to invite-only auctions where only a select group of advertisers are invited to bid in real-time auctions, and
- **open auctions** that are open to all advertisers to bid in real-time auctions.

³³ Adapted from Plum Consulting, [Online advertising in the UK: a report commissioned by the Department for Digital, Culture, Media & Sport](#), 12 February 2019, p. 44.

³⁴ IAB Australia, [The Programmatic Playbook](#), October 2017, p. 1.









³⁵ This channel may also be referred to as Programmatic Premium, Programmatic Direct, Programmatic Reserve, or Preferred Deals.

³⁶ IAB UK, [The Programmatic Handbook](#), October 2016, p. 35.

³⁷ This channel may also be referred to as Private Exchanges, Private Auctions, or Closed Auctions.

The participants in the different channels for sale of display advertising are set out in figure 1.8.

Figure 1.8: Channels for programmatic and non-programmatic trading³⁸

	Programmatic trading			Non-programmatic trading
	Open auctions	Private marketplaces	Programmatic guaranteed	Direct deals
Description	Ads traded through real-time auctions open to all advertisers	Invite-only auction available only to selected advertisers	Directly negotiated deals between a publisher and advertiser and programmatically delivered	Directly negotiated deals between the publisher and advertiser
Number of publishers involved				
Number of advertisers involved				
Ad tech providers involved	Multiple SSPs and DSPs required to run and bid in open auction.	Multiple SSPs and DSPs involved (but fewer than open auction).	SSPs and DSPs not involved in auction or bidding processes, but may be involved in delivery of the ad.	SSPs and DSPs not involved.

Ad networks are another channel for the supply of display advertising. Ad networks were historically developed to buy leftover ad inventory from publishers that were not sold to advertisers in direct deals.³⁹ Ad networks buy this remnant ad inventory from publishers at a fixed price, repackage and aggregate it with ad inventory from other publishers to on-sell to advertisers. With the introduction of programmatic trading and real-time bidding auctions, some ad networks have introduced some programmatic features whilst others have evolved into SSPs (see section 1.2.3(b)(i) below).⁴⁰

Some broad distinctions can be drawn between direct and indirect channels for the supply of display advertising and the extent to which they use programmatic trading and real-time auctions. This is illustrated in figure 1.9.⁴¹

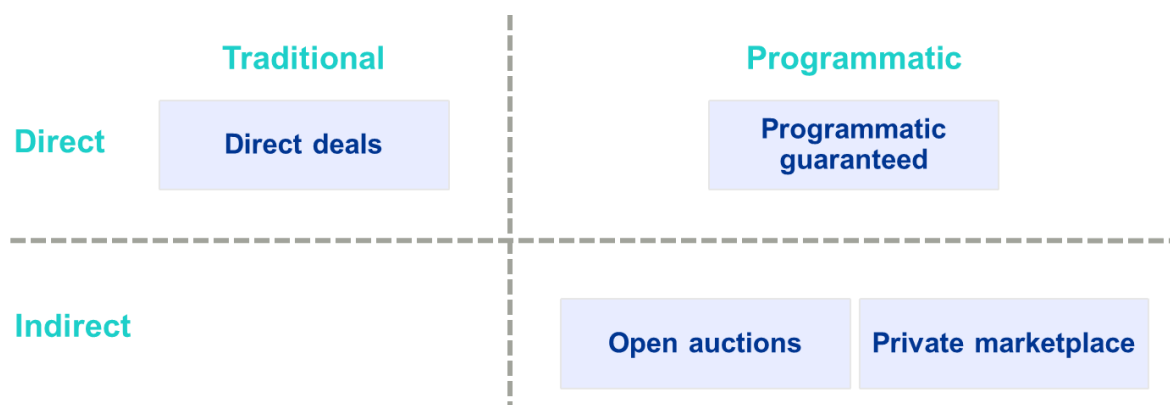
³⁸ Adapted from IAB Australia, [The Programmatic Playbook](#), October 2017, p. 1.

³⁹ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M7.

⁴⁰ Autorité de la concurrence, [Opinion no. 18-A-03 of 6 March 2018 on data processing in the online advertising sector](#), March 2018, pp. 27, 37-39.

⁴¹ However, the ACCC notes that this industry is dynamic and the different channels can evolve rapidly – for example, some ad networks may use programmatic auctions to sell display advertising.

Figure 1.9: Different channels for the sale of display advertising⁴²



These broad distinctions between the different channels of supply limit the extent to which advertisers and publishers can switch between them. Programmatic channels of supply are distinguished by their ability to use programmatic technologies to automatically trade ad impressions one at a time, which allows the real-time targeting of display ads to the specific individual who is about to view the ad. In contrast, direct deals do not use as many programmatic technologies and involve less complexity for the buyers and sellers, but also lack the same real-time targeting capability. The programmatic guaranteed channel is a middle-ground, where ads are served programmatically but subject to a directly negotiated deal between the publisher and advertiser. In addition, because direct channels of supply require direct negotiation between the advertiser and publisher, these carry greater transaction costs than indirect programmatic trading. These additional transaction costs may be one reason direct deals and programmatic guaranteed channels tend to be used for premium ad inventory and are not always a viable alternative channel for all types of display advertising inventory.

The proportion of display advertising supplied by the different channels for a sample of relatively larger publishers' in Australia is set out at figure 1.10. Because these figures relate only to revenue from general display advertising on a select group of publishers' websites, they cannot be generalised across total general display advertising revenue in Australia. In particular, these relatively larger publishers are more likely to sell a higher proportion of their ad inventory via direct deals than smaller publishers because they are more likely to have dedicated sales teams to negotiate direct deals with advertisers.

In the 2019-20 financial year, 44% of display advertising on these publishers' websites was bought programmatically and 56% was bought using direct deals.⁴³ While over half of the revenue from display advertising inventory supplied on these publishers' websites flowed from direct deals, the proportion of display advertising purchased via open auctions, private marketplaces and programmatic guaranteed appears to be slowly increasing since late 2018.⁴⁴

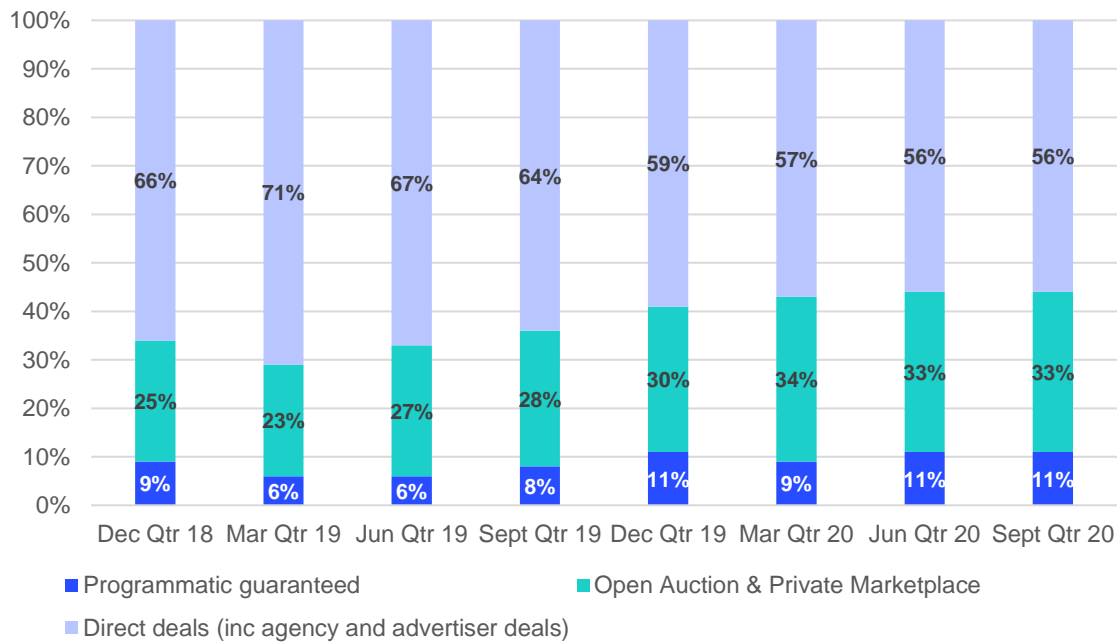
As noted above, direct deals do not involve significant input from ad tech providers. In addition, stakeholder submissions to this Inquiry have generally not raised issues specific to ad networks. The sale of display advertising via direct deals and ad networks are discussed in this Interim Report to the extent they impact on competition in the supply of display advertising or ad tech services, or to the extent they provide useful context, but are not key areas of focus for the Interim Report – see figure 1.11 below.

⁴² Adapted from IAB UK, The Programmatic Handbook, October 2016, p. 9.

⁴³ IAB Australia, [Australian Digital Advertising Market Experiences Double Digit Decline In Q2 2020 Due To Impact Of COVID-19](#), 23 August 2020, accessed 16 October 2020.

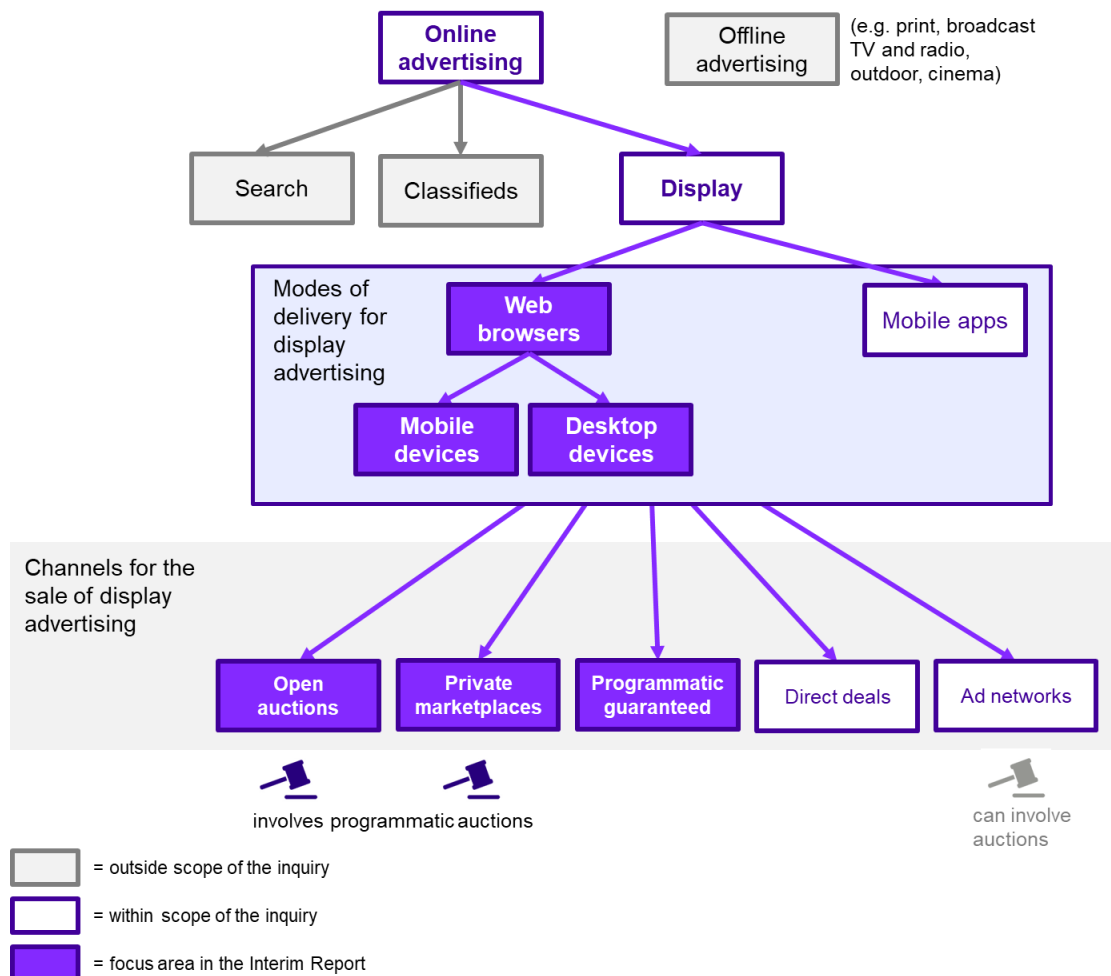
⁴⁴ Data from IAB Australia.

Figure 1.10: Proportion of display advertising by inventory buying method for select publishers' websites



Source: IAB Australia, ACCC analysis.

Figure 1.11: Channels for the supply of display advertising



1.2.3. Key market participants

Key participants in the ad tech supply chain include:

- advertiser ad servers
- demand-side platforms (or DSPs)
- supply-side platforms (or SSPs), and
- publisher ad servers.

(a) Advertiser-facing ad tech providers

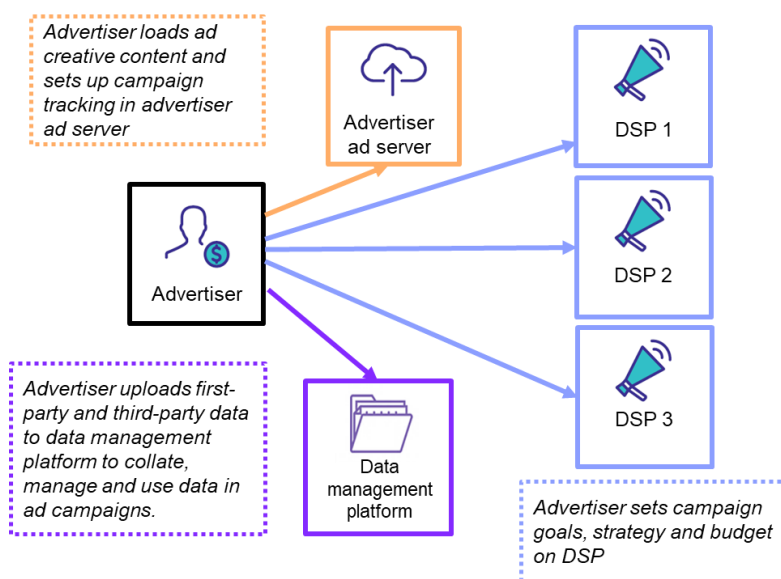
Advertisers and ad agencies often contract with the following ad tech providers when buying display advertising:

- advertiser ad servers, and
- demand-side platforms (or DSPs).

Advertisers may also use data services providers (such as data management platforms) to collate, manage, and use data they collect and receive from various sources to assist with targeting and measuring the performance of their ads (see further section 1.3.1).

Advertisers' relationships with advertiser-facing ad tech providers (including data management platforms) are illustrated in figure 1.12.

Figure 1.12: Advertiser-facing ad tech providers



(i) Advertiser ad servers

Advertisers use advertiser ad servers to manage their ad campaigns and host the image or video files for their ads. Advertiser ad servers generally perform the following functions:⁴⁵

- managing the advertiser's ads, including limiting how many times a user is served the same ad (also known as frequency capping), showing a set of ads to a user in a particular sequence, or showing different ad content to different audience groups

⁴⁵ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, pp. M19-M20.

- tracking the performance of an advertiser’s ads on publisher websites by collecting and reporting on the websites or apps where the advertiser’s ads are served and how those ads performed, and
- evaluating the brand safety of publisher websites to ensure that the advertiser’s ads are not displayed next to inappropriate or incompatible content.

Some main advertiser ad servers in Australia include Google Marketing Platform, Sizmek (owned by Amazon), Adform, Innovid, and Flashtalking.⁴⁶

Advertisers may use different advertiser ad servers to manage their ads, but generally designate a primary ad server for ad measurement purposes.⁴⁷ The ACCC welcomes views from advertisers on whether they use more than one advertiser ad server to manage their ad campaigns and the factors that inform their decision of choosing advertiser ad server providers.

(ii) Demand-side platforms (DSPs)

Advertisers use DSPs to help with buying ad inventory programmatically according to parameters set by the advertiser. DSPs generally perform the following functions:⁴⁸

- using automated algorithms to make buying and bidding decisions for advertisers, including deciding which ad impressions to bid on and deciding on the amount of the optimal bid in response to each ad impression in real-time
- allowing advertisers to target their ads to specific audiences in real-time, using either the advertiser’s own first-party data (e.g. based on customer lists) or third-party data sources (e.g. online profiles or audience segments made available by other market participants), and
- collecting, analysing and reporting on the performance of the advertiser’s ad campaigns, including implementing specific brand safety and quality requirements.

Some main DSPs in Australia include Google Ads, Google’s Display & Video 360, Amobee, Criteo, Adobe, MediaMath, Amazon, The Trade Desk, Verizon Media, and Xandr.⁴⁹

Larger advertisers and ad agencies may use more than one DSP (referred to as ‘**multi-homing**’) to increase their access to different types of ad inventory and audiences, though a single DSP is usually used for each ad campaign.⁵⁰ There are several reasons that advertisers tend to use a single DSP for a given campaign, including:⁵¹

- multi-homing can make it more difficult to consistently measure the performance of an advertiser’s campaign because different DSPs may use different measurement and reporting methodologies
- multi-homing can make it more difficult to limit the number of times a unique consumer is shown an ad (known as ‘frequency capping’)
- multi-homing can give rise to situations where advertisers inadvertently bid against themselves for the same ad impression via the different DSPs

⁴⁶ See chapter 3 Industry structure for a discussion on their relative size in Australia.

⁴⁷ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M40.

⁴⁸ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, pp. M21-M22.

⁴⁹ See chapter 3 Industry structure for a discussion on their relative size in Australia.

⁵⁰ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 268 and Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M48.

⁵¹ See, e.g. Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 268 and Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, pp. M48-50.

- some DSPs offer discounts for increased volumes of ad purchases on the service. As such, advertisers are incentivised to increase spend on each individual DSP rather than spreading their ad spend across multiple DSPs
- there are set up costs and minimum spends associated with connecting to a DSP.

The ACCC welcomes views from advertisers on the extent to which they use more than one DSP to buy ad inventory and the extent to which the above reasons limit their ability to multi-home across different DSPs.

(b) Publisher-facing ad tech providers

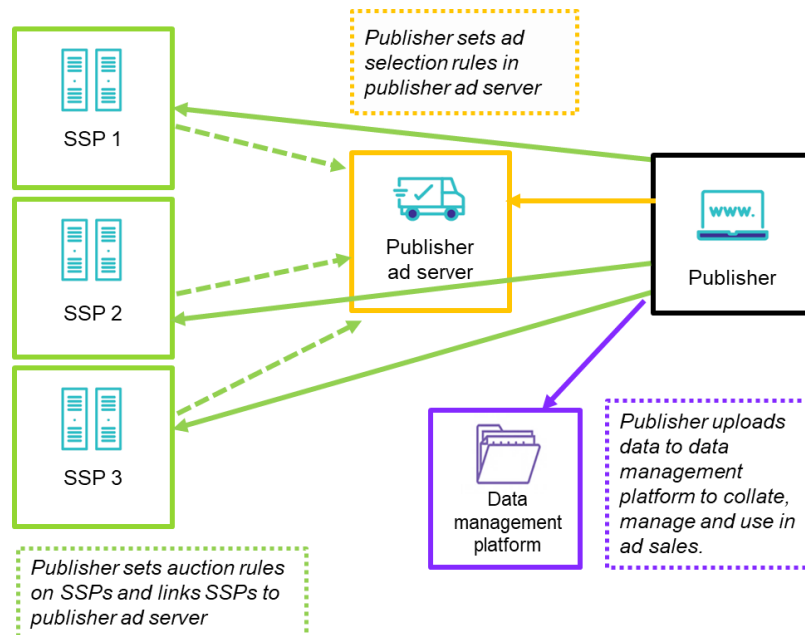
Publisher-facing ad tech providers assist publishers to sell their ad inventory. The two main ad tech services that publishers use are:

- supply-side platforms (or SSPs), and
- publisher ad servers.

Similarly to advertisers, publishers may also use data services providers (such as data management platforms) to collate, manage, and use data they collect and receive from various sources to assist with pricing and measuring the performance of their ads (see further section 1.3.1).

Publishers' relationships with publisher-facing ad tech providers (including data management platforms) are illustrated in figure 1.13.

Figure 1.13: Publisher-facing ad tech providers



(i) Supply-side platforms (SSPs)

Publishers use SSPs to automate the sale of their ad inventory by connecting to multiple DSPs. Historically, a separate ad exchange would run the real-time auctions that determine the winning advertiser from competing bids submitted by advertisers' DSPs, but the functions of SSPs are increasingly integrated with those of ad exchanges. For this reason,

ad tech providers performing both SSP and ad exchange functions will be referred to as SSPs throughout this report.⁵²

The main functions of SSPs include:

- receiving bid requests from publisher ad servers and sending these on to DSPs to request bids from advertisers (see further section 1.4 for more detail on the auction process).
- providing publishers with the ability to create and view reports about the performance of their inventory, including fill rates, clicks and impressions
- providing publishers with various controls such as setting floor prices and managing auction mechanics to optimise revenue and improving fill rates, and
- Inventory and campaign management, such as enabling publishers to manage different types of inventory, blacklist and whitelist advertisers, set IAB categories, and block certain types of ads.

Some main SSPs in Australia include Google Ad Exchange, Index Exchange, Magnite (formerly Telaria and The Rubicon Project), OpenX, PubMatic, and Xandr (see chapter 3 for a discussion on their relative size in Australia).

The ACCC understands that publishers may use multiple SSPs to increase the pool of advertisers available to bid on the publisher's ad inventory. The ACCC invites views from publishers as to the extent to which they use more than one SSP to sell their ad inventory and the factors that inform their decision in choosing SSPs.

(ii) Publisher ad servers

Publishers use publisher ad servers to organise and manage ad inventory on publishers' online properties (such as websites and apps), which involves:⁵³

- making decisions about which advert will appear for each available ad space, which includes managing both the publisher's direct deals with advertisers as well as real-time demand from advertisers via programmatic channels of advertising (e.g. open auctions and private marketplaces)
- using decision-making algorithms to forecast future demand to inform its decisions about how to fill the available ad spaces in a way that maximises the publisher's revenues
- serving the selected ads, which involves the publisher ad server receiving the ad file from the advertiser ad server and displaying the ad to the user, and
- collecting, analysing and reporting on data to allow the publisher to better understand advertiser demand for its ad inventory.

The main publisher ad servers in Australia are Google Ad Manager and to a lesser extent Xandr.⁵⁴

The ACCC understands that most publishers only use one publisher ad server. Factors that limit publishers' ability to use multiple publisher ad servers include:

- using multiple publisher ad servers may make it difficult to compare performance across ad inventory sold due to different publisher ad servers having different methodologies for ad measurement.

⁵² The ACCC will consider SSPs and ad exchanges together to the extent that their functions are fully integrated and performed by the same entity.

⁵³ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, Appendix M, p. M29; M Zawadziński, [What is an Ad Server and How Does It Work](#), *Clearcode*, 7 March 2018 (Updated 25 November 2020).

⁵⁴ See chapter 3 Industry structure for a discussion on their relative size in Australia.

- set up costs to use a publisher ad server are high and switching providers is an expensive and lengthy process, as it requires publishers to test, migrate and re-train staff to use a new publisher ad server.⁵⁵
- there is a lack of choice of available publisher ad servers in Australia⁵⁶, with Google's publisher ad server Google Ad Manager being the leading provider (see further discussion in chapter 3 section 3.3.4).⁵⁷

The ACCC invites views from publishers on the extent to which they are able to use more than one publisher ad server and what factors they consider when deciding to use one or more publisher ad servers.

1.3. The collection and use of data

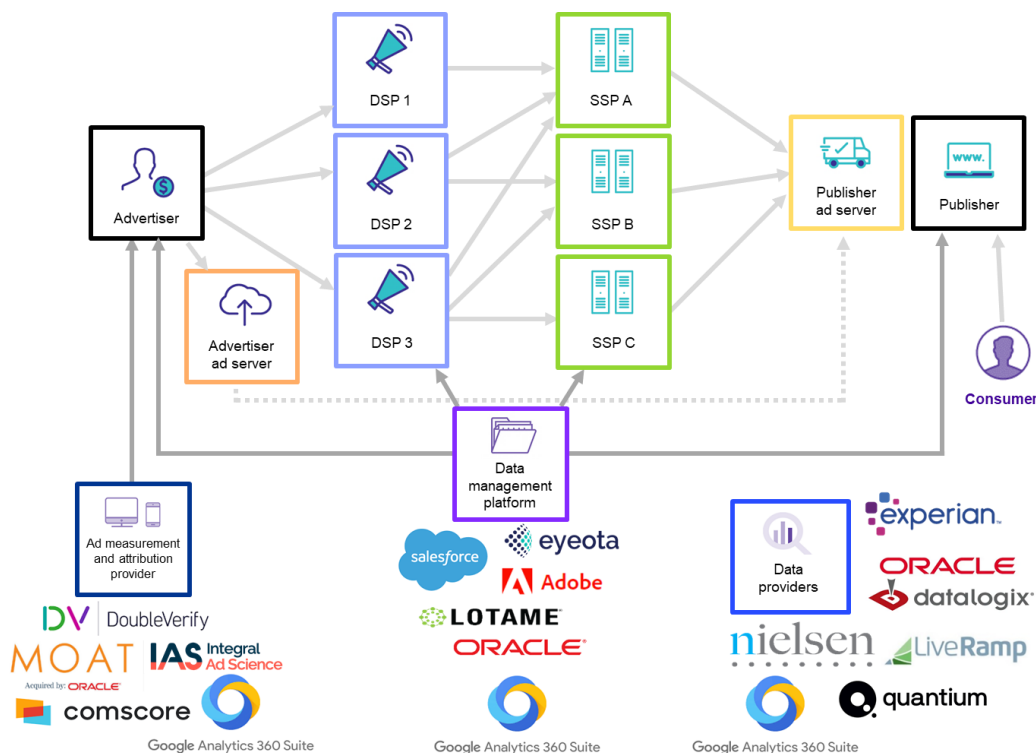
1.3.1. Data services providers

There are also a number of data services providers supplying a range services to assist with the collection and use of data along the ad tech supply chain, including:

- data management platforms
- ad verification and attribution providers, and
- data brokers.

Some DSPs and SSPs may also provide some of the same functions as data services providers, which means that advertisers and publishers may not always require the services of separate data service providers. For example, Google Ads and Amobee have ad targeting capabilities. Figure 1.14 below sets out some main data services providers in Australia.

Figure 1.14: Main data services providers in Australia



⁵⁵ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 11.

⁵⁶ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 2.

⁵⁷ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 2; News Corp Australia [Submission to Ad Tech Inquiry Issues Paper](#), May 2020, p. 12.

(a) Data management platforms

Data management platforms provide publishers, advertisers, DSPs and SSPs with tools to store, manage and analyse their own data sources and any data they obtain from other parties. The key functions of data management platforms include:

- combining data directly collected by the publisher (**first-party data**) with data obtained from others (**third-party data**), which may include information such as user purchase history, geographic data and sociodemographic data
- analysing data to enable the targeting of ad campaigns to particular consumers or groups of consumers, and
- using data, including from ad campaigns, to analyse ad performance and to manage ad campaigns.⁵⁸

The main data management platforms in Australia include the Google Analytics 360 Suite, Oracle, Salesforce, Lotame, Eyeota and Adobe.

(b) Ad verification and attribution providers

Advertisers use ad verification and attribution providers to:

- verify the delivery of ads in a brand-safe setting – that is, not adjacent to any publisher content that is unsafe, inappropriate, or incompatible with the advertiser's brand
- verify that the ads delivered were delivered in a way that is viewable to the consumer
- detect instances of ad fraud (e.g. when fraudulent consumer traffic is generated by bots), and
- assess the performance of campaigns.

These functions of ad verification and attribution providers are described in more detail at chapter 6 section 6.1.

Some main ad verification and attribution providers in Australia include the Google Analytics 360 Suite, Moat (owned by Oracle), DoubleVerify, Comscore, and Integral Ad Science.

(c) Data providers

Data providers supply data (or insights generated from the analysis of data) to market participants along the ad tech supply chain to supplement any first-party sources of data they may already have. Data providers mostly provide inferred data generated through their own processes, using volunteered, observed and inferred data.⁵⁹ Data providers may collect data from a variety of sources, including from third-party cookies and pixels on publisher sites, from public information such as online records, and from the records of public authorities or third-party companies such as banks or retailers.⁶⁰ Data providers will then create databases of individuals (called audiences), which advertisers can then purchase and use for targeted advertising.⁶¹

Some main data providers in Australia include the Google Analytics 360 Suite (which does not provide third-party data directly to other market participants but contains tools to enable advertisers and publishers to leverage the insights from Google's own data stores),

⁵⁸ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M32-33.

⁵⁹ Competition and Markets Authority, [Appendix F to Online platforms and digital advertising market study final report](#), 1 July 2020, p. F11.

⁶⁰ Autorité de la concurrence and Bundeskartellamt, [Competition Law and Data](#), 10 May 2016, p. 39; FTC, [Data Brokers: A Call For Transparency and Accountability](#), May 2014, p. 11-13.

⁶¹ M Wlosik, ['What is a Data Broker and How Does It Work?: Type 1: Data Brokers for marketing and advertising'](#), Clearcode, 4 February 2019 (Updated 25 November 2020).

Datalogix (owned by Oracle), LiveRamp (formerly Acxiom), Experian, Quantum, and Nielsen.

1.3.2. The collection and use of data for targeted advertising

Data is an important input in the supply of display advertising and ad tech services because:

- it allows advertising to be targeted to particular customers or customer groups, which has the potential to significantly increase the effectiveness of an ad campaign, and
- it allows ad tech providers to verify and measure the effectiveness of ad campaigns.

The impact of data on competition in the supply of ad tech services is discussed at chapter 2 *The role of data*. The impact of data on information asymmetries in the supply of display advertising and ad tech services is discussed at chapter 6.

As discussed above, ad tech providers help advertisers and publishers to automatically trade a huge volume of ads in real-time. A key advantage of this automation is the ability to target ads to a consumer based on information collected about that consumer that can be processed by ad tech providers in the milliseconds while a webpage is loading.

The real-time targeting capability of digital advertising is made possible by the collection of detailed data on consumers' demographics, interests, preferences and behaviours. This data is collected and analysed by the algorithms used by ad tech providers to help advertisers and publishers predict a consumer's potential response to an ad and to target their ads accordingly.

(a) What types of data are collected?

Many different types of data that are used to target ads, including:

- **user data** such as information about a particular consumer's demographic (e.g. age, gender), interests, browsing history, location and movements, purchasing intent (such as recent searches for products or services), online and offline transaction history, etc.
- **device data** such as information relating to the mobile or desktop device a consumer uses (e.g. device IDs, browser information, operating systems), and
- **contextual data**, which refers to data on the context in which an advertisement impression is served, such as the website content, the ad format and location on a web page, weather conditions, etc.⁶²

(b) How is data used to target ads?

This data used to target ads often starts off as personal data when it is collected from a consumer. The data may then be converted into anonymised data by replacing the personal details (such as name and contact information) with anonymous identifiers, which may then be shared between different ad tech and data suppliers. For example, Google's Android Advertising ID is a unique anonymous identifier assigned to Android devices and is widely shared with third parties to target ads. A 2020 study of ten popular apps by the Norwegian Consumer Council found that the Android Advertising ID was transferred to at least 70 different third parties involved in advertising and/or profiling.⁶³ The ACCC's commissioned research by AppCensus also found that the Android Advertising ID was the most prevalent

⁶² Plum Consulting, [Online advertising in the UK: a report commissioned by the Department for Digital, Culture, Media & Sport](#), 12 February 2019, p. 72.

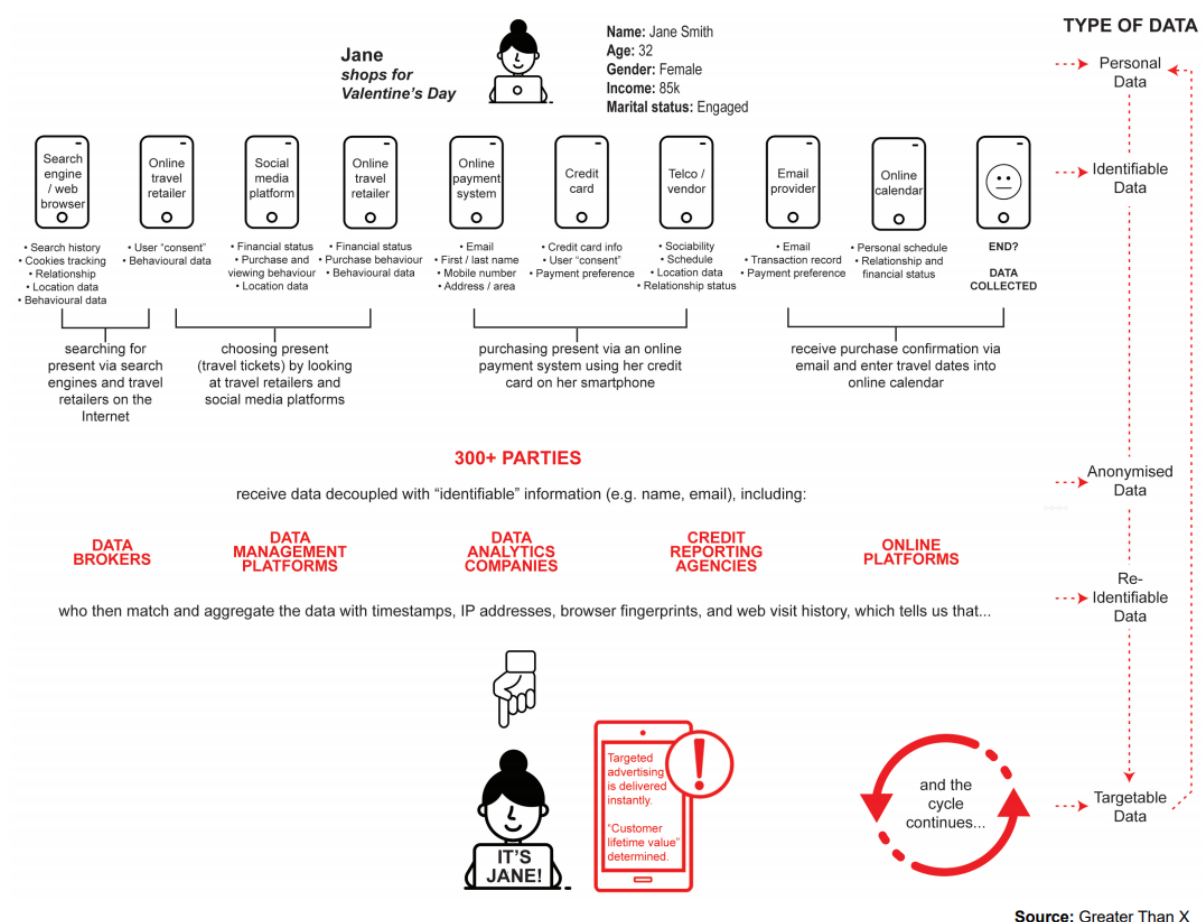
⁶³ Norwegian Consumer Council, [Out of Control. How consumers are exploited by the online advertising industry](#), 14 January 2020, p. 5.

type of user information transmitted by apps to third parties, including by over 60% of Health and Other apps and over 40% of Kids apps.⁶⁴

However, anonymised data may be combined with other datasets or matched to existing online profiles on the consumer, which could lead to the data being re-identified. For example, studies have found that between 61 and 87% of individuals in the United States could be uniquely identified by a combination of their ZIP code, birth date, and gender, because no other individual shares that specific combination of information.⁶⁵ This potential for re-identification of non-personal data has consumer implications, which are discussed in chapter 2 section 2.5.

An illustration of the personal data ecosystem and a simplified supply chain for the processing of personal data for ad targeting purposes is provided at figure 1.15, showing how targeting data can be collected from a consumer's everyday interactions, distributed to various ad tech providers and then used for a variety of purposes including delivery targeted advertising to that consumer while they are browsing online.

Figure 1.15: The ad targeting data ecosystem⁶⁶



⁶⁴ AppCensus, [1000 Mobile Apps in Australia: A Report for the ACCC](#), 24 September 2020, p. II.

⁶⁵ L. Sweeney, [Simple Demographics Often Identify People Uniquely](#), Carnegie Mellon University, Data Privacy working Paper 3, 2000, and P. Golle, [Revisiting the Uniqueness of Simple Demographics in the US Population](#), Palo Alto Research Center, 2006.

⁶⁶ B. Richmond, [A day in the life of data](#), Consumer Policy Research Centre, 29 May 2019, p. 9.

(c) What are the main types of targeted advertising?

There are many different ways of targeting display advertising. Some main types of targeted advertising include contextual targeting, personalised targeting, and re-targeting.

The different types of targeted advertising achieve different purposes and require different amounts and types of data. For example, personalised targeting requires data about a specific individual's behaviour and interests and is more likely to involve personal information, whereas contextual targeting requires information about the context of an ad, including information about the webpage from the publisher and is less likely to involve personal information.

The main types of targeted advertising and the types of targeting data required are summarised in table 1.2 below.

Table 1.2: Overview of different types of targeted advertising⁶⁷

Type of targeting	Targeting data required	Source of targeting data
Contextual targeting (ads targeted based on relevant context in which they are shown)	Data about the context of the ad, such as website or app attributes (keywords, topics), the environment (date, time), or ad format.	Web or app publishers.
Personalised targeting (ads targeted to individual users based on attributes, such as interests, inferred from previous browsing activity or other data)	Specific data about the consumer, such as inferred hobbies, interests or characteristics, often inferred from their previous web browsing activity or other data.	Digital platforms, ad tech providers or data services providers with access to behavioural data, which may be inferred from web browsing history and other online activities.
Re-targeting (ads targeted at consumers who visit an ecommerce site without completing a transaction, aiming to recapture the consumer's interest in the product or service)	Specific data about the consumer's past browsing or transaction history.	Advertiser/ecommerce site provides information on the consumer to be retargeted (e.g. using customer lists or user IDs). Digital platforms, ad tech providers, or other publishers may also collect user IDs to be able to match a consumer while browsing on another site.

1.3.3. The collection and use of data for ad verification and attribution

In addition to ad targeting, data is collected and used by market participants to assess the performance of ads and to perform associated ad verification and ad attribution functions.

Ad verification refers to measuring whether ads are delivered to consumers in a viewable way. This requires information such as the percentage of pixels of the ad that were visible to the consumer, the amount of time the ad was in view, and information about the context in which the ad was displayed to the consumer.

Ad attribution refers to tracking whether a consumer took a specific action that can be attributed to seeing a particular ad (e.g. signing up to a service or purchasing a product). This generally requires tracking data on a consumer's activities, which includes data such as

⁶⁷ Adapted from Plum Consulting, [Online advertising in the UK: a report commissioned by the Department for Digital, Culture, Media & Sport](#), 12 February 2019, p. 33.

browsing or transaction activity that is linked to a unique identifier (e.g. cookie IDs or advertising IDs).

1.3.4. Sample sequence of data flows

As will be discussed below in section 1.4, the bidding and auction processes taking place along the ad tech supply chain use algorithms to determine the value of an ad impression as it is about to be displayed to a consumer. These processes take into account available data on the characteristics of the consumer who is about to view the ad, which affects how much that ad impression is worth to different advertisers.

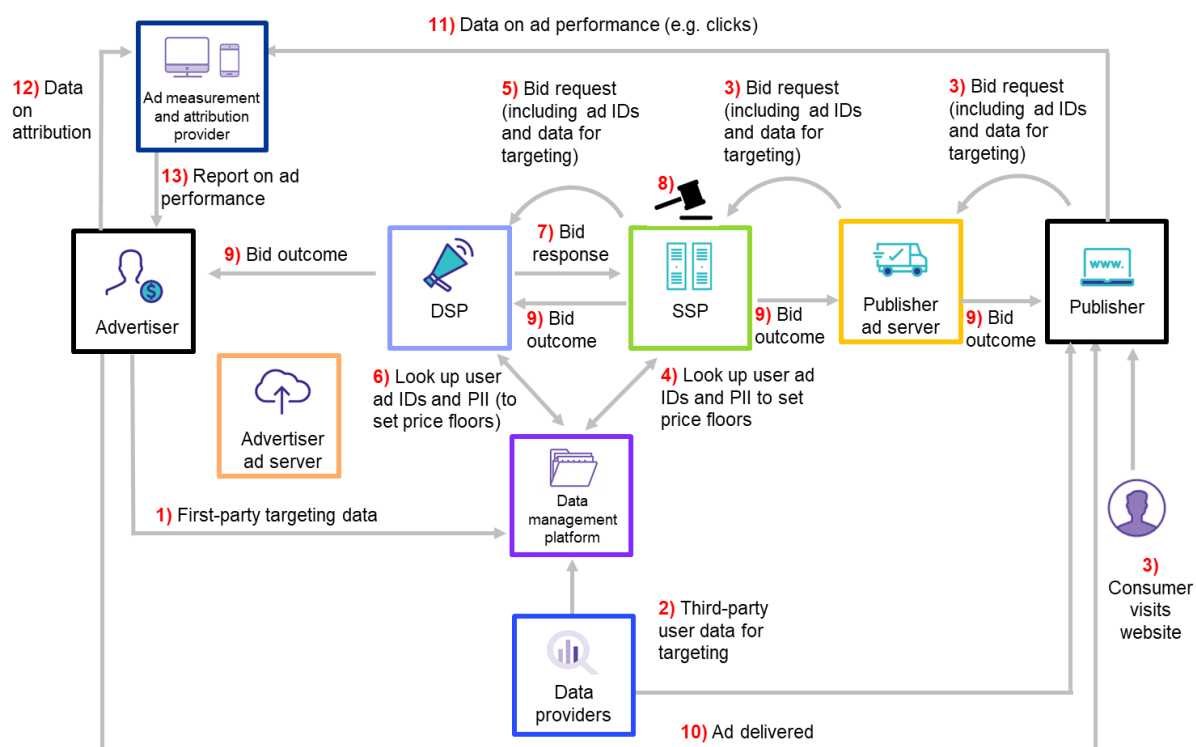
In a simplified example involving one automated auction operated by the SSP, the following ad targeting and ad verification data flows may take place:⁶⁸

1. Before an auction takes place, the advertiser may provide their first-party data to their data management platform for use in targeting ads.
2. Third party data providers might also be contributing third-party data to the advertisers' and publishers' data management platforms to help with targeting ads on both the buy-side and the sell-side
3. When a consumer visits the publisher's website, a bid request is sent from the website to the publisher's supply-side services.
4. The SSP then contacts their data management platform (if using one) to match the IDs and data in the bid request to data in the publisher's database. This will inform its decision on how to price the ad impression.
5. Once the SSP sets a price floor, it then sends a bid request to the DSPs to seek their bids for the ad impression.
6. DSPs contact their own data management platforms to look up the user ID and other data against their own databases, this time to decide how much to bid on behalf of the advertiser for the ad impression.
7. DSPs send their bid response to the SSP, placing its bid in the real-time auction.
8. The SSP runs a real-time bidding auction.
9. The SSP then communicates the bid outcome to the DSPs and the publisher ad server, who then pass it on to the advertiser and publisher.
10. The advertiser who won the auction sends the ad to the publisher website.
11. The website sends data on ad delivery and performance to the ad verification and attribution provider (e.g., how long the user looked at the ad or how long it was visible on the page for, whether the user clicked on the ad).
12. The advertiser sends through any additional data on attribution that it has collected on its end (e.g. whether the user actually bought an item).
13. The ad verification and attribution provider then uses this information to measure the performance of the ad campaign and reports this information to the advertiser.

These data flows are summarised in figure 1.16 below.

⁶⁸ Competition and Markets Authority, [Appendix F to Online platforms and digital advertising market study final report](#), 1 July 2020.

Figure 1.16: Simplified data flows in a single real-time bidding auction



Source: adapted from CMA Digital Advertising Final Report

1.4. Programmatic auctions

1.4.1. The role of auctions in programmatic advertising

Auctions are typically efficient price discovery mechanisms and a critical part of the ad tech supply chain as they enable significant volumes of ad inventory to be sold in real-time. In particular, the automated sequence of auctions running along the ad tech supply chain is a key way for selling publishers' ad inventory via open auction and private marketplace channels of supply.

The channels of supply that rely on auctions for the programmatic sale of display advertising are indicated in figure 1.11.

A typical sale of an ad impression via open auction may include up to three types of consecutive auctions run in the following order:

- **auctions between advertisers** – DSPs use a range of auction, selection or ranking processes to select which advertiser bids they will send to an SSP. Some DSPs will run a direct auction of advertiser bids, which other DSPs will generate potential bids for advertisers and rank them based on priority and price before choosing one or more bids to send to the SSP⁶⁹ – circled in blue in figure 1.17.
- **auctions between DSPs** – SSPs run auctions ranking the competing bids from DSPs based on numerous factors, including the bid price as well as any restrictions or priority rules set by the publisher⁷⁰ – circled in green in figure 1.17 below, and

⁶⁹ See Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M22.

⁷⁰ See Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M26.

- **auction between SSPs** – finally, there may also be a final auction between competing SSPs run in a header bidding auction that can be run in the web browser, a third party server or by the publisher ad server (see below box 1.1) – circled in yellow in figure 1.17 below.

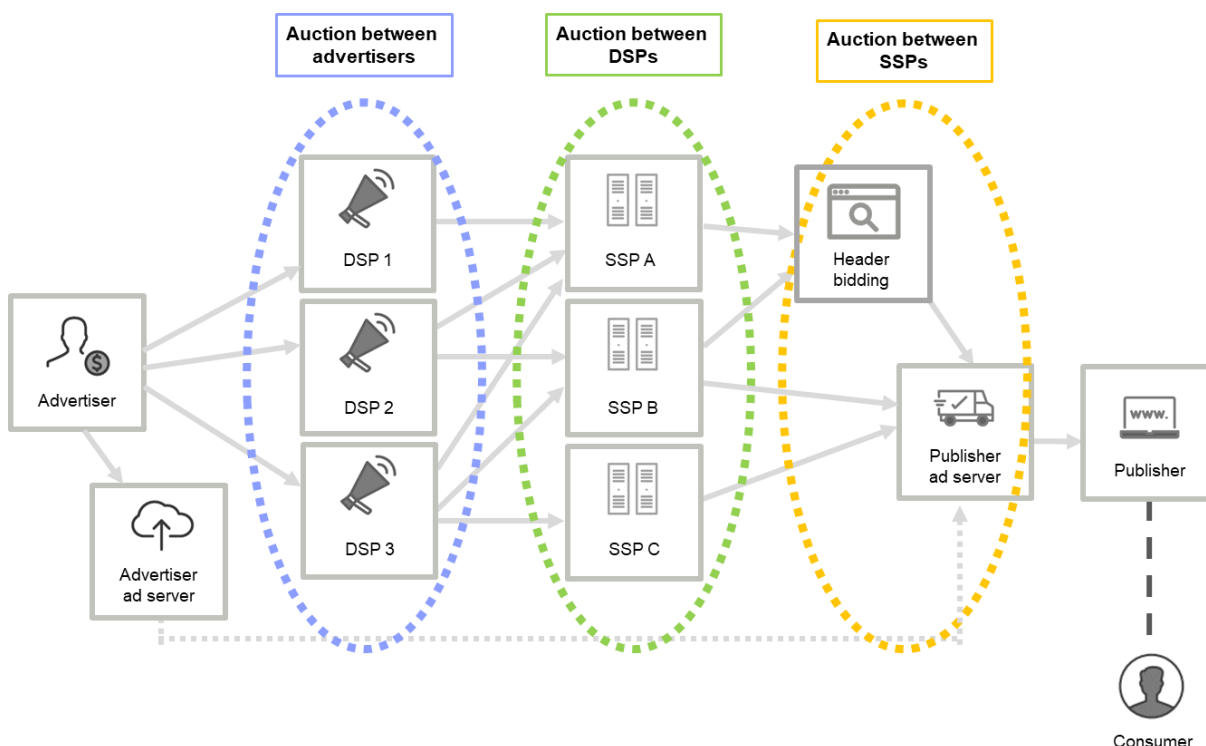
Box 1.1 What is header bidding?

Header bidding is a process for conducting auctions between SSPs that allows multiple SSPs to bid on the same ad inventory at the same time, with the winning bid selected via auction. There are two types of header bidding:

- *Client-side header bidding* (often referred to by market participants simply as **header bidding**): the auction is run by the consumer’s browser using code on the publisher’s website. Client-side header bidding has been widely adopted by publishers.⁷¹
- *Server-side header bidding*: the auction takes place in a third party server or the publisher ad server.⁷² Server-side header bidding is generally less popular with publishers due to lower rates of cookie syncing (see discussion in chapter 2, box 2.3) and because bidding data is less transparent than for client-side header bidding.⁷³ **Open Bidding** (formerly known as Exchange Bidding) is Google’s proprietary version of server-side header bidding, in which the auction between SSPs takes place in Google’s publisher ad server.⁷⁴

Figure 1.17 provides a simplified illustration of these three different types of auctions in a sample supply chain.

Figure 1.17: Different types of auctions in the ad tech supply chain



⁷¹ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, pp. M8-9.

⁷² Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M10; News Corp Australia [Submission to Ad Tech Inquiry Issues Paper](#), May 2020, p. 24.

⁷³ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M10.

⁷⁴ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M10.

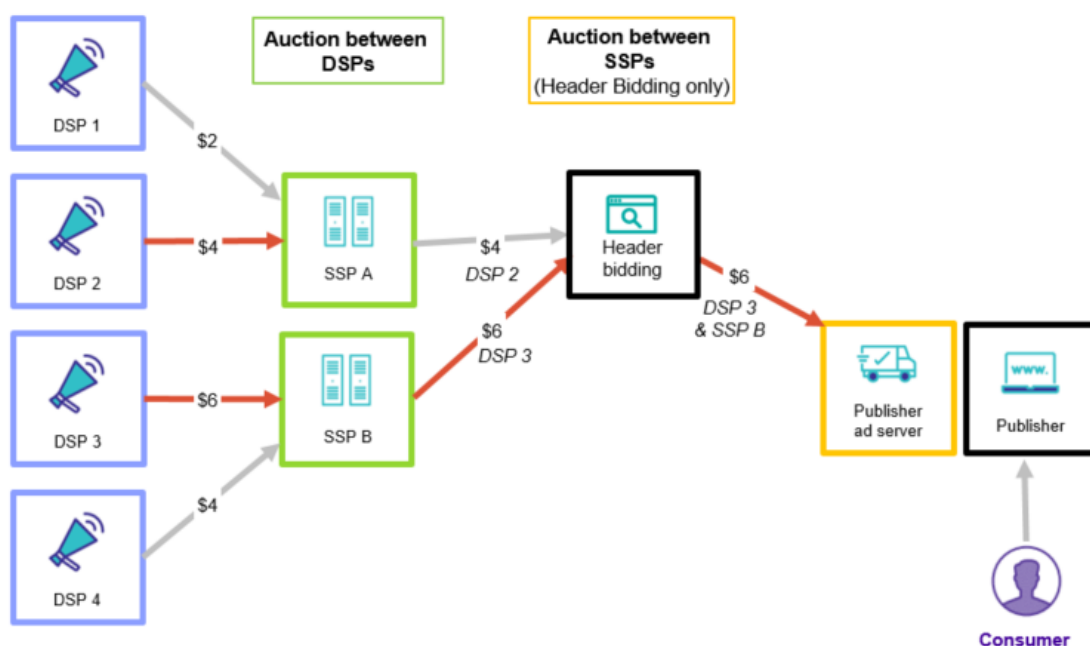
Other ad tech providers, such as ad networks, may also use auctions to sell publishers' ad inventory. As stakeholder submissions have generally not raised issues specific to auctions run on ad networks, they are not a key focus of this chapter, however some of the auction mechanics and dynamics discussed in this chapter may still apply.

1.4.2. Sample sequence of programmatic auctions

The following steps will take place in an example sale of an ad impression using client-side header bidding:

1. When a consumer accesses a publisher's website, the browser sends a bid request to the publisher's SSPs, who then send bid requests to DSPs.
2. These DSPs use an auction, selection or ranking process to select which advertiser bids to submit (**auction between advertisers**).
3. The DSPs submit their bids to the various SSPs, who run an auction and pick the winning bids (**auction between DSPs**) – winning bids shown by the red arrows in figure 1.18 below.
4. The SSPs send those winning bids to the client-side header bidding auction in the browser, which will run the auction (**auction between SSPs**) – winning bid shown by the red arrows in figure 1.18 below.
5. The browser will send the winning bid from the client-side header bidding auction to the publisher ad server – winning bid shown by the red arrows in figure 1.18 below.

Figure 1.18: Example of first-price auctions between DSPs and an auction between SSPs using client-side header bidding



The supply chain in figure 1.18 is an illustration only and actual auctions in the ad tech supply chain can vary from the above in a range of ways, for example:

- publishers may connect to more than three SSPs, and SSPs connecting to more than the same DSPs
- publishers may use client-side header bidding and server-side header bidding (such as Google's Open Bidding) at the same time
- publishers may connect to only one SSP and not use an auction between SSPs, and

- there may be additional providers in the supply chain, including intermediaries that resell the services of DSPs and SSPs, and data services providers.

More information regarding key auction dynamics, such as the difference between first price and second-price auctions and the impact of price floors, are set out in Appendix C.

2. The Role of Data

Key findings

- Data drives the ad targeting capabilities that are a key feature of display advertising. Data is also necessary to measure the effectiveness and performance of ads, such as checking the delivery and viewability of ads and attributing consumer actions to being exposed to particular ads.
- There is a widening divide in the volume and scope of data collected for use within the closed ecosystems of large, advertising-funded digital platforms (such as Google and Facebook) compared to the more fragmented data collected by other market participants. This means that large platforms can fuel their ad tech services by a much broader range of data than other ad tech providers, advertisers and publishers.
- Google has a particularly significant data advantage due to its ability to collect reliable first-party data from a wide range of consumer-facing services, which is supplemented by an extensive network of trackers on third-party websites and apps. Research from the ACCC's first monitoring report shows that Google trackers used for advertising purposes were found in more than half of the top 1,000 popular apps from the Google Play Store and that Google's trackers are present on over 80 per cent of 1 000 popular websites in Australia. In addition, Google's access to unique identifiers enables different data sources to be readily combined.
- Access to a large amount of high quality data enables the more effective tracking of consumers and improves ad targeting and ad attribution capabilities. As these are valuable functions to advertisers and to publishers, improved targeting and attribution capabilities from increased access to data can give rise to a competitive advantage in the supply of display advertising services.
- There are currently no close substitutes to the large datasets held by large advertising-funded digital platforms with numerous consumer-facing services, a large network of third-party trackers and access to a range of unique identifiers to link together different datasets
- As such, Google's access to data is likely to raise barriers to entry or expansion for smaller rivals or new entrants in the supply of ad tech services. As a result, these smaller rivals or new entrants are unlikely to impose more than a weak competitive constraint on Google in the supply of ad tech services.
- Restrictions on ad tech providers' ability to access or use data (such as limiting access to unique identifiers or blocking the use of third-party cookies) may be motivated by privacy and data protection goals but may also impede rivals' ability to compete effectively in the supply of ad tech services.
- Many stakeholders have raised concerns regarding the competitive impact of restrictions to ad tech providers' ability to access data, particularly in relation to Google's proposal to block third-party cookies on its Chrome web browser. The ACCC is seeking further stakeholder views on, and is monitoring developments on, this proposal. The ACCC would be concerned by any restrictions on data access that are imposed with the purpose or effect of restricting competition.
- Improved ad targeting and ad attribution can benefit consumers, for example by increasing the efficiency of the supply of display advertising, subsidising the supply of free online services and by reducing search costs for some consumers who are seeking particular products or services.
- However, the widespread collection and use of data for targeting purposes also has the potential to cause consumer harm if consumers are not sufficiently informed or do not have sufficient control over how their data is collected and used for ad targeting purposes.

Proposals for consultation

- The ACCC is considering two proposals to reduce data-related barriers to entry and expansion and to promote competition in the supply of ad tech services:
 - **Proposal 1:** measures aimed at increasing data portability and interoperability, such as a common user ID, which should be implemented with effective mechanisms for individuals to control the processing of their personal data.
 - **Proposal 2:** mechanisms to mandate the separation of datasets of large incumbents, such as data silos or purpose limitation requirements.

This chapter sets out the ACCC's preliminary findings on the role and use of data in the supply of ad tech services as well as its impact on consumers and competition in relevant markets.

It is structured as follows:

- **Section 2.1** briefly outlines the value of data in the supply of display advertising and ad tech services.
- **Section 2.2** discusses the widening divide between the scope and volume of data collected by large, advertising-funded digital platforms (such as Google and Facebook) compared to the more fragmented data collected by other market participants, including a discussion on Google's data advantage.
- **Section 2.3** discusses the impact of data on competition in display advertising and ad tech services markets, including the extent to which access to data raises barriers to entry and expansion.
- **Section 2.4** considers restrictions on ad tech providers' ability to access or use data and how these restrictions may impede their ability to compete effectively in the supply of ad tech services.
- **Section 2.5** discusses the range of potential consumer benefits and consumer harms that may rise from the collection and use of data for targeted advertising purposes.
- **Section 2.6** considers a range of proposals for consultation to reduce data-related barriers to entry and expansion and to promote competition in the supply of ad tech services, and reduce consumer harms.

Questions for stakeholders

The ACCC invites further stakeholder views regarding the impact of Google's restrictions on market participants' ability to access data required for ad targeting and ad attribution functions, including:

- Google blocking advertisers' ability to access its DoubleClick ID
- Google removing the ability for publishers to link bidding data from Google's SSP (Google Ad Exchange) to the impression-level data from Google's publisher ad server, and
- Google's proposals to replace third-party cookies on Chrome.

2.1. The value of data in the supply of display advertising

A key feature distinguishing digital advertising from more traditional channels of advertising such as print advertising is its enhanced ability to target ads to specific consumers based on that consumer's specific preferences or characteristics, often in real-time (that is, in the milliseconds while the consumer is waiting for the ad space to load) (see further chapter 1 section 1.3.2.)

Stakeholder submissions to the Issues Paper generally consider data to be a key input in the supply of display advertising.⁷⁵ Media agency WPP submit that data plays an important role in the ad tech market.⁷⁶ WPP further notes that data is critical to capturing the value of every ad impression and necessary for the core functions of most ad tech providers and data services providers in the supply chain.⁷⁷ Data for ad targeting purposes is valuable to different market participants for different reasons.

On the buyer-side, data enables advertisers to effectively target ads to consumers most likely to be influenced by those ads. This can increase advertisers' returns on their advertising expenditure.⁷⁸ However, different advertisers will value ad targeting ability to different extents, depending on the specific objectives of their ad campaign (see further chapter 1 section 1.1.3(c)). That is, the ability to target ads will be more important for advertisers seeking to increase brand awareness amongst specific audience groups or to trigger specific consumer actions (such as a purchase) than for advertisers seeking to improve brand awareness generally amongst all audience groups.

On the seller-side, publishers monetise consumer attention through the sale of ads, which can be priced according to the extent of user engagement with those ads (e.g. per click). Consequently, data that enables a publisher to more accurately estimate a consumer's value to advertisers is of value to publishers because it can help publishers optimise their pricing decisions to maximise their ad revenue.⁷⁹ In addition, data is also valuable to publishers because it increases the value of their inventory to advertisers. This is because, by providing data in bid requests, publishers improve the ability for advertisers to target consumers, thus increasing the value of their inventory to advertisers.

The different ad tech providers intermediating between publishers and advertisers value data for different reasons depending on their role in the ad tech supply chain. For example, SSPs and publisher ad servers may use data to ensure that publishers' ad inventory is priced appropriately to maximise ad revenue. DSPs bid for ad impressions on behalf of advertisers and use data to ensure that the bids appropriately reflect the value of the particular ad impression to the advertiser and that the ad is displayed to the advertiser's target audience. As such, targeting capabilities can be a key dimension on which ad tech providers compete (see further chapter 3 section 3.2.4).

Advertisers and publishers also require data to measure the performance of ads. This is particularly important in programmatic advertising as advertisers and publishers rely on intermediaries to participate in real-time bidding and ad serving on their behalf, but cannot directly observe the ads being delivered due to both the volume and speed of the automated transactions and the personalised nature of the ads. In particular, access to data is particularly important for ad attribution, which involves tracking a consumer's subsequent actions after being exposed to an ad.⁸⁰ See chapter 6 for a more detailed discussion of other ad measurement and verification functions.

⁷⁵ See, e.g., Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, pp. 20-21, p. 30; WPP AUNZ, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 6; Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, p. 23; Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 3.

⁷⁶ WPP AUNZ, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 6.

⁷⁷ WPP AUNZ, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 7.

⁷⁸ Competition and Markets Authority, [Appendix F to Online platforms and digital advertising market study final report](#), 1 July 2020, p. F34.

⁷⁹ Information Commissioner's Office (UK), [Update report into adtech and real time bidding](#), 20 June 2019, p. 11.

⁸⁰ Competition and Markets Authority, [Appendix Z to Online platforms and digital advertising market study final report](#), 1 July 2020, p. Z18.

2.2. Two diverging systems of data collection

Different participants in the ad tech supply chain collect a wide variety of data in a range of ways for targeting and attribution purposes. However, there is a widening disparity in the ability of large, advertising-funded digital platforms to collect and use data within their closed ecosystems (or ‘walled gardens’) and the ability of other market participants to collect and use data.

2.2.1. The ‘walled gardens’ of digital platforms

Within the closed ecosystems of large, advertising-funded digital platforms (also referred to as ‘walled gardens’), data can be collected and easily combined from a wide range of direct and indirect sources – see below box 2.1. This data is processed and used only by the digital platforms and raw data relating to individual users or ad impressions is generally not shared outside their walled gardens with third-party publishers or ad tech providers

Box 2.1: First-party and third-party data

There are two main ways of collecting data. Data can be collected directly from a consumer (also referred to as **first-party data**) or indirectly collected from an intermediary (**third-party data**). Data that is indirectly collected from a partner is also sometimes referred to as second-party data, though for the purpose of the discussion in this chapter we will only draw a distinction between first-party and third-party data.

The same data can be first-party data or third-party data, depending on how it is collected. For example, a consumer’s browsing history on a publisher’s website is first-party data when directly collected by the publisher, but will become third-party data if it is provided by the publisher to another party such as an ad tech provider.

(a) Direct sources of first-party data

Digital platforms offering a wide range of consumer-facing services benefit from having multiple touchpoints to directly collect first-party data from a large pool of consumers. For example:

- Facebook’s first-party data collection can include user content uploaded to Facebook or Instagram, user communications and usage of Facebook, locations, devices, networks of friends and connections (such as pages, accounts, hashtags and groups used), contacts, information provided by others on Facebook, and any personal data provided to Facebook when signing up for one of its social media services.⁸¹
- Google’s first-party data collection can include user device information, information from Chrome, search query history, information from Google services (such as YouTube, Google Wallet, and Google Docs), voice information, contacts, location data, information provided when signing up to a Google Account, and information collected from use of a device running an Android operating system containing Google mobile apps.⁸²

In particular, logged-on users provide a rich source of high-quality data on a user’s online activities as well as unique identifiers associated with the user. Some digital platforms also collect data from consumers who are not registered as users, which is also likely to include unique identifiers associated with the user but will not include as much first-party data on the user’s activities or account information such as a consumer’s name or contact details⁸³

⁸¹ Facebook, [Privacy Policy](#), 2020, accessed 17 December 2020.

⁸² Google, [Google Privacy Policy](#), updated September 30, 2020, accessed 17 December 2020.

⁸³ ACCC, [Digital Platforms Inquiry – final report](#), June 2019, p. 418.

(b) Indirect sources of third-party data

Digital platforms such as Facebook, Google and Amazon also have access to large networks of trackers on third-party publishers' websites and apps, providing a large amount of data on a user's online activities and browsing behaviour from third-party websites and apps that can be easily linked to the user's online profile for targeting purposes.⁸⁴

The ACCC's analysis in the Digital Platform Services Inquiry Interim Report (September 2020) found that large platforms such as Google and Facebook have the widest network of online trackers on third-party websites and apps.⁸⁵ This means that their data advantage from linking first-party and third-party datasets is further amplified by being able to access third-party data from an unmatched network of online trackers on third-party websites and apps.

(c) Ability to combine direct and indirect data sources

Access to a broad range of first-party data enables digital platforms to collect a range of unique identifiers relating to a consumer. This collection of unique identifiers on a large group of consumers is key to being able to quickly and accurately link together different datasets collected from first-party and third-party sources. Unique identifiers may include, for example, internet protocol (IP) addresses, cookie IDs, device IDs, advertising IDs, and device fingerprints.⁸⁶ Two examples of unique identifiers used by Google are the DoubleClick ID and Android Advertising ID – see box 2.2.

Generally, digital platforms do not share the raw data from within their walled gardens with third-party publishers or ad tech providers.⁸⁷ However, advertisers can often import data *into* the platforms' ecosystems for use in targeting and can also use digital platforms' ad tech services to access the targeting insights generated from the platform's data holdings.⁸⁸

A simplified diagram of different data flows between advertisers, publishers, and the walled gardens of large digital platforms is at figure 2.1 *data flows between advertisers, publishers and digital platforms*.

⁸⁴ ACCC, [Digital platform services inquiry – September 2020 interim report](#), September 2020, p. 47

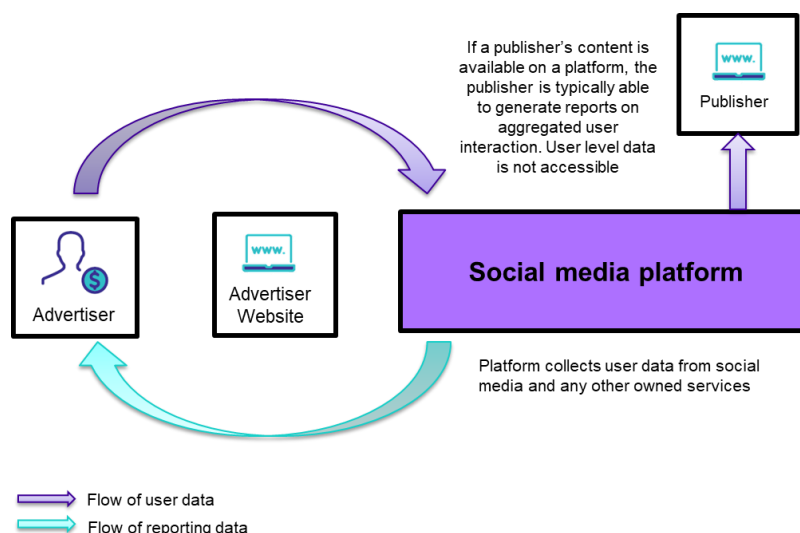
⁸⁵ The ACCC's analysis was based on a sample of 1000 websites frequently visited by consumers in Australia, based on top ranked websites and the number of monthly active users. The websites analysed also included 100 health-related websites, 100 children-related websites and 800 other websites (such as social networking websites). See [Digital platform services inquiry – September 2020 interim report](#), p. 47-50.

⁸⁶ Information Commissioner's Office (United Kingdom), [What are identifiers and related factors?](#), accessed on 17 December 2020

⁸⁷ ACCC, [Digital Platforms Inquiry – final report](#), June 2019, pp. 611-612.

⁸⁸ Plum Consulting, [Online advertising in the UK: A report commissioned by the Department for Digital, Culture, Media & Sport](#), January 2019, p. 14.

Figure 2.1: Data flows between advertisers, publishers and digital platforms⁸⁹



Source: Plum Consulting, [Online advertising in the UK: A report commissioned by the Department for Digital, Culture, Media & Sport](#), January 2019, p. 15.

Box 2.2: Google's unique identifiers

Two important unique persistent identifiers used by Google are the DoubleClick ID and the Android Advertising ID. These identifiers enable Google to quickly and accurately link together different datasets collected from first-party and third-party sources. This means that Google can quickly and accurately determine the characteristics of the individual visiting a website or app for which an advertising impression is available (e.g. their browsing history, previous purchasing history and demographic information):

- The **DoubleClick ID** is a type of anonymous identifier that is linked to a user, and is assigned to that user when they visit a website. It is able to identify a user across multiple devices over time. The DoubleClick ID is no longer shared with third-party ad tech services and is now stored only in Google's cloud-based analytics service Ads Data Hub, where it is now encrypted in two different ways as the UserID and PartnerID.⁹⁰
- The **Android Advertising ID** is a type of identifier that uniquely identifies a particular Android mobile device and can be used to track users over time and across apps.⁹¹ The Android Advertising ID is stored by a mobile device and shared with different apps⁹² (similar to cookies on web browsers).⁹³ The Android Advertising ID is available to all apps by default and does not require special permissions or consents from users.

⁸⁹ Plum Consulting, [Online advertising in the UK: A report commissioned by the Department for Digital, Culture, Media & Sport](#), January 2019, p.15.

⁹⁰ J Hercher, [Marketers Struggle To Relearn The Former DoubleClick ID](#), adexchanger, 4 March 2020, accessed 17 December 2020.

⁹¹ AppCensus, [1000 Mobile Apps in Australia: A Report for the ACCC](#), 24 September 2020, p. 9.

⁹² These trackers may include third party trackers that are embedded within apps by being embedded into the source code. Most trackers in apps obtain an identification code from a user's mobile device or web browser, which can then be shared with third parties (such as the app developer). Reports have noted that while 'SDKs themselves are not trackers, but they are the means through which most tracking through mobile apps occurs'. See R Binns et al, [Third Party Tracking in the Mobile Ecosystem](#), 18 October 2018, p. 1; Y Grauer, [Staggering variety of clandestine trackers found in popular Android apps](#), *The Intercept*, 24 November 2017, accessed 22 September 2020; S Morrison, [The hidden trackers in your phone, explained](#), *Vox*, 8 July 2020, accessed 22 September 2020; G Fleishman, [Here's how to track the smartphone apps that are tracking you](#), *Fast Company*, 30 May 2017, accessed 22 September 2020.

⁹³ B Cyphers, [Behind the One-Way Mirror: A Deep Dive Into The Technology of Corporate Surveillance](#), Electronic Frontier Foundation, 2 December 2019, p. 1.

2.2.2. Other market participants on the open internet

In contrast, on the open internet outside the ‘walled garden’ of large digital platforms, data collection is much more fragmented. A key difference in how these other market participants collect data compared with the walled gardens of the large digital platforms is that it typically involves directly collecting first-party data from a much narrower subset of consumers (if any) and supplementing this with third-party data from numerous different sources.⁹⁴ This process of matching user IDs across data sets can be inefficient, as the data collected relates to separate but potentially overlapping groups of individuals and may use a range of different identifiers, data formats and rules. Studies have shown that match rates using IDs are often in the range of 50 to 70%.⁹⁵ One way of matching user IDs is via ‘cookie syncing’, which is discussed further in box 2.3.

Ad tech providers can indirectly collect a range of third-party data from:

- advertisers (e.g. customer demographic information or target audience)
- publishers (e.g. data on the users visiting the publisher’s website)
- third-party data providers (e.g. audience segments), and
- other ad tech providers as a part of carrying out their roles in the ad tech supply chain (e.g. issuing bid requests, reporting ad sales).

Advertisers may directly collect first-party data from their interactions with customers (e.g. visits to the advertiser’s website, past purchases, participation in loyalty programs or mailing lists). Advertisers may also supplement their own data sources by obtaining third-party data from other sources such as data providers.

Publishers may also directly collect first-party data from consumers’ interactions with their own properties (e.g. user browsing data, newsletter subscriptions, participation in competitions, and any log-in data). Publishers may similarly supplement their own data with third-party data sources to assist with optimising the sale of their ad inventory.

A simplified diagram of data flows between market participants in the ad tech supply chain is shown below at figure 2.2.

Box 2.3: What is ‘cookie syncing’?

For ad targeting to work well, consumers must be able to be consistently and accurately identified throughout the ad tech supply chain. This generally would involve a single consumer being identified by both SSPs and DSPs as being that same single consumer. However, this can be difficult given the number of different ad tech providers involved.

For example, a consumer may be browsing on an advertiser’s website and the advertiser wishes to re-target that consumer. The consumer continues to browse the web and visits a publisher website where an ad opportunity is presented. Assuming the advertiser’s DSP and the publisher’s SSP are owned by different companies, each one would have been assigned a different unique identifier (commonly a ‘cookie’) to the same consumer. As such, there is no ability for the DSP and the SSP to know that this is the same consumer and strike up a deal for the ad being re-targeted to the consumer. In this scenario, a data sharing process (known as ‘cookie syncing’) would assist the DSP and SSP in identifying this consumer in the same way.

In a basic sense, cookie syncing involves a number of ad tech providers agreeing to share their unique identifiers with one another. Using matching techniques, a consumer identified as Consumer A in one DSP, and Consumer B in one SSP, could then be identified as Consumer 1, or any other name.⁹⁶

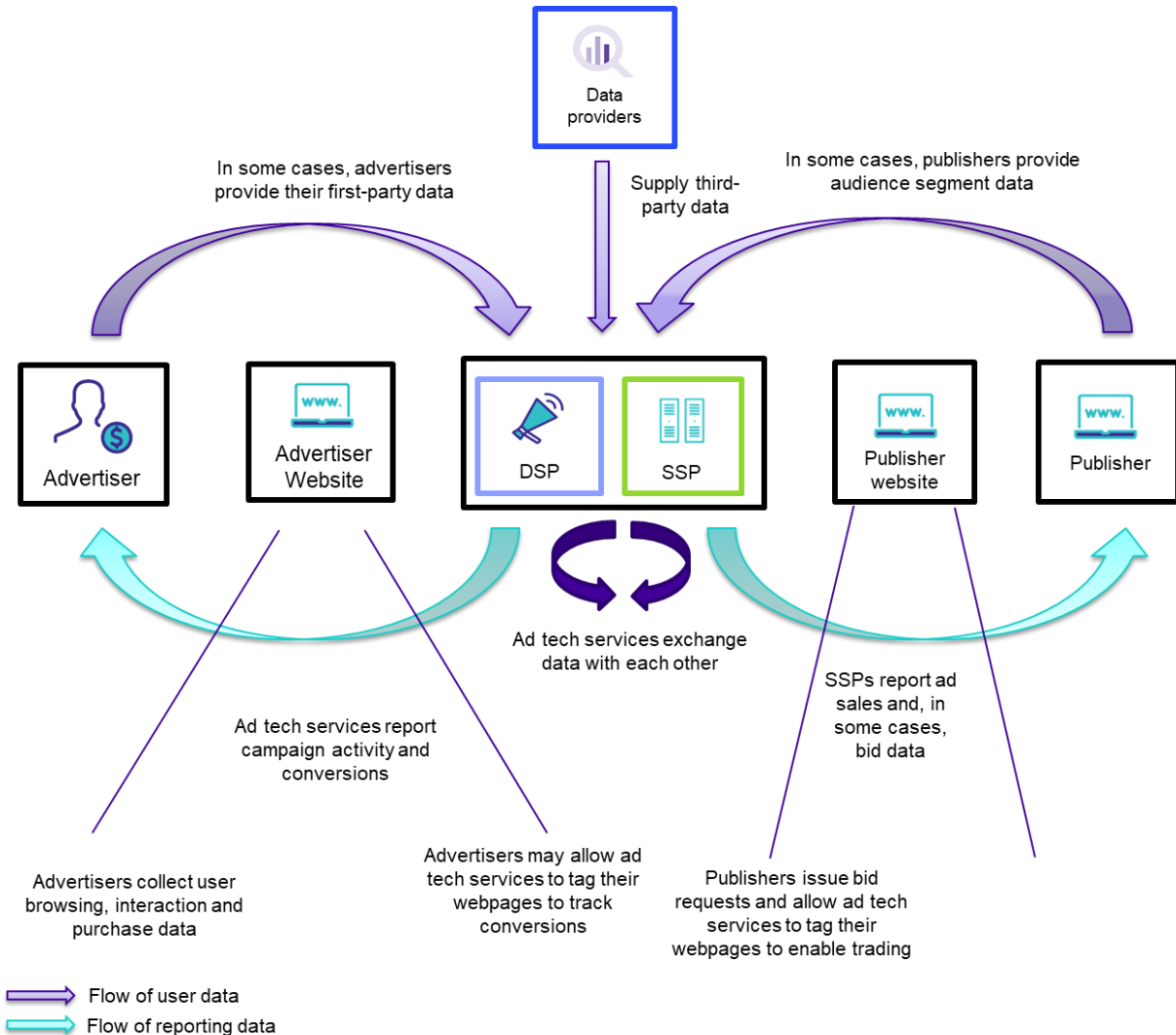
⁹⁴ Plum Consulting, [Online advertising in the UK: A report commissioned by the Department for Digital, Culture, Media & Sport](#), January 2019, p. 14.

⁹⁵ A Kujawska, S Menzer and M Roche, [Publishers’ Guide to Programmatic Monetisation Post-GDPR](#), ID5, June 2018, p. 7.

⁹⁶ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 8.

The disadvantages of this technique are that it is not accurate all the time, and additional time is spent completing the cookie matching process during each transaction. If a DSP takes too long to return a bid to the SSP due to time spent cookie syncing, that DSP may ‘time-out’ and would not be able to submit a bid in time on behalf of the advertiser for that ad space.

Figure 2.2: Data flows between advertisers, publishers and ad tech providers⁹⁷



Source: Plum Consulting, [Online advertising in the UK: A report commissioned by the Department for Digital, Culture, Media & Sport](#), January 2019, p. 15.

2.2.3. Google’s data advantage

In light of stakeholder views from submissions and Google’s presence across the ad tech supply chain, the ACCC has focused on the benefits that Google derives from its significant data holdings in this Interim Report. The ACCC notes that some stakeholders also consider Facebook to have a considerable data advantage in providing targeted display advertising.⁹⁸ However, this chapter places more focus on Google’s data advantage as, unlike Google, Facebook does not sell its own ad inventory in the ‘open display market’ or through the ad tech supply chain. Instead, Facebook uses its own ‘closed’ systems to sell inventory directly to advertisers.

⁹⁷ Plum Consulting, [Online advertising in the UK: A report commissioned by the Department for Digital, Culture, Media & Sport](#), January 2019, p. 15.

⁹⁸ Microsoft, [Submission to Ad Tech Inquiry Issues Paper](#), 24 April 2020, p. 3; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 7.

There are three key factors underpinning Google's data advantage. First, Google has the largest range of over 60 consumer-facing services that are widely-used by Australian consumers, providing Google with access to a large amount of high quality first-party data. For instance, approximately 19.2 million Australians use Google Search and 17.6 million watch videos on YouTube each month.⁹⁹ Many of Google's services require consumers to log-in to their Google Account, providing Google with a reliable source of logged-in user data on a significant proportion of Australia's current population of approximately 25 million. In contrast, most ad tech providers in Australia do not supply any consumer-facing services and must rely solely on third-party data sources.¹⁰⁰

Second, Google has the widest network of trackers on third-party websites and apps in Australia. The ACCC's analysis in the Digital Platform Services Inquiry Interim Report (September 2020) found Google's third-party scripts on over 80% of the top 1,000 websites sampled.¹⁰¹ While it is clear that Google has the means to collect data via these third-party scripts, the ACCC has not been able to directly observe how that data is being used by Google in each case and for what purpose. The ACCC's commissioned research by AppCensus of the top 1,000 most popular Android apps from the Google Play Store also found that Google's software development kits used for advertising and analytics purposes were found in 91% of apps analysed.¹⁰² Other ad tech providers also use trackers on third-party websites and apps to carry out their functions, including for ad targeting, but none have as many trackers on as many websites or apps as Google. See further box 2.4 for a discussion on the scope of Google's first-party and third-party data collection.

Third, Google has access to a range of unique identifiers that it can use to identify and link a user across different devices and browsing sessions, including exclusive access to its DoubleClick IDs. This gives Google the ability to track users across its different consumer-facing services and along the ad tech supply chain. This means that Google is likely able to more quickly and accurately identify the user that will be shown a particular ad impression, and know some of that user's characteristics and recent browsing behaviours. It is then able to use this information to optimise its pricing decisions (on the publisher-side) or its bidding decisions (on the advertiser-side). In addition, Google's access to DoubleClick IDs also means that it can quickly match a user across both sides of the ad tech supply chain and is less likely to have to engage in cookie syncing (as discussed above in box 2.3). In contrast, other providers who do not have a comparable presence across both sides of the supply chain would have to resort to using a combination of other identifiers to attempt to match a user to their own database, which is likely to be both slower and less accurate. Further, some stakeholders are concerned that Google's decision to restrict other market participants' ability to access its DoubleClick IDs further reduces their ability to compete with Google. This is discussed further in section 2.4.

Many stakeholders submit that Google's targeting abilities, which stem from the data advantage described above, makes its services essential for advertisers, and there are no alternative providers that offer comparable targeting capabilities.¹⁰³ Rival supplier of data services Oracle submits that Google has created a 'data moat' that constitutes an insurmountable barrier to entry, expansion, and effective competition in the supply of ad tech services.¹⁰⁴

⁹⁹ ACCC, [Digital Platforms Inquiry – final report](#), June 2019, p. 6.

¹⁰⁰ For example, Google's closest competitors in the supply of DSP and SSP services, which include Xandr, Magnite and The Trade Desk, do not have consumer-facing services.

¹⁰¹ The ACCC's analysis was based on a sample of 1000 websites frequently visited by consumers in Australia, ased on top ranked websites and the number of monthly active users. The websites analysed also included 100 health-related websites, 100 children-related websites and 800 other websites (such as social networking websites).

¹⁰² AppCensus, [1000 Mobile Apps in Australia: A Report for the ACCC](#), 24 September 2020, p. 24.

¹⁰³ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 2 & 26; Free TV, [Submission to Ad Tech Inquiry Issues Paper](#), 21 April 2020, pp. 13-14; Microsoft, [Submission to Ad Tech Inquiry Issues Paper](#), 24 April 2020, pp. 2-3.

¹⁰⁴ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 25.

In light of the above, the ACCC's preliminary view is that Google has unparalleled access to data and that this data advantage assists Google's for ad targeting and attribution services.

Box 2.4: Scope of Google's data collection

Google collects an extensive amount of high quality data from a range of first and third party sources. Google's 60 plus consumer-facing services means it has one of the broadest networks for **first-party data** collection, including the following sources:

- Data provided on signing up for a Google Account – name, date of birth, gender, email, phone number
- Data provided through use of Google's many consumer-facing services, including search histories from Google Search, location history and movement data from Google Maps, and interests and hobbies from YouTube, Gmail and Blogger.
- Data collected from use of Google devices, such as Android phones and Google Home devices. This includes device-level data from an estimated 10.3 million Android smartphones in Australia,¹⁰⁵ as well as data collected via Google's own apps (e.g. YouTube, Gmail and Chrome) and third-party apps running on these devices, including IP addresses and other network connection information, location information, device attributes, device signals, etc. It also includes data collected on Google Home and Nest devices, including smoke alarms, indoor and outdoor cameras, thermostats, and doorbells.
- Payment data collected from use of Google Pay, which acts as a digital wallet and method of payment, and can collect data such as purchase history, credit/debit cards details and billing address under its terms of use.¹⁰⁶

Google also has broadest network of **third-party data** from:

- Third-party websites: the ACCC's Digital Platform Services Inquiry found that Google's scripts were found on over 80% of the most popular 1,000 websites in Australia.¹⁰⁷
- Third-party apps: Google's SDKs were embedded in 91% of the most popular 1,000 apps on Google Android devices.¹⁰⁸

¹⁰⁵ L Spencer, '[Australians bought 9.2M smartphones last year](#)', ARN, 20 February 2018, accessed 17 December 2020.

¹⁰⁶ Google, Data transparency, accessed 24 June 2019; Google, Data security & privacy on Google Home, accessed 24 June 2019; D C Schmidt, Google Data Collection, 15 August 2018.

¹⁰⁷ ACCC, [Digital platform services inquiry – September 2020 interim report](#), September 2020, p. 47.

¹⁰⁸ ACCC, [Digital platform services inquiry – September 2020 interim report](#), September 2020, p. 48.

2.3. Impact of data on competition

This section focuses on the impact of data on competition between firms in the supply of ad tech services. This includes an analysis of the data advantages resulting from having access to large amounts of data, the ways in which data issues may raise barriers to entry and expansion in ad tech services markets, and a discussion of the extent of Google's data advantage.

2.3.1. Can data confer a competitive advantage?

(a) Improved ad targeting

Access to more data can enhance ad targeting abilities, which is a key dimension of competition in the supply of display advertising and ad tech services. Access to large amounts of high-quality data can give firms an improved ability to target ads to specific audiences, resulting in higher returns on investment for advertisers.¹⁰⁹

There is evidence demonstrating the value of ad targeting on publishers' ad revenue. Data analysis conducted by the Competition and Markets Authority (CMA) in the UK using data provided by Google found that blocking cookie information reduced average publisher revenue by around 70%. This decrease in revenue is due to a decreased ability for advertisers to engage in effective targeted advertising. Without access to the information contained in cookies, advertisers' targeting advertising capabilities are reduced, and publisher's revenues may be impacted.¹¹⁰ This is consistent with submissions from publishers to the Issues Paper noting that the availability of data for ad targeting significantly affects their ad revenues. For example, The Daily Mail submits that the restriction of third-party cookies that are used in ad targeting on web browsers Mozilla Firefox and Safari decreases advertiser spend by 45 to 65%. Stakeholders consider that the availability of data to be a key factor in deciding which ad tech providers to use. For example, Oracle submits that advertisers are driven to Google's ad tech services due to quality of Google's data, derived from its broad base of consumer data. This is consistent with the CMA's finding that Google and Facebook have exclusive access to large amounts of data which gives them a significant competitive advantage over other market participants, whose data collection is limited to user data from their own services and limited reach on third-party sites and apps.¹¹¹

In itself, access to large amounts of high-quality data for ad targeting purposes is likely to benefit advertisers and publishers by enabling the supply of a more valuable service in the form of better targeting capabilities. However, if the data is necessary to compete effectively and is not readily available to other ad tech providers, it may result in a data advantage that affects competition in the relevant markets. Large-scale data collection may also have consumer impacts, which will be discussed further in section 2.5.

(b) Improved ad attribution

Access to reliable and standardised data can also improve an advertiser's ability to measure the performance of ads, including performing ad verification and ad attribution tasks. Accurate and detailed ad attribution information is important to advertisers because it

¹⁰⁹ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 12, footnote 2.

¹¹⁰ Competition and Markets Authority, [Appendix G to Online platforms and digital advertising market study final report](#), pp. G105-106 & p. G121.

¹¹¹ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, pp. 291-292.

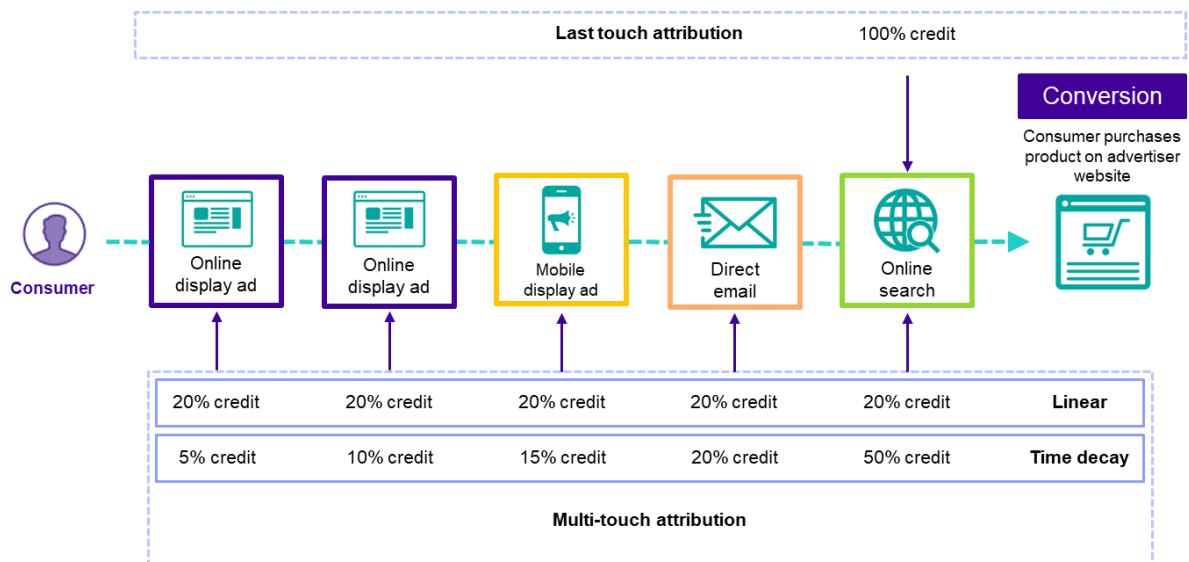
informs advertiser decisions about which service providers to use, which publishers to purchase inventory from, and also which forms of advertising are most effective.¹¹²

In particular, multi-touch attribution services track every time a consumer is exposed to an ad in an ad campaign and link this information to data on the actions a consumer subsequently takes.¹¹³ In this way, all the advertising that may have contributed to a consumer’s decision to take a particular action (like signing up to a service, or purchasing a product) can be assigned some credit for the consumer’s decision. On the other hand, last-touch attribution, attributes all the credit for the consumer’s action to the last ad the consumer saw.

Multi-touch attribution is typically considered more valuable to advertisers, because it allows an advertiser to consider a better picture of how ads of different types and in different locations influenced a consumer’s decision. Advertisers can then use this information to make decisions about how to efficiently spend their advertising money.

In some cases, last touch attribution can be misleading in how it attributes the value of a sale. This is illustrated in the following example which shows how two types of multi-touch attribution attribute the credit for a sale compared to last touch attribution.

Figure 2.3: Types of multi-touch attribution¹¹⁴



Source: Nielsen, 'How Multi-Touch Attribution Helps Brands Master the Universe', 22 May 2019, accessed 23 December 2020

Because multi-touch attribution involves tracking a consumer across the internet, the more tracking data available to an attribution provider, the more complete and sophisticated their multi-touch attribution modelling will be.

As Google has access to considerably more data about consumers than other market participants, including other attribution providers, it is likely that Google will be able to provide more accurate and detailed multi-touch attribution services than are available from other ad tech providers.¹¹⁵ A number of stakeholders have made submissions supporting

¹¹² Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 300; Competition and Markets Authority, [Appendix O to Online platforms and digital advertising market study final report](#), p. O20; Plum Consulting, [Online advertising in the UK: A report commissioned by the Department for Digital, Culture, Media & Sport](#), January 2019, p. 57.

¹¹³ ClearCode, [Multi-Touch Attribution or Conversion-Driven Marketing](#), accessed 17 December 2020.

¹¹⁴ Nielsen, 'How Multi-Touch Attribution Helps Brands Master the Universe', 22 May 2019, accessed 23 December 2020

¹¹⁵ Advertisers will value attribution services that are able to most accurately track the 'consumers journey' to a conversion. This will allow the advertiser to understand the advertisements which are having the greatest impact, and base decisions on these findings.

this view. News Corp and Oracle's submissions suggest that Google's access to data and its ability to track user activity provides means it can supply better attribution services, and this advantages it in supplying DSP services more generally.¹¹⁶ The Guardian submitted that the data available to Google to provide attribution, 'enables Google to tell a story about the apparent effectiveness of its advertising business in a way that no other media company can'.¹¹⁷ Similarly, Microsoft submits that the prevalence of Google 'trackers or tags' across the internet allows it to undertake a more sophisticated analysis of attribution because it can more easily track a consumers journey across the internet. In addition, it also considers it has 'rich offline conversion tracking figures, and mobile data can be used to help measure offline conversion by tracking users actions based on a users' presence in the store'.¹¹⁸

2.3.2. Data as a barrier to entry or expansion

Given the importance of ad targeting in display advertising and ad tech services, the access of large incumbents to such data is likely to raise barriers to entry or expansion if smaller rivals and new entrants are unable to either collect or buy access to the types and amounts of data required to compete effectively.¹¹⁹

The first issue to be considered is the type or volume of data required to effectively target advertising. As outlined in chapter 1 section 1.3.2, the data used for targeting purposes can include a broad range of first-party and third-party data collected about a consumer's characteristics, behaviour, or interests as well as information about the context in which an ad is shown. Empirical evidence as to the exact amount of data required for effective targeting capabilities is limited, though some studies have shown that more data generally enhances the quality and accuracy of forecasting but with diminishing returns to scale.¹²⁰ The ACCC notes that the extent of the diminishing returns to scale for ad targeting purposes will depend on different factors, including how recently the data was collected and whether it is different to the data already collected (e.g. if it relates to a user who is not part of the existing data set).

A second issue is the extent to which these types of data are readily available to other ad tech providers. Google's submission to the Issues Paper notes that consumers typically share data with many firms, which means it is unlikely that any one firm has unique access to user data.¹²¹ Similarly, Facebook submits that any data needed to enter and expand is easily obtainable either directly from users or many other third-party data providers.¹²² However, whilst the non-rivalrous nature of data means that any individual piece of data may be held by many different sources, this does not mean that Google's large and varied datasets are similarly accessible to rival ad tech providers. The 'walled garden' nature of large digital platforms' data holdings is discussed at section 2.2.1 above.

Stakeholders across the supply chain have submitted that Google and Facebook's access to data gives them a competitive advantage that rivals cannot match. In particular, stakeholders submit that Google and Facebook have a unique ability to collect, aggregate and offer data that is of most value to advertisers and publishers due to their large user base, and that

¹¹⁶ See News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 36; Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 2;

¹¹⁷ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 19.

¹¹⁸ Microsoft, [Submission to Ad Tech Inquiry Issues Paper](#), 24 April 2020, pp. 2-3.

¹¹⁹ See eg, Bundeskartellamt and Autorité de la concurrence, [Competition Law and Data](#), 10 May 2020, p. 11.

¹²⁰ Lear Lab (prepared for the Competition and Markets Authority), [Ex-post Assessment of Merger Control Decisions in Digital Markets: Final Report](#), May 2019, p. 140.

¹²¹ Google Australia, [Submission to Ad Tech Inquiry issues Paper](#), p. 21.

¹²² Facebook, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020, p. 6, giving examples including Acxiom, Experian, Equifax, Nielsen, Epsilon, KPMG, Illion, LiveRamp, Merkle, Oracle, Salesforce, Global Data and Quantcast and Tapad.

there are no alternative providers that offer substitutable targeting capabilities.¹²³ Publishers' submissions note that the unique scale and depth of Google and Facebook's data holdings are difficult for rivals to replicate.¹²⁴

2.3.3. ACCC preliminary views on data as a source of competitive advantage

The ACCC's preliminary view is that there are currently no close substitutes to the large datasets held by large advertising-funded digital platforms with numerous consumer-facing services, a large network of third-party trackers and access to a range of unique identifiers to link together different datasets.

In addition, the ACCC considers that the inability of smaller rivals to access the necessary types and volumes of data to compete effectively with Google and Facebook is likely to raise barriers to entry or expansion. The ACCC is still considering the extent of these barriers to entry or expansion in the supply of display advertising and ad tech services. See further chapter 3 section 3.2.4 for a more detailed discussion on the competitive impact of access to data for ad targeting in the supply of DSP services.

2.4. Impact of restrictions on rivals' access to data

This section considers stakeholder concerns regarding restrictions placed by Google on other ad tech providers' ability to access data required for ad targeting and ad attribution functions. The ACCC is seeking further information from stakeholders on these issues to understand the impact of these data restrictions on competition in the supply of ad tech services.

2.4.1. Google's policy changes that restrict access to data

Stakeholders have raised concerns regarding policy changes made by Google that restrict access to different types of data across the ad tech supply chain. The ACCC will continue to consider these concerns during this Inquiry, including whether enforcement proceedings under the CCA are required.

(a) Blocking access to the DoubleClick ID

In May 2018, Google blocked advertisers' ability to access its DoubleClick ID when using its data transfer service to pull impression-level data from Google's demand-side services.¹²⁵ Advertisers and DSPs previously relied on user IDs such as the DoubleClick ID for targeting and attribution purposes.¹²⁶ This reportedly means that the only way for an advertiser to know its ad has reached the same person across different websites is to buy all media through Google.¹²⁷ This is because in order for an advertiser to manage and target ads to consumers across different websites and to limit how many times the same ad is shown to a consumer, the advertiser needs to access a common ID across both advertisers' and publishers' sites. The role of User IDs in a bid request is illustrated in figure 2.4. An overview of the types of data often contained in a bid request is at box 2.5.

¹²³ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 2; Verizon Media, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020, p. 5; Free TV, [Submission to Ad Tech Inquiry Issues Paper](#), 21 April 2020, pp. 13-14; Microsoft, [Submission to Ad Tech Inquiry Issues Paper](#), 24 April 2020, pp. 2-3.

¹²⁴ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 7.

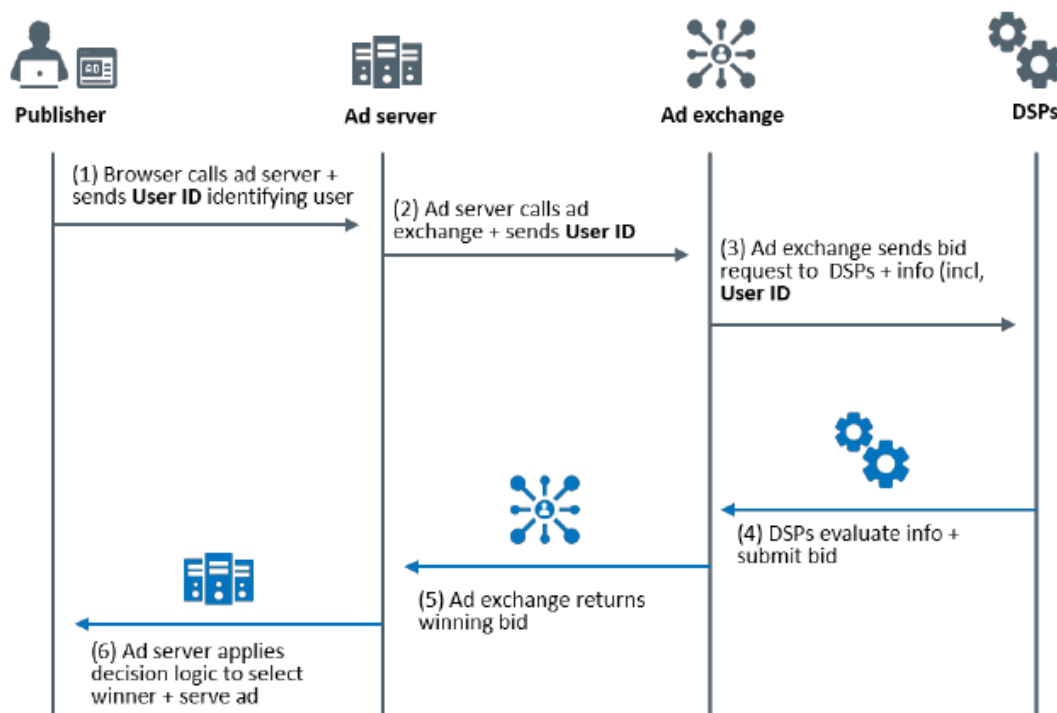
¹²⁵ L Sullivan, '[Google Puts Restrictions on DoubleClick ID Tracking For Data Transfer](#)', *MediaPost*, 3 May 2018, accessed 17 December 2020.

¹²⁶ S Joseph, '[Advertisers see Google's new DoubleClick ID rules cementing its dominance](#)', *Digiday*, 5 October 2018, accessed 17 December 2020.

¹²⁷ S Joseph, '[Advertisers see Google's new DoubleClick ID rules cementing its dominance](#)', *Digiday*, 5 October 2018, accessed 17 December 2020.

DoubleClick ID was previously made available to advertisers using Google’s advertiser ad server and DSP to manage and track ads,¹²⁸ but this ID now can only be accessed in an encrypted form within the Google’s Ads Data Hub.¹²⁹ This means that advertisers can no longer merge data from their ad campaigns using Google’s DSPs and third-party DSPs outside of Google’s Ads Data Hub.¹³⁰

Figure 2.4: How user IDs can be used in a bid request¹³¹



Source: News Corp Australia, Submission to Ad Tech Inquiry Issues Paper, p.77.

Box 2.5: What data is in a bid request?

An important part of ad tech data flows are the bid requests shared between ad tech providers. The data contained in a bid request can vary, but most bid requests contain the following types of data (including both personal and non-personal data):¹³²

- a unique identifier for the bid request
- the user's IP address (possibly with the final set of numbers removed, e.g. in Google's Authorized Buyers framework)
- cookie IDs
- user IDs
- a user-agent string identifying the user's browser and device type

¹²⁸ A Weissbrot, [Google Sharply Limits DoubleClick ID Use, Citing GDPR](#), adexchanger, 27 April 2018, accessed 23 September 2020

¹²⁹ J Hercher, [Marketers Struggle To Relearn The Former DoubleClick ID](#), adexchanger, 4 March 2020, accessed 17 December 2020.

¹³⁰ J Hercher, [Marketers Struggle To Relearn The Former DoubleClick ID](#), adexchanger, 4 March 2020, accessed 17 December 2020.

¹³¹ From News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 77. The 'ad server' and 'ad exchange' in this diagram denotes what this report refers to as a publisher ad server and an SSP respectively.

¹³² Information Commissioner's Office (United Kingdom), [Update report into adtech and real time bidding](#), 20 June 2019, p. 12.

- the user's location
- the user's time zone
- the detected language of the user's system
- the device type (desktop/mobile, brand, model, operating system)
- other information relating to the user (this can vary), and
- information relating to the audience segmentation of the user.

Generally, bid requests that contain more detailed data are more attractive because they enable more accurate ad targeting.¹³³ The data in a bid request may come from the publisher or be supplemented by data from the publisher-side ad tech provider.¹³⁴

Google has stated that the reason for this restriction was the data protection rules under the General Data Protection Regulation (GDPR) that also took effect in May 2018.¹³⁵ However, stakeholders question the privacy motivations behind this restriction, some arguing that it may be motivated by a strategic decision to entrench Google's dominance in the supply of ad tech services:¹³⁶

- News Corp submits that restricting rival ad tech providers' ability to use the DoubleClick ID to target users means they must rely on cookie syncing to link together user behaviours across impressions, which reduces their ability to compete effectively in the bidding processes compared with Google's ad tech services.¹³⁷ This is because Google's own ad tech services remain able to use the DoubleClick ID to link together impression-level data with its many data sources within its walled garden (see discussion at section 2.2.3 above).¹³⁸
- On a similar note, the Guardian submits that the ability of Google's DSP (Display & Video 360) to use the same first-party cookies as Google's SSP whereas other DSPs cannot gives Display & Video 360 a technical advantage over other DSPs.¹³⁹
- Free TV also submits that Google's changes that remove publishers' and advertisers' ability to access impression-level data means that only Google has access to this data at a granular level, 'primarily to ensure that Google remained the data gatekeeper and that there was no potential for competing datasets to be developed over time'.¹⁴⁰

(b) Restricting publishers' ability to link bidding data

Publishers have also expressed concern that Google has removed the ability for publishers to link together data about bidding on publishers' advertising inventory from Google's SSP (Google Ad Exchange) to the impression-level data from Google's publisher ad server.¹⁴¹ News Corp submits that access to this information previously enabled publishers to compare and make informed decisions about different channels for selling its ad inventory and that

¹³³ Information Commissioner's Office (United Kingdom), [Update report into adtech and real time bidding](#), 20 June 2019, p. 13.

¹³⁴ Information Commissioner's Office (United Kingdom), [Update report into adtech and real time bidding](#), 20 June 2019, p. 11.

¹³⁵ L Sullivan, '[Google Puts Restrictions on DoubleClick ID Tracking For Data Transfer](#)', *MediaPost*, 3 May 2018, accessed 17 December 2020

¹³⁶ Geradin & Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, pp. 32-33; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 107-108; Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 15; Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, pp. 19-20.

¹³⁷ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 108.

¹³⁸ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 113.

¹³⁹ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 7.

¹⁴⁰ Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 15

¹⁴¹ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 36 and 80. Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 15.

removing the ability to reconcile the two datasets has made it significantly more difficult for publishers to optimise the sale of their ad inventory based on data from past auctions.¹⁴²

News Corp's submission to the Issues Paper describes this de-linking of data as an 'artificial and impractical divide, nearly as if an auctioneer is unaware of the reserve price of the product they are selling' and submits that this change is not a requirement of any privacy regulation and is not necessary to protect user privacy.¹⁴³ Instead, News Corp consider this change benefits Google, as it may prevent publishers from switching away from Google's ad tech services due to lack of the necessary information about the market.¹⁴⁴

These restrictions also affect advertisers, publishers, and ad tech providers' ability to measure the performance of ads and are discussed further in section 6.5.2 in chapter 6.

2.4.2. Changes to the use of third-party cookies on browsers

(a) Changes in use of third-party cookies on browsers

There has been a recent trend towards browsers blocking the use of third-party cookies that enable online tracking of consumers, driven by an increasing focus on privacy and data protection in recent years. See below box 2.6 for an overview of how first-party and third-party cookies are used.

In 2017, Apple introduced Intelligent Tracking Prevention to block cross-site tracking of consumers using the Safari web browser Safari.¹⁴⁵ As part of Apple's latest iOS update in September 2020, Apple has announced that Intelligent Tracking Prevention will be switched on by default for all browsers so consumers who prefer targeted advertising will have to actively opt-in to cross-site tracking.¹⁴⁶ Mozilla Firefox has also introduced Enhanced Tracking Protection on its web browser for all its users, which is also turned on for all consumers by default.¹⁴⁷ Privacy-focused web browser Brave similarly uses a feature called Shields to block third-party trackers and any ads that use third-party trackers by default.¹⁴⁸ In January 2020, Microsoft released a new version of its browser Microsoft Edge with new privacy tools, including giving users a choice between three different levels of third-party cookie blocking.¹⁴⁹

Box 2.6: What are cookies?

Cookies are small text files stored in your browser that are associated with a particular domain. First-party cookies are associated with the website that a user is visiting and allow the browser to share information with the website (e.g. language, time zone) that helps the website display content to the user. See figure 2.5 example of a first-party tracking cookie.

Third-party cookies are text files created by domains other than the website that the user is visiting at the time.¹⁵⁰ See figure 2.6 example of a third-party tracking cookie.

¹⁴² See News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 80.

¹⁴³ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 109.

¹⁴⁴ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 109;

¹⁴⁵ T Peterson, 'WTF is Apple's ITP 2.3 update?', *Digiday*, 27 September 2019, accessed 17 December 2020.

¹⁴⁶ L O'Reilly, 'Apple's latest anti-tracking changes present fresh headache for publishers', *Digiday*, 21 September 2020, accessed 17 December 2020.

¹⁴⁷ Mozilla, [Latest Firefox rolls out Enhanced Tracking Protection 2.0: blocking redirect trackers by default](#), *Mozilla Blog*, 4 August 2020, 17 December 2020.

¹⁴⁸ Brave Help Centre, [How do I use Shields while browsing?](#), accessed 17 December 2020.

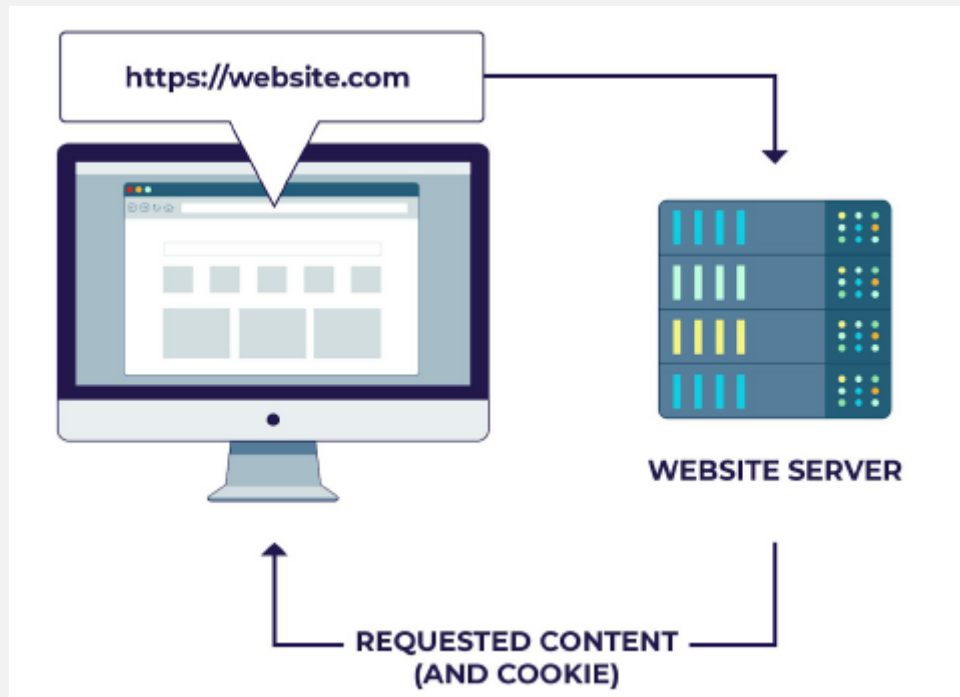
¹⁴⁹ A Chaudhry, 'How to use Edge's tools to protect your privacy while browsing?' *The Verge*, 13 February 2020, accessed 17 December 2020.

¹⁵⁰ In contrast, first-party cookies are files stored by the website a consumer is visiting, allowing the publisher to collect analytics data, remember language settings, and perform other functions relevant to the consumer experience on the website. First-party cookies can also be used for cross-site tracking, but only by the publisher of the website being visited.

Ad tech providers use third-party cookies to track a consumer across different websites ('cross-site tracking'), re-target ads, and for ad-serving.¹⁵¹ Cross-site tracking allows ad tech providers to build a profile of the consumers based on their online activities and browsing behaviour. This means that third-party cookies are currently an important way that ad tech providers collect data and have a considerable impact on their ability to effectively target ads.

Because of their central role in collecting third-party data, third-party cookies are used extensively by providers of display advertising and ad tech services. For example, social plug-ins that allow a user to like or share content to a digital platform place third-party cookies on a user's browser and are used to enable cross-site tracking and targeted advertising.

Figure 2.5: Example of a first-party tracking cookie¹⁵²

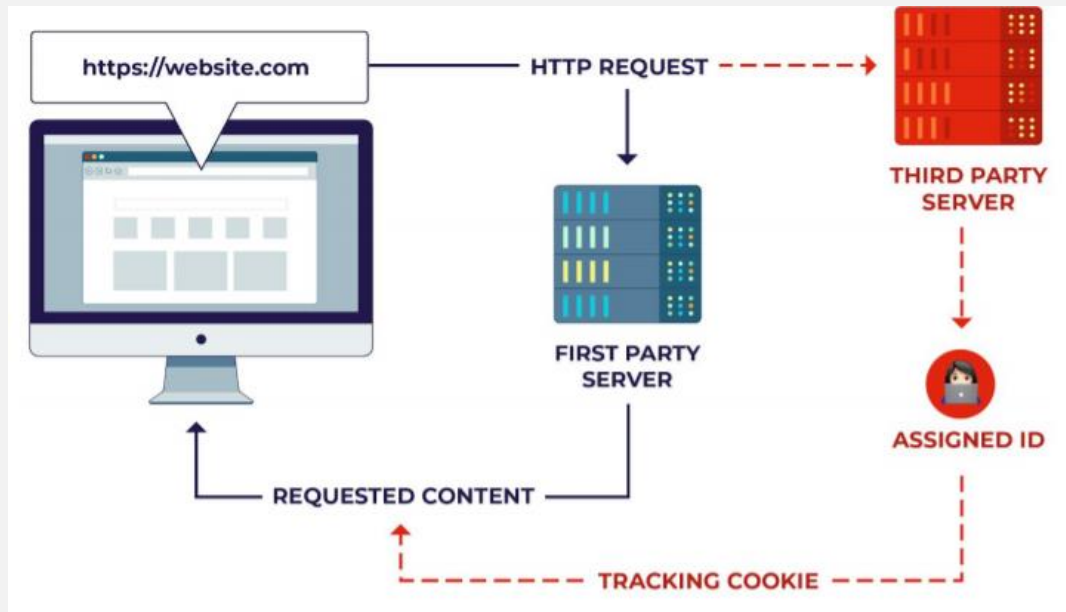


Source: Electronic Frontier Foundation, [Beyond the One Way Mirror](#), p. 12

¹⁵¹ M Wlosik and M Sweeney, 'What's the Difference Between First-Party and Third-Party Cookies?' *Clearcode*, 2 November 2018, accessed 17 December 2020.

¹⁵² Electronic Frontier Foundation, [Beyond the One Way Mirror](#), p. 12.

Figure 2.6: Example of a third-party tracking cookie¹⁵³



Source: Electronic Frontier Foundation, [Beyond the One Way Mirror](#), p. 13.

(b) Proposed changes to third-party cookies on Chrome and the Privacy Sandbox

(i) Google's proposed changes

In August 2019, Google announced that it was phasing out support for third-party cookies on its web browser Chrome.¹⁵⁴ The impact of this announcement differs from the other browsers' changes in use of third-party cookies in several significant ways:

- Chrome has a larger share of the supply of web browsers globally, including an estimated market share of 63% of desktop devices in Australia.¹⁵⁵
- Google does not intend to only turn off third-party cookies by default (like Mozilla Firefox and Safari) with an option for users to opt-back in, but to fully phase out the use of third-party cookies on Chrome altogether.¹⁵⁶ In contrast, other browsers phasing out cookies including Mozilla Firefox, Safari, Brave and Microsoft Edge all retain options for consumers to opt back in to the use of third-party cookies.
- Whilst other browsers have immediately implemented their announced changes to third-party cookies, Google proposed a gradual phasing out of third-party cookies over a two-year period. During this time, Google will work with other market participants to develop alternatives for third-party cookies via its initiative known as the 'Privacy Sandbox'.¹⁵⁷ Google describes its Privacy Sandbox as a set of 'open standards to fundamentally enhance privacy on the web' with the goal of 'making the web more private and secure

¹⁵³ Electronic Frontier Foundation, [Beyond the One Way Mirror](#), p. 13.

¹⁵⁴ Justin Schuh "Building a more private web", 22 August 2019, available at: <https://www.blog.google/products/chrome/building-a-more-private-web/>.

¹⁵⁵ Statcounter, [Desktop Browser Market Share Australia – November 2020](#), accessed 17 December 2020.

¹⁵⁶ L O'Reilly, '[Google plans to kill off third-party cookies in Chrome 'within 2 years'](#)', *Digiday*, 14 January 2020, accessed 17 December 2020.

¹⁵⁷ Chromium Blog, [Building a more private web: A path towards making third party cookies obsolete](#), 14 January 2020, accessed 17 December 2020.

for users, while also supporting publishers.¹⁵⁸ Some potential alternatives currently being evaluated by Google are set out in box 2.7.

Box 2.7 Google's Privacy Sandbox Proposals

Some potential alternatives to third-party cookies for ad targeting and attribution functions being considered in Google's Privacy Sandbox include:

- **Federated Learning of Cohorts (FLoC)**¹⁵⁹, which refers to the use of aggregated audience targeting in programmatic auctions rather than individual targeting. This technique uses machine learning algorithms on a user's device to group users into audience segments based on online behaviour such as browser history. This initiative provides consumers greater privacy by keeping the data on users' devices and grouping users in groups (or 'flocks') of thousands of people rather than using a pseudonymous identifier for each individual user. Google conducted testing on this proposal in October 2020.¹⁶⁰
- **Turtledove**, which is a proposal for auctions would be run in the browser rather than in publisher ad servers, which would prevent bidding data from being siphoned off to build profiles on users.¹⁶¹
- **Dovekey** is a follow-up proposal posted by Google in September 2020 that proposes a separate third-party ad server (a 'key value server') who receives targeting information from the advertiser's SSP and returns a bid value.¹⁶² This would mean the key value server is a gatekeeper for the data flows and would prevent advertisers, publishers and ad tech suppliers from gathering information individuals for profiling.¹⁶³
- The **Conversion Measurement API**, which proposes an alternative for tracking click-through conversions without cookies.¹⁶⁴

Because the proposed alternatives to third-party cookies are being developed as open web standards, they can theoretically be adopted by competing browsers such as Safari, Mozilla and Firefox.¹⁶⁵ Whether this occurs in practice, and impact of such adoption on competition and privacy, will depend on the specifics of each proposal once they are settled.

(ii) Stakeholder views

Stakeholder submissions to the Inquiry have expressed strong concerns regarding Google's announcement. Free TV submits that this policy change will lessen competition in the supply of ad tech services by foreclosing rivals ad tech providers' access to data, as they will not be able to collect information from consumers who use Chrome, and will cement Google's position as the 'data gatekeeper'.¹⁶⁶ News Corp submits that, due to the importance of cookies for ad targeting, most advertisers will need to use Google's ad tech tools to be able to effectively target ads.¹⁶⁷ Publisher submissions have also cast doubt regarding Google's privacy rationale for its Chrome changes, arguing that 'genuinely held privacy concerns are

¹⁵⁸ Chromium Blog, ['Building a more private web: A path towards making third party cookies obsolete'](#), 14 January 2020, accessed 17 December 2020.

¹⁵⁹ L Southern, ['WTF is federated learning?'](#), *Digiday*, 14 November 2019, accessed 17 December 2020.

¹⁶⁰ L O'Reilly, ['WTF is Dovekey'](#), *Digiday*, 28 September 2020, accessed 17 December 2020; L O'Reilly, ['Very pleasantly surprised' Google shares results of Privacy Sandbox experiments'](#), *Digiday*, 22 October 2020, accessed 17 December 2020.

¹⁶¹ WICG [Turtledove](#), Github, accessed 17 December 2020; L O'Reilly, ['WTF is Dovekey'](#), *Digiday*, 28 September 2020, accessed 17 December 2020.

¹⁶² Google, Ads Privacy, [dovekey](#), Github, accessed 17 December 2020; L O'Reilly, ['WTF is Dovekey'](#), *Digiday*, 28 September 2020, accessed 17 December 2020.

¹⁶³ L O'Reilly, ['WTF is Dovekey'](#), *Digiday*, 28 September 2020, accessed 17 December 2020.

¹⁶⁴ WICG, [Conversion Measurement API](#), Github, accessed 17 December 2020.

¹⁶⁵ S Joseph, ['WTF is Google's Privacy Sandbox'](#), *Digiday*, 17 January 2020, accessed 17 December 2020.

¹⁶⁶ Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 3.

¹⁶⁷ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 65-66.

not confused with strategic market behaviour designed to reinforce a dominant data collecting position'.¹⁶⁸

Some industry stakeholders have expressed support for Google's Privacy Sandbox. Because the Privacy Sandbox seeks to develop alternatives over a two year period with industry feedback, the IAB has endorsed this as a more collaborative approach to reducing reliance on third-party cookies compared to the unilateral changes to defaults made by Apple and Mozilla.¹⁶⁹ Index Exchange (SSP) is similarly supportive of Google's announcement as giving the ad tech industry a defined timeline to phase out third-party cookies, while Magnite (SSP formerly known as The Rubicon Project) has stated that Google's announcement is not an unexpected development and the Privacy Sandbox should give the industry the tools to manage a transition away from using third-party cookies.¹⁷⁰ Criteo (DSP) also expressed support Google's intention to work with industry to develop an alternative to third-party cookies.¹⁷¹

Moreover, Flashtalking (advertiser ad server) has noted that Google's own ad tech services also currently relies on third-party cookies and are also likely to be impacted by the phasing out of third-party cookies from Chrome.¹⁷² However, the CMA has noted that ad targeting using first-party data from consumers using Google's services (including logged-in users) does not require third-party cookies for cross-site tracking.¹⁷³ As such, large platforms with many consumer-facing services are likely to be less dependent on third-party cookies than ad tech providers with no consumer-facing services or smaller publishers with lesser reach.

Other industry stakeholders are concerned that the tools being developed are too much of a 'black box' and proposals such as Turtledove may concentrate decision-making in Chrome to give Google a further competitive advantage.¹⁷⁴ In addition, privacy groups have expressed misgivings about the privacy-protective nature of some of the current proposals, including FLoC and the Conversion Measurement API in particular.¹⁷⁵ In November 2020, a group of online advertisers made a complaint to the UK CMA requesting a delay to the launch of Google's Privacy Sandbox proposals, arguing they will reduce competition and entrench Google's market power in online advertising.¹⁷⁶ The CMA has announced that it is assessing whether to launch a formal investigation in response to the complaint.¹⁷⁷

2.4.3. ACCC preliminary views on restrictions on access to data

The ACCC notes some stakeholder views that these restrictions were not due to privacy related reasons but rather directed at reducing competitive constraints from rivals. The

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- ¹⁶⁸ Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 3; Commercial Radio Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020, pp. 2-3; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 107-108; Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 20-21.
- ¹⁶⁹ AdExchanger, [Ronald Rothenberg: the Cookie's Death Heralds A Better Future For The Web](#), 24 January 2020, accessed 17 December 2020
- ¹⁷⁰ P Murphy, [Industry reacts: Experts welcome Google Chrome's third-party cookie removal](#), 24 January 2020, accessed 17 December 2020.
- ¹⁷¹ Criteo, [Update on recent Google Chrome announcement](#), accessed 17 December 2020.
- ¹⁷² Flashtalking, [FAQ: The End of Third-Party Cookies in Chrome](#), 17 January 2020.
- ¹⁷³ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 294-295.
- ¹⁷⁴ L O'Reilly, 'WTF is Dovekey', *Digiday*, 28 September 2020, accessed 17 December 2020; L O'Reilly, [Very pleasantly surprised Google shares results of Privacy Sandbox experiments](#), *Digiday*, 22 October 2020.
- ¹⁷⁵ B Cyphers, [Don't Play in Google's Privacy Sandbox](#), *Electronic Frontier Foundation*, 30 August 2019, accessed 17 December 2020
- ¹⁷⁶ Marketers for an Open Web, [Press Release: Marketers for an Open Web calls on UK Competition and Market Authority to block Google's Privacy Sandbox](#), accessed 17 December 2020; M Di Stefano, [Online Ad Group Asks Authorities to Stop Google's Privacy Rollout](#), *The Information*, 24 November 2020 accessed 17 December 2020; R Speed, [Marketers for an Open Web ask UK competition watchdog to block launch of Google's anti-tracking Privacy Sandbox](#), *The Register*, 24 November 2020, accessed 17 December 2020;
- ¹⁷⁷ P Sandle, [Google under review for possible British competition enquiry](#), *Reuters*, 23 November 2020, accessed 17 December 2020

ACCC is seeking stakeholder views regarding the impact of Google's restrictions on market participants' ability to access data required for ad targeting and ad attribution functions and is monitoring developments on this issue. The ACCC would be concerned by any restrictions placed on ad tech providers' ability to access or use data for ad targeting that have the potential to hinder their ability to compete effectively in the supply of ad tech services. To understand this issue further, the ACCC is seeking further information from stakeholders on how these restrictions on access to data affect their ability to provide ad tech services.

The ACCC will also continue to closely monitor future developments in relation to the treatment of third-party cookies on Chrome and welcomes views from stakeholders regarding restrictions on their access to data and on the proposed alternatives to third-party cookies being developed in Google's Privacy Sandbox. The ACCC is seeking stakeholders' views on how the proposed changes to third-party cookies on Chrome will work in practice and their likely impact on rival ad tech providers' ability to compete with Google.

The ACCC is also following recent overseas enforcement actions in relation to the supply of ad tech services. In particular, the complaint filed by the Texas Attorney-General on behalf of nine US states against Google in December 2020 alleges that Google restricted access to data to foreclose competition, including:¹⁷⁸

- restricting publishers' ability to access and share impression-level user IDs to give itself a competitive advantage
- preventing publishers and advertisers from matching user IDs belonging to the same user, and
- using privacy concerns to cut off competitors' access to information while using the same information for its own benefit.

The complaint further alleges that Google and Facebook entered into an unlawful agreement under which Google promised to help Facebook recognise the identify of users in publishers' auctions to allow Facebook to bid and win more often in auctions in exchange for Facebook ceasing to support publishers' client-side header bidding solutions.¹⁷⁹ The ACCC welcomes stakeholder views on the extent to which these allegations affect the supply of display advertising or ad tech services in Australia.

In some circumstances, it may also be appropriate to consider regulatory interventions such as data portability, data interoperability, or data separation requirements. These are discussed further at section 2.6.

¹⁷⁸ [Complaint](#), State of Texas v Google LLC, Case 4:20-cv-00957-SDJ, p.47-56.

¹⁷⁹ [Complaint](#), State of Texas v Google LLC, Case 4:20-cv-00957-SDJ, p. 63-73.

2.5. Impact on consumers

2.5.1. Benefits to consumers

Consumers can benefit from targeted display advertising in a range of different ways. Display advertising revenue enables many online publishers to provide consumers with access to content for free or at a lower cost. Many digital platforms also provide valuable consumer-facing services to consumers for zero monetary cost (e.g. Google Search, Twitter, Apple News, and Instagram) in exchange for consumers' attention and data.

Moreover, greater collection of user data for ad targeting can lead to more efficient targeting of ads. This is because it can increase the likelihood that consumers see ads that contain information that is interesting to them and benefit consumers who prefer to see more ads that are aligned with their interests. Effective ad targeting could also reduce search costs for any consumers seeking particular products or services.

The CMA found that targeted advertising may also result in lower prices for products due to advertisers spending their advertising budgets more efficiently. The CMA also considered that the delivery of more relevant and better targeted advertisements can be expected to result in more purchases, and a subsequent increase in consumer and producer welfare.¹⁸⁰ However, the CMA's research also suggests that advertisers are willing to pay higher prices to target consumers, which would imply higher advertising costs, though the high costs may be offset if targeting of consumers is more efficient overall.¹⁸¹ Ultimately, it is difficult to reach definitive conclusions on the overall impact of targeted advertising on display advertising expenditure and on consumer welfare.

2.5.2. Consumer harms

However, where consumers are not sufficiently informed or do not have sufficient control over how their data is used for ad targeting purposes, there is a risk of consumer harms arising from the currently widespread collection and use of data for ad targeting purposes in the supply of display advertising and ad tech services.

For example, inappropriately broad discretions to collect and use consumers' data without their informed consent can give rise to consumer harms from increased profiling, the potential for discrimination and exclusion, and risks to vulnerable consumers.¹⁸²

In addition, while consumers are increasingly concerned about the collection, use and sharing of their information, user information including location information continues to be requested by websites and transmitted by apps. A recent survey has found that consumers continue to be increasingly uncomfortable with how their data can be collected, used and shared online – see box 2.8.

Stakeholder also raise issues regarding consumer harms arising from the use of data for ad targeting purposes, including the following concerns:

- Programmatic advertising and real-time bidding auctions rely on potentially invasive data practices and that bid requests that may contain sensitive personal data are frequently shared between numerous ad tech providers.¹⁸³

¹⁸⁰ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 154.

¹⁸¹ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 154, footnote 223.

¹⁸² ACCC, [Digital platform services inquiry – September 2020 interim report](#), September 2020, p. 42.

¹⁸³ Dr Katherine Kemp, [Submission to Ad Tech Inquiry Issues Paper](#), 25 April 2020, pp. 9-10.

- Unfair and disrespectful uses of data contributes to consumer mistrust of the digital industry. Practices such as unfair or inappropriate targeting, over-collection or misuse of personal information, must be identified efficiently and minimised.¹⁸⁴
- There are numerous examples of practices in the supply of ad tech services that lead to consumer harm, such as price discrimination, using advertiser interfaces that encourage addiction to products, lack of consumer control over data, and risks to personal security and the safety of children.¹⁸⁵
- Online advertising can be used to fund a range of negative online content and activity which causes a range of harms to consumers.¹⁸⁶

Recent research from the Consumer Policy Research Centre (CPRC) has also found that the COVID-19 pandemic has resulted in consumers relying on digital markets at much higher levels.¹⁸⁷ This has heightened the harms and risks posed to consumers from concealed data practices, targeting and design strategies that undermine consumer autonomy, and exploitation of consumers' vulnerabilities.¹⁸⁸

Box 2.8: Consumer attitudes to data collection in 2020

A CPRC survey of 1,000 Australian consumers collected from March – April 2020 has found that consumers continue to be unaware of how their data is collected, used and shared online and more consumers are expressing concerns about data practices.¹⁸⁹

Key findings from this survey include:¹⁹⁰

- 88% of Australian consumers do not have a clear understanding of how their personal information is being collected and shared
- 94% of Australian consumers are uncomfortable with how their personal information is collected and shared online
- 88% of Australian consumers consider it unfair when companies collect more information than is necessary to deliver the product or service they are receiving
- 85% of Australian consumers consider it to be unfair for companies to share their personal information with other companies, and
- the vast majority of Australian consumers are concerned about online safety issues, including:
 - 94% being concerned regarding data breaches or hacks
 - 93% being concerned about their personal data being used for fraud or scams, and
 - 92% being concerned about children's data being misused.

¹⁸⁴ Association for data-driven marketing & advertising, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 7.

¹⁸⁵ Association for data-driven marketing & advertising, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 7.

¹⁸⁶ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 4.

¹⁸⁷ Consumer Policy Research Centre, 'Unfair trading practices in digital markets – evidence and regulatory gaps', *Research and policy briefing*, December 2020.

¹⁸⁸ Consumer Policy Research Centre, 'Unfair trading practices in digital markets – evidence and regulatory gaps', *Research and policy briefing*, December 2020, pp.3-4, 6-13.

¹⁸⁹ Consumer Policy Research Centre, [CPRC 2020 Data and Technology Consumer Survey](#), 7 December 2020.

¹⁹⁰ Consumer Policy Research Centre, [CPRC 2020 Data and Technology Consumer Survey](#), 7 December 2020.

2.6. Proposals for consultation

2.6.1. Data portability and interoperability

Proposal 1: Measures to improve data portability and interoperability

The ACCC is considering measures aimed at increasing data portability and interoperability, to reduce barriers to entry and expansion and promote competition in the supply of ad tech services. Any such measures would require safeguards to ensure that consumers have sufficient control over the sharing and processing of their data.

To promote competition by lowering data-driven barriers to entry and expansion in ad tech and display advertising services, the ACCC is considering measures aimed at increasing data portability and interoperability between ad tech providers.

Types of data portability and interoperability measures

Data portability measures refer to tools that increase data mobility at the consumer's request, such as requiring firms with a significant data advantage to provide consumers with an easy interface in which to move or share their data from that firm to a third-party at the consumer's request. Examples of how this could work in practice include a user instructing Google and Facebook to make data on their interactions with platforms available to a publisher¹⁹¹, or to another social network.¹⁹²

In contrast, data interoperability measures refer to tools that increase the data mobility between firms without a request from a consumer or advertiser. Because data interoperability measures do not include the same element of consumer control as data portability measures, data interoperability is generally focused on the standardised sharing of non-personal, aggregated or anonymised data in limited circumstances. For example, requiring firms to offer access to rivals in adjacent markets to specified types of data in limited circumstances in a standardised format.¹⁹³ Another example is the introduction of a secure common user or transaction ID which would enable ad tech providers to link together disparate datasets for use in performing ad targeting functions.

The introduction of a common ID is also likely to improve transparency in ad tech services markets and is further discussed in chapter 6.

Impact on competition

The ACCC considers that increasing data portability and interoperability may promote competition in the supply of ad tech services by enabling market participants to more easily access and use information held by large platforms with a significant data advantage. In particular, data interoperability would enable the recipients of the data to combine it with their own datasets, reducing any 'lock-in' effect of data only being compatible within a single platform's ecosystem.

The ACCC understands that there are several initiatives in the ad tech industry to create a common user ID, such as DigiTrust (by IAB), the Advertising ID Consortium, ID5 and The Trade Desk's Unified ID.¹⁹⁴ However, Google is not currently participating in these initiatives, which limits their utility given Google's scale and presence in the ad tech supply chain.¹⁹⁵

¹⁹¹ See, e.g., Competition and Markets Authority, [Appendix Z to Online platforms and digital advertising market study final report](#), p. Z40.

¹⁹² Digital Competition Expert Panel (United Kingdom), [Unlocking digital competition](#), March 2019, p. 9.

¹⁹³ See, e.g., CMA Final Report Appendix Z, p. Z35.

¹⁹⁴ M Zawadziński and M Sweeney, 'Identity in AdTech: Unravelling The ID Problem', *Clearcode*, 15 March 2019 (Updated 27 November 2020), accessed 17 December 2020.

¹⁹⁵ See, e.g., Competition and Markets Authority, [Appendix Z to Online platforms and digital advertising market study final report](#), p. Z35.

The ACCC notes that the CMA recommended a common user ID for similar reasons in its 'Online Platforms and Digital Advertising' market study and had received strong support for this proposal from numerous market participants.¹⁹⁶

Impact on consumers and privacy

The ACCC considers that data portability and interoperability measures must be carefully designed to protect consumers privacy, including managing any risks that de-identified data may become re-identified and ensuring that there are effective mechanisms for individuals to control the processing of personal data relating to them according to their own privacy and data security preferences. This is less likely to be an issue for data portability measures, which are consumer-led tools with the aim of providing consumers with controls to easily move their data from one provider to another.

Data interoperability measures, however, are likely to result in greater sharing of data without the consumer controls. As such, any measures to improve sharing of data should be accompanied by adequate safeguards to ensure that the data shared is effectively aggregated or anonymised and to manage the risks associated with the re-identification of anonymised data through the combining of separate datasets (as discussed in Chapter 1 section 1.3.2(b)).

Finally, to the extent that data portability and interoperability measures involve the processing of personal information, the impact of such measures on consumers and privacy will depend on the underlying privacy regulatory framework, which is currently under review by the Australian Government and excluded from the scope of this Inquiry – see discussion in section 2.6.4 *Privacy Act Review* below.

2.6.2. Data separation requirements

Proposal 2: Data separation mechanisms

The ACCC is considering the extent to which data separation mechanisms, such as data silos or purpose limitation requirements, may be effective in levelling the playing field between large platforms with a significant data advantage and rival ad tech providers. To promote competition by levelling the playing field in relation to the data advantage of large digital platforms, the ACCC is considering measures directed at mandating data separation within companies in limited circumstances.

Types of data separation mechanisms

There are several different ways of mandating data separation. One way would be to directly regulate the internal sharing of data within a single company.¹⁹⁷ This could involve rules prohibiting the combining of certain types of datasets or rules prohibiting the use of certain types of data (e.g. data relating to health or medical conditions) for ad targeting purposes. Any such data separation regulations may have an overlap with existing privacy laws and would require close consultation with the Office of the Australian Information Commissioner.

Another way to implement data separation could be to set purpose limitation requirements on firms who are collecting data from user-facing services and using that data for targeted advertising purposes.¹⁹⁸ This could involve a requirement for firms to provide a consumer with controls over whether the data collected from their use of a digital platform's services (such as online browsing, online searches, or email) may be internally shared and used for that company's ad targeting or attribution functions. This would be a more user-led approach

¹⁹⁶ Competition and Markets Authority, [Appendix Z to Online platforms and digital advertising market study final report](#), Appendix Z, pp. Z35-36.

¹⁹⁷ This was recommended by the UK Competition and Markets Authority as one of the powers to be given to the Digital Markets Unit: see Competition and Markets Authority, [Appendix Z to Online platforms and digital advertising market study final report](#), p. Z28.

¹⁹⁸ This mechanism also reflects a recommendation made by the UK Competition and Markets Authority: see Competition and Markets Authority, [Appendix Z to Online platforms and digital advertising market study final report](#), p. Z31.

and may have the advantage of being better tailored to each consumer's own preferences on ad targeting and ad attribution. It is likely to be easier to implement for the regulator, but will impose significant regulatory burden on businesses subject to these requirements and is likely to create consent or choice fatigue for the consumer.

Balancing efficiency benefits and competitive harms

The ACCC considers that data separation can only be appropriate where the efficiency benefits from increased access to data do not outweigh any adverse effects on competition, including, for example, incumbents with access to large data stores from leveraging their data advantage to distort competition in adjacent markets. For instance, a data separation requirement might be appropriate where a firm has collected data through the misuse of market power within a market and that firm uses that data to adversely affect competition in other markets.¹⁹⁹

Another example of when a data separation requirement might be appropriate is if the shorter-term reduction in the efficiency of firm's digital advertising services is likely to be offset by a longer-term gain in dynamic efficiency from smaller rivals, publishers, and intermediaries being better able to compete with incumbent firms with a significant data advantage.²⁰⁰ The levelling of the playing field in relation to access to data may give rise to an increase in dynamic efficiency that would spur competition and innovation and could also give rise to less data-intensive ways of increasing efficiency in online advertising, such as by advancements in contextual advertising.²⁰¹

Impact on consumers and privacy

As discussed in box 2.8, consumers are increasingly concerned about the collection and use of their data online, particularly for targeted advertising purposes. As data-protection measures would result in less sharing of data within large firms for different purposes, such measures are also likely to lessen data-related consumer harms relating to decreased privacy and data protection.²⁰²

As such, the ACCC considers that regulatory measures that limit the collection and use of consumer data collected from consumers' use of online services for other purposes, or measures that mandate greater consumer controls over data use, are likely to better align data practices with overall consumer preferences. Requirements for greater consumer control would also lead to data practices that are better tailored to each consumer's individual preferences about how their data is used for ad targeting and attribution.

Key risks and feasibility

The ACCC considers that key risks arising from data separation measures include the regulatory burden of imposing data separation requirements on businesses, the potential for consent or choice fatigue for consumers if more data-related controls are introduced, and greater uncertainty for businesses.

As data separation measures are most likely to apply in cases where firms have a significant data advantage from combining many different sources of data, the measures will generally be applied to large firms with vast amounts of data being used within complex ecosystems.

¹⁹⁹ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 413.

²⁰⁰ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. Z29-30.

²⁰¹ See also Competition and Markets Authority, [Appendix Z to Online platforms and digital advertising market study final report](#), pp. Z29-30.

²⁰² See also Competition and Markets Authority, [Appendix Z to Online platforms and digital advertising market study final report](#), p. Z30.

The ACCC notes that the regulatory burden on firms of a data separation remedy would be material and potentially difficult to implement in practice.

In addition, more granular consumer controls also results in greater risks of choice and consent fatigue for consumers. There are concerns that increased privacy and data protection regulations globally have already led to consent fatigue and consumers becoming less engaged with data and privacy settings.²⁰³

Finally, the ACCC considers that recommending the introduction of data separation measures will create considerable uncertainty for businesses. This is because the likely impacts of data separation on efficiency, dynamic competition, or consumer harms are all inherently difficult to measure or quantify and weighing up the likely benefits and harms will require the regulator to exercise discretion in determining whether data separation measures are appropriate and how they should be implemented. As such, any data separation measures should apply only to a well-defined and limited set of circumstances.

The ACCC is currently seeking stakeholder views on whether data separation measures may be warranted to level the playing field in the supply of digital display advertising and ad tech services. The ACCC notes that data separation measures were also recommended by the CMA and form part of the pro-competitive interventions that have recently received in-principle support from the UK Government – see below box 2.9.

Box 2.9 UK Government response to the CMAs' data-related interventions²⁰⁴

In its market study into online platforms and digital advertising, the CMA has recommended a range of data-related interventions to enhance competition in digital advertising markets.

As a result of the CMA's finding that restrictions on access to data creates a substantial barrier to entry and expansion in digital advertising, it recommended that its proposed Digital Markets Unit should be given the power to mandate a range of pro-competitive interventions, including measures to increase data portability and data interoperability and mechanisms for data separation where the adverse impacts on competition outweigh any efficiency benefits.²⁰⁵

In December 2020, the UK Government announced that it will establish a new Digital Markets Unit from April 2021 and that it agrees in-principle with the CMA's recommendation to give pro-competition powers the Digital Markets Unit, which includes mandating access to data, enforcing greater interoperability, changing choices and defaults for consumers and imposing separation remedies.²⁰⁶

2.6.3. Prohibition against certain unfair practices

The ACCC continues to support its recommendation in the Digital Platforms Inquiry that the Australian Consumer Law (ACL) should be amended to introduce a prohibition on certain unfair trading practices.²⁰⁷ The ACCC remains of the view that such a prohibition would enable the ACCC to undertake strategic enforcement action to deter ad tech providers, advertisers, publishers, and digital platforms from collecting or using data in ways that have the potential to result in substantial consumer harm.

The recommended amendments would also be consistent with the approach taken by numerous overseas regulators of taking enforcement action against the practice of tracking

²⁰³ J Baker, '[Are all these GDPR consent emails even necessary](#)', IAPP, 22 May 2018, accessed 17 December 2020

²⁰⁴ Department for Business, Energy & Industrial Strategy and Department for Digital, Culture Media & Sport, (United Kingdom), [Response to the CMA's market study into online platforms and digital advertising](#), November 2020.

²⁰⁵ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 5, pp. 411-413.

²⁰⁶ Department for Business, Energy & Industrial Strategy and Department for Digital, Culture Media & Sport, (United Kingdom), [Response to the CMA's market study into online platforms and digital advertising](#), November 2020.

²⁰⁷ ACCC, [Digital Platforms Inquiry – final report](#), June 2019, p. 498, recommendation 21.

consumers for the purposes of targeted advertising under prohibitions against unfair practices – see further discussion in Appendix D.

The ACCC is currently working to progress its support for the recommendation through the work currently being undertaken by the Consumer Affairs Australia and New Zealand (CAANZ) process on this issue.

2.6.4. Privacy Act Review

The ACCC notes that a review of the operation of any Australian law relating to privacy is excluded from the scope of this Inquiry. However, the Federal Government is currently undertaking a review to consider whether the scope of the *Privacy Act 1988* and its enforcement mechanisms remain fit for purpose.

This review is a response to the ACCC's privacy-related recommendations in the Digital Platforms Inquiry and the outcomes of this review will impact the extent to which Australian consumers have informed control over the use of their data for ad targeting purposes.

3. Industry structure and competitive conditions

Key findings

- The ad tech supply chain is complex and there are a number of ad tech providers in Australia. Some ad tech providers are vertically integrated and operate at multiple levels of the ad tech supply chain, while others specialise in particular ad tech services.
- While there are a number of ad tech providers across the supply chain as a whole, Google is by far the largest provider of ad tech services and no other competitors have a similar scale or appear to have the broad coverage across the ad tech supply chain that Google does.
- In 2019, the ACCC estimates that Google held an 80-90% share of impressions for advertiser ad server services in Australia. This very high share of impressions is likely to indicate that the competitive constraints on Google are not substantial. The ACCC is continuing to examine the incentive for advertisers to use a single ad server (single-homing), the magnitude of switching costs, and integration of advertiser ad servers with DSPs to ascertain the extent to which there may be high barriers to entry or expansion in the supply of advertiser ad server services.
- The ACCC estimates that, in 2019, Google held a 60-70% share of revenue for DSP services in Australia. Google's share of revenue seems to be underpinned by its access to significant data (as discussed in chapter 2), exclusive ad inventory and vertical integration in the ad tech stack (as discussed in chapter 4). Information suggests that the incentive for advertisers to use a single DSP provider (single homing) is significant and may be a key barrier to entry and expansion. The ACCC is continuing to examine the role of data and vertical integration as key barriers to entry and expansion.
- There appear to be a number of significant suppliers of SSP and ad network services. Google is the largest, with the ACCC estimating that in 2019 it held a 50-60% share of revenue for these services in Australia. Google's share of revenue seems to be underpinned by its near-exclusive access to demand from Google Ads (Google's DSP) and its vertical integration with other ad tech services. The ACCC is continuing to examine a number of factors relevant to the competitive dynamics of these services, including header bidding, access to data and potential incentives to multi-home.
- In 2019, the ACCC estimates that Google held a 90-100% share of impressions for publisher ad server services in Australia. This very high share of impressions likely indicates that the competitive constraints on Google are not substantial. High switching costs combined with the tendency for publishers to single-home may constitute a significant barrier to entry and expansion.
- Dynamic competition may place some degree of competitive constraint on Google in the supply of ad tech services. The ACCC is continuing to consider the competitive dynamics, and the degree to which dynamic competition constrains Google in the supply of ad tech services.
- Most end users of the ad tech supply chain (advertisers and publishers) hold little countervailing power.

This chapter is structured as follows:

- **Section 3.1** identifies the main ad tech providers in Australia and outlines Google and Facebook's activities relevant to the ad tech supply chain.
- **Section 3.2** discusses the factors that ad tech providers compete on, including access to advertisers, publishers and ad inventory, ability to target ads, prices and other fees, the useability of its platforms, transparency and ability to measure and verify the performance and quality of ad tech services.

- **Section 3.3** provides the ACCC's preliminary observations about competition for the supply of each ad tech service and the ACCC's preliminary views on Google's position in the supply of ad tech services in Australia.
- **Section 3.4** provides the ACCC's preliminary observations about countervailing power held by advertisers and publishers.

As Google is the largest supplier of advertiser ad server, DSP, SSP and publisher ad server services (the core ad tech services), the competition analysis in this Interim Report is focused on Google.

3.1. Industry structure

3.1.1. Ad tech providers across the ad tech supply chain

For the purpose of the competition analysis below, the ACCC has separated the ad tech supply chain into four broad activities or services:

- Advertiser ad server
- Demand-side platforms (DSP)
- Supply-side platforms (SSP) and ad networks
- Publisher ad server

The ACCC has not conducted a formal market definition exercise to determine whether these services each form separate markets as this is not necessary for the purpose of this report. If the ACCC were to consider a proposed acquisition or merger in the future, or examine the market power of any given firm, different market boundaries may be relevant.

Nevertheless, the ACCC's preliminary view is that although some suppliers of ad tech services supply multiple vertically-integrated services, substitution is not possible between these different types of ad tech services.²⁰⁸ For example, an advertiser ad server cannot be used in substitution for an SSP. The closest competitor to any particular ad tech service is likely to be other another supplier of that same service.

Some ad tech providers, including the largest provider (Google), are vertically-integrated. While there are clear benefits from operating across multiple levels of the ad tech supply chain, these benefits do not appear to be sufficient, at this time, to disrupt a view that each of the core ad tech services identified above is a separate functional market in the ad tech supply chain.

The ACCC also notes that the roles and functions of services provided to advertisers and publishers have evolved over time, which has affected the degree of integration and substitution between different types of ad tech services. These changes may continue in the future.

The Issues Paper asked stakeholders to identify the main competitors in the supply of various ad tech services in Australia. Table 3.1 identifies the main ad tech providers that were mentioned frequently in submissions or subsequently identified by the ACCC.

²⁰⁸ However, one exception to this is that the ACCC is still considering the extent of any potential substitutability between DSPs and ad networks.

Table 3.1: Selection of main ad tech providers in Australia

	Advertiser ad servers	Demand-side platforms	Supply-side platforms	Ad networks	Publisher ad servers
Google	✓	✓	✓	✓	✓
AppNexus / Xandr	✓	✓	✓		✓
Verizon Media		✓	✓		
Amazon	✓ ²⁰⁹	✓			
Adform	✓	✓	✓		✓
Facebook Audience Network				✓	
Flashtalking	✓				
Innovid	✓				✓
The Trade Desk		✓			
MediaMath	✓	✓			
Amobee		✓			
Adobe		✓			
Criteo		✓			
Magnite ²¹⁰			✓		
PubMatic			✓		
Index Exchange			✓		
OpenX			✓		
Taboola				✓	
MoPub (Twitter)			✓ ²¹¹		

Source: Submissions to the Issues Paper, s 95ZK notice responses, ACCC analysis.

²⁰⁹ Amazon acquired Sizmek Ad Server (advertiser ad server) in May 2019.

²¹⁰ Following the merger of The Rubicon Project and Telaria, the company rebranded as Magnite. R Shields, '[Post-Merger, Rubicon Project and Telaria Rebrand as Magnite](#)', *Adweek*, 30 June 2020, accessed 16 October 2020.

²¹¹ For the purpose of this report, MoPub has been categorised as an ad exchange/SSP. MoPub is an app monetisation platform that incorporates ad network mediation, real-time bidding (RTB) Marketplace, and ad serving for direct, cross-promotion, and private marketplace deals. See: MoPub, '[Take control of your app monetization with MoPub](#)', accessed 9 December 2020.

Pattern of consolidation

The ACCC has observed a pattern of consolidation in the supply of ad tech services. This has included mergers and acquisitions, as well as decisions by ad tech providers to stop providing various products or reduce the scale of their operations. In the first three quarters of 2019, 86 ad tech “deals” (acquisitions involving the purchase of at least a 40% stake in a company) were completed globally, an increase from 47 deals over the same period of the previous year.²¹² Media reports indicate that mergers and acquisitions have continued to occur in 2020.²¹³

Recent mergers and acquisitions have seen some ad tech providers become more vertically integrated along the ad tech supply chain or resulted in significant consolidation at specific levels of the supply chain. Specific examples are in Appendix E.

Several potential reasons for the pattern of consolidation in ad tech and display advertising markets have been reported and also provided in submissions:

- Consolidation may be an effective way for parties to achieve efficiencies by reducing ‘leakage’ of ad spend (that is, ad spend flowing to unknown intermediaries), achieve greater control over placement of ads, and to gain leverage in negotiations with publishers and advertisers.²¹⁴
- There is also commentary that the ad tech industry had been fragmented, with publishers, advertisers and ad agencies starting to consolidate their ad tech services across fewer ad tech providers to increase operational efficiency and reduce transaction costs.²¹⁵
- Increasing data privacy regulations globally may create compliance costs that are proportionately larger for smaller, independent ad tech providers and may also be driving advertisers to consolidate their online spend within the walled gardens of large digital platforms.²¹⁶
- The existence of large, vertically-integrated incumbents such as Google may make it more difficult for smaller rivals to compete effectively. Verizon submits that challenger brands often need to be vertically integrated to compete effectively with market leaders.²¹⁷

The impact of vertical integration on competition in the supply of ad tech services is discussed further in chapter 4.

Question for stakeholders

In addition to the examples identified in Appendix E, the ACCC welcomes stakeholder comments about whether there have been any other notable entry or exit in the provision of ad tech services.

The ACCC also welcomes stakeholder comments about possible reasons for exit and consolidation.

²¹² L. O’Reilly, [‘Rubicon and Telaria merge to create ‘The Trade Desk of the sell-side’](#), *Digiday*, 19 December 2019, accessed 11 October 2020.

²¹³ A Blustein, [‘Mergers and Acquisitions in the Time of Coronavirus’](#), *Adweek*, 17 July 2020, accessed 20 November 2020.

²¹⁴ D Schechter, M Kaufman, S Matthews, [‘Navigating Through the Promises and Pitfalls of Ad Tech’s Impact on Digital Advertising’](#), *LEK Consulting*, 15 November 2018, accessed 20 November 2020.

²¹⁵ Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 16; R Shields, [2019: The Year of Ad-Tech Darwinism](#), *Adweek*, 20 December 2019, accessed 11 October 2020.

²¹⁶ R Shields, [2019: The Year of Ad-Tech Darwinism](#), *Adweek*, 20 December 2019, accessed 12 October 2020; R Shields, [‘Why Do Advertisers Keep Spending More and More With the Walled Garden?’](#), *Adweek*, 15 February 2020, accessed 12 October 2020.

²¹⁷ Verizon Media, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020, p. 4.

3.1.2. Google’s presence in the ad tech supply chain

Google is active across the entire ad tech supply chain and no other competitors have the scale or broad coverage across the ad tech supply chain similar to that which Google has. Stakeholder submissions and information from a range of sources also show that Google is the leading supplier of services across the ad tech supply chain. Google’s presence in the ad tech supply chain is illustrated below in figure 3.1.

Figure 3.1: Google’s services in the ad tech supply chain

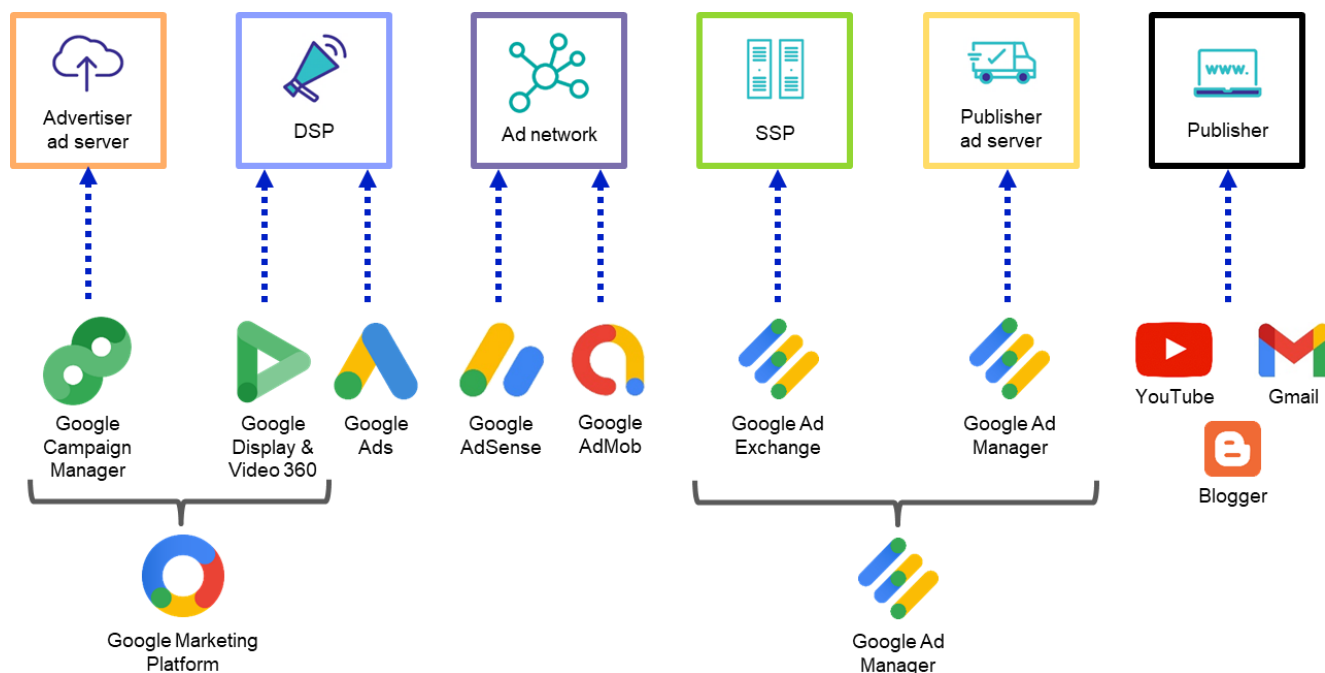


Table 3.2 shows the ACCC’s estimates of Google’s share of revenue and impressions for the main ad tech services in Australia in 2019. The basis for the ACCC’s estimates is explained in more detail in section 3.3.

Table 3.2: Estimates of Google’s share of revenue and impressions for different ad tech services in Australia, 2019

	Share of revenue	Share of impressions
Advertiser ad servers	Not available	80-90%
Demand-side platforms	60-70%	70-80%
Supply-side platforms	50-60%	60-70%
Supply-side platforms / ad networks	50-60%	70-80%
Publisher ad servers	Not available	90-100%

Source: ACCC analysis of data provided by ad tech providers²¹⁸

On 16 December 2020, the Texas Attorney-General on behalf of nine US states filed a complaint against Google, alleging Google has monopoly power and forecloses competition

²¹⁸ The information used to estimate these shares of revenue and impressions is based on the total revenue earned and total impressions traded or served in relation to digital display advertising served to users in Australia in 2019.

in the supply of ad tech services for various publisher and advertiser facing ad tech services.²¹⁹

The complaint alleges that Google has held a monopoly position in the US publisher ad server market for display advertising for at least a decade, leading to supra-competitive fees and degraded quality in the services supplied to publishers.²²⁰ The complaint further alleges that Google has monopoly power in the US market for display ad exchanges, display ad networks, and in the supply of ad buying tools for small advertisers.²²¹ While these services are described slightly differently, the views expressed by the nine State Attorney Generals on Google's market power relate to most of the same services covered by this report.

Google's ad tech and display advertising acquisitions

Google's presence across the ad tech supply chain has developed in large part through numerous significant acquisitions in the supply of ad tech and display advertising services, including:²²²

- **FameBit** (2016) – FameBit provided an online marketing platform that connects advertisers with video influencers on YouTube.²²³ FameBit has since been integrated as part of YouTube and re-branded as YouTube BrandConnect.²²⁴
- **Toro** (2015) – Toro provided ad campaign optimisation services to app developers to assist with acquiring users through advertising on Facebook.²²⁵ Toro has reportedly now joined the Google mobile ads team.²²⁶
- **Adometry** (2014) – Prior to the acquisition, Adometry a leading provider of ad measurement and verification services, including for ads on the Google Display Network.²²⁷ Adometry is now integrated into the Google Analytics 360 Suite.²²⁸
- **Directr** (2014) – Directr provided a mobile app on the iOS operating system providing a way for small businesses to create and publish videos, including ads or promotional content.²²⁹ Directr is now integrated within the video ads team at YouTube.²³⁰
- **mDialog** (2014) – mDialog provided technology to media companies (such as broadcasters) to serve video display advertising in their video content across different

²¹⁹ [Complaint, State of Texas v Google LLC](#), Case 4:20-cv-00957-SDJ.

²²⁰ [Complaint, State of Texas v Google LLC](#), Case 4:20-cv-00957-SDJ, p. 28.

²²¹ [Complaint, State of Texas v Google LLC](#), Case 4:20-cv-00957-SDJ, pp. 28-36.

²²² Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 272.

²²³ B Jaekel, '[Google's acquisition of FameBit means contextual advertising will see fruition](#)', 2016, accessed 20 November 2020.

²²⁴ S Perez, '[YouTube's FameBit Rebrands as YouTube BrandConnect, shuts down its self-service program](#)', *TechCrunch*, 17 June 2020, accessed 20 November 2020.

²²⁵ A Ha, '[FarmVille Co-Creators Launch Toro To Help Developers Market Their Apps on Facebook](#)', *TechCrunch* 6 November 2014, accessed 20 November 2020.

²²⁶ A Ha, '[Google Acquires Facebook Marketing Startup Toro](#)', *TechCrunch*, 25 February 2015, accessed 20 November 2020.

²²⁷ N Gagliardi, '[Google buys marketing analytics firm Adometry](#)', *ZDNet*, 6 May 2014, accessed 20 November 2020; A McCullough, '[Adometry Dominates the Marketing Analytics Market](#)', *Siliconhills*, 25 March 2014, accessed 20 November 2020.

²²⁸ Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 17.

²²⁹ J Abbruzzese, '[Google Acquires Directr, a Small Business Video Marketing Startup](#)', *Mashable*, 7 August 2014, accessed 20 November 2020.

²³⁰ G Kumparak, '[Google Acquires Directr, An App For Shooting Short Films on Your Phone](#)', *TechCrunch*, 7 August 2014, accessed 20 November 2020.

devices.²³¹ mDialog's technology has since been incorporated into Google Ad Manager through DoubleClick's integration with Google Ad Manager).²³²

- **AdMeld** (2011) – AdMeld was one of the few ad tech providers at the time who offered real-time bidding for publishers.²³³ The acquisition built upon Google's real-time bidding capabilities for publishers.²³⁴ The services supplied by AdMeld have since been integrated into Google's ad exchange and subsequently combined as part of Google Ad Manager.
- **Invite Media** (2010) – Invite Media provided ad-buying optimisation technology for the display advertising market. It is now part of Google's main DSP product, Google Display & Video 360, and builds upon its real-time bidding capabilities for advertisers.²³⁵
- **AdMob** (2009) – At the time of the acquisition, AdMob was considered a leading supplier of mobile advertising networks.²³⁶ AdMob now forms the basis of Google's AdMob product.²³⁷
- **DoubleClick** (2007): At the time of the acquisition, DoubleClick supplied an advertiser ad server, publisher ad server, and SSP services, with a 58% market share in the supply of publisher ad servers in the US and a number of leading news publishers as customers.²³⁸ DoubleClick's publisher ad server and ad exchange have now been integrated and re-branded as Google Ad Manager.²³⁹
- **YouTube** (2006): YouTube was, at the time of the acquisition, one of the world's fastest growing video-streaming platforms and a competitor to Google Videos.²⁴⁰

3.1.3. Facebook's owned-and-operated inventory and Facebook Audience Network

Facebook is a significant supplier of display advertising inventory, primarily via its social media platforms (Facebook and Instagram). However, it is not a significant supplier of the ad tech services that are the focus of this Inquiry.

The ACCC understands that Facebook does not sell its own ad inventory through the 'ad tech supply chain' or 'open display' channels.²⁴¹ Instead Facebook only sells its inventory

²³¹ A Ha, '[Google Acquires mDialog To Improve DoubleClick's Video Advertising](#)', *TechCrunch*, 20 June 2014, accessed 20 November 2020; A Barr, '[Google Buys Video Ad Tech Startup mDialog](#)', *The Wall Street Journal*, 19 June 2014, accessed 20 November 2020; T Maytom, '[Google Acquires Video Advertising Startup mDialog](#)', *MobileMarketing*, accessed 20 November 2020; N Young, '[Google buys mDialog to beef up its advertising effort: getting the message to the right customer](#)', *The Drum*, 20 June 2014, accessed 20 November 2020.

²³² A Ha, '[Google Acquires mDialog To Improve DoubleClick's Video Advertising](#)', *TechCrunch*, 20 June 2014, accessed 20 November 2020; Resolutiondigital, '[The End of the DoubleClick Name – Google Rebrands Its Products](#)', accessed on 30 November 2020.

²³³ AdExchanger, '[Industry Reaction: Google Buys Admeld](#)', *AdExchanger*, 14 June 2011, accessed 20 November 2020; J Sears, '[The Real Reason Google Is Paying Up Big For Admeld](#)', *AdAge*, June 13 2011, accessed 20 November 2020; B Popper, '[Why Does Google Want AdMeld So Badly? High Frequency Trading for Online Ads](#)', *Observer*, 21 June 2011, accessed 20 November 2020.

²³⁴ Google Australia, '[Submission to Ad Tech Inquiry Issues Paper](#)', 1 May 2020, p. 17.

²³⁵ Google Australia, '[Submission to Ad Tech Inquiry Issues Paper](#)', 1 May 2020, p. 18; AdExchanger, '[Industry Reaction: Google Buys Admeld](#)', *AdExchanger*, 14 June 2011, accessed 20 November 2020.

²³⁶ L Yun Qing, '[Google-AdMob acquisition 'a good fit'](#)', *ZDNet*, 11 November 2009, accessed 20 November 2020; B Garner, '[Apple met with AdMob weeks before acquisition by Google](#)', *Appleinsider*, 2009, accessed 20 November 2020; N Gohring, '[Update: Google to buy mobile ad company AdMob](#)', *Computerworld*, 10 November 2009, accessed 20 November 2020.

²³⁷ Google, '[Google AdMob](#)', accessed 30 November 2020.

²³⁸ A Klassen '[Google Leads in Ad-Serving Share](#)', *AdAge*, December 18 2008, accessed 20 November 2020.

²³⁹ Resolutiondigital, '[The End of the DoubleClick Name – Google Rebrands Its Products](#)', accessed on 30 November 2020.

²⁴⁰ P Cashmore, '[YouTube is World's Fastest Growing Website](#)', *Mashable*, July 23 2006, accessed 13 November 2020; V Luckerson, '[A Decade Ago, Google Bought YouTube – and It Was the Best Tech Deal Ever](#)', *The Ringer*, 10 October 2016, accessed 13 November 2020.

²⁴¹ The ACCC uses the term 'open display' channels to refer ad tech services which facilitate the purchase and sale of ad inventory on properties owned by a number of different publishers.

through its own closed system (Facebook Ads Manager), which functions as a complete end to end ad buying solution for advertisers looking to purchase inventory on Facebook's platforms or on mobile apps which are part of Facebook's ad network (Facebook Audience Network). The ACCC is considering the competitive impact of Facebook's owned-and-operated inventory and Facebook's ad network (Facebook Audience Network) for advertisers and publishers for the supply of ad tech services.

Publisher facing services

In terms of publisher facing services, Facebook offers an ad network service, Facebook Audience Network, which allows publishers to sell ad inventory on their mobile apps²⁴² (Facebook Audience Network is considered further in section 3.3.3). Facebook Audience Network no longer sells ad inventory from third party publisher websites.²⁴³

While Facebook Audience Network may be a viable alternative channel for selling ad inventory to the 'open display' channels for some publishers, it is only for those publishers looking to sell mobile app advertising inventory. Facebook Audience Network is therefore not a viable alternative channel for publishers looking to sell advertising inventory on their websites.

Therefore, while the threat of publishers increasing their use of Facebook Audience Network may provide some constraint on other publisher facing ad tech services, this constraint is likely to be limited.

Advertiser facing services

In terms of advertiser facing services, Facebook offers the Facebook Ad Manager service, which enables advertisers to purchase both Facebook's owned-and-operated ad inventory and mobile app ad inventory from Facebook Audience Network through the one interface.²⁴⁴

In addition to offering advertising opportunities on third party mobile apps which are part of the Facebook Audience Network, Facebook also offers advertising on its own social media platforms. For some, but not all advertisers, this may be an alternative option to purchasing on the open display network. The CMA found this to be the case, noting that there is substitutability between purchasing advertising on Facebook's owned-and-operated properties and open display advertising inventory.²⁴⁵ However, the Bundeskartellamt recently found that social media advertising was better suited for targeted approaches to certain target groups and for linking advertising to social and emotional elements.²⁴⁶

While the purchase of ad inventory on Facebook Audience Network is limited to mobile apps, it is possible that some advertisers may, to a certain degree, regard Facebook Audience Network inventory (purchased via Facebook Ads Manager) as a viable alternative to other ad inventory that would be purchased via advertiser-facing ad tech services like Google DSPs. The ACCC's preliminary view is that this substitutability could in part be driven by consumers' increasing consumption of online content via their mobile phones, which has likely lead to advertisers increasing their spending on mobile advertising. However, it is important to note that Facebook Audience Network only offers ad inventory on mobile apps, and does not include mobile web ad inventory more broadly.

²⁴² Facebook, Business Help Centre, [About Audience Network](#), accessed 10 December 2020.

²⁴³ A Schiff, '[Facebook is Killing Off Its Web Supply In Audience Network – And Don't Be Surprised If It All Shuts Down](#)', *adexchanger*, 5 February 2020, accessed 30 November 2020.

²⁴⁴ Facebook, Business Help Centre, [About placements in Ads Manager](#), accessed 10 December 2020.

²⁴⁵ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 218.

²⁴⁶ Bundeskartellamt, [Decision on Facebook](#), 6 February 2019, p. 102.

The ACCC is continuing to consider the degree to which Facebook Ads Manager, and in particular Facebook's owned-and-operated inventory, may provide a constraint on other advertiser-facing ad tech suppliers.

3.2. Nature of competition

Stakeholders have indicated that ad tech providers compete on factors such as:

- performance of ad tech services,
- access to advertisers, publishers and ad inventory,
- ease and reliability of integration with other ad tech services,
- access to data and ad targeting capabilities,
- price and other fees, and
- ability to measure and verify the performance and quality of ad tech services.

Each of these factors will be described in more detail below.

Question for stakeholders

The ACCC is continuing to consider the factors that ad tech providers compete on.

The ACCC welcomes stakeholder comments on the importance of the factors identified in this Interim Report, and the importance of any additional factors.

3.2.1. Performance of ad tech services

Ad tech providers compete on the basis of the performance of their particular ad tech services. Focusing on DSPs and SSPs:

- For DSPs, advertisers will consider how well the DSP is able to deliver the objectives of their advertising campaign while minimising cost. This usually involves the DSPs algorithms seeking to maximise win rates at the lowest cost and successfully targeting consumers that the advertiser's campaign is directed at (which depends on the data available). This may also depend on how often the DSP successfully submits bids to SSPs. Advertisers will also consider whether the ads were viewable, shown on appropriate websites, and whether they were clicked on or prompted an action by consumers.
- For SSPs and publisher ad servers, publishers place high value on services that increase and maximise the revenue they earn from the sale of their ad inventory. This may include factors such as how often the SSP returns a bid, the SSP's win rates, and the total revenue brought in.²⁴⁷

However, other important factors identified below, including access to advertisers, publishers and ad inventory, data for ad targeting, and ease and reliability of integration, are highly relevant to the competitiveness of the ad tech service.

²⁴⁷ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 11.

3.2.2. Access to advertisers, publishers and ad inventory

Access to a volume of advertisers, publishers and ad inventory

The ability to connect publishers to more advertisers, and advertisers to more publishers and inventory, appears to significantly increase the ad tech provider's competitiveness.

- For publishers, an SSP which provides access to more advertisers increases the potential demand for the publisher's ad inventory, which therefore increases the publisher's potential revenue. This makes that SSP more attractive in comparison to an SSP that provides access to fewer advertisers.
- Similarly, a DSP which provides access to more publishers and ad inventory will be more attractive for advertisers as it increases the potential reach of their advertising campaigns.

There are a number of different ways DSPs and SSPs may work to increase their access to advertisers and publishers, including but not limited to:

- a DSP establishing integrations with more SSPs and vice versa, or
- a DSP or SSP entering into partnerships with, or acquiring other businesses which provide access to more ad inventory.

The ACCC is also aware of companies such as BidSwitch that specialise in providing DSPs with integrations with SSPs, and vice versa.²⁴⁸

Question for stakeholders

The ACCC is continuing to consider the benefits of having an integration with another ad tech service. Specifically, whether an integration is able to provide particular access to advertisers, publishers or ad inventory.

The ACCC is interested in receiving stakeholder views on the difficulty of establishing integrations with other ad tech services (e.g. the cost and time involved), and whether ad tech providers and users have experienced issues in establishing integrations with other ad tech services.

The ACCC is interested in receiving views on the role of integration service providers such as BidSwitch.

Access to particular advertisers, publishers and ad inventory

The attractiveness of an ad tech provider is increased if they have access to *particular* advertisers, publishers and/or ad inventory. A DSP, which has exclusive access to certain ad inventory, will be more attractive to a prospective advertiser if that advertiser values that specific ad inventory. A similar scenario also holds true in regards to an SSP, which may offer access to exclusive advertiser demand to publishers.

Google's DSPs exclusive access to YouTube's ad inventory is discussed below in section 3.3.2 and chapter 4 further discusses the potential competitive implications of this practice and other exclusive arrangements.

3.2.3. Ease and reliability of integration with other ad tech services

Ease of use of an ad tech service and the ability for integration is important as ad tech services work by interconnecting with other ad tech providers to facilitate ad buying and selling. For example, the usefulness of a DSP is partly determined by the range of SSPs it has integrations with. Similarly, a publisher ad server is only useful if it is able to integrate with a range of SSPs.

²⁴⁸ BidSwitch, [Smart infrastructure for programmatic platforms](#), accessed on 1 December 2020.

Stakeholders have indicated that the ease of integration can vary between ad tech providers, but stakeholders indicate that Google products work “straight out of the box” as they have existing integrations with a large number of ad tech services (both Google and non-Google).²⁴⁹ Additionally, the ACCC’s preliminary view is that vertically integrated firms (such as Google) will often be able to provide greater ease of integration.

3.2.4. Access to data and ad targeting capabilities

The ability to target ads to consumers is a key feature of digital advertising. Access to a large amount and variety of data accurately linked to a consumer can provide certain ad tech providers with a competitive advantage by enabling the more effective targeting of ads to a relevant audience. For example, if an ad tech provider knows that a consumer has visited various clothing websites, they will be able to infer some information about that consumer for ad targeting purposes. However, if the ad tech provider also knows that the consumer has also recently visited websites about running and looked at sports shoes recently, then they can provide more granular targeting based on additional information about the consumer.

Collection of data

Data is generally collected on a first-party or a third-party basis. Generally all ad tech providers will collect data via tracking technologies on websites and apps. This is considered third-party data as it is collected on third-party properties not owned by the ad tech provider. This data may be collected by multiple ad tech providers, given that websites and apps can contain trackers from multiple ad tech providers. Additionally, ad tech providers are able to purchase data from, or establish integrations with, data providers and brokers to increase the data available for targeting purposes.

However, certain ad tech providers may also own and operate consumer facing properties (e.g. digital platforms or other websites and apps), which enable them to collect user data on a first-party basis. The more time consumers spend on these properties, the more first-party consumer data the owners of those properties are able to collect. Ad tech providers that are able to collect data on both a first-party and third-party basis can combine the data held leading to the creation of more detailed consumer profiles for ad targeting.

There are a number of benefits that first-party data collection has over third-party data collection.

- First-party data, is considered to be more accurate and potentially more detailed depending on the type of consumer service on which the data is collected.
- An ad tech provider that collects first-party data, may well use this data exclusively for their benefit (and will often not make this data available to rival ad tech providers).
- An ad tech provider that has first and third-party data, has less need to purchase additional data from data providers/brokers compared to ad tech providers that only collect data on a third-party basis. Where ad tech providers do not purchase this data themselves but instead integrate with data providers/brokers to facilitate the use of this data by advertisers, advertisers will incur the additional costs.

Tracking individual consumers

Data is also important to be able to track consumers across the internet. If a consumer cannot be accurately tracked across their purchasing journey, this impacts the ability of an ad tech provider to serve relevant targeted advertising and to provide attribution services even if the ad tech provider holds a lot of data. Further, an ad tech provider that can more

²⁴⁹ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 7; Timothy Whitfield and Denise Shrivell, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 6.

accurately track a consumer along the ad tech supply chain (across both the demand and supply side) is likely to be more attractive to advertisers and publishers.

In order to track consumers across their purchasing journey and across the ad tech supply chain, ad tech providers' use tools such as cookies and other forms of identifiers (e.g. advertising IDs, IP addresses, device IDs, etc.). Vertically integrated ad tech providers (e.g. Google) are likely to hold an advantage in this aspect as the Google DoubleClick ID and Android Advertising ID can be used across all its ad tech services and online locations where it tracks users, providing it with a more consistent identification of consumers.

Access to targeting data and the ability to track a consumer along the ad tech supply chain is discussed further in chapter 2.

3.2.5. Price and other fees

Ad tech providers also compete on price, with respect to the fees they charge for their services. For example, Daily Mail Australia submits that it looks for SSPs with “low fees, and no hidden fees, to ensure a greater proportion of ad spend goes to working media.”²⁵⁰ Additionally, Daily Mail Australia states that ad tech providers are increasingly competing for new clients based on price, which has led to some downward pressure on fees.²⁵¹ See also chapter 5 for further discussion on the pricing of ad tech services.

Price competition can also be impacted by transparency issues which are discussed in chapter 6.

3.2.6. Ability to measure and verify the performance and quality of ad tech services

A number of stakeholders have indicated that both advertisers and publishers value the ability to measure the performance and quality of ad tech services, in order to determine whether their current ad tech providers are providing them with the return and outcomes they are looking to achieve.²⁵²

- For advertisers, this may involve being able to attribute sales to digital advertising expenditure.
- For publishers, this may involve being able to determine which sections of their website attract the highest purchasing price, and being able to accurately compare the bids received from all demand sources to determine which demand sources provide the best revenue.

Additionally, stakeholders have indicated that when choosing between different ad tech providers, advertisers may consider whether ad tech providers allow for independent verification of their performance and quality.²⁵³ For example, ad tech providers may facilitate

²⁵⁰ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 11.

²⁵¹ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 5.

²⁵² Microsoft, [Submission to Ad Tech Inquiry Issues Paper](#), 24 April 2020, p. 2; Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 25; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, pp. 11-12; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 71.

²⁵³ Verizon Media, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p. 3; Australian Association of National Advertisers, [Submission to Ad Tech Inquiry Issues Paper](#), 21 May 2020, pp. 4-5.

the use of or provide some direct integration with verification partners. Advertisers can then contract with these verification partners for their services.

However, as discussed further in chapter 6, the ability of advertisers and publishers to assess the performance and quality of ad tech services may be limited and this may vary depending on the ad tech providers that they are using.

3.3. Competition assessment

The competitive conditions in the supply of ad tech services are clearly influenced by the factors set out above. This section sets out the ACCC's preliminary assessment of the level of concentration in the supply of each of the core ad tech services and then considers why Google's position in the provision of each of these services is so strong, with consideration to factors including those identified in section 3.2 above.

As part of the ACCC's preliminary competition assessment, the ACCC has estimated shares of revenue and impressions for these services, using data provided by ad tech providers, including from s 95ZK notices.²⁵⁴ These shares are the ACCC's best estimates, based on information from ad tech providers that the ACCC understands to be the main suppliers of each service in Australia. However, there may be some providers who are not captured in the shares reported in this Interim Report.

While the ACCC has attempted to compare revenue and impressions on the same basis between providers, there are some inconsistencies in how the information was recorded and provided to the ACCC. Accordingly, there is a potential that the figures we have provided may under or overstate the actual share of revenue or impressions for a firm. The ACCC will further refine its analysis of shares for the Final Report.

3.3.1. Advertiser ad servers

Advertisers use advertiser ad servers to manage their ad campaigns and to serve ads on publisher properties, regardless of which DSPs, SSPs or publisher ad servers are also involved in the transaction.

Alternatively, if an advertiser buys ads through an ad network, the ad network will perform advertiser ad server functions within its own platform. Google Ads (DSP) also offers integrated ad serving functions for ads bought through its service. However, ad networks and Google Ads (DSP) are not able to serve ads bought through other channels, which makes them distinct from the advertiser ad server services discussed in this section.

Share estimates

Suppliers of advertiser ad server services in Australia include Google, Flashtalking, Innovid, MediaMath, Xandr, Adform and Sizmek (by Amazon).²⁵⁵ Google is the leading provider of advertiser ad server services in Australia with an estimated 80-90% share of impressions in 2019.

²⁵⁴ Share of revenue is an ad tech provider's share of the total revenue earned by the main suppliers of the service in Australia, in relation to digital display advertising served to users in Australia. Share of impressions is an ad tech provider's share of the total impressions traded or served by the main suppliers of the service in Australia, in relation to digital display advertising served to users in Australia. All shares of revenue and impressions are for Australia in 2019.

²⁵⁵ We understand that some advertiser ad server services are offered as an add-on or integrated service alongside DSP services.

Table 3.3: Google’s estimated share of revenue and impressions for advertiser ad server services, Australia, 2019

Provider	Share of revenue	Share of impressions
Google Campaign Manager	Not available	80-90%
Other advertiser ad servers		10-20%

Source: ACCC analysis of data provided by ad tech providers²⁵⁶

The ACCC’s estimate is consistent with stakeholder submissions about Google’s advertiser ad server (Campaign Manager) and the state of competition. For example:

- Daily Mail Australia submits that Google largely controls the market for advertiser ad servers with its Campaign Manager product.²⁵⁷
- Free TV submits that Google Campaign Manager is one of the two largest advertiser ad servers in the world.²⁵⁸
- News Corp Australia submits that Google’s Campaign Manager holds the largest share of the advertiser ad server market, and that other providers that supply globally are Sizmek and AdZerk.²⁵⁹
- WPP AUNZ submits that there is low competition for ad serving due to there being few companies that offer the service, and notes that the main companies in Australia are Google, Sizmek and Flashtalking.²⁶⁰

Why does Google have this substantial share?

As discussed below, Google’s very high share of impressions may indicate that there are not strong competitive constraints on Google. Google’s share also seems to be underpinned by its integration with Google’s DSP and the limits to multi-homing and switching costs.

Integration with Google’s DSP

Google’s advertiser ad server is integrated with Google’s DSP (Display & Video 360). Google may have a competitive advantage through this integration which assists it to entrench its market leading position. Further discussion about Google’s DSP is below in section 3.3.2.

As both Google’s advertiser ad server and DSP are housed under the one advertiser-facing Google ad tech suite (Google Marketing Platform), advertisers, which are commonly drawn to using Google’s DSP, are therefore incentivised to use Google’s advertiser ad server as well. This is due to the established integrations that exist between the two services, which provide advertisers with a more consistent and seamless ad buying, and performance tracking process. If an advertiser were to use a non-Google advertiser ad server, it would likely require more time and effort to integrate with Google’s DSP. The ACCC is continuing to consider the extent and quality of integrations between non-Google advertiser ad servers and Google’s DSP.

²⁵⁶ The information used to estimate these shares of revenue and impressions is based on the total revenue earned and total impressions traded or served in relation to digital display advertising served to users in Australia in 2019.

²⁵⁷ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 3.

²⁵⁸ Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 7. Free TV’s submission does not identify who the other largest advertiser ad server is.

²⁵⁹ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 14.

²⁶⁰ WPP AUNZ, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 2.

Limits to multi-homing and switching costs

The ACCC's preliminary view is that advertisers are unlikely to multi-home because advertiser ad servers function as a central hub which advertisers use to manage the delivery, tracking, and verification of all their digital ads. Therefore, using multiple services to perform this management function is likely to be costly and difficult to implement. Additionally, using one advertiser ad server is likely to assist with frequency capping and obtaining a more consistent measurement of ad campaign performance.

As the advertiser ad server acts as a central hub for advertisers, the ACCC's preliminary view is that switching costs are likely to be significant. Advertisers that switch advertiser ad servers will need to reconfigure a number of processes such as their ad tags and integrations with their DSP, and any Application Programming Interfaces (APIs)²⁶¹ involved with the delivery of ads or reporting on performance.

The ACCC notes that the CMA came to the conclusion that evidence on multi-homing for advertiser ad servers is mixed, finding that advertiser behaviour differs depending on the services they are using the advertiser ad server for. For example, advertisers will generally single-home when using an ad server for the measurement of ad performance, but if they are using ad servers for 'creative management' it is not uncommon to use multiple providers.²⁶²

The ACCC is continuing to consider the limits to multi-homing and magnitude of switching costs and its effect on Google's competition position in the provision of advertiser ad server services. The ACCC is also considering whether limits to multi-homing and high switching costs may act as key barriers to entry and expansion for new and current competitors. The ACCC invites stakeholder comments on this issue.

Question for stakeholders

The ACCC is continuing to consider the competitive dynamics in the supply of advertiser ad server services and the degree of competitive constraints faced by Google as the major provider of these services. The ACCC is particularly interested in:

- limits to advertisers multi-homing,
- advertiser switching costs,
- importance of integrations with DSPs and other ad tech services for advertisers,
- the types and sizes of set up and maintenance costs (including regulatory costs), and
- recent entry and exit of advertiser ad servers.

The ACCC invites stakeholder comments on these issues.

3.3.2. Demand-side platforms

In this competition assessment for DSPs, the term 'Google's DSPs' is used to cover Google's Display & Video 360 product, and Google Ads. While Google's Display & Video 360 allows for more customisation in comparison to Google Ads and is typically used by larger and more sophisticated advertisers, the ACCC's preliminary view is that access to publishers and competitive advantages held over non-Google DSPs is similar across both Display & Video 360 and Google Ads. Where a particular competitive advantage relates only to one of Google's DSPs, this is noted. However, the ACCC is continuing to consider

²⁶¹ An Application Programming Interface (API) is a computing interface that defines interactions between multiple software intermediaries.

²⁶² Competition and Markets Authority, [Appendix M to Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. M40.

whether there are any substantial differences between Google’s two DSPs, and as indicated below, invite stakeholder comment on this issue.

Advertisers generally use DSPs to buy ad inventory programmatically across a range of different SSPs and publishers, as well as different ad inventory types and audiences. We understand that advertisers may also use ad networks to buy display ad inventory from publishers.²⁶³ However, DSPs and ad networks may not necessarily offer the same functionality to advertisers. The ACCC is still considering the extent of any potential substitutability between DSPs and ad networks.

Share estimates

In Australia, Google has an estimated 60-70% share of revenue for DSPs and 70-80% share of impressions in 2019. Other DSPs in Australia include The Trade Desk, Xandr, Criteo, Amobee, Adobe, MediaMath, Verizon Media, Amazon and AdForm. The ACCC has heard mixed views from stakeholders about the level of competition for DSP services. While most stakeholders submit that there are a variety of distinct DSP offerings, there are different views about the level of competition. For example:

- Oracle submits that non-Google DSPs have not thrived.²⁶⁴
- News Corp Australia submits that Google dominates the DSP market.²⁶⁵
- Daily Mail Australia submits that Google, Xandr and The Trade Desk are the top DSPs in Australia and compete to be advertisers’ primary DSP, with other DSPs like MediaMath, Amobee, Verizon, Amazon and Turn, competing for the secondary or third DSP option.²⁶⁶
- Omnicom Media Group submits that there is a medium level of competition for DSPs with a large choice of platforms available.²⁶⁷
- WPP AUNZ submits that competition for DSPs is highly competitive.²⁶⁸

Table 3.4: Google’s estimated share of revenue and impressions for DSP services, Australia, 2019

Provider	Share of revenue	Share of impressions
Total Google DSPs	60-70%	70-80%
Google Ads	30-40%	50-60%
Google Display & Video 360	30-40%	20-30%
Other DSPs	30-40%	20-30%

Source: ACCC analysis of data provided by ad tech providers²⁶⁹

The ACCC considers that variations in shares of revenue and impressions may also be due to the mix of different types of ad inventory that are bought. For example, estimates in the

²⁶³ For example, Daily Mail Australia submits that ad networks compete for agency demand on unique selling points such as custom creative formats and advanced attention metrics, compared to programmatic channels like DSPs: Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 3

²⁶⁴ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 11.

²⁶⁵ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 13.

²⁶⁶ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 3.

²⁶⁷ Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, p. 16.

²⁶⁸ WPP AUNZ, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 2.

²⁶⁹ The information used to estimate these shares of revenue and impressions is based on the total revenue earned and total impressions traded or served in relation to digital display advertising served to users in Australia in 2019.

table above suggest that Google Ads may have a higher volume of lower value transactions. The ACCC will consider this potential point of differentiation further in the Final Report, specifically whether particular DSPs compete for different customer bases or to offer different types of ad inventory.

Why does Google have this substantial share?

As discussed below, Google's share of revenue and impressions seems to be underpinned by its greater ad targeting ability, large volumes of ad inventory, exclusive ad inventory (such as YouTube inventory) and vertical integration in the ad tech stack.

Greater ad targeting ability through Google's access to data

As discussed in chapter 2, access to more data gives an ad tech provider a greater ability to target specific audiences. While data is important for and used by all components of the ad tech supply chain, the targeting ability that data gives rise to is most important at the DSP level, as DSPs engage in ad buying transactions.

Large volume of first and third party data

Google's DSPs are able to offer more targeted ad services to advertisers. This is partly driven by the significant data advantage Google receives from collecting large volumes of data on both a first and third party basis.

First-party data

In regards to first-party data, Google is able to collect reliable data on consumers that interact with its popular owned and operated consumer facing properties, including Google Search, YouTube, Gmail, and the Android operating system.

In particular, the search query data that Google collects on a first party basis from Google Search is highly valuable to advertisers as someone searching for something on the internet is considered one of the strongest signals of intent.²⁷⁰ Users of Google's DSPs are able to make use of Google Search data by selecting certain audience categories to target via 'In-market Audiences' and 'Affinity Audiences' which advertisers can access and target from Google's DSPs.²⁷¹ In building these audience categories, Google considers factors such as search history and search queries to determine the purchasing intent of users and then places consumers into particular audience categories.²⁷² The vast quantity of Australian search engine data is not available for purchase for use on non-Google DSPs. Therefore, non-Google DSPs are not able to access this type of data for their ad targeting functions.

The ability to collect first-party data does not appear to be necessary to provide a DSP service. For example, The Trade Desk is a popular non-Google DSP which, to our understanding, does not rely on first party data collection given it does not own consumer facing products and only offers a DSP service. However, in order to provide their own ad targeting functionality, DSPs that do not collect first-party data would have to obtain third-party data through, for instance, establishing a network of online trackers on third-party websites and apps or purchasing data from data brokers/providers. Alternatively, DSP providers may provide integrations in their DSP with data brokers/providers which allow advertisers themselves to select and then pay for the use of supplementary data for ad

²⁷⁰ J Yu, '[Search intent signals: aligning organic & paid search strategy](#)', *Search Engine Land*, accessed on 6 December 2020.

²⁷¹ Google, '[Google Ads Help: About audience targeting](#)'; and Google, '[Google Display & Video 360 Help: In-market audience targeting](#)', accessed on 1 December 2020.

²⁷² C Bond, '[New Audience Targeting Options Coming to Google Search](#)', *WordStream*, 18 October 2019, accessed 22 October 2020; G Swan, '[Google's New In-Market Audiences for Search Ads + How To Use](#)', *Tinuiti*, 19 July 2018, accessed 22 October 2020.

targeting. However, as discussed above, there are limitations on the accessibility of some first-party datasets (such as Google Search data) to ad tech providers.

Some stakeholders have noted the significance of first party data. Omnicom Media Group submits ownership and control of first party data is the differentiator between ad tech providers.²⁷³ Additionally, News Corp Australia submits that due to Google's data advantage (from its first party data collection), publishers that have only limited access to first party data need to rely on platforms such as Google and Facebook which have 'deep' and 'joined up' data.²⁷⁴

Third-party data

Google also collects a substantial amount of data on a third party basis from the large number of non-Google websites it has third party trackers on. For example, the ACCC conducted a study on the top 1,000 websites in Australia and found that Google (along with Facebook) had the largest presence in online tracking.²⁷⁵ Google's third party scripts (which can enable tracking of users), were found on over 80% of sampled websites, followed by Facebook with over 40%.

Additionally, Google recently announced that it would phase out support for third party cookies on its Chrome browser within two years (discussed in chapter 2). This is likely to significantly impact the ad targeting functions of ad tech providers, and may increase barriers to entry and expansion as it could become more difficult for new entrant DSPs and smaller existing DSPs to collect data for targeted advertising. Similarly, data providers, that would otherwise sell data to DSPs for ad targeting, would also be impacted (to the extent that they use third party cookies to collect data).

The ACCC's preliminary view is that Google's access to first and third-party data (driven in part by Google's market power in providing search services but also its broader consumer offering, tracking capabilities and digital advertising services) strengthens the competitive position of Google's DSPs. Rival DSPs are unable to access a similar volume and breadth of quality user data and therefore are less able to compete with Google's ability to harness and leverage its data advantage.

Google's attribution and verification capabilities

Google may also use its significant data advantage to provide more accurate and detailed multi-touch attribution services than are available from other attribution providers.²⁷⁶ The ACCC also notes that, because Google only provides attribution services to advertisers using its own DSP, its ability to provide better attribution services provides it with a competitive advantage in the supply of DSP services. The use of data in ad attribution and verification is discussed further in chapter 2 and chapter 6.

Ease of use and bundled search and display advertising services

The ACCC's preliminary view is that ease of use is likely to be a contributing factor to the large share of revenue and impressions for DSP services held by Google Ads. More specifically, Google Ads has a relatively simple self-service interface that is easy to use, and has a lack of minimum spend/monthly platform fee requirements. Small to medium advertisers, in particular, may find the Google Ads DSP offering attractive as they may not

²⁷³ Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, pp. 22-23.

²⁷⁴ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 74.

²⁷⁵ ACCC, [Digital platform services inquiry – September 2020 interim report](#), September 2020, p. 47.

²⁷⁶ Advertisers will value attribution services that are able to most accurately track the 'consumers journey' to a conversion. This will allow the advertiser to understand the advertisements which are having the greatest impact, and base decisions on these findings.

have the expertise, resources, or sufficient volume of ad spend to use other DSP platforms, which may have minimum spend/volume requirements.

Additionally, Google's popular search advertising service is currently provided through Google Ads, which also offers its display advertising service. Therefore, any advertiser purchasing Google's search advertising services through the Google Ads platform can also use its DSP functions to purchase digital display advertising.²⁷⁷ Separately, Google Marketing Platform, which is more often used by larger advertisers, includes both Google's Display & Video 360 (used to purchase display advertising) and Search Ads 360 which, like Google Ads, can be used to purchase Google's popular search advertising service.²⁷⁸

The ACCC's preliminary view is that the relative ease of use of Google Ads' and its ability to provide search advertising and DSP services through the same platform provides it with a competitive advantage in supplying DSP services in particular when considering small to medium advertisers. Similarly, though to a lesser extent, the combination of Display & Video 360 and Search Ads 360 under the one Google Marketing Platform service is likely to provide Google with a competitive advantage in supplying DSP services when considering more sophisticated and larger advertisers that may have more expertise and resources.

Access to volume and exclusive ad inventory

There are some differences in the level of control that Google's two DSP services (Google Ads and Google Display & Video 360) provide to advertisers, in relation to the way that ads are sold. In Google Display & Video 360, advertisers are able to target different properties and websites (Google and non-Google), but Google Ads has limited choice for advertisers and generally chooses what properties and websites an advertisers' ads will be displayed on based on the advertisers' campaign goals.²⁷⁹

Even with these differences, both of Google's DSPs provide access to:

- **A large ad inventory pool:** Google's DSPs offer the purchase of ad inventory on an extensive network of non-Google websites (that use Google Ad Manager or Google AdSense)²⁸⁰ via the Google Display Network which has over 2 million sites and reaches over 90% of internet users worldwide.²⁸¹
- **Access to unique ad inventory:** Google's DSPs also provides access to large amounts of ad inventory from Google websites (e.g. YouTube, Gmail, Blogger) which are not available to other ad tech providers. For example, The Guardian submits that Google has the largest pool of supply in display advertising services and ties access to much of this ad inventory to its own ad tech services.²⁸²

²⁷⁷ Google, [Google Ads: What are the different types of Google Ads](#); Google, [Google Ads Help: Campaign Types](#), accessed on 1 December 2020.

²⁷⁸ Google, [Google: Google Marketing Platform](#), accessed on 1 December 2020.

²⁷⁹ Google, [Google Ads Help: About Smart display campaigns](#), accessed 24 November 2020.

²⁸⁰ Google, [Google Ads Help: How Google Ad Manager works with Google Ads](#), accessed 22 October 2020.

²⁸¹ Google, [Google Ads Help: About targeting for Display Network campaigns](#), accessed 22 October 2020; Google, [Google Ads Help: Display Network: Definition](#), accessed 22 October 2020.

²⁸² Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, pp. 13-14.

The ACCC's preliminary view is that Google's large ad inventory pool and exclusive access to YouTube inventory provides Google's DSPs with a competitive advantage. Access to YouTube is highly valued by many advertisers due to it being the main source of available video ad inventory and numerous stakeholders have submitted that Google's strong position in the supply of DSP services is largely driven by the unique access it has to YouTube ad inventory.²⁸³

However, as discussed further in chapter 4, the ACCC is continuing to consider the degree of this competitive advantage, particularly from Google's exclusive access to YouTube. The ACCC welcomes further stakeholder comments on this issue.

Single versus multi-homing and switching costs

The ACCC is continuing to consider the incentives to single-home, the prevalence of single-homing with a DSP provider, and switching costs. Specifically, the ACCC is considering whether these factors may contribute to Google's significant share of revenue and impressions for DSP services. For example, Microsoft submits that Google is a gateway to a 'massive universe of users for digital advertising purposes that cannot be replicated or achieved in any other way' and that the only practical way to run display advertising campaigns is to include Google platforms.²⁸⁴

Incentives for single-homing and high switching costs as a barrier to entry for DSPs

The incentives for advertisers to single-home with a DSP provider together with high switching costs may contribute to Google's competitive strength and share of revenue and impressions for DSP services.

Specifically, using a single DSP allows an advertiser to more easily limit the number of times consumers are shown their ads (known as frequency capping), provides more consistent campaign performance reporting, and also limits the chance of an advertiser bidding against themselves if using multiple platforms. Google also offers discounts relating to volume of advertiser spend, with fees generally decreasing with increasing volumes. These discounts can incentivise advertisers to increase the volume of purchases on Google's platform. Specifically, Google states that it 'periodically offers incentives to accelerate the adoption of and investment in Google's advertising products', and that the value of incentives are 'based on forecasted or actual spend over the course of a predetermined term or estimated market value of services provided'.²⁸⁵

To the extent there are strong incentives to single-home, it can reinforce the advantages that Google gains through exclusive access to ad inventory. For example, if an advertiser intends to run advertisements on YouTube, incentives to single-home may make the advertiser more likely to use one of Google's DSPs for all, or a significant proportion, of its advertising spend.

A number of stakeholders have submitted on this point. For example, News Corp Australia submits that while advertisers can multi-home on DSPs, there are costs and inefficiencies associated with multi-homing that leads many advertisers to default to Google's integrated service.²⁸⁶ Likewise, Oracle submits that using multiple DSPs would 'typically be suboptimal' for a number of reasons including difficulty in frequency capping, the need to allocate different budgets and consider different systems of ad measurement, and the spreading of spend across multiple platforms resulting in lower bargaining power in regards to price.²⁸⁷

²⁸³ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 21; Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 10; Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 10; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, p. 32; Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, pp. 16, 28.

²⁸⁴ Microsoft, [Submission to Ad Tech Inquiry Issues Paper](#), 24 April 2020, p. 2.

²⁸⁵ Google, [Advertising Policies Help: About advertising incentives](#), accessed on 7 December 2020.

²⁸⁶ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 88.

²⁸⁷ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 10.

Omnicom Media Group similarly notes that frequency capping, sequential targeting, and audience building are efficiencies gained by centralising activity in one DSP.²⁸⁸ Similarly, the CMA found that while multi-homing is common, the advantages of single-homing typically outweigh the advantages of using multiple DSPs, and a number of large advertisers do single-home on Google's Display & Video 360 DSP.²⁸⁹

In contrast, the Computer & Communications Industry Alliance (who receive contributions from Google)²⁹⁰ submits that advertisers have few incentives to single-home, and argue that a 'low fixed cost of running ads on multiple platforms' allows advertisers to use and switch between many advertising platforms.²⁹¹ However, the comments from the CCIA only relate to fixed costs and disregards the other considerations (such as frequency capping, consistency of reporting, volume discounts and other incentives) for whether to multi-home. Likewise, Google submits that its DSP does not hold a competitive advantage and that using its DSP does not stop advertisers and publishers from contracting with other DSP providers.²⁹²

The ACCC's preliminary view is that the incentive to single-home with a DSP provider, together with incentives offered by Google which encourage advertisers to increase their spend on Google's DSPs, may be significant factors as to why Google's DSPs hold their current share of revenue and impressions for DSP services. Additionally, the ease of use of Google Ads may also be a strong contributing factor to its shares for DSP services.

Vertical integration across the ad tech supply chain

Google's DSPs are also part of Google's suite of services across the entire ad tech supply chain. This vertically integrated presence provides competitive advantages including the integration benefits that arise from interacting with services owned by the same company, and a greater ability to track and identify users across the ad tech supply chain using a common consumer ID.

Detailed consideration of benefits and risks associated with vertical integration in the ad tech supply chain is in chapter 4 and the ACCC is continuing to examine vertical integration as a barrier to entry and expansion for DSP services.

Question for stakeholders

The ACCC is continuing to consider the competitive dynamics in the supply of DSP services and the degree of competitive constraints faced by Google as the major provider of these services. The ACCC is particularly interested in:

- the importance of exclusive access to ad inventory,
- prevalence of single-homing versus multi-homing,
- switching costs,
- the importance of access and use of data,
- vertical integration,
- whether there are any substantial differences between Google Ads and Google's Display & Video 360, and
- set up and maintenance costs associated with the establishment of a DSP service, The ACCC is also interested in stakeholder views about the substitutability between DSPs and ad networks.

The ACCC invites stakeholder comments on these issues.

²⁸⁸ Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, p. 14.

²⁸⁹ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, pp. M48-49.

²⁹⁰ Google, [Trade Associations and Membership Organizations](#), accessed on 12 November 2020.

²⁹¹ Computer & Communications Industry Association, [Submission to Ad Tech Inquiry Issues Paper](#), 2 May 2020, p. 11.

²⁹² Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, pp. 3-4, pp. 8-9.

3.3.3. Supply-side platforms and ad networks

SSPs and ad networks both play a role in selling ad inventory:

- SSPs connect with various DSPs to sell publishers' ad inventory via a real-time bidding auction. They may also assist publishers to maximise the price at which their ad inventory is sold, including by setting price floors, determining data used and deciding which buyers can bid.
- Ad networks generally purchase ad inventory from publishers at a fixed price, repackage it and aggregate it with ad inventory from other publishers to on-sell to advertisers. However, more recently, some ad networks have introduced some real-time bidding features.

The ACCC's preliminary view is that ad networks may play a similar role to SSPs in selling publisher ad inventory.²⁹³ However, SSPs perform distinct and specific functions in terms of connecting with DSPs to sell ad inventory programmatically via auctions. As such, the ACCC considers that there may be value in undertaking a competition assessment and considering share of revenue and impressions broadly across SSPs and ad networks, and also separately, in relation to the specific functions of SSPs.

Share estimates

Supply-side platforms

In Australia, for SSPs, Google has an estimated 50-60% share of revenue and 60-70% share of impressions, in 2019. Other SSPs that compete with Google's SSP in Australia include Xandr, Magnite, OpenX, Index Exchange, PubMatic and Verizon Media. Google's share of SSP services appears to be consistent with some stakeholder views that Google is the preferred provider of SSP services. For example:

- Daily Mail Australia submits that Google's SSP is considered the default ad exchange, and that competition only exists amongst smaller SSPs such as The Rubicon Project [now Magnite], PubMatic and Index Exchange which compete to be the preferred SSP for a smaller group of clients.²⁹⁴
- News Corp Australia submits that Google is estimated to capture 55.15% of SSP services in Australia.²⁹⁵ Additionally it submits that Google would have the ability to raise prices without losing customers due to its SSP being a 'must have' product.²⁹⁶

Table 3.5: Google's estimated share of revenue and impressions for SSP services, Australia, 2019

Provider	Share of revenue	Share of impressions
Google Ad Exchange	50-60%	60-70%
Other SSPs	40-50%	30-40%

Source: ACCC analysis of data provided by ad tech providers.²⁹⁷

²⁹³ This view is expressed in several submissions from stakeholders, see: Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, pp. 2-3; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 12; Facebook, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020, p. 18.

²⁹⁴ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 2.

²⁹⁵ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 62.

²⁹⁶ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 64.

²⁹⁷ The information used to estimate these shares of revenue and impressions is based on the total revenue earned and total impressions traded or served in relation to digital display advertising served to users in Australia in 2019.

The Rubicon Project (SSP) and Telaria (SSP specialising in connected TV) merged in April 2020 and rebranded as Magnite.²⁹⁸ Magnite's CEO Michael Barrett observed that publishers are looking for independent alternatives to Google, as well as 'reducing the number of partners they sell through and want to work with [SSPs] that can act as a one-stop-shop for all impressions, whether that's display or connected TV'.²⁹⁹

Reach of SSPs on top 10,000 websites

The ACCC also considered the reach of SSPs in Australia by analysing ads.txt files from the top 10,000 websites in Australia.³⁰⁰ An ads.txt file is a list of authorised sellers (e.g. SSPs or ad networks) for a website's ad inventory. The ACCC's analysis found that approximately 30% of the top 10,000 websites have an ads.txt file.

The ACCC's analysis found that a number of ad tech providers appear in the ads.txt files of these top websites. However, it is significant that Google's ad tech services are present on 96% of websites with an ads.txt file.

The next most prevalent SSPs from this analysis are Xandr, Magnite, PubMatic, OpenX and Index Exchange, who are each present on 73-75% of websites with an ads.txt file. An additional 15 sellers (e.g. SSPs or ad networks) are present on over 50% of these websites.

Supply-side platforms and ad networks

As discussed above, ad networks may play a similar role to SSPs in selling ad inventory found on publisher websites. When considering SSPs and ad networks together, Google has an estimated 50-60% market share of revenue and 70-80% share of impressions in Australia in 2019.

Other ad networks in Australia include Facebook Audience Network and Taboola. Facebook Audience Network enables advertisers who are advertising on Facebook to extend their campaigns to purchase ad inventory on publishers' mobile apps.³⁰¹ Taboola specialises in displaying native content from advertisers on publisher websites in a widget or feed alongside editorial content.

²⁹⁸ The Rubicon Project, [Rubicon Project and Telaria complete merger following stockholder approvals](#), 1 April 2020, accessed 12 October 2020; R Shields, [Post-Merger, Rubicon Project and Telaria Rebrand as Magnite](#), *Adweek*, 30 June 2020, accessed 12 October 2020.

²⁹⁹ S Joseph, ['Work together around an open solution': As Rubicon and Telaria rebrand as Magnite, the SSP sets out to rival the walled gardens](#), *Digiday*, 6 July 2020, accessed 12 October 2020.

³⁰⁰ The ACCC's analysis was based on a list of the top 10,000 websites in Australia in September 2020 that were frequently visited by consumers in Australia (excluding sites in the Adult Category to become the top 9,178 websites). Ads.txt files, which list authorised sellers for a website's ad inventory, were then scraped and analysed. As a result of the web scraping exercise, 2,767 websites with ads.txt files were identified. This equates to 30% of sites by count. See Appendix F for further explanation of this analysis.

³⁰¹ Facebook, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020, pp. 19-20.

Table 3.6: Google’s estimated share of revenue and impressions for SSP and ad network services, Australia, 2019

Provider	SSP or ad network	Share of revenue	Share of impressions
Total Google (SSP + ad networks)		50-60%	70-80%
Google Ad Exchange	SSP	30-40%	40-50%
Google AdMob	Ad network	10-20%	10-20%
Google AdSense Display	Ad network	0-10%	10-20%
Other SSPs and ad networks		40-50%	20-30%

Source: ACCC analysis of data provided by ad tech providers.³⁰²

The ACCC considers that variations in shares of revenue and impression may be due to the mix of different types of ad inventory that are sold. For example, estimates in the table above suggest that Google AdSense may have a higher volume of lower value transactions. The ACCC will consider this further in the Final Report, including how SSPs differentiate their services to compete for publisher customers.

Why does Google have this substantial share?

As discussed below, Google’s share of revenue and impressions for SSP services seems to be underpinned by its near-exclusive access to demand from Google Ads (Google’s DSP) and its vertical integration with other ad tech services.

Access to advertisers and unique Google advertiser demand

Demand from Google Ads (a Google DSP representing a significant percentage of available advertiser demand) is predominantly channelled through Google’s SSP (Google Ad Manager) or Google’s ad networks (Google AdSense and Google AdMob).³⁰³ Google Ads has a significant share of revenue and impressions for DSP services due to a range of factors outlined in section 3.3.2 above.

Access to more advertisers or exclusive groups of advertisers increases the potential demand for the publisher’s ad inventory, which therefore increases the publisher’s potential revenue. Therefore, publishers are likely to be incentivised to use Google’s SSP (or ad network) as their primary or only SSP (or ad network) due to its nearly unique access to Google Ads demand and other significant advertiser demand. Numerous stakeholders also submit that this demand advantage is significant.³⁰⁴ For example, Daily Mail Australia

³⁰² The information used to estimate these shares of revenue and impressions is based on the total revenue earned and total impressions traded or served in relation to digital display advertising served to users in Australia in 2019.

³⁰³ See Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M108-109. There are some exceptions to this, and Google Ads may sometimes purchase inventory sold through other SSPs. However, the ACCC notes that the CMA explains there may be efficiency reasons leading to Google Ads purchasing more through Google’s SSP including less data loss and less latency. Additionally, The Guardian and Daily Mail Australia both submit that Google’s SSP is the only way to access Google Ads demand. Similarly, News Corp submits that Google Ads buy primarily from Google’s SSP. See: Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, pp. 6-7; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 2; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 30-31.

³⁰⁴ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 30-31; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, p. 31; Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, pp. 5-6, 14.

submits that Google's SSP is 'the only way to access important Google Ads demand'.³⁰⁵ This is discussed in more detail in chapter 4.

Additionally, the ACCC notes that for ad tech providers who are vertically integrated and offer DSP and SSP services, a competitive advantage on one side of the ad tech supply chain (e.g. SSP) may potentially also extend and increase the competitive advantage held on the other side (e.g. DSP) and vice versa creating a 'virtuous cycle'.

While the ACCC notes that non-vertically integrated SSPs are still able to attain integrations with leading DSPs,³⁰⁶ Google's nearly unique access to Google Ads demand is likely to provide it with a significant competitive advantage over other SSPs. This is compounded by the integration of Google's SSP with its publisher ad server, which is discussed in section 3.3.4 below.

Access to data

The ACCC is currently considering the role of data in the provision of SSP services and welcomes further stakeholder comments on this issue. The ACCC's preliminary view is that if an SSP is able to provide more data about the consumer viewing each ad impression to a DSP, this may increase the potential for higher bids and therefore increases the attractiveness of using a particular SSP. This may be a further reason why SSP providers who have significant access to data, such as Google, may have a competitive advantage in the provision of SSP services.

Vertical integration across the ad tech supply chain

Google's vertically integrated presence provides its SSP with competitive advantages including integration benefits from interacting with other Google ad tech services and associated technology. For example, when Google's SSP sends bid requests to and receives bids from Google DSPs, there is less chance of a time out between the two ad tech services as the technology is all owned by Google and servers are likely to be situated close to one another. This increases the likelihood that Google's SSP will receive a bid from Google's DSPs (an important source of demand for publishers), which contributes to the potential revenue that the publisher can earn from that SSP.

Google's SSP may also have significant integration benefits with Google's publisher ad server (that has a 90-100% share of impressions for publisher ad server services). For example, for Open Bidding auctions run on Google's publisher ad server, non-Google SSPs pay a fee to Google's publisher ad server for winning bids. Detailed consideration of benefits and risks associated with vertical integration in the ad tech supply chain is in chapter 4.

Lack of interconnections as a potential barrier to entry and expansion

New SSPs and smaller rivals are likely to experience difficulties integrating with DSPs if they are unable to secure a significant and sufficient supply of publisher ad inventory. It also appears that publishers will be more incentivised to connect with SSPs that provide access to a sufficient level of additional or unique advertiser demand via their integrations with DSPs.

Accordingly, the ACCC is considering the cost of and the extent to which a new entrant will have to either:

- establish sufficient integrations with DSPs, or
- attain access to sufficient publisher ad inventory.

³⁰⁵ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 15.

³⁰⁶ For example, PubMatic has integrations with The Trade Desk and with Google Display & Video 360 (Google's DSP), which account for a significant portion of its purchased ad impressions. See PubMatic, [PubMatic IPO Prospectus](#), pp. 1 and 16, accessed on 18 November 2020.

However, as noted above, a main barrier to attaining these interconnections may be because there is little incentive for DSPs to interconnect with new SSPs unless that new SSP has access to sufficient publisher ad inventory. On the other hand, a new SSP may not be attractive to publishers unless it has sufficient interconnections with DSPs. For example, in its recent IPO Prospectus, PubMatic recognises that some of the key risks to its SSP business include a dependence on:

- an ability to maintain and expand access to valuable ad impressions from publishers, including large publishers,
- an ability to maintain and expand access to spend from buyers, including a limited number of DSPs, agencies, and advertisers, and
- an ability to collect, use, and disclose data to deliver advertisements.³⁰⁷

Potential incentives to multi-home

Google (and others) submit that many publishers use multiple SSPs in order to maximise demand for their ad inventory. Header bidding (including Google's Open Bidding) enables publishers to allow multiple SSPs to bid on the same ad inventory at the same time, with the winning bid selected via auction. Stakeholders submit that using header bidding to enable multiple demand sources to bid on ad inventory is likely to result in increased revenue for publishers.³⁰⁸ Publishers may also use ad networks to sell their ad inventory.³⁰⁹

We also note that SSPs may be differentiated as follows:

- some SSPs such as Xandr and The Rubicon Project (now Magnite), focus on servicing the general market (e.g. multiple formats that go across a large range of publisher websites);
- some SSPs offer specialist services that may focus on one specific type of ad inventory such as video inventory (e.g. Clypd is an SSP that specialised in connected TV before it was acquired by Xandr³¹⁰ and Telaria was an SSP that specialised in connected TV (now Magnite (CTV))).

As such, the incentive for publishers to multi-home on, or switch between general SSPs and specialist SSPs may depend on the type of ad inventory that they are seeking to sell.

The ACCC's preliminary view is that publishers will multi-home on SSPs if the benefits that arise from connecting with another SSP (e.g. increase in demand, access to unique demand, quality of demand) are greater than the costs of integration and set up. However, while the ACCC's analysis of the ads.txt files of the top 10,000 websites in Australia (as explained above) shows that multi-homing on SSPs is likely to be prevalent, it also shows that there are likely to be a number of publishers who single-home. The ACCC is continuing to consider the prevalence of multi-homing, the magnitude of switching costs, and the degree to which these affect barriers to entry and expansion for SSP services.

³⁰⁷ PubMatic, [PubMatic IPO Prospectus](#), pp. 6-7, 16, accessed on 18 November 2020.

³⁰⁸ Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 12; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 25; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, p. 35.

³⁰⁹ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, pp. 2-3; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 8.

³¹⁰ AT&T, [Xandr Adds Clypd to its Portfolio of Products and Services](#), 18 October 2019, accessed 12 October 2020.

Question for stakeholders

The ACCC is continuing to consider the competitive dynamics in the supply of SSP services and the degree of competitive constraints faced by Google as the major provider of these services. The ACCC is particularly interested in:

- access to advertisers
- access to data
- the need for and difficulties associated with attaining integrations with DSPs and publishers (including header bidding)
- the potential incentives to multi-home
- switching costs, and
- set up and maintenance costs.

The ACCC is also interested in stakeholder views about the substitutability between SSPs and ad networks.

The ACCC invites stakeholder comments on these issues.

3.3.4. Publisher ad servers

Publishers use publisher ad servers to organise and manage the selling of their ad inventory. This includes ad inventory sold through direct deals, as well as through SSPs and ad networks.

If a publisher sells ads exclusively through an ad network, the ad network may also provide publisher ad server functions within its own platform. However, ad networks generally will not be able to serve ads bought through other channels, which makes them distinct from the publisher ad server services discussed in this section.

Share estimates

In Australia, Google has an estimated 90-100% share of impressions of publisher ad server services in 2019. The ACCC is only aware of limited other options available in Australia, including Xandr.

OpenX and Verizon Media stopped providing their publisher ad server products in 2019 and 2020. Coverage of these announcements noted Google's strong position as a publisher ad server and high switching costs made it difficult for OpenX and Verizon Media to compete.³¹¹

News Corp Australia submits that Google is 'by far the leading publisher ad server in Australia' and that the only other significant publisher ad server in Australia that competes with Google is Xandr's publisher ad server.³¹² News Corp Australia also submits that Xandr's publisher ad server does not pose a competitive constraint on Google's publisher ad server and claims that Google would have the ability to raise prices without losing customers due to its publisher ad server being a 'must have' product.³¹³ Additionally, Daily Mail Australia submits that the 'market for publisher ad servers is highly concentrated' and that Google captures the 'lion's share, with [Google's publisher ad server] being the default ad server for the industry'.³¹⁴

³¹¹ R Shields, '[Verizon Media to Shutter Oath Ad Server](#)', *Adweek*, 4 March 2019, accessed 11 October 2020; C Shruptine, '[OpenX Ad Server Alternatives](#)', *Kevel*, 19 December 2018, accessed 13 October 2020.

³¹² News Corp Australia, '[Submission to Ad Tech Inquiry Issues Paper](#)', 15 May 2020, p. 12.

³¹³ News Corp Australia, '[Submission to Ad Tech Inquiry Issues Paper](#)', 15 May 2020, p. 64.

³¹⁴ Daily Mail Australia, '[Submission to Ad Tech Inquiry Issues Paper](#)', 2 June 2020, p. 2.

Table 3.7: Google’s estimated share of revenue and impressions for publisher ad server services, Australia, 2019

Recipient	Share of revenue	Share of impressions
Google Ad Manager	Not available	90-100%
Other publisher ad servers		0-10%

Source: ACCC analysis of data provided by ad tech providers.³¹⁵

Why does Google have this substantial share?

As discussed below, Google’s very high share of impressions for publisher ad server services may indicate that the competitive constraints on Google are not substantial. Google’s share seems to be underpinned by the prevalence of single-homing and high switching costs, and its integration with Google’s SSP.

Prevalence for single-homing and high switching costs

The publisher ad server is designed to function as the one service which organises and manages the selling of a publisher’s ad inventory.³¹⁶ As such, the ACCC’s preliminary view is that it is likely that single-homing for publisher ad servers is most practical and convenient for publishers due to the central role it performs. The CMA also found that publishers typically single-home on one publisher ad server.³¹⁷ The ACCC is continuing to consider the prevalence of single-homing in Australia.

As a result of the complexities associated with publisher ad servers, the ACCC understands that switching publisher ad servers is a complex process that is likely to incur significant financial costs and time. For example, News Corp Australia submits that switching publisher ad servers is ‘expensive and disruptive to publishers’ business operations’ because of the costs related to ‘setting up, testing, migration and retraining staff’ which create significant barriers to switching.³¹⁸

The CMA also notes that there appear to be multiple areas of work required for a publisher to switch publisher ad servers, and the process can take a significant number of months to complete (estimated between 3-6 months and 18 months).³¹⁹

The ACCC’s preliminary view is that the incentives to single-home and high switching costs may constitute a significant barrier to entry and expansion, and as such entrench Google’s leading position in the provision of publisher ad server services.

Integration with Google’s SSP

Publishers can only access the full functionality of Google’s SSP through Google’s publisher ad server. When a publisher uses Google’s publisher ad server and utilises Google’s Open

³¹⁵ The information used to estimate these shares of revenue and impressions is based on the total revenue earned and total impressions traded or served in relation to digital display advertising served to users in Australia in 2019.

³¹⁶ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 11; Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, pp. M29-30.

³¹⁷ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M65.

³¹⁸ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 11.

³¹⁹ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M66.

Bidding, Google's SSP is able to submit a real-time bid for ad inventory (alongside other SSPs).³²⁰

If a publisher were to use a non-Google publisher ad server, it could receive real-time bids from other (non-Google) SSPs using header bidding.³²¹ However, Google does not participate in client side header bidding, meaning that its SSP would not submit a real time bid as part of this header bidding process. The ACCC understands that while it is possible for a non-Google publisher ad server to access demand from Google's SSP, this is usually an inefficient process.

This approach by Google, may mean that publishers are more likely to use Google's publisher ad server as this allows them to access the full functionality of Google's SSP, which in turn provides them with access to Google Ads (DSP) demand. As mentioned above, Google Ads is predominantly available through Google's SSP and other SSPs do not appear to have the same level of access to Google Ads. This is discussed in more detail in chapter 4.

Daily Mail Australia submits that while it is possible to use a non-Google publisher ad server to access Google's SSP, this would impact the potential yield that publishers can achieve, due to Google's decision to not participate in header bidding.³²² Daily Mail Australia also submits that it is 'not financially viable' to move away from Google's publisher ad server and the access to advertiser demand it provides.

Other stakeholders also note the significant advantages that come from the integration of Google's publisher ad server with other Google products. The Guardian submits that with the integration of Google's SSP into Google's publisher ad server, it is easier for publishers to set up and run programmatic guaranteed campaigns, which The Guardian states can otherwise be a very manual and time consuming process.³²³

The ACCC is continuing to consider the links between Google's publisher ad server and Google's SSP and the competitive impact of integrations between publisher ad servers and SSPs.

Question for stakeholders

The ACCC is continuing to consider the competitive dynamics in the supply of publisher ad server services and the degree of competitive constraints faced by Google as the major provider of these services. The ACCC is particularly interested in:

- the links between Google's publisher ad server and its SSP
- the presence of other non-Google publisher ad servers
- pricing of publisher ad server service
- set up and maintenance costs
- the prevalence of single-homing, and
- switching costs.

The ACCC invites stakeholder comments on these issues.

³²⁰ Google, [Google Ad Manager Help: Introduction to Open Bidding](#), and Google, [Google Ad Manager Help: How Open Bidding works](#), accessed 9 December 2020.

³²¹ Header bidding is a process for conducting auctions between SSPs that allows multiple SSPs to bid on the same ad inventory at the same time, with the winning bid selected via auction.

³²² Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, pp. 2, 5-6.

³²³ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 7.

3.3.5. Is there enough dynamic competition to constrain Google in the supply of ad tech services?

Many businesses including online businesses and digital platforms are subject to competitive pressures over the medium to long term, such as the threat of new entry and from the possibility that a rival develops an innovation that allows it to enter and/or expand. Dynamic competition may place some degree of competitive constraint on Google.

Google submits that ad tech markets in Australia are dynamic and highly competitive, characterised by frequent entry and expansion, advertisers ‘in-sourcing’ ad tech services by bringing them in-house, and multi-homing by using multiple ad tech services from different vendors. Google submits that large agencies and advertisers use at least two DSPs and large publishers use multiple SSPs.³²⁴ It also submits that the rise of mobile and digital video advertising and customer demand for interoperability has created further competitive pressure on Google.³²⁵

The ACCC is continuing to consider the extent to which Google is insulated from dynamic competition by barriers to entry and expansion and its acquisition strategy.

Barriers to entry and expansion

High barriers to entry and expansion weaken the constraint that new entrants and existing rivals place on incumbent providers. If barriers to entry prevent firms from entering the market altogether, or deter and impede entry, incumbent firms may be sheltered from competitive constraint of new entrants for a significant period. Similarly, if there are features of a market that prevent firms expanding altogether, or deter or impede expansion, incumbent firms may be sheltered from competitive constraint of existing rivals.

High barriers to entry and expansion may also weaken the incentives of new entrants and challenger platforms to come forward with disruptive innovation. Instead, they might be limited to investing in innovations that complement the incumbents’ services. These barriers may also limit the incentives of incumbents to innovate themselves. Overall, they can result in a more limited range of new features and services being made available to customers.³²⁶

As discussed above, the ACCC is continuing to consider the competitive dynamics of ad tech services, and the degree to which dynamic competition constrains Google in the supply of ad tech services. These include consideration of the barriers to entry and expansion outlined above such as switching costs, and others such as economies of scale. Additionally, Google provides a variety of related services, including its search engine platform and search advertising. Its presence in a collection of related markets may give Google certain economies of scope, giving rise to ‘conglomerate effects’. These economies of scope could further serve to heighten barriers to entry and expansion as a new entrant would need to enter multiple markets to compete with Google.

Acquisition strategy

Google’s acquisitions of ad tech providers or related services (including YouTube, DoubleClick, AdMob and AdMeld) have assisted Google entrench its position in ad tech, including through expanding into related markets, which may have been a source of possible rivals to Google’s ad tech services. This also potentially weakens the constraint from dynamic competition. Further information about Google’s acquisitions is described above in section 3.1.2.

³²⁴ Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 13.

³²⁵ Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 8.

³²⁶ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 69.

3.4. Countervailing power of advertisers and publishers

A buyer can have countervailing power in its dealings with a supplier if it can credibly threaten to bypass the supplier in the event the supplier attempts to exercise market power.

Advertisers and publishers have two potential types of countervailing power with suppliers of ad tech services, including Google. The first involves bypassing the ad tech supply chain or parts of the supply chain, for at least part of their advertising volumes. The second involves self-supplying some ad tech services or sponsoring new entry into the ad tech supply chain.

3.4.1. Potential opportunities for advertisers and publishers to bypass the ad tech supply chain

Direct negotiation and self-service interfaces

There are different channels for display advertising to be bought and sold, some of which enable advertisers and publishers to bypass some or all of the ad tech supply chain through direct interactions between the advertiser and the publisher for the publisher's owned and operated inventory. These channels include: direct deals, programmatic direct³²⁷ and self-service interfaces.

It is common for large advertisers and publishers to use these different channels to buy and sell display advertising. In Australia, a significant proportion of the expenditure by advertisers on display advertising is through direct deals and programmatic direct with publishers.³²⁸

Some large publishers also offer self-service interfaces where advertisers can purchase the publisher's owned and operated property, such as Facebook. As noted above, Facebook does not make its inventory available through the 'ad tech supply chain' or through 'open display' channels. Instead, Facebook sells its inventory through its own closed system, which functions as a complete end to end ad buying solution for advertisers looking to purchase inventory on Facebook's website/properties.

While the threat of advertisers or publishers increasing their use of these channels may provide some constraint on ad tech providers, the following factors are likely to limit the degree of this constraint.

- For many small advertisers and publishers that currently engage in the ad tech supply chain, the costs involved in relying on direct negotiation for a large proportion of their display advertising may be prohibitive.
- Many, if not all, publishers are unlikely to be able to sell all of their ad inventory via direct deals and programmatic direct. Given there is a higher degree of publisher involvement required for the sale of ad inventory via direct deals and programmatic direct, in comparison to selling via the ad tech supply chain, many publishers may not have the time, resources or expertise to sell all ad inventory on its website via direct deals and programmatic direct. As such, publishers may lose potential revenue if they do not also sell inventory via the ad tech supply chain.
- The threat of using these channels is likely to be a weaker constraint on an ad tech provider than the prospect of losing business to another ad tech provider. This is because by bypassing the ad tech supply chain, advertisers and publishers are likely to forego some of the benefits they receive from using these services.
- Direct deals which do not rely on using real time targeting are likely to serve a different purpose to buying advertising that uses the ad tech supply chain. The ACCC considers

³²⁷ Programmatic direct deals are where the advertiser and publisher directly negotiate for a fixed volume of ad inventory at a fixed price, but use ad tech providers to automate the delivery of the ads. Further information is in chapter 1.

³²⁸ IAB Australia, [Investment in Australian Digital Advertising Bounces Back With 11.3% Growth From Previous Quarter](#), 22 November 2020, accessed on 25 November 2020.

that these types of direct deals may be used where contextual targeting is considered more important and valuable.

For example an airline company may engage in a direct deal with a popular travel website. Therefore, depending on the company and type of ad campaign being run, direct deals are not likely to be suitable substitutes (and therefore a weaker constraint) to other types of deals that use more of the ad tech supply chain and targeting data available.

- Some of these channels still involve the use of ad tech services, for example some programmatic direct deals involve advertisers and publishers using ad tech providers to automate delivery of the ads.

In addition to direct negotiation and self-service portals, the scope for advertisers and publishers to increase their use of ad networks may enable them to bypass some ad tech services, including DSP services and SSP services. For a discussion of the competitive constraint ad networks may place on SSP providers see section 3.3.3.

3.4.2. Potential for self-supply or the sponsoring of new entry into the ad tech supply chain

A second potential source of countervailing power of advertiser and publishers is the threat to self-supply some ad tech services or sponsoring new entry into the ad tech supply chain.

For instance, some advertisers may have countervailing power with DSPs if they have a credible option of building their own in-house DSP capabilities, or sponsoring entry of a new DSP. Similarly, some publishers may have countervailing power with SSPs if they have some credible option of bypassing existing SSPs either by in-housing SSP capabilities, or sponsoring the entry of a new SSP.

Advertiser/publisher ability to self-supply DSP/SSP services

It is unlikely to be commercially viable for the vast majority of advertisers or publishers currently engaging with the ad tech supply chain to self-supply DSP or SSP services. While an advertiser or publisher may have the resources and potentially the technical expertise to establish an in-house DSP or SSP platform, a number of factors make this unlikely.

- **Low incentives for interconnecting DSPs/SSPs:** If a small advertiser were to self-supply DSP services and attempt to interconnect with SSPs, the incentive for a SSP to agree to interconnection would likely be very low given this would provide it with only one additional advertiser's worth of demand. The reverse also occurs in the scenario of a publisher self-supplying SSP services – DSPs would have a low incentive to establish integration for one publisher's worth of ad inventory. It is likely that the benefits of increasing advertiser demand/ad inventory supply by one unit on a DSP/SSP are small and do not outweigh the costs of interconnection.
- **Economies of scale:** If a small advertiser or publisher were to self-supply DSP/SSP services, that advertiser or publisher is unlikely to benefit from the same economies of scale as existing DSPs/SSPs who are likely to be much larger in scale. As a result, it is unlikely that self-supplying DSP/SSP services would be commercially viable for most advertisers/publishers.

There are exceptions to this. For example, Amazon has essentially created an in-house DSP, which allows advertisers to purchase ads on Amazon's properties as well as ads on third party properties.

Advertiser/publisher ability to sponsor entry of DSP/SSP

It is also unlikely to be commercially viable for the vast majority of advertisers or publishers to sponsor the entry of DSPs or SSPs. This is the case for the following reasons:

- **Economies of scale.** For sponsored entry to be commercially viable for advertisers or publishers, the entrant (DSP or SSP) has to operate at an efficient scale. For an advertiser to sponsor the entry of a new DSP, the advertiser's ad buying volume needs to be able to support a commercial production scale, or be able to guarantee that other advertisers could fill any residual demand. A similar situation applies to publishers sponsoring entry of a new SSP. Small advertisers and publishers (on their own) are unlikely to be able to provide, or guarantee, volumes to support commercial production.
- **New entrant DSPs/SSPs may not have the same level of access to certain ad inventory or demand.** The entrant DSP would need to give advertisers the same (or more) access to publisher ad inventory than the advertiser's previous DSP(s) had in order to be a credible option for advertisers. Similarly, a SSP entrant would have to give publishers the same (or more) access to the advertiser demand that the publisher previously had with their existing SSP(s). The ACCC is continuing to consider the ease and cost of interconnecting DSPs and SSPs.

Preliminary view on the countervailing power of advertisers and publishers with regards to Google

The ACCC's preliminary view is that most advertisers and publishers currently engaging with the ad tech supply chain appear to hold little countervailing power against Google's DSPs and Google's SSP. While some advertisers and publishers have the option of increasing their use of direct negotiations, self-service interfaces and ad networks to reduce their reliance on Google's ad tech supply services, as explained above, a number of factors limit the degree of these constraints.

The threat of bypassing Google by self-supplying or sponsoring new entry is particularly weak for the following reasons:

- **Google's DSPs provide a greater ad targeting ability through their access to significant data.** As noted above, and discussed in chapter 2, Google collects a significant amount of first party and third party data which provides its DSPs with greater ad targeting capabilities. Additionally, Google's vertical integrations means that Google is able to more consistently track and therefore target consumers across the internet via the use of common consumer IDs.
- **Google's DSPs have exclusive access to YouTube inventory.** As noted above, and discussed in chapter 4, stakeholders have indicated that access to YouTube inventory is often an important factor when an advertiser chooses its DSP provider.
- **Google interoperability.** As noted above, stakeholders have indicated that Google's ad tech services work more seamlessly together for a number of reasons including time and latency issues, and user ID tracking. Additionally, there have been allegations that Google potentially self-preferences its own ad tech services in auctions/bids. For example, Google Ads has the potential to be sending more of its advertiser demand to Google's SSP in comparison to other SSPs. Publishers that value the advertiser demand from Google Ads will therefore likely hold little countervailing power in negotiations with Google.

Preliminary conclusion – Chapter 3

While there are no recommendations for this chapter, the combination of Google's leading position in key ad tech services and vertical integration across the ad tech supply chain, as well as in ad inventory, does raise competition concerns.

The competition concerns arising from Google's vertical integration and the potential conflicts of interests and proposals to address these concerns are set out in chapter 4.

4. Vertical integration and conflicts of interest

Key findings

- Vertical integration can benefit ad tech providers, advertisers, and publishers. It can result in cost savings, operational efficiencies, and technological advantages. However, vertical integration can create competition concerns when an ad tech provider is able to leverage its strength in one market or service into a related market or service in an anti-competitive way.
- Where ad tech providers operate at multiple levels of a supply chain, and in particular on behalf of an advertiser and publisher, there may also be conflicts of interest between an ad tech provider, advertiser and publisher. These can lead to poor outcomes for advertisers or publishers if their ad tech provider does not act in their best interests.
- There are a number of vertically integrated ad tech providers operating in Australia but Google is the only provider that supplies services across the entire ad tech supply chain and that also sells its own ad inventory.
- Google's integration across the supply chain, and its strength in the supply of key ad tech services and ad inventory, means that it is likely to have the ability and incentive to favour its own related businesses at the expense of others (self-preferencing).
- Stakeholders have alleged Google has used its position across the supply chain to lessen competition. These allegations fall into two main categories.
- First, Google may have leveraged its strong position in the supply of ad inventory, primarily its control of the ad inventory on YouTube, to advantage its own demand-side platforms (Google Ads and Display & Video 360).
- Secondly, Google's integration across the whole supply chain, and its strength in the supply of demand-side platform services and publisher ad server services in particular, may allow Google to preference its own related services in a way which can lessen competition in the supply of ad tech services. Stakeholders have raised concerns that Google has engaged in a number of instances of such conduct, including:
 - restricting access to demand, or channelling demand, from its demand-side services to its own supply side services, and
 - preferencing or advantaging its supply side services in the way that it conducts auctions.
- The ACCC is continuing to consider whether any of the above conduct may breach the Competition and Consumer Act.
- Google's presence across the whole supply chain also means that, in a single transaction, it may act on behalf of an advertiser, a publisher, and also operate the platforms that facilitate the sale of an ad impression. This can create conflicts of interest, as the interests of the three parties in such a situation are unlikely to be aligned.

Proposal for consultation

- Proposal 3: The ACCC is seeking views on whether rules should be introduced to manage the competition and other issues that arise from Google's vertical integration. Such rules would aim to prevent self-preferencing, and manage conflicts of interest.

This chapter examines the extent of vertical integration in the ad tech supply chain, including both the benefits and the potential concerns it gives rise to. The chapter then considers whether the integration of any ad tech providers is creating, or has the potential to create, conflicts of interest and competition concerns. It is structured as follows:

- **Section 4.1** discusses the extent of vertical integration across the ad tech supply chain and considers the range of benefits and potential concerns arising from vertical integration, such as leveraging conduct and conflicts of interest.
- **Section 4.2** considers specific issues arising from the integration of Google's ad tech services and ad inventory on YouTube.

- **Section 4.3** considers specific issues arising from Google’s vertical integration across the ad tech supply chain, including the potential for anti-competitive leveraging through self- preferencing.
- **Section 4.4** discusses proposals that could be developed to address potential issues arising from vertical integration.

4.1. The extent and benefits of vertical integration






4.1.1. Extent of vertical integration in the supply of ad tech services



Two main types of vertical integration are considered in this chapter:

- **Ad inventory integration:** This is where a publisher, who sells ad inventory, also supplies ad tech services.
- **Supply chain integration:** This is when an ad tech provider supplies a number of services across the ad tech supply chain.

The extent of both types of integration is shown in figure 4.1 below.

Figure 4.1: Vertically integrated ad tech providers and Google’s estimated share of revenue and impressions for ad tech services in Australia in 2019

	 Advertiser ad server	 Demand side platform	 Supply side platform	 Publisher ad server	 Publishers
Adform	✓	✓	✓	✓	
Amazon	✓	✓			✓
Google	NA 80-90%	60-70% 70-80%	50-60% 60-70%	NA 90-100%	✓
Innovid	✓			✓	
MediaMath	✓	✓			
Verizon		✓	✓		✓
Xandr	✓	✓	✓	✓	

 = Share of revenue
 = Share of impressions

Source: ACCC analysis of data provided by ad tech providers.³²⁹

Note: Some providers shown in figure 4.1 provide data management platform services, or ad verification and attribution services, which are not shown here.

As discussed in chapter 3, recent mergers and acquisitions have resulted in some ad tech providers becoming more vertically integrated along the ad tech supply chain. However, as illustrated by figure 4.1, there are only a limited number of operators providing more than

³²⁹ The information used to estimate these shares of revenue and impressions is based on the total revenue earned and total impressions traded or served in relation to digital display advertising served to users in Australia in 2019. The basis for the ACCC’s estimates is explained in more detail in chapter 3.

one type of ad tech service in Australia. Google is the only ad tech provider that supplies services across the entire ad tech supply chain and provides ad inventory. While there are some other providers like Xandr and Verizon who also supply multiple services in the supply chain, no ad tech provider has the same coverage and scale as Google.

There are few suppliers of ad tech services that are also publishers. While Facebook is a significant supplier of display ad inventory on its own properties (e.g. Facebook and Instagram), it does not sell its inventory via 'open display' channels or through the ad tech supply chain. Rather Facebook uses its own 'closed' systems to sell its ad inventory directly to advertisers. As a result, its ad tech services are not involved in selling its own inventory.³³⁰

4.1.2. Benefits of vertical integration

Vertical integration can give rise to efficiencies in the supply chain, for example by enhancing vertical coordination and economies of scope. A number of stakeholders commented on the benefits, submitting that vertical integration can lead to cost savings, efficiencies and technological benefits such as reduced latency.³³¹ Some submit that vertical integration can also improve competition.³³² For example, WPP AUNZ (an ad agency holding group) submits that vertical integration has improved the competitive position of industry participants by providing scale and better product offerings.³³³

Stakeholders have also commented on a range of other advantages of using vertically integrated firms.³³⁴ For example, Omnicom Media Group (an ad agency) submits campaign implementation is easier for advertisers when using vertically integrated service providers, and that this reduces the resources required by advertisers to use them. It also submits that vertically integrated providers are able to provide superior inventory forecasting and delivery of programmatic guaranteed deals to publishers.³³⁵ Similarly, SBS submits that vertical integration provides more 'streamlined operations' for users.³³⁶ Stakeholders also submit that vertically integrated providers may be in a position to provide better quality services to customers, such as more accurate reporting and targeting, and that using these services may also reduce set up costs for publishers.³³⁷

Finally, some stakeholders submit that there are technical advantages to using a vertically integrated operator. In particular that the integration of Google's services means that: there is a lower likelihood that bids from its demand-side platform (DSP) to its supply-side platform (SSP) will fail, that interconnection is easier, that more consistent measurements and metrics can be provided, and that the use of consistent user IDs means it has greater targeting capabilities.³³⁸

³³⁰ As discussed in chapter 3, the ACCC considers Facebook is not a significant supplier of the range of ad tech services that are the focus on this Inquiry. While Facebook does supply access to third party mobile app inventory through Facebook Audience Network, it does this exclusively through Facebook Ad Manager. Further, to the extent that Facebook does participate in 'open display' channels, we consider it does so as an ad network, and not an integrated provider of various ad tech services.

³³¹ See Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 15; Verizon Media, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020, p. 4, and Asia Internet Coalition, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 4.

³³² See Verizon Media, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020, p 4 and WPP AUNZ, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 3.

³³³ WPP AUNZ, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 3.

³³⁴ See for example: Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, pp. 27-28. Special Broadcasting Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p.1.

³³⁵ Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, pp. 27-28.

³³⁶ Special Broadcasting Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p.1.

³³⁷ Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, pp. 27-28; Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 7.

³³⁸ Asia Internet Coalition, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 4; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, pp. 32-33, Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 7.

4.1.3. When vertical integration can create problems

Along with the above benefits vertical integration can create competition concerns and inefficiencies, or otherwise lead to suboptimal outcomes for advertisers and publishers.

Leveraging conduct

Vertical integration may lead to competition concerns where an integrated provider has the ability and incentive to leverage a position of strength in one market or service into a related market or service, and in doing so lessen competition. For example, a vertically integrated provider who holds a position of strength in the supply of DSP services could leverage this strength by requiring publishers to use its SSP service in order to gain access to advertisers that use its DSP service. This could subsequently lessen competition between providers of SSP services.

A number of issues are relevant in assessing whether a provider is able to profitably leverage a position of strength in one market or service into a related market or service. One is the strength of the provider's position in the first market or service. The provider must have sufficient power in the supply of the service in order to prevent participants counteracting the effects of the leveraging conduct by switching away from the provider to effective alternatives. Another issue is the incentive of the provider to engage in leveraging conduct. In particular, the gain to the provider from reducing competitive rivalry in the related market must be sufficient to offset any loss incurred from the leveraging conduct (such as fewer sales of the services in the first market).

We note that there may be a number of different ways that a provider could leverage its strength from one market or service into a related market or service. This includes self-preferencing, where a provider gives preferential treatment to its own services when competing with services provided by other entities.³³⁹

Misuse of market power

Australian law does not prohibit a firm from possessing a substantial degree of market power. Nor does it prohibit a firm with a substantial degree of market power from 'out-competing' its rivals by using superior skills and efficiency to win customers at the expense of firms that are less skilful or less efficient. This conduct is part of the competitive process, which drives firms to develop and offer products that are more attractive to customers, and should not be deterred. However, it is illegal for a firm with substantial market power to damage this competitive process by preventing or deterring rivals, or potential rivals, from competing on their merits. Leveraging conduct by vertically integrated providers may, in some cases, have the potential to infringe the *Competition and Consumer Act 2010* (CCA).

The ACCC notes that the Texas Attorney General has recently filed, on behalf of nine states, a complaint against Google alleging that Google has engaged in monopolisation in a range of ad tech markets in breach of section 2 of the Sherman Act.³⁴⁰ The complaint covers a range of conduct including conduct discussed in this chapter.³⁴¹

The ACCC will continue to examine the concerns raised by stakeholders regarding Google's conduct.

³³⁹ See J Cremer, Y de Montjoye and H Schweitzer, [Competition policy for the digital era: Final Report](#), European Commission, 2019, p. 7.

³⁴⁰ Section 2 of the Sherman Act makes it unlawful for a company to 'monopolize or attempt to monopolize' trade or commerce. It states that, 'Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding \$100,000,000 if a corporation, or, if any other person, \$1,000,000, or by imprisonment not exceeding 10 years, or by both said punishments, in the discretion of the court.'

³⁴¹ Complaint, State of Texas et al. v. Google LLC, US District Court for Eastern District of Texas, No 4:20cv957.

Potential for conflicts of interest

Where an ad tech provider supplies multiple services across the supply chain it can give rise to conflicts of interest. In particular, this can occur when the provider supplies demand and supply side services and may act on behalf of an advertiser and a publisher, although there are other ways that it can occur.

One situation is where an ad tech provider supplies services to both advertisers and publishers, including in relation to the same transaction. In this scenario, there may be conflicts between the interests of advertisers and publishers, meaning that it will be difficult for the provider to act in the best interests of both parties. For example, where an ad tech provider offers both DSP and SSP services, there is a conflict between acting in the interest of:

- the advertiser customers, who will want the DSP to buy ad inventory for the lowest possible price, and
- the publisher customers, who will want the SSP to sell its ad inventory for the highest possible price.

This situation may make it difficult for customers to understand whether their provider is acting in their best interests, as their provider is also acting for a group of customers whose interests are not aligned with theirs, and are in fact directly opposed to theirs.

Another way that such conflicts could arise is where a vertically integrated ad tech provider provides services to advertisers or publishers, but also supplies a platform which is used to facilitate the sale of the inventory. This conflict may make it difficult for the customer to know whether their provider is acting in their best interest. For example, where a provider runs both a publisher ad server and an SSP, the provider could face a conflict of interest if its own profit-maximising interests conflict with the profit-maximising interests of its publisher customers. This could occur if the ad tech provider could earn higher profits if it engages in self-preferencing conduct to sell the publisher's inventory through its own SSP, whereas its publisher customer could earn the greatest revenues if their inventory is sold through rival SSPs.

Such conflicts of interest can lead to worse outcomes for advertisers and publishers in terms of the price and quality of services. For example, where an ad tech provider faces conflicts of interest between different groups of customers, it may lead to advertisers paying higher prices, or publishers making less revenue than they would if their provider was only acting on their behalf.

Conflicts of interest are less likely to lead to problems where advertisers and publishers have access to information that enables them to identify whether their ad tech providers are acting in their best interests, and are able to switch to alternative providers when they are not. This is because ad tech providers would likely lose business to their rivals if they acted contrary to the interests of their customers, for example if they preference their own services or if they preference a party on the other side of a transaction. However, where customers are unable to observe whether a provider is acting in their interests or cannot easily switch to an alternative provider, conflicts of interest are likely to continue to arise and there will be a risk that providers are acting contrary to the interests of their customers.

Stakeholder concerns about conflicts of interest

Most concerns raised with the ACCC regarding vertical integration and potential conflicts of interest relate to situations where an integrated provider has leveraged its position in the supply of one ad tech service into another, in a way which has the potential to lessen competition, such as alleged self-preferencing. A key exception to this is concerns that vertically integrated providers are retaining undisclosed amounts ('undisclosed fees') in supplying ad tech services. This is discussed in more detail in chapter 5.

The ACCC considers that in addition to the specific competition concerns arising from the risk of self-preferencing discussed in this chapter, there is a risk that conflicts of interest may be leading to suboptimal outcomes for advertisers and publishers where a vertically integrated provider is acting on both the publisher and the advertiser side in the same transaction. The ACCC is particularly interested in stakeholders' views on the impact of potential conflicts of interest that arise in this scenario.

4.1.4. Google's position across the ad tech supply chain

While a number of suppliers are integrated across the supply chain, stakeholder concerns about issues arising from vertical integration have generally focused on Google engaging in leveraging conduct, such as self-preferencing, or conflicts of interest. These are considered in two sections below.

First, section 4.2 discusses potential issues arising from Google's 'ad inventory integration'. Specifically, whether Google has leveraged its position in the supply of ad inventory into ad tech services in a way which may limit the ability of rival DSPs to compete through limiting the ways that YouTube inventory can be purchased. Secondly, section 4.3 discusses potential issues arising from Google's 'supply chain integration', specifically whether Google may have leveraged its strength in the supply of DSP services and publisher ad server services, into the supply of other ad tech services.

4.2. Ad inventory integration

A first concern raised by stakeholders is Google's vertical integration as a both a provider of ad tech service, and ad inventory on YouTube.

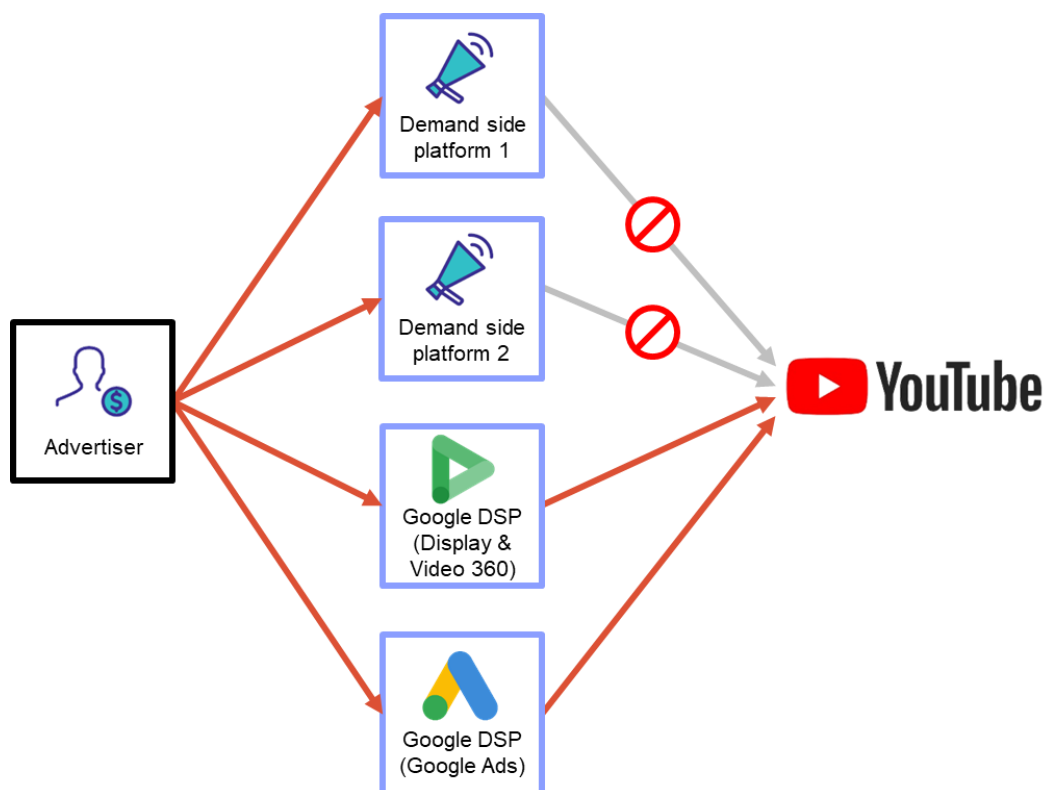
4.2.1. Restrictions on access to YouTube inventory

Currently, Google does not sell YouTube inventory through non-Google DSPs. It can only be purchased through its own DSPs (Google Ads or Display & Video 360) or through direct negotiations with Google representatives or select YouTube partners.³⁴² This means that any advertiser looking to purchase YouTube ad inventory generally will use one of Google's DSP services.³⁴³ This may raise competition issues in the supply of DSP services because showing ads on YouTube is important, or essential, to many advertisers.

³⁴² Google, [Google Ads Help: About reserved media placements on YouTube](#), accessed 3 December 2020; Google, [Google Ads Help: How ads show on videos you monetize](#), accessed 3 December 2020.

³⁴³ If an advertiser wishes to buy YouTube inventory through the ad tech supply chain, there are not alternatives to using Google's DSPs.

Figure 4.1: The availability of YouTube inventory through the ad tech supply chain



Stakeholder submissions

A number of stakeholders have commented on the importance of access to YouTube inventory, and consider that it makes using Google's DSP services essential. For example, Daily Mail Australia submits that YouTube is the 'largest pool of video supply across the internet, and so acts as a strong incentive for buyers to adopt DV360 [Display & Video 360, a Google's DSP] to run their ad campaigns'.³⁴⁴ Free TV submits that exclusive access to YouTube inventory on Google's DSPs is a significant incentive for advertisers to use Google's services, and that YouTube's reach makes it an 'unavoidable media partner for advertisers wishing to achieve maximum reach of Australians using video ad formats'.³⁴⁵ Similarly, Oracle submits that access to YouTube inventory is typically seen as a 'must have' for advertisers, meaning that they must also use Google's DSP service.³⁴⁶ Omnicom Media Group states that if the objective of an advertiser were to have a unified buying solution, whilst also having the ability to place ads on YouTube, the only choice of technology available would be Google's DSP.³⁴⁷

Google's explanation for restricting access to YouTube inventory

Google made YouTube ad inventory accessible exclusively through its own DSPs at the end of 2015. Previously, YouTube ad inventory could also be purchased through third party DSPs. In a blog post published at the time it made this decision Google suggested it was restricting access to improve the way that YouTube ads were sold programmatically.³⁴⁸

³⁴⁴ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 21.

³⁴⁵ Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 10.

³⁴⁶ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 10.

³⁴⁷ Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, p. 28.

³⁴⁸ N Mohan, [Focusing investments to improve buying on YouTube](#), *DoubleClick Advertiser Blog* (Google Blog), 6 August 2015, accessed 27 November 2020.

More recently, Google provided a number of reasons for restricting access to YouTube inventory to its own DSPs in a submission to the UK Competition and Markets Authority (CMA) market study into online platforms and digital advertising (CMA Inquiry).³⁴⁹

First, Google submitted that restricting third party access to YouTube ad inventory is the 'best way to maintain the privacy of user information and prevent it from being leaked to potentially malicious actors'. Secondly, Google states that if third party DSPs were given access to YouTube ad inventory, it would allow them to 'build profiles of users based on their viewing history, which would be a data protection risk'. Third, it states that restrictions on the DSPs that can access YouTube ad inventory ensure ads appearing on YouTube are of consistent high quality, and that third party access could make it harder to scan for 'bad ads'. Finally, Google submitted that there are 'significant technical resources' required to support third party access to YouTube ad inventory.³⁵⁰

Google submitted to the ACCC that YouTube ad inventory did not make Display & Video 360 and Google Ads 'must have products' for a number of reasons. These include, that YouTube has a small market share of display advertising market, that YouTube inventory is also available through other supply channels, that at the time Google introduced the restrictions, third party channels were not a significant distribution channel for YouTube, and other DSPs are successful and able to compete without access to YouTube ad inventory.³⁵¹

ACCC's preliminary views

Generally, publishers should be free to determine how they sell their own ad inventory, including selling it exclusively through their own systems. Currently, a number of platforms, like Facebook and Snapchat, do sell ad inventory on their properties exclusively through their own closed systems. However, the ACCC considers that Google's exclusive sale of YouTube inventory differs from these closed systems where inventory is sold directly to advertisers. This is because Google's DSP competes with rival ad tech services more broadly and facilitates advertisers purchasing ad inventory from third party publishers. It therefore raises the risk that Google may have been able to leverage its position as a seller of valuable advertising inventory into the supply of DSP services, giving rise to potential competition concerns.

The importance of YouTube inventory

The ACCC considers that access to YouTube ad inventory is likely important to many advertisers. This has been suggested by a number of submissions, and is supported by the size and reach of YouTube's platform. For example, the CMA recently found that after Facebook, YouTube is the 'second largest platform in terms of display advertising sold in the UK'.³⁵² It also found that the value of advertising on YouTube corresponds to 15-30% of the value of all ads in the UK, and over 80% of the value of video ads sold via the ad tech supply chain.³⁵³

While in the DPI Final Report the ACCC found that YouTube's total share of display advertising was less than 5%, the ACCC also considers that there are differentiated offerings within the range of display advertising.³⁵⁴ This includes video advertising, for which some advertisers may not see other forms of display advertising as a close substitute. Further, if YouTube's share was compared to display advertising available via the ad tech supply chain only (which would exclude Facebook, Instagram and Snapchat), YouTube's share of total

³⁴⁹ Google, [Online Platforms and Digital Advertising: Comments on the Market Study Interim Report](#), 8 April 2020, pp. 9-10.

³⁵⁰ Google, [Online Platforms and Digital Advertising: Comments on the Market Study Interim Report](#), 8 April 2020, pp. 9-10.

³⁵¹ Confidential submission from Google (published with consent).

³⁵² Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M103.

³⁵³ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M103.

³⁵⁴ ACCC, [Digital Platforms Inquiry Final Report](#), June 2019, p. 98.

display inventory would grow. We also expect that if we were to consider the share of video display advertising held by YouTube, it would be a larger proportion again. The ACCC also notes that in the CMA's Final Report, the CMA flagged the potential for display advertising services to be segmented into video and non-video advertising.³⁵⁵

Finally, Google has also submitted that amount of YouTube ad inventory sold using third party services was low when the restrictions were put in place.³⁵⁶ The ACCC acknowledges that this may have been the case at the time restrictions were put in place. However, it does appear that YouTube inventory is considered to be important by many advertisers today, and that it may therefore be important for third party DSPs to provide access to such inventory.

For these reasons, the ACCC's preliminary view is that YouTube inventory is likely important to many advertisers, and that this likely provides Google's DSP with some degree of competitive advantage.

Privacy and technical explanations for restrictions

In a recent response to the CMA market study, Google raised a number of privacy related and technical explanations for not allowing other DSPs to access YouTube inventory, which we have discussed above in the section dealing with Google's explanation for restricting access to YouTube inventory.

In its submission to the Issues Paper, Oracle has contested these claims. Oracle submits that Google should be able to ensure the quality of ads on YouTube without blocking access to other DSPs. It submits there is no reason Google could not scan for inappropriate ads transacted via third parties, as Google already has the capability of scanning for inappropriate ads at scale and currently does this for other publisher websites.³⁵⁷ It also submits that it is doubtful that significant technical resources would have been required by Google to maintain a programmatic selling route for third parties on YouTube, given the programmatic selling route for Google's own DSP (Display & Video 360) remained.³⁵⁸

The ACCC also notes that while Google has expressed a concern about protecting user privacy it also collects a large amount of data on users visiting non-Google sites.³⁵⁹

The ACCC is still considering Google's reasons for introducing the restrictions, including whether they are necessary to protect user privacy, and whether any benefits from the restrictions outweigh the potential detrimental effects on competition for DSP services.

Sale of exclusive inventory by other DSPs

Google's DSP is not the only DSP which provides access to exclusive ad inventory. For example, Amazon sells exclusive access to Twitch and The Trade Desk sells exclusive access to TikTok ad inventory.³⁶⁰ The ACCC is continuing to explore the impact of DSPs exclusive access to such ad inventory on the ad tech supply chain, and whether it may constrain Google in its ability and incentive to leverage from its strength in the supply of ad inventory to DSP services. However, there are some differences between the sale of exclusive TikTok and Twitch ad inventory, and YouTube ad inventory.

First, while The Trade Desk is the only DSP that supplies access to TikTok ad inventory through open display channels, TikTok ad inventory can also be purchased through a 'self-serve advertising solution', meaning that advertisers are able to access TikTok ad inventory

³⁵⁵ Competition and Markets Authority, [Online platforms and digital advertising market study final report](#), 1 July 2020, p. 307.

³⁵⁶ Confidential submission from Google (published with consent).

³⁵⁷ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 11.

³⁵⁸ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 10.

³⁵⁹ ACCC, [Digital platform services inquiry – September 2020 interim report](#), September 2020, p. 47.

³⁶⁰ The Trade Desk, [The Trade Desk and TikTok Launch New Advertising Partnership in Asia Pacific](#), accessed on 23 November 2020; P Murphy, [The Trade Desk launches advertising partnership with TikTok in APAC](#), 19 March 2020, accessed 23 November 2020.

without using The Trade Desk's DSP.³⁶¹ We note that YouTube is also available outside of the ad tech supply chain, via direct negotiations with Google representatives and some YouTube partners.³⁶² However, it seems unlikely that most advertisers, and in particular smaller and medium sized advertisers, would find this route a practical option. This may mean that while The Trade Desk gains a competitive advantage by supplying access to TikTok ad inventory, it is unlikely to impact competition for DSP services in the same way as restricting access to YouTube inventory.

Secondly, it is unclear whether access to ad inventory on Twitch, a platform which shows live streaming of video games, is as important to advertisers as YouTube ad inventory.³⁶³ While Twitch is a significant platform for gamers, it is small in comparison to YouTube. For example, in 2019 Twitch advertising revenue was estimated to be \$300 million, whereas YouTube's was USD\$15 billion.³⁶⁴ Further, Twitch likely appeals to narrower audience than YouTube, as the content is predominantly videogame streaming.

The effect of multi-homing

As discussed in chapter 3, advertisers are able to use more than one DSP, called 'multi-homing'. This means that advertisers who want to access YouTube ad inventory will usually need to use a Google DSP, but that they will also be able to use another DSP service if they multi-home. This has the potential to lessen the advantage that Google gains from restricting access to YouTube inventory to its own DSP. However, the ACCC does not consider that this completely mitigates the potential competition concerns relating to the restriction of non-Google DSP access to YouTube inventory.

As discussed in chapter 3, it appears there are a number of reasons advertisers may 'single home' on one DSP service. This includes factors such as, features of the technology like difficulties in measuring performance and frequency capping, and other inefficiencies when an advertiser uses multiple DSPs.³⁶⁵ In addition, the complexities of the ad tech supply chain may mean smaller advertisers are less likely to have the expertise and resources to use more than one DSP, and are likely to single home on Google Ads, which can be simpler and sometimes cheaper to use for smaller advertisers.

The behaviour of DSPs may also lead advertisers to single home. For example, DSPs, including Google (via Display & Video 360), commonly offer volume discounts or other incentives as part of their strategy to encourage advertisers to increase spend on their platform.³⁶⁶ This could also incentivise advertisers to use a single DSP. The use of volume discounts in combination with selling exclusive ad inventory may be more likely to give rise competition concerns.

Further, where advertisers (usually larger advertisers or those using agencies), do use more than one DSP, access to YouTube ad inventory may mean that they are more likely to use Google's DSP and another DSP, which would still provide Google's DSP with a competitive

³⁶¹ See <https://www.adnews.com.au/news/tiktok-launches-self-serve-ad-solution>, accessed 17 December 2020.

³⁶² Google, [Google Ads Help: About reserved media placements on YouTube](#), accessed 3 December 2020; Google, [Google Ads Help: How ads show on videos you monetize](#), accessed 3 December 2020.

³⁶³ Amazon, [Reach new audiences with Twitch and Amazon Advertising](#), 8 September 2020, accessed 13 October 2020; R Shields, [Amazon Opens Twitch's Ad Inventory to Programmatic Buyers](#), *Adweek*, 11 September 2020, accessed 13 October 2020.

³⁶⁴ M Perez, [Report: Amazon's Twitch Not Meeting Ad Revenue Expectations](#), *Forbes*, 8 January 2020, accessed 23 November 2020; T Bennett, [YouTube is a \\$15 Billion Ad Business, Google Reveals](#), 4 February 2020, accessed 23 November 2020.

³⁶⁵ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 88; Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, p. 14; Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 10.

³⁶⁶ For example see Google, [About advertising incentives](#), Advertising Policies Help, accessed 5 December 2020.

advantage. The CMA found that this was the case for the selection of advertisers it surveyed during its recent inquiry.³⁶⁷

The ACCC notes that these are preliminary views and is seeking stakeholder views on the extent of multi-homing. Further discussion of multi-homing is included in chapter 3.

Conclusions

The ACCC considers that providing access to YouTube ad inventory exclusively through Google's DSP services likely provides Google's DSPs with a competitive advantage. Due to the scale of YouTube's audience and reach, access to YouTube ad inventory is likely considered essential by many, although not all, advertisers.

However, the ACCC has not reached a conclusion on whether Google's conduct has lessened or impeded competition for DSP services. The degree to which this exclusive access to YouTube limits competition for DSP services depends in part on how many advertisers consider access to YouTube essential and the prevalence and degree of multi-homing.

While YouTube inventory can be purchased via direct negotiations with YouTube Partners or Google representatives, the ACCC understands that this may not be a practical route for many advertisers. Further, even though YouTube inventory is available directly, it likely still provides Google's DSPs with a competitive advantage over other DSPs given that other DSPs do not have access to YouTube inventory.

In order to further consider the competitive implications of Google restricting access to YouTube inventory to its own DSP services, stakeholder feedback is sought on the following questions.

Questions for stakeholders

1. How important is access to YouTube ad inventory to advertisers in Australia?
2. Do advertisers consider that multi-homing is a viable option for DSP services?
3. Do advertisers consider that they must have access to Google's DSP service?
4. Apart from YouTube ad inventory, is access to other exclusive ad inventory sold through the ad tech supply chain essential?
5. Does selling ad inventory through multiple DSPs create privacy or technical problems for publishers?
6. How easily are advertisers able to purchase YouTube inventory directly, or through YouTube partners? Is this a viable option for all advertisers? Are there advantages purchasing from YouTube ad inventory via the ad tech supply chain, rather than directly?

4.3. Google's vertical integration across the ad tech supply chain

In addition to Google's role as a seller of ad inventory on YouTube, Google is also vertically integrated across the entire ad tech supply chain. The ACCC's preliminary view that it is possible that Google's strength in the supply of certain ad tech services may have allowed it to preference its service, or otherwise leverage its strength, in relation to the supply of other ad tech services in the supply chain. The ACCC is continuing to consider these issues.

The following sections discuss stakeholders concerns around Google's self-preferencing or leveraging conduct, the potential effects of the conduct on the ad tech supply chain, and considers whether there may be efficiency enhancing reasons for Google's practices. It is structured as follows:

³⁶⁷ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M104.

- Section 4.3.1 Allegations of channelling of Google demand: discusses concerns that the way Google's DSP services preferences Google's supply side services may be anticompetitive.
- Section 4.3.2 Allegations of self-preferencing in auctions: discusses concerns that Google may have leveraged its position across ad tech services, or preferenced its own services in an anti-competitive way, in its supply side auctions.
- Section 4.3.3 Preliminary views and recommendations: sets out the ACCC's preliminary views and seeks stakeholder views on proposals that could be used to address issues arising from vertical integration.

Many of the concerns raised by stakeholders discussed below relate to whether Google has been able to leverage its strong position in the supply of DSP and publisher ad server services, into the supply of other ad tech services. As discussed in chapter 3, it appears that Google is in a particularly strong position in the supply of each of these services.

4.3.1. Channelling of Google DSP demand to Google's SSP

The first concern raised by stakeholders is that Google may have leveraged its position in the supply of DSP services into the supply of SSP services, through channelling Google Ads demand to Google's SSP. Google Ads is Google's 'self-service' DSP service, aimed at smaller advertisers that have fewer resources to devote to using a more complex DSP service like Display & Video 360.

Stakeholders have raised concerns that Google Ads demand is only, or predominantly, accessible through Google's SSP and that this advantages Google's own SSP services.

For example, Daily Mail Australia and The Guardian submit that Google Ads demand is important as it represents a large proportion of demand accessible by SSPs in display advertising. Further, both note that connecting to Google's SSP is the only way to access this demand, with the Guardian stating that Google has tied access to this to its own ad tech services.³⁶⁸

News Corp made similar submissions stating that Google Ads buys inventory primarily from Google's SSP.³⁶⁹ The Guardian submits that this advantage was previously promoted by Google itself who said that its SSP allows publishers to 'Connect inventory to unmatched global demand...Only [Google's SSP] connects you to millions of [Google Ads] advertisers, plus a worldwide pool of top networks, trading desks and DSPs. Increase competition for every impression with unparalleled global demand'.³⁷⁰ Geradin and Katsifis similarly submit that publishers 'cannot afford to lose access to [Google's SSP] (and its Google Ads demand)'.³⁷¹

Google submits it is not correct that: (a) third party exchanges cannot access Google Ads demand in real time; or (b) Google has sought to drive Google Ads demand through AdX to compel publishers to use DFP. It states that third party supply-side platforms are able to access Google Ads demand for specific targeting purposes where the advertiser wishes to reach specific audiences across as broad a range of inventory as possible. It notes that third party exchanges can access Google Ads demand for certain advertising campaigns (remarketing, similar audience, interest category marketing and keyword campaigns). Further it states that Google Ads will bid on third party inventory sources, if it meets the

³⁶⁸ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 5, p. 25; Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, pp. 13-14.

³⁶⁹ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 30-31.

³⁷⁰ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, pp. 5-6.

³⁷¹ Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, p. 31.

campaign goals of the advertiser. However, it also states that Google Ads only bids on third party exchanges for specific targeting purposes.³⁷²

Further Google submits that looking at Google Ads in isolation is an entirely artificial means of constructing a narrative that Google pushes demand to its own exchange for anti-competitive reasons. It ignores the fact that Google also offers advertisers a product – DV360 – that is specifically designed to buy across many exchanges and many advertisers use this product. It is therefore not the case that Google pushes buyers to a specific exchange.³⁷³

A number of stakeholders have also submitted that Google is preferencing its own SSP by sending more advertiser demand from its other DSP, Display & Video 360, to its own SSP than non-Google SSPs. For example, SBS submits that Display & Video 360 buys more ad inventory through Google’s own SSP than from other SSPs, resulting in Google collecting more fees from both advertisers and publishers. News Corp also submits that this conduct is an example of Google using its position as a DSP to obtain and maintain its position in the supply of SSPs and publisher ad server services.³⁷⁴ Google disputes this claim and submitted to the CMA that Display & Video 360 submits a bid for a bid request according to parameters set by the advertiser.³⁷⁵

ACCC’s preliminary views

Channelling of Google Ads Demand

Google Ads has a large customer base, with the ACCC estimating that it has 50-60% share of impressions and 30-40% share of revenue for DSPs in Australia in 2019. In particular, many smaller advertisers are more likely to use Google Ads as their only DSP (i.e. they are unlikely to multi-home), due to its relatively simple self-service interface, lack of minimum spend and monthly platform fee requirements, and its ease of use (see chapter 3 for a more detailed discussion).

The ACCC is still considering the extent to which Google Ads demand can be accessed by publishers through third party SSPs and the competitive implications of this. However, the information available suggests that to access the full demand from Google Ads, publishers must use Google’s SSP. For example, the CMA found that the evidence it received as part of its market study into online platforms and digital advertising suggested that Google was preferencing its DSPs, but that it was difficult to establish the significance of the impact of this.³⁷⁶ It stated that ‘[i]t is clearly the case that a lot of the demand from Google’s DSPs, and particularly from Google Ads, is channelled through [Google’s SSP]’, and that the aggregate value of ads won by Google Ads through Google’s SSP was several times that of impressions won through third-party SSPs.³⁷⁷

If Google Ads demand is being channelled through Google’s SSP, it likely provides Google’s SSP with a competitive advantage over its rivals. This is because it is likely many publishers see access to the large and unique demand through Google Ads as important.

The ACCC does not consider that the fact that Google’s other DSP service, Display & Video 360, is available through third-party SSPs means that Google’s SSP is not advantaged by being able to provide full access to Google Ads demand while other SSPs cannot. This is

³⁷² Confidential submission from Google (published with consent).

³⁷³ Confidential submission from Google (published with consent).

³⁷⁴ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 55.

³⁷⁵ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M108.

³⁷⁶ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p M109.

³⁷⁷ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M109.

because access to Display & Video 360 demand is unlikely to be a substitute for Google Ads demand. We consider it unlikely Google Ads users will also use Display & Video 360. However, the ACCC is giving further consideration to the reasons Google has provided for restricting access to Google Ads demand.

Publishers' preference for Google's SSP can be illustrated by looking at the SSPs used by the 10,000 websites most viewed by Australians. The ACCC has found that where websites are selling ad inventory through one or more SSPs, publishers are using Google's SSP (either on its own or in conjunction with competitor SSPs) 96% of the time.³⁷⁸ Where publishers use only one SSP, Google is the SSP 91% of the time. There are likely a number of factors contributing to this, but access to Google Ads demand may be one of these.

The ACCC is still considering the extent of the competitive advantage Google's SSP gains from being able to provide better access to Google Ads demand, including the importance of access to such demand, the degree to which Google Ads demand is available through other SSPs, and considering any reasons that Google has restricted access to this demand.

Questions for Stakeholders

7. How important is access to Google Ads demand to publishers?
8. Do publishers consider that Google Ads demand is accessible through non-Google SSPs?
9. For what reasons may a DSP block SSP access to demand available through its service?

Display & Video 360 preferencing Google SSPs

The ACCC considers that, given the size of the advertiser base for Display & Video 360 (Google's other DSP) access to Display & Video 360 may also be important to publishers. However, it is less clear that the potential for Display & Video 360 to 'prefer' Google's SSP (by funnelling Display & Video 360 demand to Google's SSP) is influencing publishers' choice of SSP and there is less evidence to suggest that Display & Video 360 preferences Google's SSP.

The ACCC is continuing to consider whether Google does preference its own SSP services through Display & Video 360 and if it does, what impact this may be having on competition in the supply of SSP services, and is seeking stakeholder views on the issue.

Questions for Stakeholders

10. How important is access to Display & Video 360 demand to publishers?
11. Do publishers consider that Display & Video 360 demand is accessible through non-Google DSPs?

4.3.2. Allegations of self preferencing and leveraging in supply side auctions

Stakeholders raised a number of concerns that Google's position as a vertically integrated supplier, and its related conduct, may have affected competition for supply side ad tech services. Specifically, stakeholders have alleged that Google may have leveraged its strength in the supply of some ad tech services into the supply of related ad tech services, particularly through self-preferencing conduct.

³⁷⁸ The ACCC's analysis was based on a list of the top 10,000 websites in Australia in September 2020 that were frequently visited by consumers in Australia (excluding sites in the Adult Category to become the top 9,178 websites). Ads.txt files, which list authorised sellers for a website's ad inventory, were then scraped and analysed. As a result of the web scraping exercise, 2,767 websites with ads.txt files were identified. This equates to 30% of sites by count. See Appendix F for further explanation of this analysis.

This section provides a brief overview of how Google's supply side auctions currently work, before discussing the following examples of conduct that have been raised by stakeholders:

- Google's SSP's interaction with third party publisher ad servers
- Publisher ad server fees
- Google's Unified Pricing rules
- The provision of minimum bid to win information
- Google's publisher ad server preferencing its SSP

Google's supply side auctions

As discussed in chapter 1, there are generally two sets of supply side auctions. These are auctions between DSPs bidding for an ad impression on the SSP, and then SSPs bidding in an auction for the ad impression through header bidding.

However, currently Google runs a single supply side auction, which it calls a 'Unified Auction'.³⁷⁹ This is a first-price auction between all potential buyers for an ad impression, including SSPs and DSPs. Google's Unified Auction is the last auction in the sequence before the final winning buyer of an ad impression is determined. Publishers select which buyers participate in the Unified Auctions for their ad inventory, which may include:

- DSPs bidding into Google's SSP, including Google's DSPs
- third party SSPs participating in Google's Open Bidding (Google's proprietary version of server-side header bidding), and
- third party SSPs participating in header bidding.

Previously, Google ran an auction between DSPs bidding into its SSP, and then a separate auction between SSPs (including its own SSP) bidding into Open Bidding in its publisher ad server. However, in 2019 it combined these auctions into one Unified Auction as described above.

A number of the allegations made by stakeholders relate to how Google conducted supply side auctions or operated its SSP in the past, or its decisions about the operation of its supply side services that were made some time ago. While Google does not currently engage in all the conduct that stakeholders raised such concerns about, the allegations are important to note because they illustrate the potential issues that can arise from vertical integration across the supply chain. These allegations are discussed in detail in appendix G.

Google's SSP, header bidding, and third party publisher ad servers

Some stakeholders have raised concerns about the way Google's SSP participates in header bidding and interacts with third party publisher ad servers.³⁸⁰ They allege this means publishers need to use Google's publisher ad server. The concerns are primarily caused by Google's decision to not participate in header bidding that is not run by Google (see appendix G for further detail).

³⁷⁹ Google Blog, [An update on first price auctions for Google Ad Manager](#), 10 May 2019, accessed 17 December 2020. This unified first price auction takes place in Google Ad Manager (which includes Google's SSP and publisher ad server).

³⁸⁰ Here, header bidding refers only to non-Google header bidding – i.e. not Open Bidding.

Box 4.1 – How Google’s SSP participates in header bidding and interacts with third party publisher ad servers

Header bidding and third party publisher ad servers

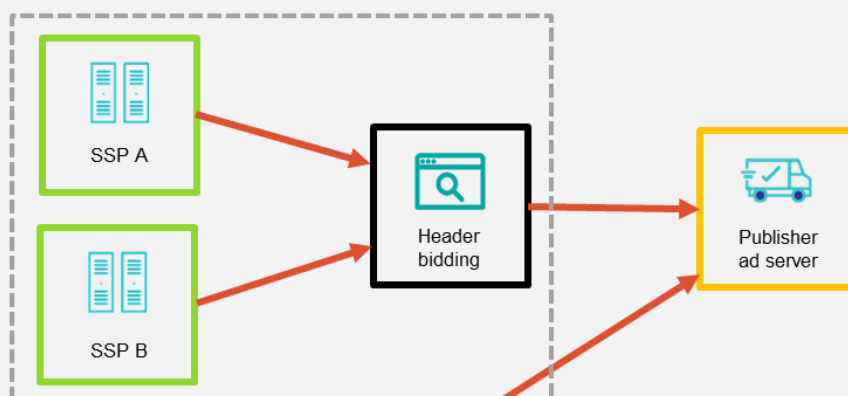
When a publisher uses a third party publisher ad server and wants to run an auction between SSPs, the publisher will generally do so via header bidding (an auction where multiple SSPs bid on the same inventory at the same time, and that is held in the consumer’s web browser, a third-party server or in the publisher ad server).³⁸¹ Google’s SSP does not participate in header bidding auctions that are not run by Google.

If the publisher uses a third party publisher ad server in conjunction with header bidding, but also wants to receive bids from Google’s SSP, they may be able to develop ways to do so. However the ACCC understands these may be inefficient for the publisher.

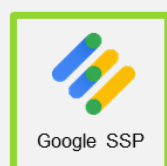
Figure 4.3 shows an example of how a publisher may access bids from Google’s SSP using a third party publisher ad server. In this example, once the header bidding auction is complete, the winning bid from the header bidding auction is set as the price floor, Google’s SSP then has an opportunity to bid for the ad inventory.³⁸² However, this is an inefficient process as it involves the running of two sequential auctions, which creates latency issues and increases costs.

Figure 4.3: Example of a publisher using non-Google header bidding and a third party publisher ad server

1. Header bidding auction



2. Google’s SSP bids



Google’s Open Bidding and Google publisher ad servers

In contrast, while Google does not participate in non-Google header bidding, it offers its own proprietary server-side header bidding function known as Open Bidding.³⁸³ When a publisher uses

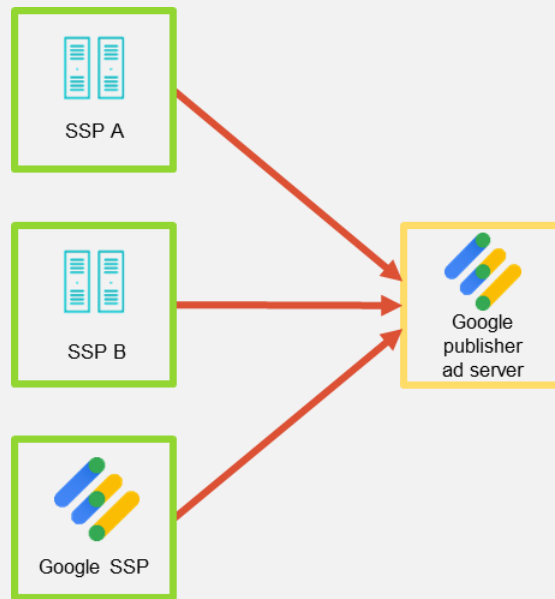
³⁸¹ Header bidding is discussed in more detail in chapter 1.

³⁸² Competition and Markets Authority, Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, pp. M109-M110.

³⁸³ Google Help, <https://support.google.com/admanager/answer/7128453?hl=en>, accessed 15 December 2020. As described by Google: ‘Open Bidding allows [publishers] to invite third-party demand partners to compete for your inventory in a single auction with real-time, server-to-server bidding’. Only third-party demand partners, which Google terms as ‘Open Bidding partners’, can be selected by publishers to compete in Open Bidding. Publishers can however choose not to utilise Open Bidding. Also see <https://www.adexchanger.com/ad-exchange-news/google-exchange-bidding-update-elevates-its-header->

Google's publisher ad server, it can choose to sell its ad inventory using Open Bidding. Under this system, all SSPs, including Google's SSP, submit bids at the same time to Google's publisher ad server which selects the winning bid.

Figure 4.4: Auction on Google's publisher ad server



Some publishers submit that the effect of the way Google interacts with third party publisher ad servers and non-Google header bidding is that, if a publisher wishes to sell their inventory and receive bids from a number of SSPs, including Google, in an efficient way, they must use Google's publisher ad server.³⁸⁴

For example, News Corp submits that while publishers can utilise third party publisher ad servers to connect with Google's SSP, it is practically difficult to do so in News Corp's experience and would have 'a significant negative impact on [News Corp's] revenues'.³⁸⁵ Similarly, Geradin and Katsifis submit that a publisher using Google's SSP with a third party publisher ad server will lose programmatic revenue because Google's SSP does not participate in header bidding.³⁸⁶ They consider that Google is tying Google's SSP and publisher ad server, and that this 'locks customers into (Google's publisher ad server), and prevents the emergence of credible competitors in ad serving'.³⁸⁷

Google submits that it is correct that it does not participate in header bidding, but that there are a number of legitimate reasons for this including:

- the implementation of header bidding can create latency issues which impacts user experience which can ultimately impact publishers' potential revenue.
- header bidding is not transparent, because 'although the publisher "accepts" the ad impression at a certain price, the Header Bidder may not actually pay the sum indicated in its offer. Unlike Ad Manager, which counts/reports impressions, sends bills and collects/makes payments for publishers, when publishers use Header Bidding, publishers do not obtain this'.

[bidding-solution-solution/](#), accessed 15 December 2020 (note that Exchange Bidding was renamed to Open Bidding in August 2019).

³⁸⁴ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 27 & 31; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 5,-6

³⁸⁵ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 27, 31.

³⁸⁶ Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, pp 61-62.

³⁸⁷ Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, p. 62.

- header bidding creates trust and privacy concerns: Google states that it would not be able to 'guarantee to buyers that data collected by the Header Bidding tag would not be adequately protected since the data flow would be primarily controlled by the third party Header Bidding service'.³⁸⁸

Bitton and Lewis submit that Google's decision not to participate in header bidding was not surprising given header bidding carried with it the 'potential for adverse effects on users, advertisers and the ecosystem and the fact that Google already had an efficient auction mechanism'.³⁸⁹

ACCC's preliminary views

The ACCC is still considering whether publishers are able to access bids from Google's SSP if they chose to use a third party publisher ad server. However, the ACCC is concerned that if it is very difficult or inefficient for publishers to access bids from Google's SSP when using a third party publisher ad server, this may lessen competition in the supply of publisher ad server services (the supply of which is already extremely concentrated). This is because, as discussed above, it appears that many publishers consider that they need to connect with Google's SSP, because much of the demand from Google Ads is only available through Google's SSP services. In turn, if using Google's publisher ad server is the only efficient way to access demand from Google's SSP, Google's publisher ad server will be seen as the only efficient way to access Google Ads demand.

The ACCC notes that there are currently few publisher ad servers operating in Australia, and that Google has a very high share of impressions for these services. However, the ACCC considers that this conduct has the potential to limit the ability of the other existing publisher ad servers to compete, and increase barriers to entry for new publisher ad servers. The ACCC has not yet formed firm views on the potential competitive impact of the conduct, and the reasons why Google may not participate in header bidding. The ACCC is seeking stakeholder views to assist in this assessment.

Questions for stakeholders

12. Can bids from Google's SSP, or demand from Google Ads be accessed from non-Google publisher ad servers?
13. Are there any impediments or disadvantages to using a third-party publisher ad server, due to the way that Google's SSP interacts with it?
14. Why might an SSP decide not to participate in header bidding? Do any other SSPs refrain from participating in header bidding auctions (or similar auctions)?

Fees for third party SSPs

A second concern raised by stakeholders is that Google may have used its vertically integrated position as both a publisher ad server and SSP, to preference its own supply side services through its publisher ad server fees.

Box 4.2 – Fees for participating in Open Bidding

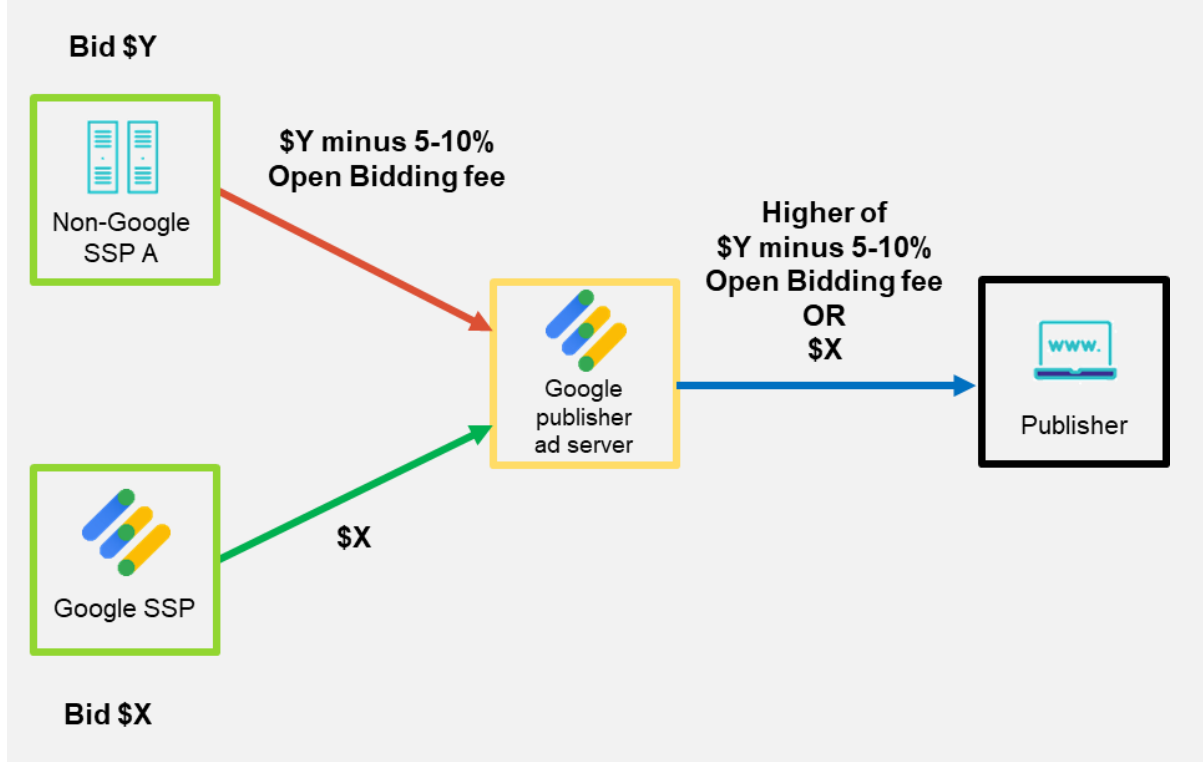
The ACCC understands that for Open Bidding auctions, which is part of Google's Unified Auction in Google's publisher ad server, Google's charges publishers 5-10% of the value of winning bids when a non-Google SSP wins an auction.³⁹⁰ However, publishers do not have to pay this fee when Google's SSP wins the auction. This fee is charged in addition to the fees publishers already pay non-Google SSPs for use of their services.

³⁸⁸ Confidential submission from Google (published with consent).

³⁸⁹ Bitton and Lewis (on behalf of Google), [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p.19.

³⁹⁰ The exact amount charged depends of the type of inventory being sold.

Figure 4.5: Open Bidding fees



Some stakeholders submit the effect of this conduct is that it makes non-Google SSPs less competitive compared to Google's SSP, as third party SSPs have to bid 5-10% higher than Google's SSP bids, to submit a bid equal to Google's SSP in Open Bidding. They consider this then advantages Google's SSP in Open Bidding.³⁹¹ The CMA also found that the fee, while being a remuneration for a service that Google is providing, places Open Bidders at a disadvantage compared to Google's SSP.³⁹²

In response to criticisms regarding this fee, Bitton and Lewis, in their report for Google, state that, '[j]ust like other providers do for similar solutions (e.g. Amazon, AT&T's Xandr etc.), Google charges for this [Open Bidding] service.'³⁹³ Google also states that Google's 5-10% fee for Open Bidding accounts for the cost of the implementation and continued service provision Google maintains to provide its Open Bidding service and to avoid risks inherent with many header bidding solutions. Google also notes that it is publishers, not SSPs that are charged the fee, and that where publishers win an auction with a third party SSP, they are not charged Google Ad Exchange's standard revenue share (which is generally 20%).³⁹⁴ The ACCC also notes that Open Bidding is one of a number of options available to publishers for selling ad inventory, as described in further detail in chapter 1.

The ACCC is continuing to consider the level of fees for the use of various ad tech services.

³⁹¹ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p 47 & 53; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, The Daily Mail p. 12; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020 p. 63.

³⁹² Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M117.

³⁹³ Google – Report from Daniel Bitton and Stephen Lewis, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 20.

³⁹⁴ Confidential submission from Google (published with consent).

Preliminary views

It is possible that by charging fees to non-Google SSPs in the way described above, Google is able to use its strength in the supply of publisher ad server services to advantage its SSP, in a way that could limit the ability of other SSPs to compete on their merits. To the extent that these fees mean that SSPs must raise their bids in order to remain competitive with Google's SSP and reduces the returns they earn, this may reduce the degree to which some SSPs can compete. Alternatively, the SSPs that do not adjust their bids in response to this fee would be less likely to win, which may make them relatively less attractive to publishers.

The ACCC is still considering Google's ability and incentives to engage in such leveraging conduct, by further examining the level of competition in the supply of publisher ad server services, as well as looking at the level of fees charged by any other ad services and the effect that Google's conduct has had on publisher's choice of SSP.

Unified Pricing rules

Another issue raised by stakeholders is Google's Unified Pricing rules, which Google introduced as part of its Unified Auction in 2019.³⁹⁵ Under these rules, publishers can only set one price floor across the Unified Auction on Google's publisher ad server. Previously, publishers were able to set different price floors for different SSPs in Open Bidding, and for different DSPs for auctions in Google's SSP.

Some stakeholders have expressed concern with the impact of the Unified Pricing rules, particularly that they limit publisher flexibility to manage the sale of their ad inventory.³⁹⁶ For example, News Corp submits that it is economically optimal for publishers to set a higher price floor for stronger bidders, as this incentivises stronger bidders to engage in less bid shading and preserves publisher revenue.³⁹⁷ It considers that Google's DSPs are stronger bidders as Google's superior data means they have an information advantage that allows them to disproportionately win ad auctions.³⁹⁸ Further, it submits that if Google is able to win auctions with lower bids, it is unlikely that advertisers will benefit as Google is able and likely to keep the surplus.³⁹⁹

News Corp, Daily Mail Australia and The Guardian also submit that publishers would often set higher price floors for Google bidders, which they are no longer able to do.⁴⁰⁰ News Corp submits that publishers would set different price floors for bidders based on those bidders' strength in order to make up for a lack of competition which arose from non-Google DSPs having an informational disadvantage when competing against Google's DSPs.⁴⁰¹ Daily Mail Australia submits that this put pressure on Google to pay more to win auctions, but that following Unified Pricing rules Google is now able to purchase more of Daily Mail Australia's inventory.⁴⁰² The Guardian submits that Unified Pricing rules have implications for publishers' ability to stimulate competition for publisher inventory.⁴⁰³ It also submits that

³⁹⁵ J Bigler, [An update on first price auctions for Google Ad Manager](#), *Google Ad Manager (Google Blog)* 10 May 2019, accessed 4 November 2020.

³⁹⁶ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 85-86; Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 10.

³⁹⁷ Bid shading occurs when an advertiser submits a bid that is lower than their actual valuation for an impression. It is used to prevent the advertiser from overpaying for an ad impression in first-price auctions. Bid shading has become more important to advertisers as ad tech auctions have moved from second price auctions to first price auctions.

³⁹⁸ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 85-86.

³⁹⁹ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 86.

⁴⁰⁰ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 85-86; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 18; Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 10.

⁴⁰¹ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 85.

⁴⁰² Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 18.

⁴⁰³ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 10.

setting differential price floors can stop parties from accessing publisher ad inventory at below market price and prevent malware from entering its systems.⁴⁰⁴

However, Bitton and Lewis, in their report for Google, argue that the ability of publishers to set different prices for ad inventory led to complexity and the potential for auction inefficiency.⁴⁰⁵ They note that this approach is used to disadvantage particular buyers (generally Google Ads) and the advertisers they represent, and consider that the Unified Pricing rules promote non-discrimination.⁴⁰⁶

ACCC's preliminary views

The ACCC considers that Google's introduction of Unified Pricing rules may illustrate the potential implications of conflicts of interest where an ad tech provider operates multiple services. Here, the interests of publishers to maximise their revenues conflicts with Google's SSP's interest of being able to bid into the auction at the same level as its competitors. If Google were not providing both services, it may be less likely that its publisher ad server would restrict the ability of publishers to set differential price floors. Further, Google may be able to engage in this conduct due to its strength in the supply of publisher ad servers, with there being few alternative options for publishers to use if they are not satisfied with their ability to set differential price floors. This conduct has broader implications, as publishers submit that Unified Pricing rules inhibit their flexibility in managing the sale of their ad inventory.

Google has stated that the new rule would 'help publishers more easily manage floor prices across all non-guaranteed partners' and that 'to maintain a fair and transparent auction, these rules will be applied to all partners equally, and cannot be set for individual buying platforms'.⁴⁰⁷ However, the CMA recently examined this issue and found that one of Google's main motivations for introducing Unified Pricing rules was to increase the competitiveness of its SSP and improve the win rate of its DSPs. While the CMA found limited evidence that this change has harmed publishers in the short term, it also stated that it seemed clear that restricting publishers' ability to set different price floors was not in their interest. The CMA therefore considered that the introduction of Unified Pricing rules was 'a clear example of Google leveraging its market power in publisher ad serving' to benefit its DSPs, to the detriment of publishers.⁴⁰⁸

The ACCC is still considering the reasons for and the impact of the introduction of Unified Pricing rules.

Minimum bid to win information

Stakeholders have also raised concerns with the availability of 'minimum bid to win' information in Google's Unified Auction.⁴⁰⁹

⁴⁰⁴ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 10.

⁴⁰⁵ Google – Report from Daniel Bitton and Stephen Lewis, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 21 & 33.

⁴⁰⁶ Google – Report from Daniel Bitton and Stephen Lewis, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 32-33.

⁴⁰⁷ J Bigler, [An update on first price auctions for Google Ad Manager](#), *Google Ad Manager (Google Blog)* 10 May 2019, accessed 4 November 2020.

⁴⁰⁸ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M118- M123.

⁴⁰⁹ News Corp, p. 52; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, p. 71-73.

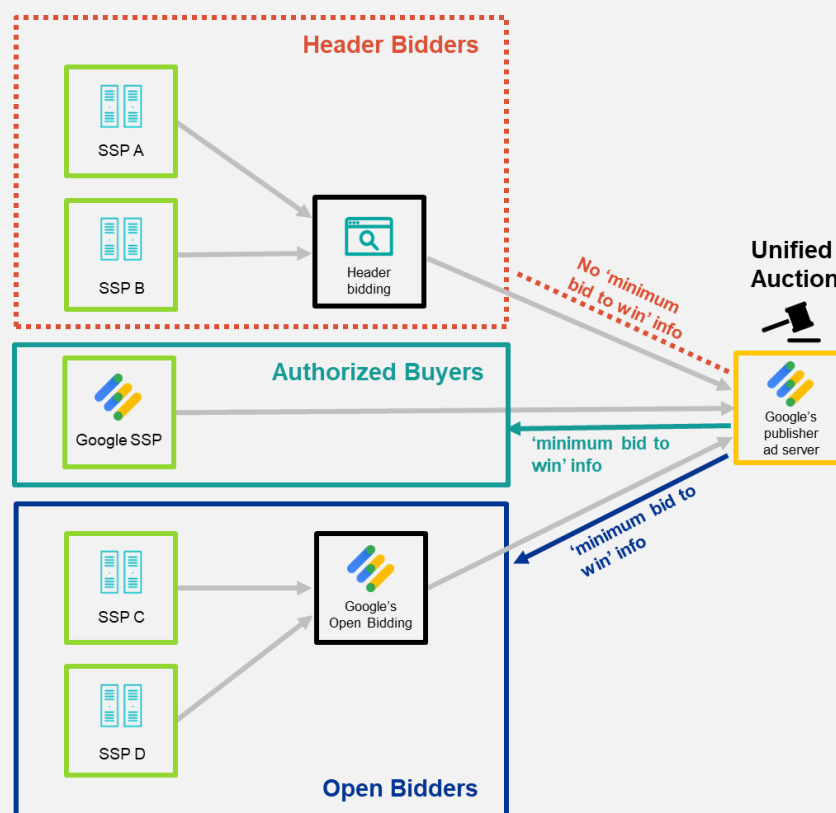
Box 4.3 – Google’s Unified Auction and ‘minimum bid to win’ information

As noted above, Google’s Unified Auction is the last auction in the sequence before the final winning bidder of an ad impression is determined. It takes place on Google’s publisher ad server and participants in Unified Auctions include:

- **Authorized Buyers:** DSPs bidding in to Google’s SSP, including Google’s DSPs
- **Open Bidders:** third party SSPs participating in Google’s Open Bidding, and
- **Other Header Bidders:** third party SSPs participating in header bidding.

Once the auction is complete, Google provides Authorized Buyers and Open Bidders with information on the minimum bid price that was required to win (**‘minimum bid to win’ information**).⁴¹⁰ This information tells the bidders in the auction that did not win the ad impression, how much they needed to bid to win the auction, and for the winners of the auction, the lowest they could have bid and still won. ‘Minimum bid to win’ information is a valuable input for informing future bidding strategies. However, SSPs who participate in the auction via header bidding, are not provided with minimum bid to win information.

Figure 4.6: Flow of ‘minimum bid to win’ information



Stakeholders have raised concerns about ‘minimum bid to win’ information not being made available to SSPs participating in header bidding.

News Corp submits that this unequal access to ‘minimum bid to win’ information creates a significant disadvantage for ad tech providers participating in header bidding auctions rather than Open Bidding auctions.⁴¹¹ Geradin and Katsifis similarly submit that making ‘minimum bid to win’ information available only to a limited group of bidders may cause advertisers to select ad tech providers using Google’s services rather than header bidding alternatives.⁴¹²

⁴¹⁰ J Bigler, [Rolling out first price auctions to Google Ad Manager partners](#), *Google Ad Manager (Google Blog)*, 5 September 2019, accessed 21 December 2020.

⁴¹¹ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 52.

⁴¹² Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, p. 71.

However, a report submitted by Daniel Bitton and Stephen Lewis on behalf of Google suggests that Google is not able to provide 'minimum bid to win' information to ad tech providers participating in header bidding auctions, as Google does not know their identities because they are not directly using Google's service.⁴¹³ Further, the report notes that Google provides 'minimum bid to win' information to many non-Google bidders and that, given that the information is provided after an auction takes place, it cannot provide bidders with an advantage during the auction.⁴¹⁴

ACCC's preliminary views

The ACCC's preliminary view is that the availability of minimum bid to win information may provide an incentive for SSPs to use Google's Open Bidding, rather than header bidding, so that they are able to access this information. However, this means they are then subject to the Open Bidding 5-10% fee, which may place them at a disadvantage in the Unified Auction (discussed above). Therefore, publishers and SSPs may face a choice between using Open Bidding, where SSPs receive 'minimum bid to win' information but face a disadvantage in the Unified Auction, or using header bidding, where SSPs do not receive the information but do not pay the Open Bidding fee.

Further, the ACCC understands that a standard may not yet have been established for the sharing of this data from SSPs and to DSPs, and that as a result, minimum bid to win information is only provided directly to DSPs using Google's SSP (Authorised Buyers).⁴¹⁵ As a result, Google may currently be the only SSP that is able to take full advantage of 'minimum bid to win' information.⁴¹⁶ This may provide an incentive for DSPs to favour bidding into Google's SSP over other SSPs.

However, the ACCC also notes the practical difficulties in providing all possible bidders with minimum bid to win information as those participating in header bidding may not be known to Google. The CMA examined this issue and found that, based on the information it received, Google's decision to provide 'minimum bid to win' information was based on a genuine intention of making Open Bidding auctions more efficient and was not intended to be exclusionary. However, the CMA found that it has resulted in an advantage to Google's SSP and potentially Open Bidding, compared to third-party SSPs and header bidding, although this advantage is less significant than the advantage it had before the introduction of the Unified Auction.⁴¹⁷

The ACCC is still considering whether the way that Google shares minimum bid to win information raises competition concerns. This includes, considering the extent to which 'minimum bid to win' information is valuable to SSPs and DSPs, whether Google is able to engage in the conduct due to its strength in the supply of SSP services, and the reasons that Google does not share minimum bid to win with participant who bid via header bidding.

⁴¹³ Bitton and Lewis (on behalf of Google), [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 29.

⁴¹⁴ Bitton and Lewis (on behalf of Google), [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 29-30

⁴¹⁵ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M124

⁴¹⁶ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M124.

⁴¹⁷ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M125.

Allegations Google's ad server preferences its SSP

A final concern raised by some stakeholders relates to the way Google currently conducts auctions on its publisher ad server, and which may allow Google to give preferential treatment to its own SSP service.

Because Google runs a Unified Auction on its publisher ad server, and participates in the auction as an SSP, some stakeholders consider that Google has the ability and incentive to preference its SSP, providing it with a competitive advantage. In particular, News Corp Australia and Geradin and Katsifis submit that because Google's auctions still occur in a 'black box' on its publisher ad server, it still has the ability and incentive to continue to favour its SSP.⁴¹⁸ They provide a number of examples of how Google could preference its own SSP, such as allowing its SSP to outbid other supply-side platforms by a millisecond, or providing less information to competing SSPs.⁴¹⁹

ACCC's preliminary views

The ACCC has not been provided with clear evidence that Google is currently preferencing its own SSP in the way that it runs auctions on its publisher ad server. Google has stated that in these auctions, all real time bidding partners will be notified of the auction at the same time, and given the same opportunity to win an auction, meaning that it does not currently have any opportunity to have a 'last look'.⁴²⁰

However, the ACCC is still concerned about the potential for conflicts of interest to arise, and self preferencing conduct to occur. There are a number of reasons for this. First Google's interests as an SSP and the interests of a publisher using its publisher ad server may not align. For example, Google's publisher ad server may be able to increase Google's SSP revenue through self-preferencing conduct, but in doing so, it may reduce publisher revenue by not selecting SSPs who make the highest bids.

Secondly, it is difficult, if not impossible for advertisers, publishers, and other SSPs to detect whether such conduct is taking place, meaning they may base their operational decisions on their best guess at the likelihood and effect of self-preferencing conduct occurring, and could underestimate the likelihood of self-preferencing occurring. This opacity has the potential to increase the incentives for Google to engage in such conduct.

Thirdly, even if it were possible for publishers to detect self-preferencing, there may not be sufficient competitive options to enable publishers to switch away from Google's publisher ad servers. This is because of Google's position of strength in the supply of publisher ad server services, with few suppliers of this services operating in Australia, and high switching costs, may make it difficult for publishers to switch services if they are unhappy with Google's services.

4.4. Proposals to address potential issues arising from vertical integration

While the ACCC is still considering the implications that vertical integration may have on the supply of ad tech services, stakeholder views are also sought on whether measures, such as the proposals outlined below, are needed to manage the implications of vertical integration. In particular, whether aspects of the supply of ad tech services should be regulated by market rules, to prevent problems arising from the potential for leveraging conduct, such as self-preferencing, and conflicts of interest.

⁴¹⁸ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 32; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, p. 69-70.

⁴¹⁹ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 32-33; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, p. 70 -72.

⁴²⁰ J Bigler, [An update on first price auctions for Google Ad Manager](#), *Google Ad Manager (Google Blog)* 10 May 2019, accessed 4 November 2020

In the following section we outline why we are considering additional measures, measures that are being introduced or considered in other jurisdictions to manage similar issues, and proposals for consultation.

4.4.1. Role of enforcement action under the CCA

As noted above, provisions in the Competition and Consumer Act prohibit a firm with substantial market power from damaging the competitive process by preventing or deterring rivals, or potential rivals, from competing on their merits. The ACCC is continuing to consider whether any of the conduct considered in this chapter may breach these sections.

However, the ACCC is also considering whether additional regulatory measures may be needed to address issues arising from vertical integration. This is because, although the existing competition law framework is clearly applicable to digital markets, it essentially relies on enforcement action being taken after conduct has occurred. The complexity of the supply of ad tech services and the dynamic nature of these markets, may mean that such enforcement action is not always an effective means of addressing potentially problematic conduct in the ad tech supply chain.

Enforcement action requires a large amount of information to be acquired over time, to assess the conduct and its competitive impact, and often relies on stakeholders making specific complaints to the ACCC. The opaque and complex nature of the ad tech supply chain can mean that it is difficult for regulators to obtain information to identify whether any problematic conduct is occurring. It may also be difficult for stakeholders to know whether conduct such as self-preferencing is occurring, and bring complaints to the ACCC. Further, enforcement actions can be very lengthy and are not always the most effective way to address problematic conduct in an industry that is as dynamic as the ad tech supply chain.

Further, we have also discussed the potential for conflicts of interest to harm advertiser and publisher interests. This may not always occur in a way which contravenes the Competition and Consumer Act. Nevertheless, such conflicts can still lead to inappropriate market outcomes for publishers and advertisers, for example through the inefficient pricing of ad tech services.

4.4.2. Stakeholder views on potential measures

Recommendations from stakeholders most relevant to addressing vertical integration concerns related to the introduction of market rules to regulate auctions and conflicts of interest for the supply of ad tech services.

For example, Free TV submits that such rules should be analogous to the ASX's Operating Rules, and include a range of provisions to promote the conduct of transparent and unbiased auctions, ensure interoperability of vendors, and prevent operators favouring their own services.⁴²¹ The Guardian also submits that the use of regulation similar to that used in financial markets would be justified, particularly as online advertising spend continues to grow, and underpins the business models of some of the most valuable and powerful technology companies.⁴²² Microsoft also submitted that the ACCC should consider a code of conduct similar to the one that CMA recommended be introduced in the UK (described in the section below).⁴²³

⁴²¹ Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 22.

⁴²² Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 3-4.

⁴²³ Microsoft, [Submission to Ad Tech Inquiry Issues Paper](#), 24 April 2020, p. 3.

4.4.3. International measures to manage vertical integration and conflicts of interest

Other regulators are also considering whether ex post regulation of ad tech services is required to address issues arising from vertical integration and conflicts of interest in the ad tech supply chain.

Competition and Markets Authority (UK)

In its market study into online platforms and digital advertising, the CMA recommended that the government should legislate to introduce an enforceable code of conduct to govern the behaviour of platforms funded by digital advertising that are designated as having 'strategic market status.' The purpose of the code would be to meet three high-level objectives; fair trading, open choices, and trust and transparency.

On 27 November 2020, the UK government announced that it accepted this recommendation, and that a Digital Market Taskforce had been established to provide advice on the design of the code, and the designation of firms with strategic market status.⁴²⁴

On 8 December, the Digital Markets Taskforce, led by the CMA, also provided its advice.⁴²⁵ It recommended that the code be based on high level objectives to be set out in legislation and supported by related principles and guidance. The objectives are the same as those put forward in the CMA Digital Advertising Market Study ('fair trading', 'open choices' and 'trust and transparency') and that the Digital Markets Unit (DMU) (to be established in the CMA) would determine the principles and guidance. If the DMU identifies a breach of the Code, it could open a formal investigation and subject to the finding, require behavioural changes or impose substantial penalties.⁴²⁶ It is also recommended that the DMU can issue interim code orders.

European Commission

The European Commission has also submitted a legislative proposal to the European Council and European Parliament for the introduction of a *Digital Markets Act (in addition to a Digital Services Act)*. The Act will apply to a range of services, including advertising services, such as ad networks, ad exchanges (SSPs), and other intermediation services. The draft legislation will, among other things, require 'gatekeeper' platforms to refrain from engaging in self-preferencing conduct.⁴²⁷ Specifically, the legislation requires a gatekeeper platform to refrain from treating its own services more favourably in ranking services, and must apply fair and non-discriminatory conditions to such ranking'.⁴²⁸ The European Commission has stated that this prohibition, 'would aim at ensuring open and fair trading online, especially when these practices are potentially market-distorting or entrenching economic power of the large online platforms'.⁴²⁹

⁴²⁴ Department for Business, Energy & Industrial Strategy (United Kingdom) and Department for Digital, Culture Media & Sport (United Kingdom), [Response to the CMA's market study into online platforms and digital advertising](#), November 2020.

⁴²⁵ Gov.UK, <https://www.gov.uk/cma-cases/digital-markets-taskforce>, accessed 17 December 2020.

⁴²⁶ The Advice recommends that the DMU can impose penalties up to a maximum of 10% of worldwide turnover if the breach was intentional or negligent.

⁴²⁷ The *Digital Markets Act* will only apply to 'core service platforms' designated as 'gatekeeper' platforms. Broadly, a platform will be designated as a gatekeeper if: it has a significant impact on the internal market; operates a core platform service which serves as an important gateway for business users to reach end users; and enjoys an entrenched and durable position in its operations or it is foreseeable that it will enjoy such a position in the near future: See European Commission, Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (*Digital Markets Act*), 15 December 2020, article 3(1)(a), p. 36.

⁴²⁸ European Commission, Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (*Digital Markets Act*), 15 December 2020, article 6(d), p. 40.

⁴²⁹ European Commission, Inception Impact Assessment - Digital Services Act package: Ex ante regulatory instrument for large online platforms with significant network effects acting as gate-keepers in the European Union's internal market, 2 June 2020, p. 4.

US Subcommittee on Antitrust

In June 2019, the United States Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary Investigation of Competition in Digital Markets (the US Subcommittee on Antitrust) launched an investigation to document competition problems in digital markets, examine whether dominant firms are engaging in anticompetitive conduct, and assess whether existing antitrust laws, competition policies and current enforcement levels are adequate.⁴³⁰

While a comprehensive examination of digital advertising was beyond the scope of its report, the Subcommittee did make a number of observations about the ad tech supply chain. It found that Google simultaneously acts on behalf of publishers, advertisers and trades for itself, which creates a conflict of interest and allows Google to favour itself and create information asymmetries from which it can benefit. The Subcommittee also noted that there were specific instances of Google's conduct that may 'invite investigation' such as:

- leveraging control over YouTube to foreclose competition in digital video ad serving, in part by excluding rival ad servers from having access to YouTube, and
- inhibiting interoperability between Google's ad platforms and non-Google ad platforms.⁴³¹

Further, the Subcommittee made several recommendations which could address vertical integration and conflicts of interest issues. The Subcommittee stated that these are intended to serve as a complement to strong enforcement of the antitrust laws, and not a substitute, particularly in relation to acquisitions that may substantially lessen competition or tend to create a monopoly.⁴³² Recommendations it suggested include:

- That Congress consider introducing legislation for structural separation and line of business restrictions.⁴³³
- That Congress consider establishing non-discrimination rules to ensure fair competition and to promote innovation online. The rules would require dominant platforms to offer equal terms for equal services, and would apply to price as well as terms of access.⁴³⁴

4.4.4. Proposals for consultation

As outlined above, the ACCC has not yet reached a view on self-preferencing allegations in the supply of ad tech services and the competitive implications. However, given the range of conduct raised in stakeholder submissions, as well as international scrutiny, the ACCC is interested in views on whether measures are required to address concerns arising from vertical integration such as the potential for anti-competitive self-preferencing, or conflicts of interest.

As part of this, stakeholder views are also sought on whether there are reasons that the current provisions of the CCA may not be sufficient to address potential competition and other concerns that arise from vertical integration. The ACCC is particularly interested in views on whether rules to manage issues arising from vertical integration, in particular conflicts of interest and anti-competitive self-preferencing should be introduced. The ACCC

⁴³⁰ United States Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary, [Investigation of Competition in Digital Markets: Majority Staff report and Recommendations](#), 2020, p. 9.

⁴³¹ United States Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary, [Investigation of Competition in Digital Markets: Majority Staff report and Recommendations](#), 2020, p. 211.

⁴³² United States Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary, [Investigation of Competition in Digital Markets: Majority Staff report and Recommendations](#), 2020, p. 379

⁴³³ United States Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary, [Investigation of Competition in Digital Markets: Majority Staff report and Recommendations](#), 2020.

⁴³⁴ United States Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary, [Investigation of Competition in Digital Markets: Majority Staff report and Recommendations](#), 2020, p. 382.

considers that while these two types of conduct are not always identical, a single set of rules could be used to deal with both issues.

Proposal 3 – Rules to manage conflicts of interest and self-preferencing in the supply of ad tech services

The ACCC is considering whether rules should be introduced that would aim to prevent and manage the competition and other issues that can arise from vertical integration. In particular such rules could aim to prevent anti-competitive self-preferencing and manage conflicts of interest. The high-level obligations which could be covered by these rules include:

- requirements to put measures in place to manage conflicts of interest, such as preventing the sharing of information between ad tech services, or obligations to act in the best interest of publisher or advertiser customers
- requirements to provide equal access to ad tech services (i.e. level playing field obligations to prevent self-preferencing), and
- requirements to increase the transparency of the operation of the supply chain.

The ACCC proposes that, at least in the first instance, such rules could be developed and implemented by industry. However, if this did not occur, other options could be considered. These rules could help to address potential problems arising from vertical integration across the supply chain.

The high level obligations outlined above could help to do this in the following ways:

- Requirements to manage conflicts of interest, such as preventing sharing of information, or best interests obligations, could help to ensure that ad tech providers are acting in the best interests of their customers. Further, it can also prevent ad tech providers from engaging in self-preferencing conduct. For example, a best interests obligation may help to prevent a publisher ad server from introducing rules that benefited its own SSPs, but potentially harmed publisher interests by preventing SSPs competing on their merits.
- Requirements to provide equal access to ad tech services would help to prevent self-preferencing by ensuring that ad tech providers apply the same rules and give the same information to all ad tech providers. It may also help to address the potential leveraging of power in the supply of ad inventory.
- Requirements to increase transparency would reduce vertically integrated ad tech providers' ability and incentive to engage in self-preferencing (or other leveraging conduct), and reduce the ability of ad tech providers to act contrary to the interests of their customers. This is because if customers are able to see that self-preferencing conduct is occurring, or that the ad tech provider is otherwise not acting in their best interests, the customer will be more likely to switch to another provider. However, the ACCC notes that this may not always be possible for ad tech services.

Question for stakeholders

15. Do you consider that such rules are necessary to promote competition in the supply of ad tech services?
16. Do you consider whether the regulatory burden imposed by such a regime would be justified by the potential benefits?
17. If you consider such a regime should be implemented, what matters do you think such rules cover and what would be the best way for such rules to be implemented?
18. Do you consider that the provisions of the CCA are currently sufficient to address competition issues arising from vertical integration in the ad tech chain?

Other proposals

The ACCC is also aware of other measures that have been proposed in Australia and elsewhere to address the issues arising from Google's vertical integration. In particular requiring Google to structurally separate so that it is no longer integrated across the supply chain. The ACCC invites views on whether such measures would be an effective and proportionate response to the issues identified in this chapter.

5. Pricing, fees and margins in ad tech

Key points

- The fees charged across the ad tech supply chain has been a key issue raised during the course of this Inquiry. In particular, publishers have expressed concerns about high ad tech fees which impact the revenue they receive for their ad inventory.
- The ACCC's estimates show that in Australia in 2019 fees for ad tech services directly involved in the trading and serving of ad impressions was 28% of advertiser expenditure on average. This shows a significant amount of advertiser spend is clearly retained by ad tech providers.
- The ACCC's preliminary analysis also indicates that the size of fees charged by different ad tech providers for ad tech services can vary significantly. While the variation in fees may reflect differences in the pricing strategies of ad tech providers, it is likely also due to variation in fees generally for different ad inventory types and deal types.
- Another key concern raised in this Inquiry, and in other studies conducted internationally, is whether ad tech providers retain an undisclosed portion of advertiser expenditure (sometimes referred to as 'undisclosed fees' or 'arbitrage') thereby increasing their margins. The ACCC is of the view that some providers in the ad tech supply chain may have the potential to retain 'undisclosed fees' and increase their margins due to the operation of sequential auctions in the delivery of programmatic advertising. The ACCC has not yet seen evidence that this is currently occurring, but is continuing to examine the issue.
- Stakeholders expressed particular concerns about 'undisclosed fees' charged by, and the margins retained by, Google Ads. Google Ads converts advertiser bids from a cost-per-click to a cost per impression basis in order to bid for publisher inventory. It does not charge fees but rather makes a return as an overall result of this conversion. This can make it difficult for advertisers to understand the fees or amounts retained by Google Ads. This has the potential to create competition issues if it limits the ability of advertisers and publishers to easily compare the performance, price and efficiency of different ad tech providers.

This chapter contains the ACCC's analysis of prices and fees for ad tech services in 2019 in the context of stakeholder concerns about prices for ad tech services and potential 'undisclosed fees', which may increase providers' margins. Pricing is an important part of assessing competition and efficiency in the supply of ad tech services, particularly when stakeholders are concerned about price transparency and difficulties comparing charges. The opacity of charges for ad tech service is discussed in chapter 6.

This chapter is structured as follows:

- **Section 5.1** explains of how prices and fees are set for ad tech services.
- **Section 5.2** analyses the level of fees for ad tech services in Australia. It includes comments from stakeholders and recent international findings on this issue, and the ACCC's estimates of average prices for ad tech services in 2019.
- **Section 5.3** discusses the possibility that ad tech providers could retain additional margins by charging 'undisclosed fees'.

5.1. Background: how ad tech services are priced and paid for

Pricing in the ad tech supply chain can be complex, and the amount that an advertiser spends on an ad impression will clearly not be the same as the amount of revenue that a publisher receives. This is because as the impression moves along the supply chain, various ad tech providers charge fees for the services that they provide. The following box 5.1 illustrates this further for digital display advertising purchased on a per impression basis.

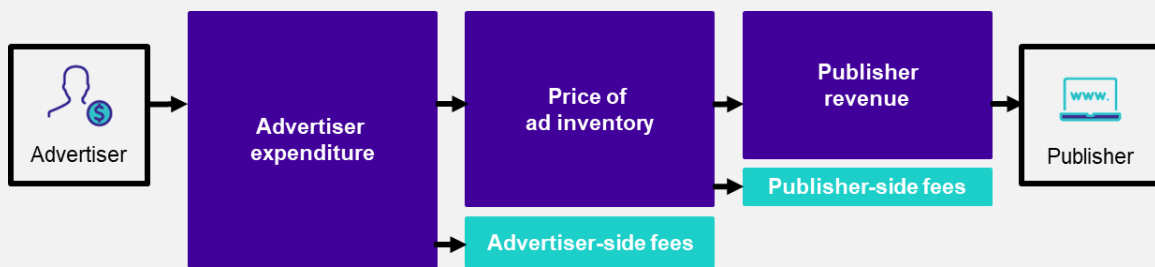
Box 5.1 – Overview of how money moves through the ad tech supply chain

To purchase digital display ad inventory on publisher websites, on a per impression basis, advertisers pay the '*price of the ad inventory plus advertiser-side fees*'. Here, the *price of the ad inventory* is essentially the amount of the advertiser spend that makes it to the supply side of the supply chain. In this chapter, we refer to the total amount paid by advertisers as *advertiser expenditure*.

The publisher-side ad tech providers then take their fees away from the *price of the ad inventory*, and pass on the remaining amount to the publisher (*publisher revenue*). That is, *publisher revenue* for ad inventory on their websites is the '*price of the ad inventory minus publisher-side fees*'.

This is shown in figure 5.1 below.

Figure 5.1: Advertiser expenditure, ad tech fees and publisher revenue in the ad tech supply chain



5.1.1. Price of ad inventory

The price of ad inventory, (the amount of advertiser expenditure for ad inventory, minus advertiser-side fees) can be determined in a number of ways. For example:

- If ad inventory is sold through a first-price auction, the price of ad inventory is the winning bid in the auction.
- For direct deals or programmatic direct transactions, the price of ad inventory may be agreed in advance between the advertiser and publisher.

A substantial proportion of digital display advertising is sold on a per impression basis. Where this occurs, the ad tech provider charges the advertiser for each ad that is served to a consumer. Prices are reported as 'cost-per-mille' (i.e. cost per 1,000 ads served) because the cost per ad served is generally very small. Ad tech providers then pay publishers for each ad that is served on their website.

However, digital display advertising can also be sold to advertisers in a number of other ways. For example:

- Cost-per-click (CPC) – the ad tech provider charges the advertiser each time an ad is clicked on by a consumer.
- Cost-per-action (CPA) – the ad tech provider charges the advertiser when an ad leads to a specific action by a consumer, such as a purchase or sign-up.

Ad tech providers may then pay publishers on the same basis that they charge advertisers (i.e. each time an ad is clicked on). However, in some cases, ad tech providers will pay publishers on a per impression basis even where the advertiser purchases the ad on a cost-per-click basis. This scenario is discussed further in relation to Google Ads in section 5.3.1.

5.1.2. Fees for ad tech services

Advertiser-side fees

Ad tech providers generally charge fees to advertisers for ad tech services in the following ways:

- *Advertiser ad servers*: these providers generally charge fees for each ad impression served (e.g. \$0.05 CPM = \$0.05 per thousand impressions).
- *Demand-side platforms (DSPs)*: these providers generally charge fees for their service based on a percentage of the total amount an advertiser spends through the DSP on ad inventory (e.g. fee of 15% of total price of ad inventory bought through the DSP). They may also charge for services provided by third parties, generally data providers or verification services. DSPs generally pass on these third party fees to advertisers.

Publisher-side fees

Ad tech providers generally charge fees to publishers for ad tech services in the following ways:

- *Publisher ad servers*: these providers generally charge fees for each ad impression served (e.g. \$0.05 CPM = \$0.05 per thousand impressions).
- *Supply-side platforms (SSPs) and ad networks*: these providers charge fees as a percentage of the total amount a publisher earns through the SSP or ad network (e.g. 15% of total revenue that the publisher earns from the SSP).⁴³⁵
- *Header Bidding*.⁴³⁶ publishers generally do not pay for Header Bidding, which they set up using code on their websites. However, providers may charge fees for proprietary server-side header bidding (e.g. Google's Open Bidding charges 5-10% of revenue that the publisher earns through Open Bidding).

Variations in fees

Fees charged across the ad tech supply chain can differ depending on a range of factors, including the service, the advertisement type and the deal type. We understand that generally:

- relatively higher fees are charged for video compared to non-video advertising
- relatively higher fees are charged for open auctions compared to private marketplaces, and
- relatively lower fees are charged for larger customers with higher transaction volumes, compared to smaller customers.⁴³⁷

5.2. Fees for ad tech services in Australia

There has been considerable interest from stakeholders, industry and regulators in the proportion of advertising expenditure that is received by publishers for ad inventory bought

⁴³⁵ The amount of revenue shared with the publisher is generally the same for each transaction (of a certain type). However, Daily Mail Australia submits that Google's SSP is able to charge an 'average revenue share', which means that it can change its revenue share on a per impression basis to help it win auctions, as long as it meets the contracted 'average revenue share' over the billing period. . Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 14; Google, [Google Ad Manager Help: Configure your Ad Exchange revenue share](#), accessed 22 November 2020.

⁴³⁶ Header bidding is a process for conducting auctions between SSPs that allows multiple SSPs to bid on the same ad inventory at the same time, with the winning bid selected via auction. See further explanation in chapter 1.

⁴³⁷ Competition and Markets Authority, [Appendix R to Online platforms and digital advertising market study final report](#), 1 July 2020, p. R15-27.

through the ad tech supply chain. This is directly related to concerns about the level of fees for ad tech services.

This section includes our estimates of average prices for ad tech services in 2019.

5.2.1. Stakeholder submissions

Some stakeholders have expressed concerns that ad tech fees can make up a significant proportion of advertiser expenditure on digital display advertising and that publisher revenues are declining. For example, Free TV submits that estimates of total ad tech fees vary from between 20 to 75% of advertiser expenditure.⁴³⁸ Noting forecast programmatic expenditure for 2020, Free TV submits that this could be a difference of whether publishers receive less than \$1 billion or up to \$2.34 billion of advertiser expenditure.⁴³⁹ Daily Mail Australia submits that publishers receive only a percentage of advertiser expenditure, which in many cases cannot be estimated due to a lack of transparency.⁴⁴⁰ Star News Group and Country Press Australia submit that the shift to programmatic advertising has driven down prices for their ad inventory.⁴⁴¹

Google submits that it passes on more than 70% of advertiser expenditure through its ad tech services to publishers.⁴⁴² In June 2020, Google stated in a blog post that 69% of advertiser expenditure was received by publishers when advertisers used Google's DSPs (Google Ads and Display & Video 360) to buy display ads on Google's SSP (Google Ad Exchange) in 2019.⁴⁴³

More recently, a RBB Economics report prepared for Google and submitted to the Inquiry examined Google's take rates based on ad requests originating in Australia over a one week period in 2020.⁴⁴⁴ The report found the following take rates for Google ad tech services, on average: 13% for Google Ads (DSP), [5-15]% for Display & Video 360 (DSP), [10-20]% for Google Ad Exchange (SSP), and [5-10]% for Open Bidding (Google's proprietary server-side header bidding).⁴⁴⁵ Further, it found that on average, Google's DSPs and SSP retained approximately 30% of advertiser expenditure when Google Ads and Google's SSP were used together, and 20-30% of advertiser expenditure when Display & Video 360 and Google's SSP were used together. The report notes that this is consistent with the take rates published in Google's June 2020 blog post and the industry take rates found by the Competition and Markets Authority (CMA) in the UK (see section 5.2.3 below).⁴⁴⁶

We note that stakeholder submissions differ on the amount of fees retained by ad tech providers. This may be in part because they cover different ad tech services, different ad inventory types, or different time periods.

⁴³⁸ Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 18.

⁴³⁹ Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 18.

⁴⁴⁰ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 1.

⁴⁴¹ Star News Group, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 2; Country Press Australia, [Submission to Ad Tech Inquiry Issues Paper](#), p. 2.

⁴⁴² Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 5.

⁴⁴³ S Hsiao, [How our display buying platforms share revenue with publishers](#), Google Ad Manager (Google Blog), 23 June 2020 accessed 21 December 2020

⁴⁴⁴ The RBB Economics report is based on three large datasets from Google Ad Manager, Google Ads, and Display & Video 360. The Google Ad Manager dataset covers ad requests from publishers using Google Ad Manager, originating from users in Australia between 17:00 (AEST) on Thursday, 23 July 2020, and 17:00 (AEST) on Thursday, 30 July 2020. The second and third datasets contain Google Ads and Display & Video 360 data from the same auctions. RBB Economics, [Google's ad tech take rates: Analysis of Google's auction level data sets](#), 13 November 2020, p. 1-2.

⁴⁴⁵ RBB Economics, [Google's ad tech take rates: Analysis of Google's auction level data sets](#), 13 November 2020, p. 2.

⁴⁴⁶ RBB Economics, [Google's ad tech take rates: Analysis of Google's auction level data sets](#), 13 November 2020, p. 2.

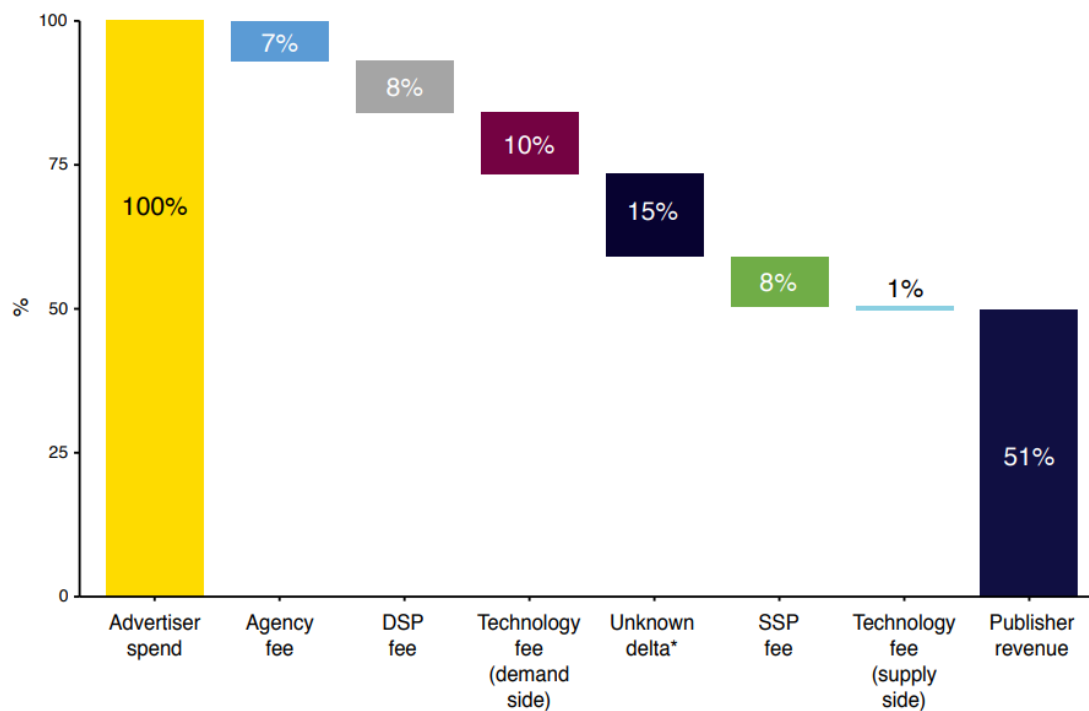
5.2.2. Recent international findings on ad tech fees

Two public reports have recently been published on ad tech fees in the UK. They report that ad tech fees may account for 35-49% of advertisers' expenditure through ad tech services.⁴⁴⁷ The range of different results in these two reports is likely to reflect differences in methodologies, and factors such as sample sizes and composition.⁴⁴⁸

ISBA study

In March 2020, ISBA (a UK advertisers' association) and PwC published a study on ad tech fees in the UK, based on impression-level data collected from 1 January to 20 March 2020.⁴⁴⁹ It found that ad tech fees made up 49% of advertiser expenditure on publishers' ad inventory.⁴⁵⁰ The ISBA study also identified that 15% of the advertiser expenditure could not be attributed to any ad tech provider (referred to as an 'unknown delta').⁴⁵¹ In the report, PwC said that it could not say with any certainty what the unknown delta represented, and noted it could be a combination of many factors such as limitations in the data, or fees that were not visible to it.

Figure 5.2: ISBA/PwC analysis of ad tech supply chain (2020)⁴⁵²



Source: ISBA, [ISBA Programmatic Supply Chain Transparency Study](#), May 2020, p. 8

⁴⁴⁷ ISBA, [ISBA Programmatic Supply Chain Transparency Study](#), May 2020; Competition and Markets Authority, [Appendix R to Online platforms and digital advertising market study final report](#), 1 July 2020.

⁴⁴⁸ This could include different ad tech services covered, different ad inventory types, different time periods, or different advertisers and publishers included.

⁴⁴⁹ The ISBA study incorporated data from 15 advertisers, 12 agencies, five DSPs, six SSPs and 12 publishers. The ISBA study involved matching impression level data across multiple parties. Only 12% of the impressions served from advertiser participants to publisher participants were successfully matched. ISBA, [ISBA Programmatic Supply Chain Transparency Study](#), May 2020, p. 6.

⁴⁵⁰ ISBA, [ISBA Programmatic Supply Chain Transparency Study](#), May 2020, p. 8

⁴⁵¹ The executive summary stated that the unknown delta "could reflect a combination of: limitations in data sets, necessitating occasional estimations; DSP or SSP fees that aren't visible in the study data; post-auction bid shading; post-auction financing arrangements or other trading deals; foreign exchange translations; inventory reselling between tech vendors; or other unknown factors."

⁴⁵² Technology fee (demand side) includes fees for advertiser ad servers, verification services and data services. Technology fee (supply side) reflects fees charged for Google's Open Bidding. Agency, DSP and SSP fees are fees paid to these providers for their services. ISBA, [ISBA Programmatic Supply Chain Transparency Study](#), May 2020, p. 8-9.

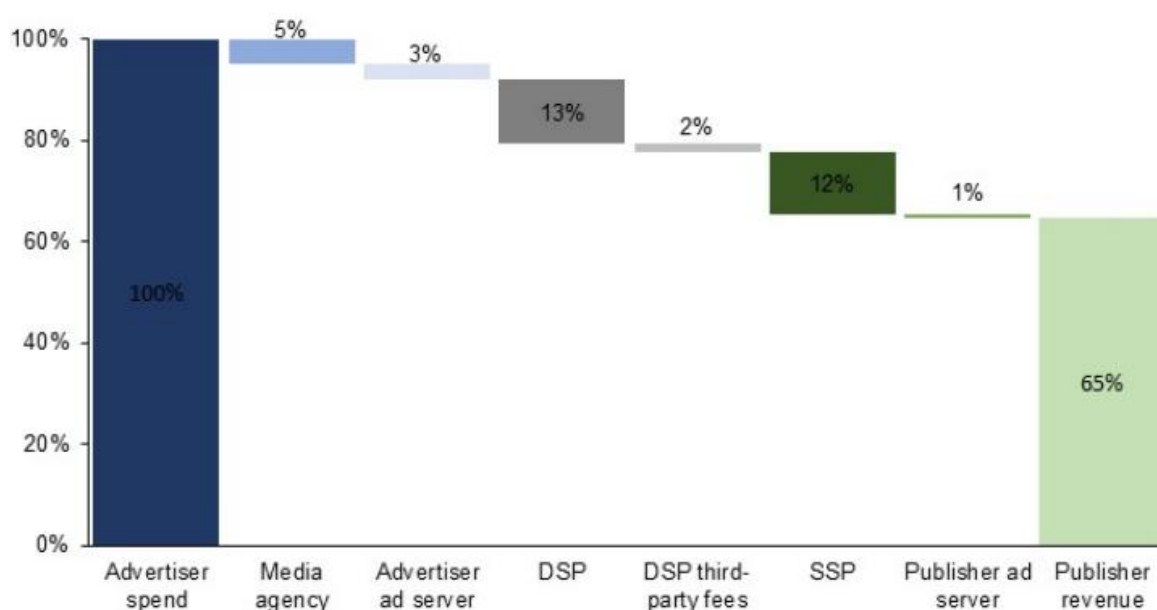
The ISBA study was highlighted in multiple stakeholder submissions to the Inquiry, including in submissions from The Guardian and the Australian Association of National Advertisers (AANA), in the context of concerns about transparency over ad tech fees and the proportion of advertiser expenditure that is received by publishers.⁴⁵³

CMA market study findings

In July 2020, the CMA reported that on average, ad tech fees made up 35% of advertisers' expenditure on 'open display advertising'⁴⁵⁴ in the UK in 2019.⁴⁵⁵ The CMA obtained aggregate data from major ad tech providers in order to produce these estimates.⁴⁵⁶

The CMA noted that, while the difference between its results and the ISBA study is almost entirely explained by the size of the 'unknown delta' in the ISBA study, it is not possible to specify exactly what makes up this 'unknown delta' and therefore what is driving the differences between its results and the ISBA results.⁴⁵⁷

Figure 5.3: CMA analysis of take rates across the open display supply chain (2019)⁴⁵⁸



Source: Competition and Markets Authority, [Appendix R to Online platforms and digital advertising market study final report](#), 1 July 2020, p. R19.

The CMA observed that, while ad tech providers perform valuable functions, it is striking that they collectively take more than a third of the total amount paid by advertisers. Noting Google's size at each point of the supply chain, the CMA considered that its findings strongly

⁴⁵³ Guardian News & Media Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 3; Australian Association of National Advertisers, [Submission to Ad Tech Inquiry Issues Paper](#), 21 May 2020, p. 3.

⁴⁵⁴ The CMA's definition of open display: 'In the open display market, a wide range of publishers sell advertising space to advertisers through a complex chain of third-party intermediaries that run auctions on behalf of the publishers (ie SSPs and publisher ad server) and advertisers (DSPs).' Competition and Markets Authority, [Glossary to Online platforms and digital advertising market study final report](#), 1 July 2020, p. Glos-7

⁴⁵⁵ The CMA noted that this percentage could be even lower, as it excluded some ad tech services (trading desks, third party data providers and ad verification services, Google's Open Bidding) from its analysis, and it did not capture any take out attributable to measurement error or bid shading. Competition and Markets Authority, [Appendix R to Online platforms and digital advertising market study final report](#), 1 July 2020, p. R18-20.

⁴⁵⁶ The CMA received data from most major ad tech providers that operate in the UK. These providers reported aggregated data for 2019 on all fees charged in relation to their ad tech services, as well as the amount of advertising expenditure which passed through them. See Competition and Markets Authority, [Appendix R to Online platforms and digital advertising market study final report](#), 1 July 2020, p. R18 & R21-R27.

⁴⁵⁷ Competition and Markets Authority, [Appendix R to Online platforms and digital advertising market study final report](#), 1 July 2020, p. R20.

⁴⁵⁸ Competition and Markets Authority, [Appendix R to Online platforms and digital advertising market study final report](#), 1 July 2020, p. R19.

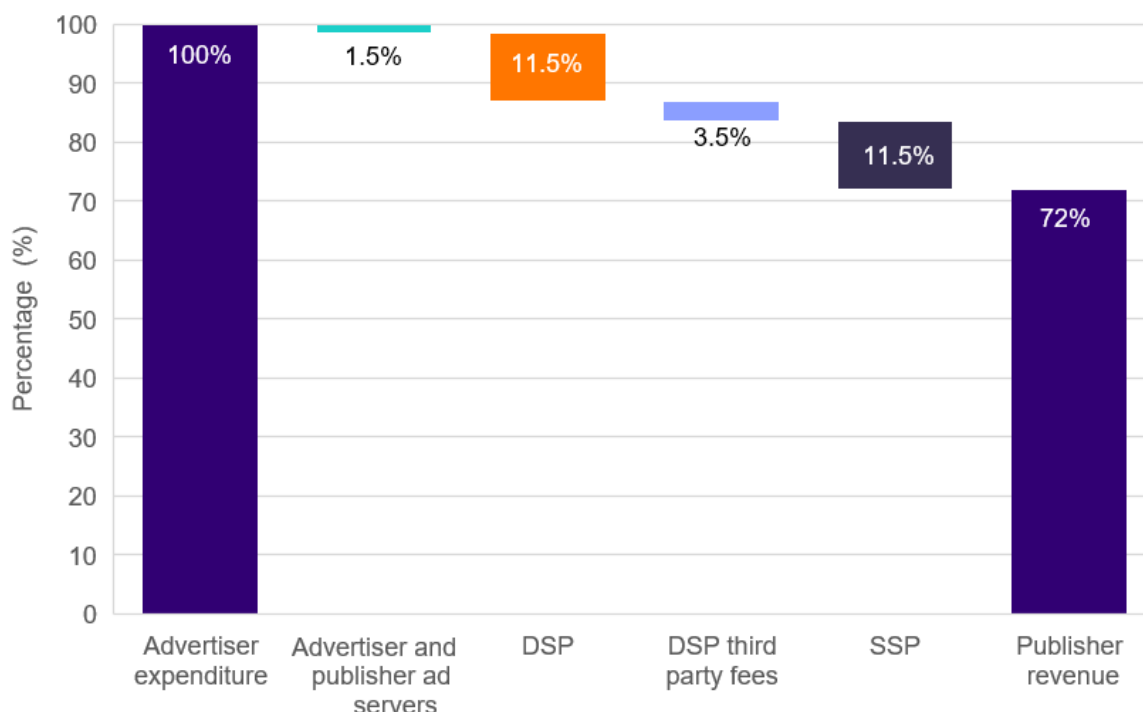
support the hypothesis that greater competition in ad tech would increase efficiency to the benefit of both publishers and advertisers.⁴⁵⁹

5.2.3. Current findings on ad tech fees in Australia

Based on our analysis of data provided to the Inquiry by ad tech providers to date, the ACCC estimates that fees for four key ad tech services made up 28% of advertiser expenditure in Australia in 2019, on average.⁴⁶⁰ This is similar to other studies, outlined above, which suggest that fees may account for 35-49% of advertiser expenditure through ad tech services.

These fees include those charged by advertiser ad servers, DSPs, DSP third party fees (including fees for data services and verification and attribution services), SSPs and publisher ad servers. While the ACCC has not captured the complete ad tech supply chain, these figures still provide valuable insight into the fees being charged for key ad tech services provided in Australia.

Figure 5.4: Analysis of average fees for ad tech services in Australia (2019)



Source: ACCC analysis of information provided by ad tech providers.

The ACCC's estimate is that in Australia in 2019, advertiser and publisher ad server fees combined made up approximately 1.5% of total advertiser expenditure.⁴⁶¹ We estimate that DSP fees were higher at 11.5% of total advertiser expenditure, while DSP third party fees were also relatively small, making up only around 3.5% of expenditure. SSP fees also made up at 11.5% of total advertiser expenditure.

The ACCC's analysis also indicates that the size of fees charged by different ad tech providers for ad tech services can vary significantly. While the variation in fees may reflect

⁴⁵⁹ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 65.

⁴⁶⁰ The ACCC's estimates are based on averages of the fees charged by multiple providers of each of these four services, using data provided in response to section 95ZK notices. These shares are the ACCC's best estimates, based on information from ad tech providers. This information was provided in relation to digital display advertising served to users in Australia in 2019.

⁴⁶¹ The ACCC recognises that these are distinct services, provided to different customers. The estimate of publisher and advertiser fees has been combined into a single figure in this report for reasons of confidentiality.

differences in the pricing strategies of ad tech providers, it is likely also due to variations in fees generally for different ad inventory types and deal types.

ACCC preliminary views

The above analysis shows that a significant amount of advertiser spend is retained by ad tech providers. The ACCC agrees with the broad comments expressed in the CMA report that greater competition in ad tech would likely increase efficiency to the benefit of both publishers and advertisers.

The ACCC's estimates are similar to the findings made by ISBA and the CMA. However, we note that our estimates are based on aggregate revenue figures (similar to the CMA's approach) and do not track the same set of transactions through the supply chain (as done in the ISBA study). These estimates are also based on data from different time periods and locations, and may not capture the same mix of ad inventory.

We also note that the total amount of advertiser expenditure retained by ad tech providers across the supply chain is likely to be higher than these average fees. This is because our analysis has not been able to account for all of the fees and costs across the supply chain. For example, it does not capture fees for some ad tech services such as ad agency and trading desk services, data services, verification and attribution services that are not charged through a DSP, and fees for proprietary server-side header bidding (e.g. Open Bidding). Further, it may not capture amounts that are retained by ad tech providers which are not disclosed to their customers.

5.3. Undisclosed fees in the supply chain

A second issue raised by stakeholders is that some ad tech providers may have the potential to retain an undisclosed portion of advertiser expenditure (sometimes referred to as 'undisclosed fees' or margins). The ACCC has not been provided with information which is able to establish that this is currently occurring, but is continuing to examine this issue.

Opportunities for ad tech providers to generate undisclosed returns may be created by the sequential auctions used in the ad tech supply chain, combined with a lack of transparency over auction outcomes. Further, publishers generally do not know what advertisers pay and advertisers do not know what publishers receive for the ad inventory they trade. These factors may potentially allow an ad tech service to accept a bid for an impression at one price, but place a bid for that same impression into the next service in the supply chain at a lower price. If that bid is successful, the service could retain the difference between these bids.

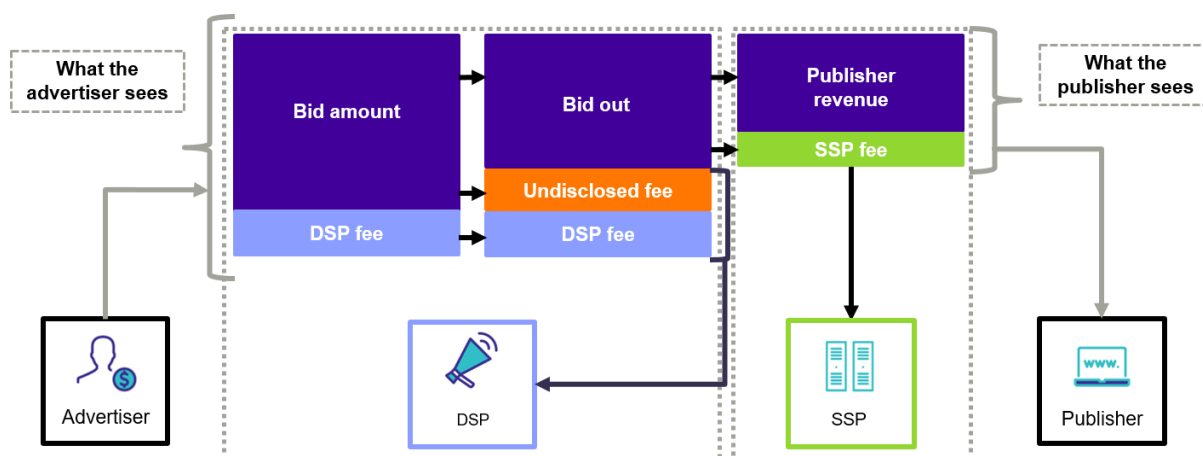
The following are some examples of ways that this could happen and allow ad tech providers to retain undisclosed amounts (undisclosed fees):

- DSPs use a range of auction, selection or ranking processes to select which advertiser bids they will send to an SSP in response to a bid request. A DSP could select a winning advertiser bid, then submit a lower bid to the SSP. If that bid wins the SSP auction and if the advertiser cannot observe the outcome of the SSP auction, the DSP could keep the difference as an undisclosed fee (as illustrated in figure 5.5 below).
- SSPs run auctions ranking the competing bids from DSPs before sending the winning bid to the publisher ad server. A SSP could select a winning DSP bid, then submit a lower bid to the publisher ad server, keeping the difference for itself.
- A SSP could charge fees to DSPs that are not disclosed to the publisher, which would reduce the bid amount submitted by the DSP that ultimately reaches the publisher.⁴⁶²

⁴⁶² In 2017, the Guardian was reported to have commenced a lawsuit against The Rubicon Project for allegedly not disclosing its fees charged to DSPs in relation to the Guardian's ad inventory. See, J Davies, '[The gloves are off: The Guardian sues Rubicon Project for undisclosed fees](#)', *Digiday*, 28 March 2017. The CMA observed that transparency has improved over

As discussed in chapter 6, a number of stakeholders have raised concerns about the transparency of auctions and fees across the supply chain, which means they also may not have visibility over whether any ad tech providers are retaining undisclosed fees or amounts.

Figure 5.5: Example of DSP retaining an undisclosed fee



Some stakeholders assert that Google is particularly well positioned to retain undisclosed amounts of advertiser expenditure (or undisclosed fees), because of its involvement in consecutive auctions along the ad tech supply chain as well as its strong market position as a publisher ad server.⁴⁶³

If ad tech providers are retaining undisclosed fees, this can create competition issues if it limits advertisers' and publishers' ability to easily compare the performance and efficiency of different ad tech providers. The importance of transparency in the ad tech supply chain and for ad tech auctions is discussed in chapter 6.

5.3.1. Stakeholder concerns regarding Google Ads

Stakeholders have expressed particular concerns about Google Ads (a Google DSP) retaining undisclosed amounts of advertiser expenditure. These stakeholders submit that the way Google Ads converts bids from a cost-per-click to cost-per-mille basis allows Google to extract undisclosed "fees" that are hidden from the advertiser and the publisher.⁴⁶⁴ A description of how Google Ads' fee conversion currently works is set out in box 5.2.

the past three years, and many SSPs have stopped charging fees to DSPs. See Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M84-85.

⁴⁶³ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 33-34; ; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 12-13; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, pp. 83-95.

⁴⁶⁴ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 33-34; ; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 12-13; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, pp. 83-95.

Box 5.2 – The fee conversion on Google Ads (a Google DSP)

Most advertisers submit bids into Google Ads on a cost-per-click or cost-per-action basis.⁴⁶⁵ Google Ads does not charge advertisers additional advertiser-side fees.

Once Google Ads receives bids from advertisers, Google Ads then bids into auctions on Google's SSP.⁴⁶⁶ However, Google's SSP only accepts bids for advertising on a per impression basis (i.e. on a cost-per-mille basis), which is different to the bases primarily used by advertisers on Google Ads.

This means that, in the relevant auctions, Google Ads only charges advertisers each time an ad is clicked on (or when an action is taken), but must pay the SSP each time an ad is served. If an ad is served but not clicked on, Google Ads must pay the SSP but will not receive any payment from advertisers.

Because the basis of bids received and made is different, Google Ads has to convert each bid it receives on a cost-per-click basis, to a cost-per-mille (per impression) basis. This conversion will involve Google predicting the click through rate for advertisers' ads.⁴⁶⁷ The ACCC understands that Google also targets an aggregate rate of return for its service as part of undertaking this conversion.⁴⁶⁸

Stakeholders are concerned about the margins that Google retains as a result of undertaking this conversion, which could be considered an undisclosed fee.⁴⁶⁹

Figure 5.6: Illustration of Google Ads retaining an undisclosed fee

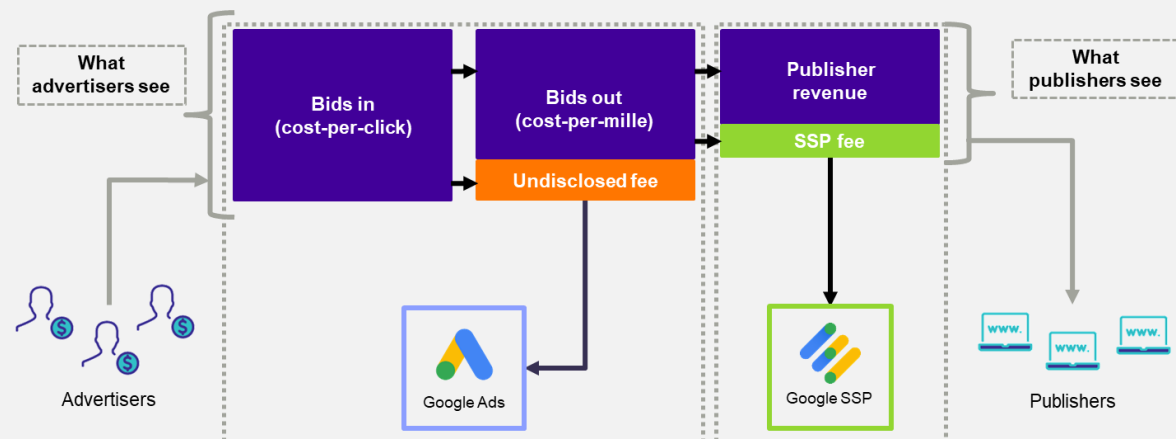


Figure 5.6 shows that advertisers can observe the bids they submit on a cost-per-click basis, and publishers can observe the bids the revenue that they receive on a cost-per-mille basis, but no party can observe the price conversion and undisclosed fee that Google Ads retains.

A report submitted by Daniel Bitton and Stephen Lewis on behalf of Google argues that this is a pro-competitive system that promotes market liquidity by ensuring that publishers are guaranteed to receive a payment for every impression sold, while advertisers only pay when

⁴⁶⁵ Google – Report from Daniel Bitton and Stephen Lewis, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, pp. 48-49; Google, [Choose a Bid That Works For You](#), accessed 7 December 2020; Google, [Google Ads Help: Choose a Bid That Works For You](#), accessed 7 December 2020; Google, [Google Ads Help: Set Target CPAs for Ad Groups](#), accessed 7 December 2020; RBB Economics, [Google's ad tech take rates: Analysis of Google's auction level data sets](#), 13 November 2020, p. 8.

⁴⁶⁶ The ACCC notes that there are some cases where Google Ads bids into other SSPs, but the vast majority of the time it bids into Google's own SSPs.

⁴⁶⁷ RBB Economics, [Google's ad tech take rates: Analysis of Google's auction level data sets](#), 13 November 2020, p. 9.

⁴⁶⁸ RBB Economics, [Google's ad tech take rates: Analysis of Google's auction level data sets](#), 13 November 2020, p. 9.

⁴⁶⁹ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 33-34; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 12-13; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, pp. 83-95.

their ads trigger a click or other specified action.⁴⁷⁰ They note that this means Google eliminates risk for both advertisers and publishers by taking this risk on itself as, most of the time, Google pays money to the publisher but does not receive any money from the advertiser.⁴⁷¹ As such, they consider that Google is entitled to calculate the price conversion in a way that allows it to earn a profit margin for accepting this risk on behalf of publishers and advertisers.⁴⁷²

In its market study into online platforms and digital advertising, the CMA found that Google Ads' overall take rate is 10-20% of advertiser expenditure, which is broadly in line with fees charged by other DSPs.⁴⁷³ The CMA also analysed the margin between the winning bid and the next highest bid (or floor price) in Google's SSP for Google Ads and other DSPs, to consider whether Google Ads was systematically able to win at a lower margin, which might indicate it was using its data advantage to extract larger margins. However, the CMA found that Google Ads' winning margins on Google's SSP was similar to that of third-party DSPs. Overall, the CMA considered its evidence suggests Google is not currently extracting significant hidden fees. However, the CMA noted that Google retained the ability and incentive to do so.⁴⁷⁴

Google also submitted a report by RBB Economics, which presents analysis for Australia that it considers is analogous to the analysis undertaken by the CMA for the UK. The report states that Google Ads targets an aggregate rate of return for the service it provides, and that this business model is evident from its data analysis.⁴⁷⁵ Further, the report found that Google Ads had a 'take rate' of 13%, in Australia over a one week period in 2020,⁴⁷⁶ which it notes are in line with the take rates published in Google's June 2020 blog post and found by the CMA in the UK.⁴⁷⁷ It also replicated the CMA's finding that Google's average winning margin was similar to that of non-Google DSPs.⁴⁷⁸

ACCC preliminary views

The ACCC considers that a lack of transparency over 'undisclosed fees' or whether providers are retaining additional margins can create competition issues if it limits advertisers' and publishers' ability to easily compare the performance, price and efficiency of different ad tech providers, and make an informed decision on which ad tech providers to use. This may in turn limit the competitive pressure on ad tech providers. Greater transparency over undisclosed fees could also increase advertisers' and publishers' trust and confidence in the ad tech services. There may also be other negative impacts from undisclosed fees. For example, it could lead to some advertisers and publishers deciding not to use ad tech services, or to use less of these services, where the lack of transparency undermines their trust in the market.

The ACCC's preliminary view is that some ad tech providers appear to have the potential to retain undisclosed fees. This is particularly due to the opacity of the ad tech supply chain and lack of transparency around how auctions are run. While the ACCC has not been

⁴⁷⁰ Google – Report from Daniel Bitton and Stephen Lewis, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, pp. 48-49.

⁴⁷¹ Google – Report from Daniel Bitton and Stephen Lewis, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, pp. 48-49.

⁴⁷² Google – Report from Daniel Bitton and Stephen Lewis, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, pp. 48-49.

⁴⁷³ This involved analysing impression-level data from open auctions run using Google's SSP for the period from 8-14 March 2020. Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 275.

⁴⁷⁴ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, pp. 275-276 and Competition and Markets Authority, [Appendix R to Online platforms and digital advertising market study final report](#), 1 July 2020, p. R6-R13.

⁴⁷⁵ RBB Economics, [Google's ad tech take rates: Analysis of Google's auction level data sets](#), 13 November 2020, p. 9.

⁴⁷⁶ Covering ad requests originating from users in Australia between 17:00 (AEST) on Thursday, 23 July 2020, and 17:00 (AEST) on Thursday, 30 July 2020. See RBB Economics Report, p. 1-2.

⁴⁷⁷ RBB Economics, [Google's ad tech take rates: Analysis of Google's auction level data sets](#), 13 November 2020, p. 2.

⁴⁷⁸ RBB Economics, [Google's ad tech take rates: Analysis of Google's auction level data sets](#), 13 November 2020, p. 3, 12-14.

provided with information that establishes this is currently occurring, the ACCC is continuing to examine this issue, and is concerned about the effects that such conduct may have on the supply of ad tech services.

Stakeholder concerns relate predominantly to the Google Ads price conversion from cost-per-click to a cost per impression. Google's June 2020 blog post and recent RBB Economics report provide point-in-time information about the amount of advertiser expenditure retained by Google Ads, globally and for Australia in 2020. These figures do not appear to indicate that Google Ads is retaining a margin that significantly differs from industry averages for DSPs.

Google Ads' business model involves Google Ads selling ad inventory to advertisers at prices such that the amount it receives from advertisers in aggregate is greater than what it pays SSPs for the related ad inventory, and Google Ads does not charge advertisers other fees for its service. This is distinct from how most DSPs (including Google Display & Video 360) operate, which charge a percentage of total spend through the platform. This means that while advertisers know how much they are paying Google Ads for their campaigns, they cannot observe the margin Google Ads is making on those transactions. This is only partially resolved by Google deciding to make available point-in-time figures about Google Ads' take rate. Further, it is not transparent how Google undertakes the cost-per-click to cost-per-mille conversion from case to case, or how this varies for different transactions.

Questions for stakeholders

The ACCC is seeking stakeholder views on the extent to which ad tech providers are able to charge undisclosed fees, as well as the extent to which this impacts on competition and potential benefits from improved transparency

6. Transparency of the price, operation and performance of ad tech services

Key findings

- The opacity and complexity of the ad tech supply chain makes it difficult for advertisers and publishers to fully understand how it operates. It also means that they are reliant on information provided by ad tech providers, and sometimes third parties, to assess the price and quality of ad tech services. The ACCC is concerned that these factors may be limiting competition and efficient outcomes in the supply of ad tech services. There are three areas where a lack of transparency is an issue.
- First, there appears to be a lack of transparency over the operation and outcomes of some auctions. In particular, it appears that publishers are not able to obtain sufficient information about auction outcomes from Google to make fully informed decisions about how they should use ad tech services.
- Secondly, there is a lack of transparency over the level of fees or ‘take rates’ across the supply chain. This makes it difficult for advertisers to know how much of their ad spend is received by publishers, and for publishers to know how much advertisers are paying for their inventory. ACCC considers that this may:
 - reduce confidence in the operation of ad tech services
 - prevent advertisers and publishers making decisions about how to most efficiently buy or sell ad inventory
 - make it difficult to monitor whether vertically integrated providers are engaging in self-preferencing conduct or retaining ‘undisclosed fees’.
- While there has been some recent work to improve industry understanding of the levels of fees across the supply chain, publishers and advertisers still do not always have the information necessary to undertake the type of detailed consideration of fees necessary to optimise buying and selling decisions.
- Thirdly, in some cases there are issues with advertisers’ ability to assess and compare the performance of the ad tech services they use. In particular some stakeholders are concerned that it is difficult for advertisers to assess some aspects of the performance of Google’s demand-side services and compare these with those of other providers.
- Concerns have also been raised about whether ad verification and attribution services used by demand-side platforms to understand the performance of services operate in a way that may harm publishers by blocking their websites, and whether sufficient action is taken by the industry to combat the delivery of scam ads. The scale of these issues is not clear, but they may raise concerns because verification and attribution providers, and demand-side platforms may not have incentives to address such problems.

Proposals for consultation

- The ACCC is considering, and seeking stakeholder feedback on, the following proposals which could be used to address the issues identified in this chapter:
 - **Proposal 4:** Implementation of a voluntary standard to enable full, independent verification of DSP services.
 - **Proposal 5:** Implementation of a common transaction ID.
 - **Proposal 6:** Implementation of a common user ID to allow tracking of attribution activity in a way which protects consumers’ privacy.

This chapter examines the ability of advertisers and publishers to assess the price and quality of ad tech services by examining the level of transparency in the operation, pricing, and performance of the supply chain. It also considers whether a lack of transparency is

impacting competition and efficiency in the ad tech supply chain. The chapter is structured as follows:

- **Section 6.1** explains why transparency in the ad tech supply chain is important, and how the complexity of the ad tech supply chain contributes to its opacity.
- **Section 6.2** provides an overview of the types of price and quality measures advertisers and publishers need to make informed decisions, and how they access such information.
- **Sections 6.3 to 6.5** discuss the level of transparency over auctions, pricing and performance respectively. These sections also consider if a lack of transparency in these areas is causing concerns for advertisers and/or publishers, and whether these issues are affecting competition in the ad tech supply chain.
- **Section 6.6** discusses, and seeks stakeholder feedback on, measures that could be used to address the transparency issues identified in sections 6.3 to 6.5.
- **Section 6.7** outlines publishers' concerns about the verification and attribution services advertisers use, and the action taken by industry to prevent scam ads being shown on publisher websites.

6.1. Transparency and complexity in the ad tech supply chain

A number of stakeholders have expressed concerns about the opacity of the ad tech supply chain.⁴⁷⁹ For example, The Guardian considers that a lack of consistent, verifiable data means that it is hard to access basic information regarding transactions that take place within the ad tech supply chain.⁴⁸⁰ Similarly, SBS submits that 'the lack of transparency in the ad tech supply chain is a key issue of concern for SBS'.⁴⁸¹ Further, the Australian Association of National Advertisers (AANA), submits that the 'ad tech supply chain is currently opaque and unauditible and whilst it continues to lack transparency, the AANA and its members will be suspicious and guarded about its efficient and effective operation.'⁴⁸²

This section looks at the importance of transparency in ad tech, and factors contributing to its opacity.

6.1.1. The importance of transparency

For competition in the supply of ad tech services to be effective, advertisers and publishers, need to be able to make informed choices about which services and providers they will use. To do this, they need to be able to assess the price and quality of ad tech providers' services so that they can effectively compare providers, and choose the providers that will best suit their needs. Opacity around pricing, quality or auction mechanics makes this assessment difficult, meaning that some advertisers and publishers may become stuck with providers that do not deliver them with the greatest value possible. It could also lead to some advertisers and publishers deciding not to use ad tech services, or use less of these services, where the lack of transparency undermines their trust in the market.

Information asymmetries caused by a lack of transparency around service quality could also lead to poorer outcomes more broadly for advertisers and publishers, and ultimately for consumers. If quality is difficult for advertisers and publishers to observe, there is a risk that ad tech providers could win customers by misrepresenting low quality products as high

⁴⁷⁹ See for example: Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p.9-10, 16-17, 24, 27; Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p. 4; Australian Association of National Advertisers, [Submission to Ad Tech Inquiry Issues Paper](#), 21 May 2020, p. 2; Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 17-19; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020.

⁴⁸⁰ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, pp. 9-10.

⁴⁸¹ Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p. 4.

⁴⁸² Australian Association of National Advertisers, [Submission to Ad Tech Inquiry Issues Paper](#), 21 May 2020, p. 2.

quality. This would make it difficult for ad tech providers that actually offer high quality services to recover their costs. The easier it is for advertisers and publishers to assess quality of service, the more likely it is that competition will reward those ad tech service providers who offer the best value for money.

Further, transparency over the ad tech supply chain can be important for helping to address concerns relating to vertically integrated providers' conflicts of interest and the potential for vertically integrated providers to engage in self-preferencing (as discussed in chapter 4). In particular, greater transparency could enable participants to identify whether ad tech providers are acting in the interests of those they supply services to in the supply chain and monitor whether vertically integrated providers are engaging in self-preferencing.

6.1.2. The complexity of the ad tech supply chain can contribute to a lack of transparency

The ad tech supply chain is inherently complex. While ad tech services have enabled publishers and advertisers to buy and sell ad inventory in a targeted way, the complexity of the supply chain and auctions also means that it can be difficult for advertisers and publishers to understand and monitor how ads and ad inventory are being traded. This can make them more reliant on the information provided to them by the ad tech providers, including third party providers, to make informed decisions about the services and providers they use. The ACCC considers there are a number of factors which contribute to the complexity.

First is the number of levels in the ad tech supply chain and the number of auctions involved in the sale of ad impressions.⁴⁸³ This means that there are multiple ways for a single ad impression to be bought and sold.⁴⁸⁴ A key benefit of multiple ad tech providers participating in the trading of ad impressions is that advertisers have access to ad inventory from a wide range of suppliers, and publishers have access to demand from a wide range of advertisers.⁴⁸⁵ However, because there are many steps involved in the sale of an ad impression in the supply chain, advertisers and publishers do not have a direct relationship with all of the providers involved in the supply chain. Generally, publishers will only have contracts or agreements in place with their publisher ad server and the supply-side platforms (SSPs) they use, whereas the advertiser will only have contracts or agreements in place with the advertiser ad server and the DSPs they use. As a result, advertisers and publishers may only have visibility over half of the supply chain, and it can be difficult to track how inventory is bought and sold.

A second factor which contributes to the complexity of the ad tech supply chain is that all of the auctions across the supply chain must be completed within milliseconds (i.e. the time that it takes for a webpage to load). This means that ad tech providers' systems are automated and rely on sophisticated and complex algorithms. While these systems facilitate the sale of large numbers of ad impressions in very short times, their complexity and the lack of visibility over their operation, means that advertisers and publishers are reliant on ad tech providers to make decisions about the buying and selling of inventory on their behalf. It also means that it is difficult for advertisers and publishers to understand and oversee how ad tech providers do this.⁴⁸⁶ This creates a degree of information asymmetry between advertisers and publishers, and ad tech providers.

⁴⁸³ The number of parties and auctions that can be involved in the sale of inventory is discussed in chapter 1.

⁴⁸⁴ We note not all advertisers and publishers will use multiple DSPs and SSPs, and that for such users the purchase and sale of products may be less complex.

⁴⁸⁵ See, for example, Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M14.

⁴⁸⁶ For example, the CMA has noted that ultimately the granular detail of how DSPs bidding decisions are made is only truly understood by the platforms themselves, and that advertisers cannot observe the algorithms used by a DSP. See Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M97.

Finally, as discussed in more detail below, advertisers need to rely on third party verification and attribution providers, or their DSPs and advertiser ad servers, to measure the performance of their ad campaign and the ad tech services they use.⁴⁸⁷ In traditional media, verification of an ad is a simpler process, because the advertiser is able to see their ad delivered in the television slot or the newspaper space. In contrast, in digital advertising, because the ad is delivered to individuals on devices that are generally only seen by that individual, advertisers must use technology to conduct this process. Verifying and measuring the performance of online display ads is technically complicated, and requires tracking where an ad is delivered, whether it is seen, whether it was subject to fraud, whether it was served in a brand safe environment and tracking any subsequent user action. The complexity of these processes means that advertisers must depend on third party verification and attribution providers, or the ad tech providers themselves to measure the performance of the ad tech services they provide.

6.1.3. The availability of information

The inherent complexity of the supply chain, and the difficulties for advertisers and publishers to understand how the ad tech supply chain operates means that it is particularly important for ad tech providers to provide clear information about the operation of the supply chain and auctions.

The ACCC's preliminary view is that there a number of areas where this information is not being provided or cannot be fully verified, and that this has the potential to lessen competition and efficient outcomes in the supply of ad tech services. These areas are discussed in detail in sections 6.3 to 6.5.

6.2. Quality and price information required by advertisers and publishers

This section discusses the price and performance measures that are important to advertisers and publishers, and how advertisers and publishers are able to access this information.

6.2.1. How advertisers assess price and quality

Advertisers purchase two types of ad tech services, advertiser ad server services and demand-side platform (DSP) services. When assessing the price and quality of DSP services, the ACCC has found that a number of factors may be important to advertisers, including:

- the prices, and costs of the DSP
- whether the ads are being served to the advertiser's target audience
- whether they have been charged for services that have actually been provided (i.e. if they getting what they paid for)
- whether it was possible for a consumer to see the ads delivered using the DSP
- whether the ads purchased are shown on websites and in contexts that are appropriate or 'brand safe'
- whether the ads purchased are delivered to, or clicked on by, a consumer, and
- whether the consumer took any action after seeing the ad.⁴⁸⁸

⁴⁸⁷ See for example, Australian Digital Advertising Practices: 2020 Update, p. 11-20; Competition and Markets Authority, [Appendix O to Online platforms and digital advertising market study final report](#), 1 July 2020.

⁴⁸⁸ See for example, Havas Media, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 4; Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 13-14; Verizon Media Australia, [Submission to Ad Tech Inquiry Issues Paper](#), April 2020, p. 3; IAB Australia, [Australian Digital Advertising Practices: 2020 Update](#); Competition and Markets Authority, [Appendix O to Online platforms and digital advertising market study final report](#), 1 July 2020, p. 1.

Advertisers are unable to measure a number of the above factors themselves, and consequently must use **ad verification services** and **ad attribution services** to assess these factors. The way ad verification services and attribution services are provided is discussed in more detail below.⁴⁸⁹

There are a number of other factors that advertisers will take into account in deciding which DSP to use, such as audience reach, audience targeting capabilities, ease of use and integration with other ad tech services, and the type of inventory sold (see chapter 3 for a more detailed discussion). We have not considered these factors here, as there does not appear to be issues with advertisers' ability to compare such factors. Similarly, although advertiser ad servers perform important functions, evaluating the quality and price of an advertiser ad service seems to be a simpler process, based on the prices charged for the service, usability and the features offered.⁴⁹⁰

Ad verification services

Ad verification services are used to check whether an ad could be viewed by the consumer it was delivered to, whether the ad was displayed on a page and in a context that is considered safe by the advertiser, and whether ad fraud has taken place. Each of these checks are explained in more detail below.

Viewability

The first part of ad verification involves measuring the 'viewability' of ads. Assessing viewability is checking whether an ad was displayed in a way that could have been seen by a consumer.⁴⁹¹ Measuring viewability is important to advertisers as it enables them to check that they are not paying for ads that cannot be viewed by a consumer. In addition, it can also be an indicator of the quality of service being delivered by a DSP.

Brand safety

The second element of ad verification is checking and providing brand safety. Providing brand safety is about taking steps to stop advertisers' ads being displayed in a place or in a context that could harm the reputation of the advertisers' brand.⁴⁹² It is used to stop ads being displayed on webpages containing unsuitable content (for example, promoting illegal or conducting illegal activity), or next to content that is not suitable context for the ad. This is important for protecting the advertiser's reputation, and ensuring they do not pay for ads when they are displayed in an 'unsafe' context.⁴⁹³

Ad fraud

The final element of ad verification is preventing ad fraud, and identifying where ad fraud has occurred. In this context, ad fraud refers to ads being served or clicked on, without an actual individual being involved. It usually involves bots generating fraudulent 'views' or 'clicks'.⁴⁹⁴ Preventing and identifying ad fraud is important to advertisers because it stops them paying

⁴⁸⁹ Measuring the effectiveness of an ad campaign is very complex, particularly where an advertiser aims to increase their brand awareness instead of leading consumers to make purchasing decisions. Verification and attribution services will help to do this, but advertisers may also use other tools to assess how effective ad campaigns are. See for example, Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 13; IPG Kinesso, [Submission to Ad Tech Inquiry Issues Paper](#), 20 May 2019, p. 13.

⁴⁹⁰ See discussion in chapter 3, and for example, Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 16.

⁴⁹¹ For further detail see, IAB, AANA and MFA, Australian Digital Advertising Practices: 2020 Update, pp. 11-12.

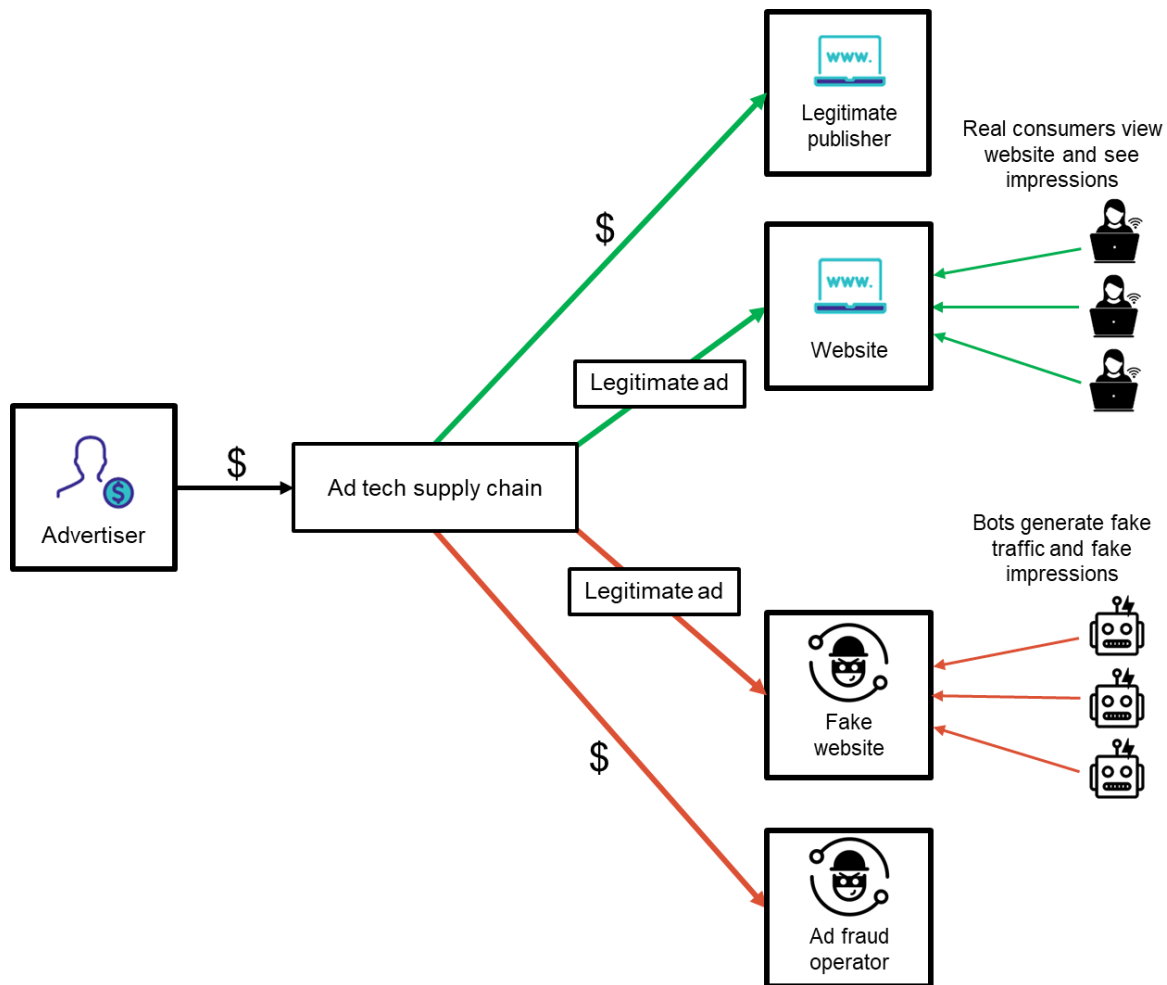
⁴⁹² See, IAB Australia, [Australian Digital Advertising Practices: 2020 Update](#), p. 16 and Competition and Markets Authority, [Appendix O to Online platforms and digital advertising market study final report, 1 July 2020](#), p. O9.

⁴⁹³ There are two elements to verifying brand safety. First, pre-bid verification which is checking that an ad impression is brand safe before they bid on it. This is important to advertisers as it stops ads being displayed in a way that may damage the reputation of their brand. Secondly, post-bid verification which is checking whether a served ad was shown on an 'unsafe' page or context. This is important so advertisers do not pay for ads that are shown on unsafe pages or contexts.

⁴⁹⁴ ACCC, [Digital Platforms Inquiry Final Report](#), 26 July 2019, p. 146.

for ad inventory which are fraudulently generated and of no value as it is not seen by an actual consumer. Figure 6.1 illustrates how this type of ad fraud can take place.

Figure 6.1: Example of fraudulent calling of ads in the ad tech supply chain



Ad attribution

Ad attribution is the process of tracking whether a consumer takes certain actions, such as signing up to a service or purchasing a product, after seeing an advertisement. Accurate and detailed ad attribution information is important to informing advertiser decisions about which service providers to use, which publishers to purchase inventory from, and also the form of advertising which is most effective. For example, it lets advertisers see which DSPs provide ads that lead to the greatest number of conversions. Additionally, if an ad tech provider charges an advertiser on the basis of a consumer taking a particular action (e.g. purchasing a product) after seeing an ad, ad attribution is important for advertisers to ensure that they only pay for ads when that action has occurred.

Ad verification and attribution services providers

As discussed in chapter 1, ad verification and attribution services are usually provided to advertisers by specialised providers (referred to in this report as verification and attribution providers). Ad verification and attribution providers usually supply services directly to an advertiser.⁴⁹⁵ In general these services are provided by suppliers who are independent of the

⁴⁹⁵ Some attribution and verification providers partner with DSPs (so that an advertiser using there service is able to more easily buy their services). Further, advertisers generally only use one advertiser ad server, but this often connects into multiple DSPs. As a result, ad verification and attribution providers usually connect to the advertisers chosen advertiser ad server, so that it is able to measure the performance of all the DSPs the advertiser use.

DSP, although some DSPs will enter partnerships with such suppliers so that advertisers are able to easily purchase verification and attribution services. Some DSPs also provide their own ad verification and attribution services.⁴⁹⁶ For example, Google provides verification and attribution for ads sent through its own DSP.⁴⁹⁷ The ACCC understand that Google's products only provide ad verification and attribution services for ads that are delivered using Google's own DSP services, and not for ads sold using other DSPs.

6.2.2. How publishers assess price and quality

There are a number of factors that are important to publishers when assessing the price and quality of supply side ad tech services. A key measure of performance of supply-side services appears to be the revenue that publishers receive for the sale of ad inventory on their websites using that service. Publishers also submit that information about how specific inventory is sold via auctions is important to their assessment of the effectiveness of supply-side services, and that this information is also used inform decisions about how they will sell their inventory in future. This information includes:

- bidding data on all bids made, including the names of all the bidders, their bid prices, and whether a bid succeeded or failed
- data about the impression sold, and the price it was sold for
- data about any header bidding that took place
- data provided in bid requests sent to DSPs
- the targeting parameters used by advertisers who participated in the auction
- the participation and win rates of the auction, and
- data transferred during an auction.⁴⁹⁸

Unlike advertisers who often rely on third parties to obtain the information necessary to assess the quality of the DSP they use, publishers are more reliant on their supply side providers to provide them with the information they require to assess the price and quality of these services.

6.3. Opacity of ad tech auctions

The first area where there appears to be a lack of transparency in the ad tech supply chain is over how ad tech providers' auctions operate, and the results of these auctions.

⁴⁹⁶ For example, the ACCC understands that Adobe, The Trade Desk, Google and Amobee all offer their own verification and/or attribution services.

⁴⁹⁷ Verification services are provided as part of Google's DSP services, and include fraud prevention, viewability and verification. See, Google, [Display & Video 360: Features](#), accessed 17 December 2020.

Google provides attribution services are provided through two analytics products, Google Analytics and Google Analytics 360. Google Analytics is a free product provided to users of Google's DSP service Google Ads. It provides conversion reports and basic attribution modelling. Google Analytics 360 is a paid product for users of any of Google's DSP services (Google Ads, Google Ad Manager or Display & Video 360). It provides conversion reports but also more advanced modelling. Google Analytics and Google Analytics 360 provide a range of data analysis tools, and are not only used for attribution functions. See, Google, [Analytics 360: Integrations](#); and [Google Marketing Platform: Analytics](#).

⁴⁹⁸ Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p. 2; Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 25-26; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, pp. 12-13; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 80-82.

6.3.1. Stakeholder concerns with opacity of auction mechanics and results

General concerns about the opacity of auctions

Both advertisers and publishers have raised concerns about the transparency of auctions in the ad tech supply chain, suggesting that they can be 'black boxes'.⁴⁹⁹

For example, SBS submits that there are barriers to accessing information that is relevant to making informed decisions about selling its ad inventory. This includes information about the operation of auctions such as 'bid and win' information. SBS considers that within a programmatic auction, ad tech services control the flow of information from the bidder to seller, and that each ad tech provider has a different level of transparency from the SSP to the DSP.⁵⁰⁰ Ad agency Omnicom Media Group similarly submits that auction data is available to varying degrees but is usually held by SSPs, and not necessarily widely available to agencies or advertisers.⁵⁰¹ The Australian Association of National Advertisers submits that, where an ad tech provider owns and operates the ad exchange and bidding systems as well as supplying the ad inventory, this can lead to a lack of transparency in the buying process and concerns that self-preferencing of inventory is occurring.⁵⁰²

Google's auctions are alleged to be opaque

Some stakeholders have raised specific concerns about the opacity of Google's Open Bidding service.⁵⁰³ For example, SBS submits that the Google's Open Bidding auctions are conducted in a 'black box' server-to-server environment with floor prices implemented internally, and that publishers do not receive sufficient auction information and reports.⁵⁰⁴ News Corp Australia submits that both publishers and advertisers face a 'perpetual lack of transparency' regarding Google's 'RTB [real time bidding] auctions' and that because Google's auctions operate in a 'black box' they enable Google to engage in 'a range of self-preferencing behaviours and arbitrage'.⁵⁰⁵ Geradin and Katsifis submit that a lack of transparency is a significant drawback of Google's Open Bidding product. They state that:

*Open Bidding suffers from an inherent lack of transparency as a server-side solution. ... Open Bidding is an auction organized by Google on its own servers and where it also participates, while collecting the bidding data of its rivals. Server-side solutions are inherently non-transparent, as commentators have observed. The same concern applies to the Unified Auction, which, much like Open Bidding, happens on Google's servers with Google collecting all the bidding data of its rivals.*⁵⁰⁶

While some stakeholders are concerned about the transparency of Google's auctions, and whether this can lead to self-preferencing, we also note that Google has stated that it has recently introduced measures which may provide advertisers with greater transparency over auction results. After conducting a 'Unified Auction' Google's publisher ad server provides certain (but not all) bidders with 'minimum bid to win information'.⁵⁰⁷ That is, Google provides

⁴⁹⁹ See for example, News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 32-33; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 11-12; Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p. 7.

⁵⁰⁰ Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p. 2.

⁵⁰¹ Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 25.

⁵⁰² Australian Association of National Advertisers, [Submission to Ad Tech Inquiry Issues Paper](#), 21 May 2020, p. 4. The potential for self preferencing is discussed in more detail in chapters 4 and 5.

⁵⁰³ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 32-34; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 12-13; Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p. 7; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, pp. 62-63.

⁵⁰⁴ Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p. 7.

⁵⁰⁵ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 32-34.

⁵⁰⁶ Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, p. 62-63.

⁵⁰⁷ J. Bigler, '[Rolling out first price auctions to Google Ad Manager partners](#)', Google Blog, 5 September 2019, accessed 7 October 2020.

them with the minimum price that they could have bid for an impression to win the auction. This information can be valuable to advertisers as they can use it to inform their bidding strategies.⁵⁰⁸

Information about auction results provided by Google to publishers

Some publishers have also raised more specific concerns about the level of information Google provides about auction results or outcomes. In particular publishers have submitted that they do not receive enough information about auction results from Google's SSP.⁵⁰⁹

Box 6.1 Matching Google's bid and impression level data

Before 2019, Google Ad Manager, (Google's combined publisher ad server and SSP service) provided publishers with data about bids made for their inventory, and separately, data about the individual impressions sold. Publishers were then able to link or match these two data sets, so that they were able to understand all the bids that were made for specific impressions.⁵¹⁰ Some publishers submit that being able to link these two sets of data is important to their decisions about how to optimise the revenue they receive from the sale of their ad inventory.⁵¹¹

However, in late 2019, Google changed the way that it provided these two sets of data to publishers. A result of the change was that publishers were no longer able to match the two data sets, and could not link data received about auctions, such as information on bids with information about the ad impression that was sold in the auction.⁵¹²

Some stakeholders submit that this change impacted publishers' ability to optimise their revenue and make informed choices about which supply-side ad tech services they use.⁵¹³ For example, News Corp Australia submits that linking these two data sets was necessary for publishers to evaluate the performance of ad tech providers, as it enabled publishers to assess the incremental revenue provided by the different providers. In addition, News Corp Australia submits that this data helped promote SSP competition, and that without it, competing ad tech providers will find it difficult to demonstrate their value compared to Google.⁵¹⁴ SBS also submits that Google has removed a number of key insights from its reporting tools which informed decisions around pricing and the effectiveness of Google's services when compared to others', and that this has been a significant challenge.⁵¹⁵

Google has cited privacy concerns as the reason for making this change to the information provided to publishers, explaining that the change was intended to prevent bid data from being tied to individual users.⁵¹⁶ Google has stated that it provides publishers that use its publisher facing service with extensive data, including non-aggregated, event-level data from the publishers ad campaign. It also states that the new Bid Data Transfer File product, provides publishers with additional transparency, as it shows all losing bids, and not just winning bids.⁵¹⁷ It submits that:

Given the additional level of information disclosed, it is not possible to join the Bid Data Transfer File with other report files in order both to respect users' privacy, and

⁵⁰⁸ Stakeholders have submitted that the way that Google shares such information also has the ability to raise issues about self-preferencing. This is discussed in detail in chapter 4.

⁵⁰⁹ This is the introduction of Unified First Price Auctions, which is discussed in chapter 5.

⁵¹⁰ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 70-71.

⁵¹¹ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 70.

⁵¹² J. Bigler, '[Rolling out first price auctions to Google Ad Manager partners](#)', Google Blog, 5 September 2019 accessed 7 October 2020.

⁵¹³ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 52 & 70-71; Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p. 3.

⁵¹⁴ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 52 & 70-71.

⁵¹⁵ Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p. 3.

⁵¹⁶ J. Bigler, '[Rolling out first price auctions to Google Ad Manager partners](#)', Google Blog, 5 September 2019, accessed 7 October 2020.

⁵¹⁷ Confidential submission from Google (published with consent).

*to comply with Google's contractual confidentiality obligations to buyers concerning lost bids. Google provides sufficient information to publishers to enable them to compare between SSPs and optimise monetisation of their inventory.*⁵¹⁸

Further, Google has submitted that the concern that the design of Bid Data Transfer may affect how publishers monetise their inventory and may affect competition among ad exchanges is unsubstantiated, and publishers can still compare the performance of Google and non-Google SSPs to each other by running controlled experiments.⁵¹⁹

Some stakeholders expressed doubts about this justification.⁵²⁰ For example, News Corp Australia submits that the change is not a requirement of any existing proposed privacy regulation and is not necessary to protect user privacy.⁵²¹

6.3.2. Preliminary views

A lack of transparency over auction processes and results can restrict the ability of publishers and advertisers to make fully-informed decisions about which ad tech providers to use. In particular, advertisers may not be able to access all the information necessary to inform their bidding strategies and publishers may not have access to all the information necessary to verify the prices charged or to assess how best to sell their inventory. We also note that a lack of transparency over auctions can increase the risk of vertically integrated providers engaging in self-preferencing conduct in auctions. We discuss these issues in more detail in chapter 4.

The ACCC is still considering the extent of these issues, and we will further investigate the level of transparency over auctions and the sufficiency of auction information provided to advertisers and publishers. In particular, the ACCC will look closely at whether publishers receive sufficient information from Google's SSP and other SSPs, as well whether there are legitimate reasons for limiting the types of auction information that can be provided to publishers.

Further, Google's submission indicates that it is not able to provide publishers with certain information due to 'contractual confidentiality obligations to buyers.' The ACCC is still considering such obligations, and whether such confidentiality issues would arise for non-vertically integrated providers. However, it is possible that if such contractual obligations limit what an integrated provider is able to share with publishers, it is an example of an integrated operator being unable to act in the interests of both its advertiser and publisher customers. Such conflicts of interest are discussed in chapter 4.

Questions for stakeholders

The ACCC is seeking submissions from stakeholders on the following questions to help it assess whether advertisers and publishers receive sufficient information to make informed choices about the services and providers they will use. Specifically, we are seeking responses to the following questions:

1. What information do you need about auctions used by an ad tech provider to assess and compare their services to others in the supply chain?
 - (a) Why do you need this information and how do/would you use it?
 - (b) Do you receive this information?
 - (c) If you do not receive this information, have you sought to obtain this information?

⁵¹⁸ Confidential submission from Google (published with consent).

⁵¹⁹ Confidential submission from Google (published with consent).

⁵²⁰ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020; Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 15.

⁵²¹ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 109.

2. What information do you require, and what do you receive, on the following:
 - (a) the factors which are used by an auction algorithms to select the winning bidder?
 - (b) the factors used by a bidding algorithm to determine a bid price?
 - (c) Post-auction information?
3. Are there differences in the auction information provided by ad tech providers? If so please explain these differences?

6.4. Transparency over the pricing of ad tech services

The second area where stakeholders have raised concerns about transparency is over the pricing of ad tech services. Two specific issues were raised in relation to transparency of price and fee information. First, some publishers raised concerns about their ability to verify the accuracy of what they are charged for Google's supply side services. Secondly, a number of stakeholders raised concerns about their ability to see fees or other 'take-outs' across the *whole* supply chain. These issues are discussed below.

6.4.1. Verifying Google's supply side charges

Some publishers raised concerns about their ability to verify the accuracy of the bills they receive for using Google's supply side services. That is, that they are unable to fully check that the charges they are billed for by Google are accurate and have been calculated correctly because Google does not provide them with enough information to conduct such checks.

SBS submits that for some auctions run by Google's SSP, the sale price and revenue information SBS receives are unverifiable, and SBS 'assumes with a level of trust that the correct revenue share has been deduced. Therefore, there is a lack of transparency as to how the 'price' has been calculated in these instances'.⁵²² It states that for some areas of Google's SSP, 'bid cost per-mille (CPM), clearing CPMs and total gross revenue information has been removed. Revenue is reported as 'net' with the reports of Google's revenue share rather than the total sales price.'⁵²³ Another publisher submits that upcoming changes to the information provided to publishers by Google will mean that publishers do not have the information necessary to determine whether advertising intermediaries are complying with revenue share agreements and will be less able to make direct deals with advertisers. These changes include rounding time-stamps of ad transactions, removing the identity of the winner advertiser bidder, and preventing publishers from joining auction data with their internal data.

ACCC's preliminary views

The ACCC is concerned by the possibility that publishers are unable to verify the accuracy of the invoices they receive from Google, as this has the potential to harm competition for publisher side ad tech services, and lead to inefficient pricing of inventory. The ACCC notes that the concerns it has received relate specifically to Google, but would be interested in understanding if stakeholders also have these concerns about other supply side services. The ACCC is still considering the extent of these issues, and is seeking stakeholder views on whether publishers are able to verify the fees they are charged by supply-side services.

⁵²² Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p. 3

⁵²³ Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p. 3.

Questions for stakeholders

4. Do publishers currently receive sufficient information from SSPs to verify the accuracy of the fees charged?
5. Does the availability of such information vary between SSPs?

6.4.2. Transparency of fees or take rates across the supply chain

The second price transparency issue raised during the Inquiry is advertiser and publisher visibility over the level of fees or ‘take out rates’ across the whole supply chain. We are still considering whether advertisers and publishers are generally able to understand the fees charged by providers they contract with. However it does seem clear that publishers and advertisers are not able to access information on the fee or take rates *across* the ad tech supply chain for an advertising opportunity which they purchase or sell. This is because they cannot see fees or take rates where they are not the purchaser of the service.

This section discusses the lack of visibility over these fees or takeout rates. A more detailed discussion about the level of the fees across the supply chain is contained in chapter 5.

Stakeholder views

A number of stakeholders, particularly publishers, expressed strong views about the transparency of fees across the ad tech supply chain.

Publishers submit they are unable to see what advertisers pay for their ad inventory, and that they cannot track the fees charged across the supply chain.⁵²⁴ Some stakeholders also submit that a lack of transparency over such fees made it difficult for them to make effective decisions about ad tech services. For example, Free TV submits that not having access to, or not being able to understand, this information increases opacity and limits their ability to make informed choices regarding suppliers, and maximise their profits.⁵²⁵

Similarly, The Guardian submits that a lack of consistent, verifiable data means that it is hard to access basic information regarding transactions that take place within the ad tech supply chain.⁵²⁶ It submits that it cannot easily determine the price at which its inventory is sold and that ‘The online advertising market is currently operating in the absence of consistent market data or the ability for advertisers or publishers to gain reliable access to that data’.⁵²⁷

The AANA also considers that it is difficult for advertisers to audit their advertising spend across the supply chain and that attempts are ‘met with confusing approval processes and sometimes refusal to provide data to independent auditors’.⁵²⁸ Similarly, Havas Media noted that some DSPs, such as Google’s, are not explicit on reporting details across their ad tech services, and the percentage of ad spend retained by their services is not clear.⁵²⁹

⁵²⁴ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 3; Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 17; Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, pp. 9-10; Commercial Radio Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020, p. 6-7; Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, pp. 2-3; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 82.

⁵²⁵ Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 17.

⁵²⁶ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, pp. 9-10.

⁵²⁷ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 26.

⁵²⁸ Australian Association of National Advertisers, [Submission to Ad Tech Inquiry Issues Paper](#), 21 May 2020, p. 3.

⁵²⁹ Havas Media, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 4.

ISBA Programmatic Supply Chain Transparency Study

In April 2020 ISBA in partnership with the Association of Online Publishers, produced a report on the level of fees across the ad tech supply chain (ISBA Programmatic Supply Chain Transparency Study).⁵³⁰ The study made findings about take rates across the supply chain (set out in chapter 4), but also expressed views on the transparency of these take rates.

A key finding of the study was that there were a number of challenges to determining take rates across the ad tech supply chain. It took PwC and ISBA more than a year to obtain the data required to conduct the study due to challenges with contracts, permission, data and technology, showing how difficult determining these fees or rates can be.⁵³¹ The study also found that there were a number of factors which contributed to these difficulties. These included difficulties for ad tech providers in sharing data, the complexity of the supply chain data, a lack of uniformity in data collection, and issues with impression matching.⁵³²

ACCC's preliminary views

Visibility over fees across the supply chain

The ACCC's preliminary view is that advertisers and publishers have little visibility over fees across the *whole* supply chain. While advertisers and publishers will clearly know how much they pay to their direct supplier, they generally are not aware of the fees charged by ad tech providers they do not directly purchase services from. Generally, advertisers do not see SSP fees and therefore how much of their ad spend reaches publishers. Similarly, publishers do not know how much advertisers have spent on the inventory, or the fees of DSP and advertiser ad servers.

Further, because advertisers and publishers do not see the level of bids at different levels of the supply chain, or the levels of fees charged across the *whole* supply chain, they also may not have visibility over whether any ad tech providers are retaining undisclosed fees or amounts. A more detailed discussion about the undisclosed fees is included in chapter 5.

These preliminary views are consistent with the CMA's recent findings in its market study into online platforms and digital advertising, that many of the concerns around ad tech fees related to a lack of transparency in the ad tech stack, and that this makes it very difficult for advertisers and publishers to audit and verify the fees they are being charged.⁵³³

Google has recently taken measures which may help to increase transparency over its fees across the supply chain. In 2019 it published a blog post where it stated that when ads were traded using Google's ad tech products, publishers keep 69% of the total amount paid by advertisers.⁵³⁴ Further, it has provided a public submission prepared by RBB Economics to this Inquiry which presents take rates for some of its main products based on a sample of one week's transactions.⁵³⁵

While this is an improvement for advertisers and publishers, the ACCC's preliminary view is that this does not fully address issues over the visibility over fees. First, it is only a point in time measure of the average amount of ad spend that reaches a publisher, and it is possible that this could change over time, and differ for different advertisers and publishers. Secondly, these measures have not been verified by any third party, and require publishers

⁵³⁰ ISBA and AOP commissioned PwC to carry out the study.

⁵³¹ ISBA/PwC, [ISBA Programmatic Supply Chain Transparency Study](#), May 2020, p. 7.

⁵³² ISBA/PwC, [ISBA Programmatic Supply Chain Transparency Study](#), May 2020, p. 7.

⁵³³ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, 5.244.

⁵³⁴ S Hsiao, [How our display buying platforms share revenue with publishers](#), Google Ad Manager (Google Blog), 23 June 2020, accessed 21 December 2020.

⁵³⁵ RBB Economics, [Google's ad tech rates: Analysis of Google auction level data sets](#), 20 October 2020, provided as a submission to the ACCC Ad Tech Inquiry.

and advertisers to trust the accuracy of these measures provided by Google. Finally, the average figures provided by Google are calculated based on samples of transactions where an ad impression is sold exclusively through Google services, which will often not reflect how transactions occur in the ad tech supply chain.

We also note that recent work presented in chapter 4, as well as reports by the CMA, ISBA, may help to provide some insight into the level of fees across the supply chain. Again, while these reports help to improve broad understanding about the levels of take rates, they do not allow publishers or advertisers to undertake the type of detailed consideration of fees necessary to optimise buying and selling decisions.

Implications of a lack of transparency

The ACCC is continuing to consider the broader implications of the lack of transparency across the supply chain but makes the following preliminary comments. First, advertisers and publishers not having visibility over the proportion of advertiser spend that makes it to the publisher could cause a lack of trust and confidence in ad tech markets. For example, it appears that at least a proportion of advertisers are concerned about the potential for ad tech providers to engage in self-preferencing behaviour, or retain undisclosed fees when participating in auctions. As discussed above, this may mean that publishers or advertisers decide not to buy or sell inventory using the ad tech supply chain, or that they may use these services less.

Secondly, submissions suggests information about the prices or fees charged by providers across the whole supply chain, and not just their direct providers, is important for advertisers and publishers to be able to make informed decisions regarding the purchase and sale of ad inventory.⁵³⁶ For example, having access to information about fees across the supply chain may promote competition through allowing advertisers to engage in ‘supply side optimisation’ and also enabling publishers to select the best ways to sell their inventory. These are each outlined below:

- *Supply-side optimisation:* Stakeholders have submitted advertisers need to understand the take rates across the supply chain to enable them to focus their expenditure on efficient service providers.⁵³⁷ The CMA recently found that because publishers decide which ad should be served based on net bids, visibility of SSP’s fees could make it easier for advertisers to select the cheapest way to secure inventory, and for DSPs to decide where to bid. Consequently, lack of transparency may result in reduced competition between SSPs in attracting buyers.⁵³⁸
- *Selecting the best buying and selling channels:* As described at chapter 1, advertisers are able to purchase display advertising through channels other than open auction, such as programmatic direct, and direct deals. This is a source of competitive pressure for DSPs, as it can result in publishers and advertisers contracting directly. As noted recently by the CMA, without information regarding what advertisers are interested in their inventory, and how much DSPs are charging advertisers, it is difficult for direct deals to be an effective competitive constraint on programmatic auctions.⁵³⁹

The ACCC is seeking stakeholder views on the level of transparency of take rates and the impact this is having on competition and efficient outcomes in the ad tech supply chain.

⁵³⁶ Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 17-18; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 52; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, pp. 12-13.

⁵³⁷ Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, pp. 17-18; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 52; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, pp. 12-13.

⁵³⁸ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, 5. 335-6.

⁵³⁹ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, 5.335.

Questions for stakeholders

The ACCC is seeking stakeholder views on the currently level of transparency of fees across the supply chain, as well as the impact this is having on advertisers and publishers:

6. What information about fees charged across the supply chain is available to advertisers and publishers?
 - (a) Why do you need this information and how do/would you use it?
 - (b) Do you receive this information?
 - (c) If you do not receive this information, have you sought to obtain this information?
7. What additional information about fees or take rates to advertisers and publishers require?
8. How does a lack of information about fees or take rates impact the ability of advertisers and publishers to make informed choices about how they will use services in the ad tech supply chain?

6.5. Transparency over the performance of demand-side services and digital display advertising

The third transparency issue identified is the ability of advertisers to assess the performance of DSP services and their digital display advertising campaigns. First, it considers issues raised by publishers about the quality and reliability of the verification and attribution services available. It then looks at transparency issues that can arise, where ad tech providers *do not* provide third party verification and attribution providers with access to their services, or information, and how this can affect advertisers' ability to effectively and fully assess the performance of these services, and their ad campaigns.

6.5.1. Quality and reliability of ad verification and attribution services

Publisher concerns

Some publishers submit that current verification and attribution services are not effective tools for advertisers to consider the performance and quality of DSP services or digital advertising.

The Guardian has questioned whether the brand safety and fraud measures offered by measurement and verification providers are effective. They refer to the UK ISBA/PWC report which found that for the 15 advertisers that took part in the study, advertisers' ads appeared on an average of 40,524 websites, most being 'non-premium'.⁵⁴⁰ The Guardian submits that this raises questions about how effective verification services can be in preventing ad misplacement if ads were delivered to such a large number of websites. In addition, it questions how any advertiser could meaningfully analyse or assess whether they are happy for their ads to appear on so many websites, and to know whether their ads have been subject to ad fraud.⁵⁴¹

In its submission, Commercial Radio Australia also questions the reliability and robustness of measurement and verification services providers and the metrics they use. It submits that these services should be subject to greater scrutiny, as they are not as reliable or robust as measures that apply to audience measurement on other media.⁵⁴² It notes a range of practices that are deployed to make digital display advertising appear more successful than it is, due to issues such as impressions not being viewed, the fact that the time a user engages with the content is not measured, the potential for double counting, and the exclusion of some metrics.⁵⁴³ Similarly, SBS submits that current measurement and

⁵⁴⁰ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, June 2020, p. 12.

⁵⁴¹ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, pp. 12-13.

⁵⁴² Commercial Radio Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020, April 2020, pp. 3-4.

⁵⁴³ Commercial Radio Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020, April 2020, pp. 3-4.

verification information provided is not sufficiently transparent, and that applying accountability measures that apply to broadcast services may improve advertiser confidence in those metrics.⁵⁴⁴

Google submits that digital advertising measurement tools are relatively more accurate than tools available for traditional media. Reasons for this include that it is based on actual data, rather than extrapolations based on smaller data sets, and it allows for real time measurement of the effectiveness of campaigns.⁵⁴⁵

ACCC's preliminary views

The ACCC considers there are likely some inaccuracies or inconsistencies in the way verification and attribution providers measure the performance of ads. However, it does *not* appear that third party ad measurement and verification services are generally of poor quality, and prevent advertisers comparing providers.⁵⁴⁶ The ACCC has reached this preliminary view for a number of reasons.

First, concerns about the ability of measurement and verification providers to accurately identify reputable websites have not been raised by multiple stakeholders. In particular, no advertisers or ad agencies have raised concerns.

Secondly, there are a number of third party ad measurement and verification providers operating in Australia, and the industry is considered to be moderately competitive by most stakeholders who submitted on the issue.⁵⁴⁷

Thirdly, while the information the ACCC has received so far suggests ad fraud is still a significant issue in digital advertising, the industry appears satisfied with the measures being introduced by the industry to address the issue. The ACCC did not receive submissions that raised any issues with the ability to combat this type of ad fraud. Instead, consistent with the findings in the DPI, a number of stakeholders submitted that the industry had taken a number of steps to address ad fraud.⁵⁴⁸ For example, the Interactive Advertising Bureau submitted it has introduced a range of industry measures in Australia that are aimed at reduced the occurrence of ad fraud, such as 'ads.txt', 'ads.cert', and 'sellers.json'.⁵⁴⁹

Concerns about measures taken to prevent fraudulent or scam ads being delivered to publishers, are discussed further below.

Finally, in relation to concerns that advertising in other media is subject to more rigorous standards, there are standards and accreditations in digital advertising, which can perform a similar role to standards used in traditional media.

While it does not appear that there are significant problems with the reliability of verification and attribution services or the measures they produce, the ACCC is seeking stakeholder views, particularly those of advertisers, ad agencies and publishers on these preliminary findings.

Questions for stakeholders

The ACCC is seeking feedback from advertisers and publishers regarding their satisfaction with the service provided by verification and attribution providers, including on the following issues:

⁵⁴⁴ Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, pp. 3-4.

⁵⁴⁵ Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 18.

⁵⁴⁶ We note that the exception to this is where the attribution and verification provider does not have sufficient information due to the platform restricting the way it can perform its functions.

⁵⁴⁷ See for example, WPP AUNZ, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020; Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 16.

⁵⁴⁸ ACCC, [Digital Platforms Inquiry Final Report](#), 26 July 2019, pp. 145-150.

⁵⁴⁹ IAB Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 21 April 2020, pp. 5-6.

9. Are you satisfied with the services provided by verification and attribution providers? If not, what are you not satisfied with regarding their service?
10. Do you consider that the metrics you received from your verification and attribution provider are accurate?
11. Would you be able to switch measurement and verification providers if you wanted to? What are the largest obstacles to you switching, if any?

6.5.2. Concerns about verification and attribution of Google's services

While there do not appear to be issues with the reliability of the third party attribution and verification services generally available, there are concerns with the ability of advertisers to fully consider the performance of particular ad tech services, and ad campaigns.

These primarily relate to claims that Google's conduct impedes the ability of third party attribution and verification providers to fully and effectively assess the performance of ad impressions purchased on YouTube.

Third party verification of Google's DSP services

Another area where transparency concerns have been raised is the ability of advertisers to effectively and independently verify the performance of Google's DSP services through the use of third party services. While verification services are often provided by third party verification providers, who are independent of the DSP, DSPs can provide verification services for ads sent using their services.

Where a DSP provides its own verification measures, it may be important that advertisers have the option of effectively independently verifying the performance of the DSP's services. This is because it is not possible to fully assess the performance of DSP services without obtaining verification measures, and where they provide their own verification service, the DSP may, in some cases, have incentives to overstate the performance of their services. This has the potential to make accurate comparisons across providers difficult.

Currently, Google does also allow some third party verification providers with access to its advertiser ad server and DSP to verify the performance of ads delivered using its DSPs.⁵⁵⁰ However, advertisers may still not be able to fully and independently verify the performance of all aspects of Google's DSPs as discussed below.⁵⁵¹

Stakeholder concerns

Third party measurement providers are able to partner with Google so that they can verify the performance of Google's DSP services.⁵⁵² However, stakeholders have submitted that it is not always possible to independently verify the performance of ads sent using Google's DSP to YouTube.⁵⁵³ This can be problematic because, as discussed in further detail in chapter 4, YouTube inventory is not able to be purchased with non-Google DSPs.

Box 6.2: Restrictions on independent verification of ads on YouTube

Prior to 2019, advertisers were able to use third-party verification providers to directly collect verification information on ads shown on YouTube. Verification providers did this by placing verification tags on the YouTube ads. The verification providers would then collate and analyse the

⁵⁵⁰ See Google, [Google Measurement Partners](#), and B Pahlavan, [Google Measurement Partners: Trusted measurement solutions for the entire customer journey](#), both accessed 17 December 2020.

⁵⁵¹ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 7.

⁵⁵² Google, [Google Ads Help: Third party measurement implementation request](#), accessed 17 December 2020; Google, [Display & Video 360 Help: Third party measurement implementation request](#), accessed 17 December 2020.

⁵⁵³ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 18-19; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 56.

information they received using these tags and report on the verification measures for these advertisers.

However, stakeholders have submitted that since May 2020, Google has restricted the ability of third-party verification providers to place tags on ads delivered to YouTube, meaning that the verification providers are not able to verify the performance of these ads in the same way as they can other ad inventory. Instead third party verification providers are now only able to verify ads shown on YouTube using aggregated data made available on Google's Ads Data Hub.⁵⁵⁴

Reasons for the restrictions

In a blog post explaining the reasons for introducing the changes to YouTube, Google stated that third-party pixels (verification tags) lack the privacy controls and user protections of newer technologies and noted pixels couldn't be used to report on ads appearing in mobile apps. Google stated that Ads Data Hub provides advertisers with the ability to assess the performance of YouTube ads across devices, and ensures a provided a secure and privacy-safe environment.⁵⁵⁵

Oracle and News Corp Australia consider these changes limit the ability of advertisers to fully verify the performance of their ads on YouTube.⁵⁵⁶

Oracle submits that while advertisers are able to engage the services of third party verification providers via the Google Ads Data Hub, these providers are only able to access aggregated measurement data that is limited to specific metrics, and not any raw data.⁵⁵⁷ Oracle submits this means it is not able to determine whether the data provided is accurate and that they are only able to consider the metrics provided by Google. For example, Oracle considers that it is not possible to see information about the type of video that the ad appears on or next to, which can create brand safety issues.⁵⁵⁸

News Corp Australia submits that this change gives Google complete control over advertisers' access to data about YouTube ads, and prevents rivals from producing more sophisticated independent analytics. News Corp considers that this consequently limits other advertiser ad servers and verification providers from competing with Google, and from differentiating their services through innovation.⁵⁵⁹

Google has submitted that third parties are able to access ad log data, but 'in a privacy centric manner':

Third party measurement providers who are integrated into Ads Data Hub are able to submit queries that result in the processing of ad log data - this enables third parties to evaluate and measure ad log data in a privacy-centric manner. Data can then be exported from Ads Data Hub in aggregated form (for privacy reasons) and third party providers are able to report on advertising viewers' aggregate age and gender demographic distribution on YouTube, as well as reach, frequency, target rating points (TRPs) and gross rating points (GRPs).⁵⁶⁰

The ACCC's preliminary views

The ACCC is concerned that advertisers may not be able to fully verify the performance of Google's DSP services when it is used to purchase ad inventory on YouTube. This may be more problematic as YouTube inventory cannot be purchased using non-Google DSPs.

⁵⁵⁴ Google, [YouTube Certified External Vendors](#), accessed 17 December 2020.

⁵⁵⁵ N Sowrirajan, '[Investing in the next generation of measurement on YouTube](#)', 16 October 2019, Google Blog, accessed 22 October 2020.

⁵⁵⁶ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, pp. 18-19; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 56.

⁵⁵⁷ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, pp. 18-19. These include whether the ad was served, whether it appeared on the screen, how much of the ad appeared on the screen, how long the ad was on the screen, and for video ads, whether the ad was played, how long it was played, and whether the sound was on.

⁵⁵⁸ This is because the page URLs are not made available. See Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 18.

⁵⁵⁹ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 56.

⁵⁶⁰ Confidential submission from Google (published with consent).

Further, the lack of full verification may also create a risk that Google is not providing accurate verification data for ads shown on YouTube. As Google is both the DSP and the publisher here, it may have the ability and incentives to overstate the reported performance of these ads.

As a result the ACCC is continuing to investigate whether the information provided using the Data Ads Hub is sufficient for third party verification providers to effectively verify the performance of YouTube inventory.

We note that in the DPI Final Report the ACCC stated that market driven solutions appear to be solving issues around verification and the measurement of ads. A factor that contributed to this conclusion was Google obtaining accreditation from the Media Ratings Council for various measurement and performance metrics, as well as accreditation for integration with third party verification companies. However, the ACCC considers that it is important to examine this specific issue in more detail in this inquiry because it has been raised as a concern by stakeholders and the change was only introduced in 2018, as the DPI Final Report was being finalised.

Further, we note the CMA's recent finding that there was a strong case for greater transparency over verification data and that Google should give advertisers access to the tools or information necessary to carry out their own, independent verification of advertising purchased on the inventory owned and operated by Google.⁵⁶¹ In addition, the Japanese Headquarters for Digital Market Competition found there were a number of problems in the quality of verification services provided in digital advertising markets. It found that among advertisers there is dissatisfaction that the 'number of views (which is the basis for billing)' is not objectively measured by a third party. To address this, it recommended that third parties be given access to platforms to conduct measurement of viewability and reach.⁵⁶²

In its submissions to the Issues Paper and to the DPI Google has suggested that intervention to improve transparency of the performance of its DSP services is not warranted or desirable. Google submits that it has strong incentives to invest and innovate in providing metrics and other relevant information to assist advertisers and publishers in making informed choices between different ad tech providers, and that it provides such information.⁵⁶³ Google also notes that if it does not do this, advertisers and publishers can simply take their business elsewhere.⁵⁶⁴

However, the ACCC considers that many advertisers may not simply be able to switch to alternative DSPs if they are not satisfied with the transparency of Google's DSP, given YouTube inventory is not available through other DSPs and Google's DSP services are considered 'must haves' for many advertisers (as discussed in chapter 3). As a result Google may not necessarily have incentives to allow full independent verification for ads delivered to YouTube.

Google also submits that a compromise must be made between promoting transparency in ad tech markets and protecting user privacy and, as noted above, has provided privacy considerations as a reason for limiting the ability of third parties to independently verify YouTube inventory.⁵⁶⁵

As discussed earlier, the ACCC considers it is important to take privacy concerns into account when considering measures that may promote competition. However, the ACCC is still considering whether the measures adopted by Google in relation to verification of

⁵⁶¹ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 403.

⁵⁶² See Prime Minister of Japan and His Cabinet, Headquarters for Digital Market Competition, [Interim Report on the Evaluation of Competition in the Digital Advertising Market: Summary](#), June 2020.

⁵⁶³ Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 18.

⁵⁶⁴ Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 18-19.

⁵⁶⁵ Confidential submission from Google (published with consent); Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 19.

YouTube ads is necessary for privacy reasons. We note that the CMA recently found that it is unclear how the data involved in verification of viewability and brand safety necessarily needs to involve personal data, and that it should be possible to put in place contractual arrangements to facilitate the sharing of data necessary for independent verification of viewability and brand safety.⁵⁶⁶

To assist the ACCC in its consideration of this issue, the ACCC is seeking submissions on the ability to verify the performance of DSP services, and in particular the performance of YouTube inventory delivered using Google's DSP.

Questions for stakeholders

12. Are advertisers able to independently verify the performance of ads served on YouTube?
13. Can third party verification and attribution providers access sufficient data through the Google Data Ads Hub to independently verify the performance of ads served on YouTube? If not, what data do verification and attribution providers require access to in order to perform this function?
14. Does providing third party verification providers with access to raw data, or allowing them to place verification tags (or pixels) on ads, create privacy concerns?

Third party attribution services

The second issue raised by stakeholders is that Google's conduct has limited the ability of third party attribution service providers to provide services, and that this could affect advertisers' ability to fully and independently assess the effectiveness of their ad campaigns.

Removal of Google User IDs from impression information

Stakeholders identified Google's restrictions on access to 'user IDs' as a key example of conduct which may limit advertisers' ability to fully assess the effectiveness of their advertising through attribution services.

Box 6.3 – User IDs and why they are important to ad attribution

There are a number of types of attribution services, but two main types are multi-touch attribution and last touch attribution:

- **Last touch attribution:** This is where the 'credit' for a consumer's action is attributed just to last ad the user saw before taking that action.
- **Multi-touch attribution:** This is where the 'credit' for a consumer's action is attributed to the range of ads that they user saw across the internet, and across devices, before making a purchase. Multi-touch attribution is more valuable to advertisers, but also more difficult to carry out.

Ad tech providers use 'user IDs' to identify a particular user. These IDs are not common across ad tech providers, and each provider will use their own IDs to identify consumers.

In order to provide multi-touch attribution, an attribution provider needs to be able to track each time a user sees an ad. Because advertisers can use more than one DSPs to purchase ad inventory, an attribution provider needs to be able to match up the IDs used by the different DSPs so that it can see where a single user has been exposed to the ad campaign.

Before 2018, the ACCC understands that advertisers using Google's advertiser ad server or DSP were able to export data about each impression sold, including the ID of the user the impression was shown to.⁵⁶⁷ The advertiser's attribution provider was then able to match this data with data received from other DSPs used by the advertiser, and track each time the

⁵⁶⁶ Competition and Markets Authority, [Appendix O to Online platforms and digital advertising market study final report, 1 July 2020](#), p. 15.

⁵⁶⁷ A Weissbrot, [Google Sharply Limits DoubleClick ID Use, Citing GDPR](#), adexchanger, 27 April 2018, accessed 23 September 2020.

user was exposed to the advertiser's campaign.⁵⁶⁸ The ability to assess the performance of ads delivered by Google's DSP is important to providing attribution services because many advertisers use Google's DSPs services, and assessing these ads is important to attribution modelling.

From 2018, Google began limiting the user ID information that could be accessed by advertisers.⁵⁶⁹ This has already begun in Europe for YouTube inventory, and from 2021, user ID will not be provided globally.⁵⁷⁰ Instead, Google will make attribution data available in aggregate form through Google's Ads Data Hub. Stakeholders have submitted that this will mean that attribution of Google's services will not be possible unless accessed through Google, with some suggesting it will be 'marking its own homework'.⁵⁷¹

Oracle submits that this will make it very difficult for attribution providers to provide multi-touch attribution services. This is because attribution providers will not be able to take a consumer's exposure to ads delivered using Google's DSP services into account. Oracle submits that as a result of the change if an advertiser wants to be able to use data from across its campaign to measure attribution (and get a picture of how effective its whole campaign is), they will have two choices. First, they could elect not to use Google's services, which is not an option for many advertisers. Secondly, they could rely only on Google's ad tech products, and its attribution tools.⁵⁷²

Google has said that it has restricted access to user IDs to meet requirements under the GDPR, and because of its 'ongoing commitment to privacy'.⁵⁷³ Google has stated that, '[t]he decision by Google to announce that it will deprecate the sharing of individual user IDs with buyers has been driven by privacy principles. Google notes that it is investing in the Google Ads Data Hub which will allow, Google to provide data to advertisers and maintain end-user privacy'.⁵⁷⁴

Some stakeholders do not consider that such changes are necessary to protect user privacy or comply with privacy legislation.⁵⁷⁵ For example, Oracle submits that user IDs are not personal information, and that other ad tech providers continue to provide user IDs in compliance with privacy laws.⁵⁷⁶ In addition, News Corp Australia considers that Google's stated privacy concerns are not consistent with its internal treatment of data, which it makes available on Google's Cloud.⁵⁷⁷ Further, Free TV submits that it is concerned that Google made these changes to ensure that it remains data gatekeeper, and that there is no potential for a competitor to provide competing datasets over time.⁵⁷⁸

Impact of Google's proposal to block of third party cookies on Chrome

In addition, some stakeholder have raised concerns about Google's decision to block third-party cookies in its Chrome browser, and the impact that this will have on attribution

⁵⁶⁸ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, pp: 20-21.

⁵⁶⁹ Free TV, [Submission to Ad Tech Inquiry Issues Paper](#), May 2020, p. 15; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 109; Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p 20; Special Broadcasting Service, [Submission to Ad Tech Inquiry Issues Paper](#), 11 May 2020, p. 4.

⁵⁷⁰ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 20.

⁵⁷¹ Free TV, [Submission to Ad Tech Inquiry Issues Paper](#), May 2020, p. 15; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 7.

⁵⁷² Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 20.

⁵⁷³ A Weissbrot, [Google Sharply Limits DoubleClick ID Use, Citing GDPR](#), adexchanger, 27 April 2018, accessed 23 September 2020.

⁵⁷⁴ Confidential submission from Google (published with consent).

⁵⁷⁵ Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, pp. 32-33; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 107-108, Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020.

⁵⁷⁶ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 20.

⁵⁷⁷ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 107-108.

⁵⁷⁸ Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 15.

services.⁵⁷⁹ Stakeholders have submitted that these changes will limit the ability of ad attribution providers to track consumer behaviour across different websites. They consider also that this will further entrench advertisers' reliance on Google's ad tech services for attribution.⁵⁸⁰

The effect of the proposed changes will depend on how the changes to Chrome are implemented, and what other ad tech providers are able to do in the 'Privacy Sandbox' that is meant to replace the use of third party cookies. Changes to third party cookies on Chrome are discussed in detail in chapter 2.

ACCC's preliminary views

The ACCC is concerned that limiting access to user IDs, and changes to the treatment of cookies on Google Chrome have the potential to lessen the ability of advertisers to fully and independently consider the performance of Google's services using third party attribution providers. In particular we are concerned that third party attribution providers will be less able to provide independent attribution of ads delivered using Google's services, and as a result that they will also be less able to provide multi-touch attribution services which allow advertisers to assess the success of campaigns.

Further, similar to the verification of DSP services, we note that where a DSP also provides attribution services, they may have incentives to inflate the performance of ad inventory delivered using their own services, or where they are also a publisher, the performance of their own ad inventory. Overall, this could limit the ability of advertisers to fully consider the performance of competing DSPs, which may harm competitive pricing and innovation between DSPs.

Recent findings by the CMA suggest that the restrictions discussed above could raise competition problems in Australia. In the CMA's Final Report, it found there were issues in the ability of advertisers to carry out independent attribution, and that that decisions by Google had made third party attribution more difficult.⁵⁸¹

The CMA concluded that that platforms with substantial market power have an incentive to increase the reliance on their own measurement systems and to make it more difficult for third parties to implement their own independent means of assessing quality (e.g. by removing or preventing access to the underlying user data necessary to carry out independent attribution analysis). They considered that this may give these platforms the opportunity to raise the effective price of advertising. They also found that without the ability to carry out independent attribution there is a risk that advertisers overpay for advertising purchased from Google and Facebook and misallocate their advertising expenditure relative to other sources of supply.⁵⁸²

However, the ACCC is still examining the ability of advertisers to conduct full and independent attribution of Google's DSP services. In particular we will further consider the impact that limiting users IDs will have on the ability of advertisers to conduct full, multi-touch attribution services, including whether data provided through the Google Ads Data Hub will be sufficient for independent attribution to take place. Further, we are also still considering whether there are privacy considerations which justify the potential competitive impacts of

⁵⁷⁹ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 19-20; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p 109-110; Commercial Radio Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020.

⁵⁸⁰ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, p. 19-20; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p 109-110; Commercial Radio Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020.

⁵⁸¹ Competition and Markets Authority, [Appendix O to Online platforms and digital advertising market study final report](#), 1 July 2020, p. O24.

⁵⁸² Competition and Markets Authority, [Appendix O to Online platforms and digital advertising market study final report](#), 1 July 2020, pp. O23-24.

limiting the sharing of user IDs. To assist in this assessment, we are seeking further submissions from stakeholders.

Questions for stakeholders

15. Are advertisers currently able to conduct effective and independent attribution of their ad campaigns?
16. Will upcoming changes Google is making to the data it shares and Google Chrome affect advertisers' ability to conduct multi-touch attribution? If so, what will this impact be?
17. Will access to the data via the Google Ads Data Hub allow advertisers to conduct full and independent attribution of Google's DSP services?
18. Does the use of user IDs and cookies in providing attribution services create privacy concerns?
19. Do stakeholders consider there are any other issues with the ability to conduct attribution of ad tech services?

6.6. Proposals for consultation

The ACCC is continuing to consider the transparency concerns raised by stakeholders and the effect that the lack of opacity is having on competition and efficiency in the ad tech supply chain.

However, the ACCC has identified proposals which could help to address the potential transparency issues discussed above. We invite stakeholders to provide views on these proposals.

6.6.1. Third party verification of DSP services

The first proposal the ACCC is seeking views on is whether a measure should be introduced requiring all DSPs to allow third party verification and / or attribution providers with access to the information necessary to fully, and independently verify the performance of their services.

Proposal 4 – Implementation of a voluntary industry standard to enable full, independent verification of DSP services

To enable advertisers to assess DSP services fully and independently and encourage competition, industry should develop a standard that allows full and independent verification of DSP services.

This standard should set out minimum requirements for this, along with the categories of data necessary to enable third parties to provide full and independent viewability, fraud and brand safety verification services.

The ACCC considers that this should initially be left to industry to develop and implement, but that other options could be considered if this was not successful.

Such a recommendation would help to address potential issues with advertisers not being able to fully, and independently assess the performance of all aspects of Google's ad tech services.

The ACCC understands that many DSPs already allow this. Consequently, this proposal would primarily be necessary to only address issues with advertisers' ability to fully and independently assess performance where it is not currently available.

There are a number of ways that this could be implemented. As a first step, an industry led solution would be encouraged where agreement around access would be reached on a voluntary basis.

As noted above, the ACCC is cognisant that proposals allowing access to data has the potential to create privacy issues and the solution would need to be carefully considered in order to protect consumers' privacy. In this respect, the ACCC notes there are a number of indicators that such a balance may be able to be achieved. First, it appears that many DSPs

currently offer full and independent verification and attribution of their services, and the ACCC is not aware of this creating privacy issues for such providers. Further, the CMA recently found that 'verification of viewability and brand safety does not necessarily need to involve the use of personal data.'⁵⁸³

Questions for stakeholders

The ACCC is seeking stakeholder feedback on proposal 4. In particular the ACCC is interested in advertiser, ad agency and measurement and verification providers' views on the following questions:

20. Do you have to access the data you need to conduct verification of Google's ad tech services? If not, what data do you require that is not available?
21. How does the ability to verify the performance of Google's DSP services compare to other DSPs?
22. What measures would be most effective to ensure that all DSP services can be fully and independently verified?
23. What are the risks to user privacy from third parties providing full verification services? Could such measures promoting this be implemented in a way that would protect the privacy of consumers?

6.6.2. Common transaction ID

A second proposal the ACCC is seeking stakeholder views on is the introduction of a common transaction ID system in the ad tech supply chain. The ACCC considers that such a recommendation could help to address issues around the transparency of auctions and fees or take rates across the supply chain.

This proposal could also be implemented as part of proposals to improve data portability and data interoperability, which are discussed in Chapter 2.

Proposal 5 – Implementation of a common transaction ID

Industry should implement a common system whereby each transaction in the ad tech supply chain is identified with a single identifier which allows a single transaction to be traced through the entire supply chain. This should be done in a way that protects the privacy of consumers.

A common transaction ID will allow providers across the supply chain, as well as advertisers and publishers to follow an impression across the supply chain. The transaction ID would essentially be attached to an impression. This would help to overcome a number of the transparency issues discussed above.

First, a common transaction ID could allow publishers to better understand how their inventory was sold at auction, including understanding the bids received for specific inventory by allowing them to match different types of transaction information provided to them by ad tech providers. For example, where publishers receive information about the bids or the price paid from their ad tech provider, they would be able to match this to the ad space that was sold regardless of the publisher ad server and SSP they use. While this would require SSPs and publisher ad servers to share information relating to the transaction with publishers, a common transaction ID which also protected consumer privacy may help to facilitate the sharing of such information. It could therefore help to overcome problems in matching bid and impression level data, and allow publishers to better consider the performance of supply side services, and assist publishers to make more informed decisions about the pricing of their inventory.

Secondly, a common transaction ID would allow for easier auditing of an advertiser spend across the supply chain. As discussed above, a key finding of the ISBA study was that PwC

⁵⁸³ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 410.

found it very difficult to match data across providers, such that fees could be tracked across the supply chain. A common transaction ID which protected user privacy, could help to facilitate the sharing of such information and would allow advertisers and publishers to better track the total fees that are retained across the supply chain. Enabling such independent auditing could improve confidence in ad tech services, promote greater price based competition and enable advertisers and publishers to make more informed choices about how to buy and sell inventory (as discussed above).

Finally, a common transaction ID could allow advertisers and publishers to engage with each other directly to decide how they buy and sell ad inventory, and how they will use the ad tech supply chain. For example, if advertisers and publishers were able to match prices paid and received for a single transaction ID, they would be able to determine how much ad spend was being retained in the supply chain overall. This could allow them to make better decisions on the best way to buy and sell inventory, including via direct deals, or using specific ad tech providers.

However, while there are a number of potential benefits of a common transaction ID, the ACCC is cognisant of the potential privacy concerns that may be associated with such a proposal. As noted above, Google has introduced a series of restrictions on the data it provides to publishers and advertisers purportedly for privacy reasons. Further the CMA, in making a similar recommendation, stated that 'the privacy implications of the introduction of a common transaction ID would need to be carefully considered'.⁵⁸⁴ However there are indications from stakeholders that such an ID could be implemented in a way that did this.

The ACCC agrees that the privacy implications of using a common transaction should be carefully considered in deciding whether a common transaction ID should be introduced.

Questions for stakeholders

We are seeking stakeholder feedback on whether a common transaction ID would be effective to address potential transparency issues, and whether it is possible to implement a common transaction ID in a way that protects user privacy. In particular:

24. Would a common transaction ID assist in making pricing and auctions more transparent?
25. What risks does a common transaction ID pose to user privacy?
26. How could a common transaction ID be implemented in a way which mitigates any risks to consumers' privacy?
27. How should such a recommendation be implemented?

6.6.3. Common user ID

The third proposal the ACCC is seeking submissions on, is whether the introduction of a common user ID could be used to improve the ability of third parties to provide independent attribution services. A common user ID is different to a transaction ID, in that it allows the tracking of a user (subject to privacy protection) rather than the bids for a particular advertising impression.

Proposal 6 – Implementation of a common user ID to allow tracking of attribution activity in a way which protects consumers' privacy

Introduction of a secure common user ID, which ad tech providers would be required to assign to any data used for attribution purposes.

Such a measure could be developed and implemented by industry.

⁵⁸⁴ Competition and Markets Authority, [Online platforms and digital advertising: Market study final report](#), 1 July 2020, p. 409.

This proposal has the potential to enable attribution providers to more easily interpret and use tracking data provided about ads delivered across DSPs. This is because attribution providers would be able to track all ads that a user saw, regardless of the DSP that purchased the ads, if users were assigned common IDs that were accessible to all third party attribution providers.

Currently, multi-touch attribution can be difficult where DSPs use different user IDs. This is because the attribution provider must be able to match the user IDs across the different DSPs to track all the ads that the user was exposed to. Where a DSP does not share user ID data, this becomes more far more difficult. However, if all DSPs were to use the same user ID, then the tracking process would be simple, and third parties would be able to conduct full multi-touch attribution that allowed advertisers to measure the success of their campaign, including how effective each DSP was.

Overall this would improve the ability of attribution providers to provide full and independent attribution of ads served using all DSPs, including Google's services. This could help to improve transparency over the performance of ad tech services and thereby promote competition in the provision of DSP services more broadly, as advertisers would be able to assess the effectiveness of inventory their DSPs are bidding on for their campaigns.⁵⁸⁵

Again, an important consideration for the ACCC in deciding whether such a common user ID should be put forward is whether it can be implemented in a way that protects user privacy. Such an ID will increase the data available to track consumers across the internet, and improve the ability of ad tech providers to build consumer profiles. The ACCC is carefully considering these issues and seeks stakeholder feedback on them.

However, we note that there are indications that it may be possible for such a proposal to be implemented in a way that also addresses privacy concerns. For example, there are already a number of initiatives in the ad tech industry to create a common user ID. These include DigiTrust (by IAB), the Advertising ID Consortium, ID5 and The Trade Desk's Unified ID.⁵⁸⁶ However, the ACCC understands that Google has not joined these initiatives, which limits how useful they are.

Google explained that it did not participate in these initiatives because of its commitment to abide by privacy obligations, and that the use of such common IDs could allow advertisers to join Google bid data with other information which would allow an individual user to be identified, and allow ad tech providers to pool user data without consent.⁵⁸⁷

⁵⁸⁵ We also note that this could also help to address competitive concerns arising from Google's data advantages which are discussed in chapter 2.

⁵⁸⁶ M Zawadziński and M Sweeney, '[Identity in AdTech: Unravelling the ID Problem](#)', *Clearcode*, 15 March 2019 (updated 27 November 2020) accessed 27 October 2020.

⁵⁸⁷ Confidential submission from Google (published with consent).

Questions for stakeholders

The ACCC is seeking stakeholder feedback on this proposal. In particular, the ACCC is interested in views on the following questions:

28. Would a common user ID be an effective way to improve transparency in the ad tech supply chain?

29. Could this proposal be implemented practically and is it justified?

30. Could this proposal be implemented in a way which protects consumers' privacy? If so, how?

6.7. Ad verification may create problems for publishers

The final issue considered as part of this chapter relates to concerns raised by publishers regarding how ad verification services impact their businesses. These concerns are considered here as they involve the operation of the same services discussed in this chapter.

The following section looks at the two specific concerns raised by stakeholders during the inquiry: the blocking of legitimate conduct, and the prevention of ad fraud.

6.7.1. Blocking legitimate conduct

Another issue raised in relation to the reliability of measurement and verification services is that they can block legitimate websites through their brand safety functions and this can lead to a loss of revenue for publishers.

The Guardian and The Daily Mail Australia submit that the way measurement and verification providers categorise publisher content in their blocking features, and the brand safety definitions they use, mean that these providers often identify publisher content as unsafe.⁵⁸⁸ They note that this is in part caused by a lack of transparency and consistency in how these brand safety features operate.⁵⁸⁹

The Daily Mail submits that because publishers do not have visibility over the parameters measurement and verification providers use to categorise content, publisher content will often be blocked without publishers having visibility over why this was the case.⁵⁹⁰ The Guardian also submits that the lack of consistency in how verification providers operate means publishers need to have subscriptions to multiple measurement and verification providers.⁵⁹¹

The Guardian and Daily Mail submit that the consequences of inappropriate blocking of inventory is that they either lose revenue at the post-bid verification stage, or lose the opportunity for revenue at the pre-bid stage.⁵⁹²

Preliminary views

The ACCC is concerned that that a lack of consistent terminology and transparency over the way unsafe websites and content is identified has the potential to harm publisher revenues by preventing ads being served on their websites. Further the need to obtain services from multiple providers may be leading to additional costs and inefficiencies.

⁵⁸⁸ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 12; Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 11.

⁵⁸⁹ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 12; Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 11.

⁵⁹⁰ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 12.

⁵⁹¹ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 12.

⁵⁹² Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020,, Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 13.

Ad verification and attribution service providers primarily supply services to advertisers, but the ACCC understands that they also supply subscriptions to publishers, mainly for the purposes of preventing the blocking of content. However, stakeholders have suggested that these verification and attribution providers have greater bargaining power when negotiating access to their services with publishers. This is because publishers have no choice but to subscribe to all the measurement and attribution providers services because there is no transparency or consistency in the way that they determine how they will block content.⁵⁹³

The Guardian submits that issues around the blocking of content could be addressed through improved transparency over how verification and attribution providers perform brand safety functions.⁵⁹⁴

The ACCC is seeking feedback from stakeholders on the extent of any problems in this area, and whether any measures are necessary to address these potential problems.

Questions for stakeholders

The ACCC is seeking stakeholder feedback on any issues publishers face in dealing with measurement and verification providers, and potential solutions. In particular:

31. What challenges do publishers face in their inventory being blocked due to brand safety issues?
32. Do publishers experience any problems in dealing with or negotiating terms with measurement and verification providers?
33. Are measures, such as standardised taxonomies, or requirements on verification providers to provide publishers with information about changes to their processes, required to address issues with verification providers blocking legitimate publisher websites?

6.7.2. Measures to prevent ad fraud

The second concern raised by publishers which is related to the transparency issues discussed above, is a publisher's ability to block fraudulent (or scam) ads being delivered to their website by the ad tech supply chain.

Ad fraud and publishers

Ad fraud most commonly refers to legitimate ads being served on fraudulent websites, or being delivered, 'viewed' or 'clicked' by a bot and not a real person. This type of ad fraud is a significant issue for the ad tech industry. For example, it is estimated that in Australia over \$100 million is lost to ad fraud per year.⁵⁹⁵ However, the industry appears to be taking sufficient action to address such fraud.

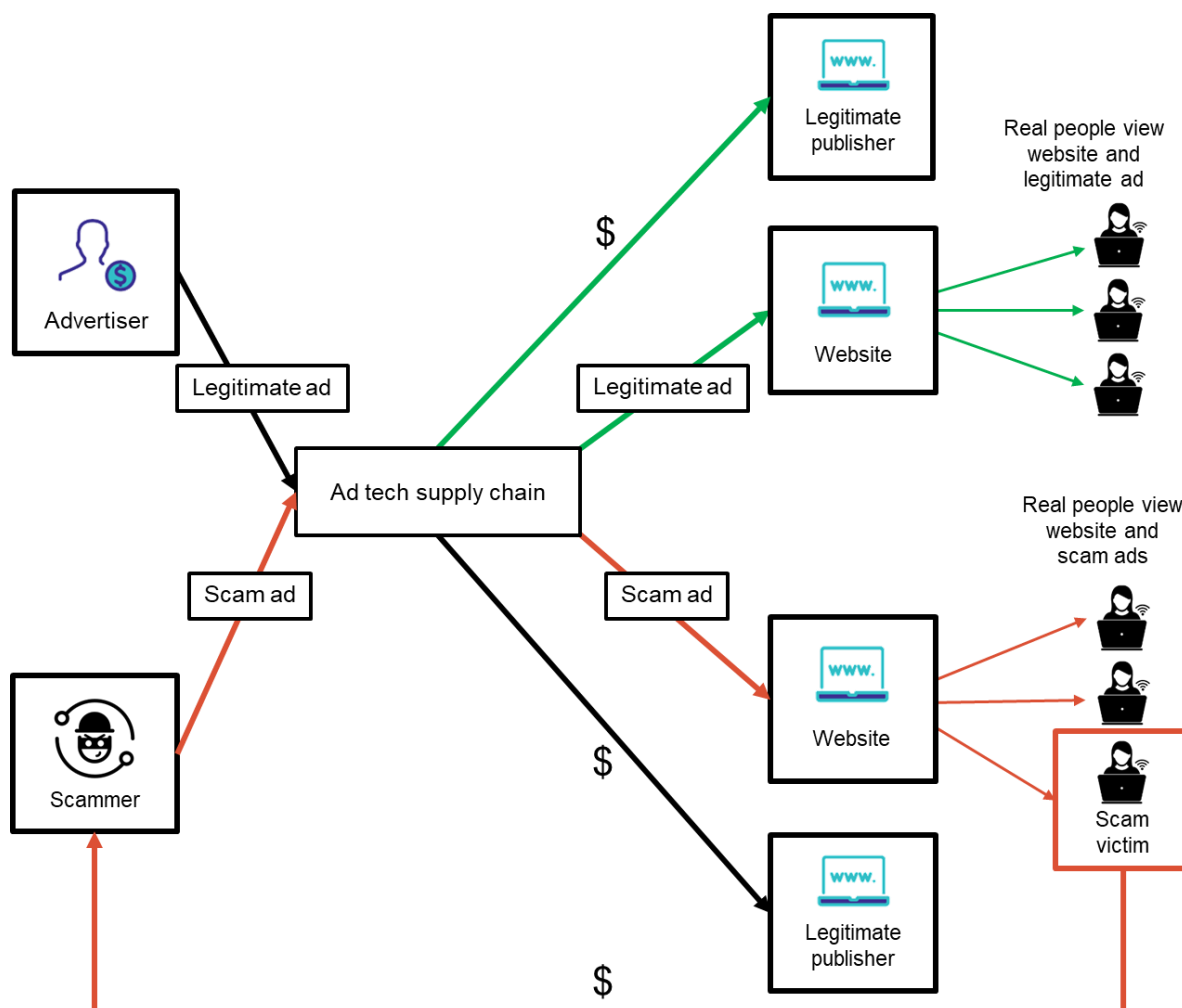
In contrast, the ACCC has heard concerns from some publishers about the measures that are in place to prevent the delivery of fraudulent or scam ads to publishers' websites. As shown in figure 6.2 this type of ad fraud involves the ad fraud operator (or scammer) buying ad inventory to deliver scam ads to actual consumers. Here the fraud operator makes money through the scam they are advertising and not through the ad tech supply chain. In fact, in this case the scammer will pay for the ad inventory they use to show scam ads, and the ad tech services it uses.

⁵⁹³ Guardian News & Media Australia Pty Ltd, [Submission to Ad Tech Inquiry Issues Paper](#), 10 June 2020, p. 13; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, pp. 27-28.

⁵⁹⁴ The Guardian also submitted that such measures would be effective to deal with the other performance issues it identified.

⁵⁹⁵ IAB Australia, [Australian Digital Advertising Practices: 2020 Update](#), 2020, p 16.

Figure 6.2: Delivery of fraudulent ads via the ad tech supply chain



In particular, one publisher has said that it has found it difficult to stop the delivery of such scam ads through the ad tech supply chain, and considers that ad tech providers could be doing more to prevent scam ads being published on its websites.

ACCC preliminary views

Scams have a significant, and very detrimental impact on Australian consumers. Australians lost over \$634 million to scams in 2019. With Australians spending more and more time online, online scams have become more and more prevalent. While scam ads are just one type of online scam, they are a significant problem. For example, between 1 January 2020 and 31 October 2020, the ACCC received more than 500 Scamwatch reports of celebrity endorsement ads, just one type of scam ad, with more than \$1.67m in reported losses.

The publication of scam ads on publisher web sites can also harm publishers. It can be detrimental to a publisher’s reputation and has the potential to raise a number of legal risks. The ACCC therefore considers that it is important that ad tech providers take strong actions to attempt to prevent the delivery and publication of fraudulent advertising.

To help the ACCC further consider this issue in 2021, we are seeking stakeholder views on this issue.

Questions for stakeholders

The ACCC is seeking stakeholder views on the extent of scam ad issues, and the measures being taken by industry to address these. In particular we are seeking responses to the following questions:

34. What is the scale of the problem posed by the publication of scam ads on publisher websites?
35. What are the risks to publishers when scam ads are displayed on their properties?
36. What measures do ad tech providers take to prevent the delivery of scam ads?
37. What measures are available to publishers to stop the delivery of scam ads once they are identified?
38. Are there difficulties experienced by publishers in stopping scam ads being delivered to their properties? If so, what are they?

In addition, the ACCC continues to support its recommendation from the DPI for the establishment of an ombudsman scheme to resolve complaints and disputes with digital platforms, which could provide consumers and small businesses with an effective avenue for complaint and dispute resolution in relation to the delivery of scam ads on digital platforms.

7. Ad agencies

Key findings

- Ad agencies perform a key role in purchasing ad inventory, including the purchase of programmatic digital advertising opportunities. However, ad agencies' involvement may also add a layer of further opacity to the ad tech supply chain.
- Conflicts of interests and a lack of transparency between ad agencies and their advertiser clients may result in agencies taking actions that are not in the best interests of their clients. There is a particular risk of this where agencies are incentivised to purchase advertising impressions from publishers offering volume rebates and discounts and where agencies are incentivised to use ad tech services that they, or their holding company, own.

This chapter examines the role of ad agencies in the ad tech supply chain. It is structured as follows:

- **Section 7.1** outlines the market structure and competition for ad agency services in Australia, with respect to the provision of digital advertising services facilitated by the ad tech supply chain.
- **Section 7.2** discusses potential conflicts of interest relating to the purchase of ad inventory and use of particular ad tech services, and potential concerns relating to price and performance transparency in the provision of ad agency services.
- **Section 7.3** outlines the ACCC's preliminary conclusions with respect to ad agencies in the ad tech supply chain.

7.1. Ad agencies in the ad tech supply chain

7.1.1. Use of ad agencies

For the purpose of this report, the term 'ad agencies' refers to services supplied to advertisers relating to the purchase of digital display advertising services, and not the supply of ad creative services or ad agency services for other forms of digital, print or broadcasting advertising.

Ad agencies offer a number of different services to advertisers including the planning and buying of digital advertising. The IAB reports that in the quarter ending 30 September 2020, 40% of advertisers bought content publishers' ad inventory through an agency.⁵⁹⁶

Agencies typically have greater expertise in managing advertising spend than advertisers because they purchase advertising across different channels, in large volumes, and across multiple clients. Due to the size of some agencies, they may also be better placed to negotiate discounts and deals with publishers that would not be possible for single advertisers to achieve.⁵⁹⁷

Smaller, less sophisticated advertisers are less likely to use agencies due to the proportionally greater transaction costs in doing so, compared to using self-service ad tech interfaces such as Google Ads or the integrated ads platform Facebook Ads. Additionally, smaller advertisers' digital advertising campaigns are likely to be less complex, or contain fewer elements, in comparison to larger more sophisticated advertisers, so may not require the expertise of agencies for their ad requirements.

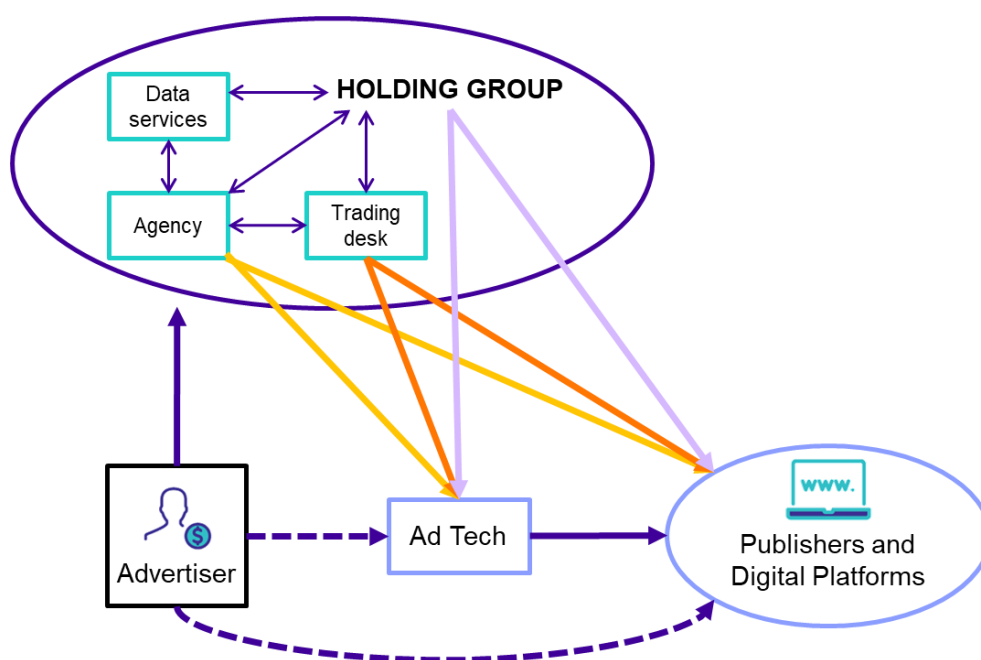
⁵⁹⁶ IAB Australia, '[Investment in Australian Digital Advertising Bounces Back with 11.3% Growth from Previous Quarter](#)', 22 November 2020, accessed 25 November 2020.

⁵⁹⁷ ACCC, '[Digital Platforms Inquiry Final Report](#)', 26 July 2019, p. 155.

Figure 7.1 highlights the key interactions between ad agencies, advertisers and the ad tech supply chain, as well as the relationships that ad agencies have with other services provided by its relevant holding group. These relationships within the holding group and how they interact with advertisers and the ad tech supply chain are further discussed in the analysis in section 7.2.1.

- In addition to various ad agency brands, large ad agency holding groups often have trading desks. Trading desks are subsidiaries which generally act in conjunction with the principal agency's digital advertising team that clients interact with, and can run a number of different functions including the planning, buying, managing, and optimisation of digital advertising campaigns.⁵⁹⁸ Ad agency holding groups can also provide data services to optimise and measure campaign performance.
- Advertisers typically only interact directly with their chosen ad agency. However, in performing its services, the ad agency may have interactions with other services within its holding group (e.g. the trading desk or data services) as well as with ad tech providers. Additionally, trading desks and the holding group entity may also separately have contractual relationships with ad tech providers, in order to service the ad agencies within the group.

Figure 7.1: Diagram of ad agencies in the ad tech supply chain



7.1.2. Major ad agencies operating in Australia

The major ad agencies operating in Australia are part of large international holding groups. Each of these groups are the parent company of a trading desk and multiple ad agencies that operate in Australia, as well as creative and data providers.

⁵⁹⁸ Clearcode, [What is an Agency Trading Desk \(ATD\) and How Does it Work?](#), accessed 9 November 2020.

Table 7.1: Holding groups, including examples of their agency brands and trading desks

Holding group	Agency brands	Trading desk
WPP	GroupM, Mindshare, MediaCom, Wavemaker	Xaxis
Omnicom Media Group	OMD Worldwide, PHD Network, Hearts & Science	Accuen
Dentsu Aegis Network	Carat, iProspect, dentsuX	Amnet
Interpublic Group	Kinesso, Universal McCann (UM), Initiative, Reprise	Matterkind (formerly Cadreon)
Publicis Groupe	Starcom, Zenith, Performics, Spark Foundry	Precision (formerly VivaKi)
Havas Group	Havas Media	Havas Programmatic Hub

Source: Information provided to the ACCC and public sources.⁵⁹⁹

The ACCC has received submissions that these holding groups may have a combined share of approximately 65% of media spend⁶⁰⁰ and approximately 40% of media agency revenue.⁶⁰¹

Table 7.2: Ad agency shares in Australia (by media spend and revenue)

	Media spend (Dentsu Aegis submission)⁶⁰²	Revenue (Daily Mail Australia submission)⁶⁰³
WPP	20.2%	13.2%
Omnicom Media Group	16.6%	7%
Dentsu Aegis Network	10.0%	8%
Interpublic Group	8.8%	5%
Publicis Groupe	8.3%	5%
Havas Group	1.4%	Not available
Other ad agencies	34.7%	61.8%

Source: Submissions to the ACCC's Issues Paper.

There are also a number of smaller ad agencies that are independent from these large global holding groups. Smaller internationally owned agencies include S4, Bohemia and

⁵⁹⁹ Dentsu Aegis Network Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 3; Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 13; Havas Media Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 10; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 6; WPP AUNZ, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 2; Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, p. 3; IPG, [Our Companies](#), accessed 17 November 2020; Publicis Groupe, [Publicis Media](#), accessed 17 November 2020.

⁶⁰⁰ Dentsu Aegis Network Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 3.

⁶⁰¹ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 6.

⁶⁰² Dentsu Aegis Network Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 3. Media spend in 2019 for media agencies in Australia based on projected 2019 billings.

⁶⁰³ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 6. Revenue for media buying agencies in Australia in 2018-2019.

Paykel Media, and Australian independent agencies include Hyland, Pearman Media, The Media Store, Sandbox Media, Nunn Media, Kaimera, Cummins and Partners.⁶⁰⁴

Google submits that 'independent media agencies reportedly drive 25% or \$2.5 billion worth of ad spend in Australia'.⁶⁰⁵ The Media Federation of Australia submits that the industry has a strong mix of non-holding group agencies that compete directly with the holding group agency brands.⁶⁰⁶

7.1.3. Competition in ad agency services in Australia

The information considered by the ACCC as part of this Inquiry, including submissions provided by advertisers and ad agencies, has not raised significant concerns regarding the level of competition for ad agency services in Australia.

Stakeholders, including larger agencies, the Media Federation of Australia and publishers have submitted that there are a number of factors that have led to competition for ad agency services increasing over time including the following:

- **Many companies and new entrants:** There has been recent new entry (including large consulting firms) for the provision of digital advertising solutions.⁶⁰⁷ In addition, Omnicom Media Group and WPP submit that consultancy firms also offer tender process services, contract review management, and agency audit services⁶⁰⁸, providing them with detailed insights into agency offerings.
- **Digital platforms and self-service products:** There is an increasing presence of digital platforms which offer popular and easy to use self-service products to advertisers (e.g. Google Ads, Facebook Audience Network, 9Voyager, Buy10 and News Concierge).⁶⁰⁹ Agencies submit that advertisers can easily bypass agencies using these products.
- **Low barriers to entry for digital ad agency services:** WPP submits that due to most digital platforms having self-service interfaces, there are 'countless businesses' that are able to offer digital ad agency services.⁶¹⁰
- **In-housing/bypassing ad agencies:** Stakeholders submit that advertisers are increasingly 'in-housing' advertising services and bypassing ad agencies, either partially or fully, by directly contracting with publishers and ad tech providers, including the use of self-service products.⁶¹¹
- **Increased scrutiny of ad agency operations:** in response to recent regulatory reports and investigations.⁶¹²

Based on the currently available information, the ACCC's preliminary view is that although there is some concentration amongst the six largest agency holding groups, there is evidence of competition for ad agency services in Australia. Additionally, as discussed

⁶⁰⁴ Media Federation of Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 5; Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 13; Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, p. 5.

⁶⁰⁵ Google Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 1 May 2020, p. 13.

⁶⁰⁶ Media Federation of Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 7.

⁶⁰⁷ Media Federation of Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 14.

⁶⁰⁸ Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, p. 7; WPP AUNZ, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 4.

⁶⁰⁹ Media Federation of Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 7.

⁶¹⁰ WPP AUNZ, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 4.

⁶¹¹ Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, pp. 5-10; WPP AUNZ, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, pp. 3-4; Australian Association of National Advertisers, [Submission to Ad Tech Inquiry Issues Paper](#), 21 May 2020, p. 7; Havas Media Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 2; IPG Kinesso, [Submission to Ad Tech Inquiry Issues Paper](#), pp. 5-7; Dentsu Aegis Network Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, pp. 2-3; Media Federation of Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, pp. 14-15.

⁶¹² Media Federation of Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, pp. 23-24.

below, advertisers have certain contractual rights that enable them to encourage competition for ad agency services.

7.2. Conflicts of interest and transparency

In order to deliver services for its advertiser clients, ad agencies necessarily provide 'agency' services and have relationships with ad tech providers and publishers. Specifically, ad agencies often purchase ad inventory from publishers for the purpose of reselling this to advertiser clients.

However, the ACCC notes that 'ad agencies', may not be always acting as an 'agent' in a legal or contractual capacity for the various services that they provide to advertisers. It is important that advertisers understand the services that the ad agency will provide under the contract and any associated agency obligations.

In the Digital Platforms Inquiry, the ACCC expressed concerns about the lack of transparency in the way ad agencies operate. As advertisers often have little visibility into the advertising supply chain, there may be an incentive for agencies to take actions that they benefit from, but that are not in the best interests of advertisers.⁶¹³

Section 7.2.1 describes the types of concerns that have been raised with the ACCC about the potential for conflicts of interest to arise between ad agencies and their clients. However, so far, in this Inquiry, the degree of concern about these behaviours from advertisers has been limited.

Section 7.2.2 then discusses the degree of transparency in the operation of the commercial relationship between advertisers and agencies and the subsequent dealings, and how enhancing transparency may lessen the scope for harm from conflicts of interest.

7.2.1. Potential conflicts of interest

This section discusses the risk that decisions made by the ad agency on behalf of advertisers relating to the:

- choice of ad inventory or publisher, and
- the use of ad tech services that are owned by the agency or holding company,

may be affected by potential conflicts of interests between ad agencies and their advertiser clients.

Choice of ad inventory or publisher

Rebates, discounts and other incentives

Publishers may offer agencies or the agency holding company discounts, rebates, or other incentives, if they reach certain levels of spend. While this is common practice, the ACCC considers that there are potential conflicts of interest that may arise.

Generally, the more that an agency, trading desk or holding group spends with a publisher or digital platform, the higher the level of rebates, discounts, bonus ad impressions or other incentives that the agency will receive from the publisher or digital platform. Specifically, the ACCC has heard from stakeholders that large platforms such as Google and Facebook offer incentives to increase advertiser spend.⁶¹⁴

⁶¹³ ACCC, [Digital Platforms Inquiry Final Report](#), 26 July 2019, pp. 14 and 155. See also: McKinsey & Company, [Truth in advertising: Achieving transparency with media rebates to fuel growth](#), accessed 19 November 2020.

⁶¹⁴ Oracle Corporation, [Submission to Ad Tech Inquiry Issues Paper](#), 13 May 2020, pp. 11-12; Commercial Radio Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020, pp. 6-7.

This is not inherently a problem, but could influence the agency's decisions about where to direct advertiser dollars. This may cause concerns if agencies are directing spending towards publishers who provide them with the greatest profit margins (for example, where agencies can minimise their costs by achieving volume discounts), and the related impressions either are not the best value for their advertiser clients or are not being served to the most appropriate websites. This concern is exacerbated when the client is unable to effectively monitor decisions about how its advertiser dollars are spent.⁶¹⁵

Ad agency holding groups (either at the holding group level or via the holding group's trading desk) may also acquire digital advertising inventory from publishers, and then re-sell this ad inventory to their agency subsidiaries.⁶¹⁶ However, advertiser clients typically have a contractual relationship with the ad agency, rather than with the holding group or the trading desk and contractual rights of audit between an advertiser and an ad agency may not capture arrangements entered into by the holding group or trading desk. For example, advertisers may not have visibility of, or control over, the contractual relationships between:

- the agency and the holding group/trading desk, or
- the holding group/trading desk and ad tech providers.

Additionally, where a fixed fee structure is used, or where written into contracts, agencies may not be required to disclose discounts.⁶¹⁷

A further complexity is that agencies also purchase ad inventory as a 'principal' – that is, agencies purchase ad inventory on their own behalf, and then sell it to advertisers.⁶¹⁸ Under this arrangement, agencies may not necessarily be contractually required to disclose cost savings, discounts, and rebates to advertiser clients. The ACCC acknowledges that this purchasing arrangement allows agencies to pre-purchase ad inventory, which may achieve benefits such as volume discounts or rebates which can ultimately be passed on to advertisers. However, the ACCC considers that this agency practice of purchasing as a principal may give rise to agencies having the ability to engage in conduct, which may not be in the best interests of advertisers. The ACCC is continuing to consider this issue.

Question for stakeholders

The ACCC is continuing to consider the extent to which agencies disclose rebate levels and whether they pass on any cost savings to advertisers.

The ACCC invites stakeholders views on whether the existence of rebates and discounts to agencies influences decisions on allocating advertiser spend.

Use of particular ad tech services

Diversity of functions

In addition to ad agency services, some agency holding groups also offer agency trading desks and data services. However, when holding groups offer these additional services, it is also possible that conflicts of interest in the functions they are performing may arise.

⁶¹⁵ Dr Nico Neumann, [Submission to Ad Tech Inquiry Issues Paper](#), 21 April 2020, p. 12.

⁶¹⁶ Dentsu Aegis Network Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 2; Havas Media Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 10; Other confidential information provided to the ACCC.

⁶¹⁷ Media Federation of Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 20; Dr Nico Neumann, [Submission to Ad Tech Inquiry Issues Paper](#), 21 April 2020, p. 10.

⁶¹⁸ Dentsu Aegis Network Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 2; IPG Kinesso, [Submission to Ad Tech Inquiry Issues Paper](#), p. 6; Media Federation of Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 2; Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, pp. 8-9.

Specifically, agencies may encourage clients to use particular digital advertising services that are owned by the agency or holding company, to generate additional revenue.

As noted above in Table 7.1, the following are some examples of agency trading desks that are part of agency holding groups: Xaxis (WPP), Precision (Publicis Groupe), Matterkind (IPG), Accuen (Omnicom) and Amnet (Dentsu).

Additionally, some agency holding groups also have data service providers. For example, Annalect (Omnicom) is a data platform that uses data to optimise advertising campaigns and more recently:

- Publicis Groupe acquired Epsilon (data broker) in 2019.⁶¹⁹
- IPG acquired Acxiom (data broker) in 2018.⁶²⁰
- Dentsu Aegis Network acquired Merkle (data marketing agency) in 2016.⁶²¹

Holding groups are also diversifying into services that assess the performance of campaigns. Where the agency is purchasing advertising and also reporting on its performance, this may reduce the ability for advertisers to independently assess the performance of ad agencies' services.⁶²²

However, the ACCC acknowledges that there may be economies of scope or demand-side efficiencies to an agency having diverse functions, particularly where these services are of a high quality and can be provided at a competitive cost.

Question for stakeholders

The ACCC is continuing to consider this issue and invites stakeholders to contact the ACCC about any concerns they may have in relation to the range of services that ad agencies offer, the potential for these to give rise to conflicts of interest and whether these should be disclosed.

7.2.2. Price and performance transparency in the supply of ad agency services

Conflicts of interest may be less problematic if advertisers are:

- aware of the fact that a conflict of interest exists
- able to monitor the actions of ad agencies and assess if the agency is purchasing ad inventory in their best interests, and
- able to switch to a better provider if an agency is not acting in their best interests.

To that end, advertisers' ability to access ad agency pricing and performance can significantly counteract any risks of harm that arises from an agency's conflicts of interest.

The ACCC understands that agency contracts typically contain audit rights⁶²³ and large agencies submit that they provide advertisers with a large amount of information on campaign performance and various fees are often itemised by cost component.⁶²⁴

⁶¹⁹ A Schiff, [Epsilon Could Push Publicis Into A New Privacy Ballgame](#), *adexchanger*, 24 April 2019, accessed 26 November 2020.

⁶²⁰ S Sluis, [The 10 Game-Changing Ad Tech Exits of The Decade](#), *adexchanger*, 30 December 2019, accessed 26 November 2020.

⁶²¹ S Sluis, [The 10 Game-Changing Ad Tech Exits of The Decade](#), *adexchanger*, 30 December 2019, accessed 26 November 2020.

⁶²² Dr Nico Neumann, [Submission to Ad Tech Inquiry Issues Paper](#), 21 April 2020, p. 11.

⁶²³ Dentsu Aegis Network Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 5.

⁶²⁴ Havas Media Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, pp. 4 and 6.

During the course of this Inquiry, some large advertisers have indicated that they are satisfied with the performance and fee information they receive from their agencies, and that their agencies act in their best interests. These advertisers also consider they are able to, and have used, audit rights in their contracts, and that previous audits have not revealed significant issues.⁶²⁵

Questions for stakeholders

The ACCC has mainly heard from large advertisers and does not have sufficient information to determine whether other advertisers who may have less bargaining power hold similar views about their ability to obtain information about the ad tech services they receive from ad agencies.

The ACCC invites smaller and medium advertisers to contact the ACCC about any concerns they may have in relation to the performance and fee information they receive from their agencies.

Agency fee model

The Media Federation of Australia submits that the level of transparency that advertiser clients receive is partly influenced by the remuneration method agreed upon between the advertiser and the agency, and that advertisers have an increased desire for visibility over cost components. For example, the Media Federation of Australia submits that under:

- **an itemised commission based model:** an advertiser will generally be able to see all costs and fees to be incurred by the agency (e.g. campaign costs, third party platform fees, staffing costs and hours if using a retainer model). Under this remuneration model, advertisers are usually responsible for approving, and therefore have visibility over, the different cost components of the advertising campaign⁶²⁶
- **a fixed price guaranteed outcome model:** the agency guarantees a performance outcome and provides a fixed price to the advertiser upfront before any ad inventory is purchased.⁶²⁷ The agency then works to purchase advertising at a cost lower than the agreed price in order to earn a margin.⁶²⁸ Under this agency fee model, the costs incurred, discounts and rebates provided to the agency (by sellers of ad inventory) are therefore not always shared with the advertiser.

A few stakeholders have submitted that commission based models are more common than fixed price guarantee outcome models.⁶²⁹

However, Omnicom Media Group submits that granular cost component information about the programmatic advertising supply chain is provided to all its clients.⁶³⁰ Similarly, Dentsu Aegis Network Australia submits that 'all decisions around what elements of the digital supply chain (technology, data, verification, media)' are made in consultation with advertisers.⁶³¹

Accordingly, while agency fee models may differ, it is not entirely clear to what extent the remuneration model impacts the level of transparency and information that can be provided to advertisers. As noted above, agency holding group arrangements (and a lack of audit rights against these arrangements) may also exacerbate information transparency issues.

⁶²⁵ Confidential information provided to the ACCC.

⁶²⁶ Media Federation of Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 20.

⁶²⁷ IPG Kinesso, [Submission to Ad Tech Inquiry Issues Paper](#), p. 11.

⁶²⁸ Media Federation of Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 20.

⁶²⁹ Media Federation of Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 12 May 2020, p. 20; Dr Nico Neumann, [Submission to Ad Tech Inquiry Issues Paper](#), 21 April 2020, p. 6; IPG Kinesso, [Submission to Ad Tech Inquiry Issues Paper](#), p. 11.

⁶³⁰ Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, p. 10.

⁶³¹ Dentsu Aegis Network Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 6.

Transparency from ad tech providers

Lastly, as discussed in chapter 6 (Transparency of the price, operation and performance of ad tech services) a lack of transparency from ad tech providers will impact the ability of agencies to provide transparency to advertisers. For example, Havas Media submits that there are some DSPs which are 'not explicit on reporting detail across fees absorbed in the whole tech stack', and as a result, the actual percentage of the advertiser's spend that is retained by ad tech providers is not clear.⁶³²

7.3. Preliminary conclusions

Based on information currently available to the ACCC, the ACCC's preliminary view is that many potential issues relating to ad agency conduct may be mitigated if advertisers:

- know to look out for certain clauses in their contracts (e.g. audit rights, performance obligations)
- understand those clauses, in order to make the best decisions for the needs of its business
- shop around to ensure that they are receiving agency services that suit their needs, and
- exercise contractual rights of audit to ensure that agency behaviour is consistent with their contract.

Advertiser education about contractual rights

Before entering into contracts with ad agencies, advertisers should be empowered to seek information including about rebates, discounts and incentives, and related ad tech services that an ad agency provides.

Advertisers should more frequently consider if they need to place their contract out to tender to attract competitive offers, re-negotiate their ad agency contracts or exercise their contractual rights of audit, to ensure that their contracts are achieving their advertising objectives.

The ACCC's preliminary view is that Government intervention is not required at the moment to respond to issues relating to ad agencies. The ACCC's preliminary conclusion is that advertisers should:

- inform themselves about certain issues (e.g. rebates, discounts and incentives, agency fee models, and whether the agency owns any ad tech services) before entering into contracts with ad agencies
- frequently consider placing their contract out to tender to attract competitive offers and re-negotiating their ad agency contracts to ensure that the advertising services are appropriate for its needs
- frequently consider if they should exercise contractual rights of audit to encourage transparency and accountability of agency performance, and
- consider whether engaging consultants to help with agency procurement and contract negotiations would be appropriate for its needs.

Questions for stakeholders

The ACCC encourages stakeholders to come forward if they have concerns with ad agencies' activities in relation to the provision of digital advertising services facilitated by the ad tech supply chain.

⁶³² Havas Media Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 4.

Appendix A



Competition and Consumer (Price Inquiry—Digital Advertising Services) Direction 2020

I, Josh Frydenberg, Treasurer, give the following direction to the Australian Competition and Consumer Commission.

Dated: 10 February 2020

Josh Frydenberg
Treasurer

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Part 1—Preliminary

1 Name

This instrument is the *Competition and Consumer (Price Inquiry—Digital Advertising Services) Direction 2020*.

2 Commencement

- (1) Each provision of this instrument specified in column 1 of the table commences, or is taken to have commenced, in accordance with column 2 of the table. Any other statement in column 2 has effect according to its terms.

Commencement information		
Column 1	Column 2	Column 3
Provisions	Commencement	Date/Details
1. The whole of this instrument	The day after this instrument is registered.	

Note: This table relates only to the provisions of this instrument as originally made. It will not be amended to deal with any later amendments of this instrument.

- (2) Any information in column 3 of the table is not part of this instrument. Information may be inserted in this column, or information in it may be edited, in any published version of this instrument.

3 Authority

This instrument is made under the *Competition and Consumer Act 2010*.

4 Definitions

Note: Expressions have the same meaning in this instrument as in the *Competition and Consumer Act 2010* as in force from time to time—see paragraph 13(1)(b) of the *Legislation Act 2003*.

In this instrument:

advertiser means a person that places an advertisement.

digital advertising agency services means services supplied to advertisers relating to negotiating, acquiring or managing digital display advertising services.

digital advertising technology services means services that provide for, or assist with, the automated buying, selling and delivery of digital display advertising services.

digital display advertising services means the supply of opportunities for the placement of advertising, by way of the internet, other than:

- (a) classified advertisements; and
- (b) advertising provided in conjunction with the search results of internet search engines.

Examples: Supply of opportunities to place advertisements that would appear:

- (a) in banners, or in videos, on a webpage; and
- (b) within a software application on a mobile computing device; and
- (c) in conjunction with social media content.

exempt supply has the meaning given by subsection 95A(1) of the Act.

goods has the meaning given by subsection 95A(1) of the Act.

inquiry has the meaning given by subsection 95A(1) of the Act.

services has the meaning given by subsection 95A(1) of the Act.

State or Territory authority has the meaning given by subsection 95A(1) of the Act.

supply has the meaning given by subsection 95A(1) of the Act.

the Act means the *Competition and Consumer Act 2010*.

Part 2—Price inquiry into supply of certain digital advertising services

5 Commission to hold inquiry

- (1) Under subsection 95H(1) of the Act, the Commission is required to hold an inquiry into the markets for the supply of digital advertising technology services and digital advertising agency services. The inquiry is *not* to extend to any of the following:
 - (a) the supply of a good or service by a State or Territory authority;
 - (b) the supply of a good or service that is an exempt supply;
 - (c) reviewing the operation of any Australian law (other than this Act) relating to communications, broadcasting, media, privacy or taxation;
 - (d) reviewing the operation of any program funded by the Commonwealth, or any policy of the Commonwealth (other than policies relating to competition and consumer protection);
 - (e) the supply of creative input for advertising.
- (2) For the purposes of subsection 95J(1), the inquiry is to be held in relation to goods and services of the following descriptions:
 - (a) digital display advertising services;
 - (b) digital advertising technology services;
 - (c) digital advertising agency services.
- (3) Under subsection 95J(2), the inquiry is not to be held in relation to the supply of goods and services by a particular person or persons.

6 Directions on matters to be taking into consideration in the inquiry

Under subsection 95J(6) of the Act, the Commission is directed to take into consideration all of the following matters in holding the inquiry:

- (a) the intensity of competition in the markets, and the efficiency of the markets, for the supply of digital advertising technology services and digital advertising agency services (*those markets*), with particular regard to:
 - (i) how competition in those markets impacts on competition in the market for the supply of digital display advertising services; and
 - (ii) the availability to advertisers, publishers and other market participants of information on activities in those markets; and
 - (iii) the revenue of, and share of an advertiser's digital display advertising services expenditure retained by, each of the suppliers of services referred to in subsection 5(2); and
 - (iv) the concentration of power in the markets amongst and between suppliers of services referred to in subsection 5(2); and
 - (v) auction and bidding processes and other similar processes undertaken in digital display advertising services; and
 - (vi) mergers and acquisitions in those markets; and
 - (vii) the behaviour of any suppliers in those markets, including:
 - (A) the nature, characteristics and quality of the services they offer; and
 - (B) the pricing and other terms and conditions they offer to consumers and businesses;

Example 1: Characteristics of services offered include the interoperability of systems or software used or offered by different suppliers.

Example 2: Other terms and conditions include policies relating to privacy and data collection, management and disclosure.

- (b) relationships between suppliers and customers in the markets for services referred to in subsection 5(2), including the extent to which existing corporate structures, or contractual arrangements, have a negative effect on competition in the market or informed decision-making by market participants;
- (c) whether the services referred in subsection 5(2) are being provided or performed to the satisfaction of all market participants.

7 Directions as to holding of the inquiry

- (1) Under subsection 95J(6) of the Act, the Commission is directed to do the following in holding the inquiry:
 - (a) give to the Treasurer an interim report on the inquiry by no later than 31 December 2020.
- (2) Under subsection 95P(3) of the Act, the Commission is directed not to make available for public inspection, copies of any interim report until the Treasurer, in writing, authorises the Commission to do so.

8 Period for completing the inquiry

For the purposes of subsection 95K(1) of the Act, the inquiry is to be completed, and a report on the matter of inquiry given to the Treasurer, by no later than 31 August 2021.

Appendix B – Glossary

Term	Description
ACCC	Australian Competition and Consumer Commission
ACL	Australian Consumer Law
Ad agency services	'Digital advertising agency services', which are defined in the Direction as services supplied to advertisers relating to negotiating, acquiring or managing display advertising
Ad attribution	The process of tracking whether a consumer takes certain actions, like signing up to a service or purchasing a product, after seeing an advertisement
Ad attribution and verification provider	Providers of ad attribution or ad verification services
Ad impression	One display advertising opportunity displayed to one individual user
Ad inventory	Digital display ad impressions sold by publishers to advertisers
Ad network	A network that purchases ad inventory from different publishers to repackage and sell directly to advertisers
Ad Tech Inquiry or Inquiry	On 10 February 2020, the Australian Government directed the ACCC to conduct an inquiry into markets for the supply of digital advertising technology services and digital advertising agency services
Ad tech provider	A provider of an ad tech service.
Ad tech services	'Digital advertising technology services', which are defined in the Direction as services that provide for, or assist with, the automated buying, selling and delivery of display advertising
Ad verification	The process of checking whether an ad could be viewed by a consumer, was displayed in a brand safe context and webpage, and/or whether ad fraud took place.
Ads.txt file	A list of authorised sellers (e.g. SSPs or ad networks) for a website's ad inventory
Advertiser	Buyers of ad inventory from publishers, including businesses of all sizes and across all industries, as well as not-for-profit organisations and Government departments
Advertiser ad server	A server used by advertisers to manage and track all ad and campaign information in one location
CCA	Competition and Consumer Act 2010 (Cth)
CMA	Competition and Markets Authority, UK
CMA Final Report	The Competition and Markets Authority's 'Online platforms and digital advertising – Market study final report' published 1 July 2020
CMA Inquiry	The market study undertaken by the CMA into online platforms and digital marketing in the UK, launched on 3 July 2019.
Cost-per-action or CPA	A basis for pricing where the ad tech provider charges the advertiser each time an ad is clicked on by a consumer

Term	Description
Cost-per-click or CPC	A basis for pricing where the ad tech provider charges the advertiser when an ad leads to a specific action by a consumer, such as a purchase or sign-up
Cost-per-mille or CPM	A basis for pricing where the ad tech provider charges the advertiser for each ad that is served to a consumer but prices are reported as “cost-per-mille” (i.e. cost per 1000 ads served)
Data analytics services	Software that enables websites and advertisers to collect user traffic data combined together with ad campaign and conversion data to analyse the impact and performance of an ad campaign
Data broker	A supplier of third-party data to websites and advertisers to supplement the data they collect first-hand
Data management platform	A platform that provides publishers, advertisers, DSPs and SSPs with tools to store, manage and analyse their data stores, which can be used to increase the ability of websites and advertisers to target advertisements and to analyse ad performance and manage ad campaigns
Data practices	The collection, use and disclosure of user data
Demand-side platform or DSP	A platform used by advertisers to help them purchase ad inventory from suppliers of ad inventory as effectively and cheaply as possible, and which utilise various data to provide ad targeting services
Direct deals	Deals in which ad inventory is bought and sold via direct negotiation between advertisers and publishers
Direction	Ministerial direction from the Australian Government to the ACCC on 10 February 2020 to conduct an inquiry into markets for the supply of digital advertising services and digital advertising agency services
Display advertising	‘Digital display advertising services’, which are defined in the Direction as the supply of opportunities for the placement of advertising, by way of the internet, other than classified advertising and search advertising
Display & Video	Display & Video 360, a Google demand-side platform
DPI	Digital Platforms Inquiry – conducted by the ACCC into digital search engines, social media platforms and other digital content aggregation platforms, and their effect on media and advertising services markets
DPI Final Report	The final report for the Digital Platforms Inquiry, published on 26 July 2019
EC	European Commission
EU	European Union
First-party data	Data collected directly from an individual.
Frequency capping	Limiting the number of times an individual consumer is shown a particular ad
FTC	Federal Trade Commission, United States
Google Ad Exchange	Google’s supply-side platform, which is part of Google Ad Manager
Google Ad Manager	Google’s publisher-facing platform, which includes Google Ad Exchange and Google’s publisher ad server

Term	Description
Google Ads	A Google demand-side platform
Google Open Bidding or Open Bidding	Google's proprietary server-side header bidding
Header bidding	Header bidding is a process for conducting auctions between SSPs that allows multiple SSPs to bid on the same ad inventory at the same time, with the winning bid selected via auction. There are two types of header bidding: client-side header bidding, and server-side header bidding (e.g. Open Bidding)
IP address	Internet Protocol address, a numeric address assigned to each device connected to a local network or the internet via the Internet Protocol
Issues Paper	The Ad Tech Inquiry Issues Paper published on 10 March 2020
OAIC	Office of the Australian Information Commissioner
Open display channels	Ad tech services which facilitate the purchase and sale of ad inventory on properties owned by a number of different publishers
Personal information	Defined within the Privacy Act as 'Information or an opinion about an identified individual, or an individual who is reasonably identifiable: whether the information or opinion is true or not; and whether the information or opinion is recorded in a material form or not'
Preferred deals	Deals involving a contract between a publisher and an advertiser agreeing for the advertiser to purchase certain ad inventory with a 'first look' advantage before the publisher makes it available at an auction
Privacy Act	Privacy Act 1988 (Cth)
Private auctions	Auctions where multiple advertisers are invited to participate in an invite only auction
Programmatic advertising	Advertising that is bought and sold via programmatic trading
Programmatic guaranteed deals	Direct deals between a publisher and an advertiser with the terms of the transaction agreed in advance, but executed programmatically instead of manually, which increases the efficiency of the order and allows the use of targeting tools for real-time personalised advertising
Programmatic trading	The use of automated systems, processes and data to buy and sell display advertising opportunities
Publisher	Any supplier of online content, mobile apps, or other services that attract consumer attention online and that hosts ad inventory
Publisher ad server	A server used by publishers to organise and manage ad inventory on their website. For example, publisher ad servers typically determine what ads will be shown, serve ads, and also collect information on the performance of those ads
Real-time bidding	Open auctions that take place on a supply-side platform in the milliseconds between a user visiting a webpage and the page loading

Term	Description
Share of impressions	In this report, this refers to an ad tech provider's share of the total revenue earned by the main suppliers of the service in Australia, in relation to digital display advertising served to users in Australia in 2019
Share of revenue	In this report, this refers to a, an ad tech provider's share of the total impressions traded or served by the main suppliers of the service in Australia, in relation to digital display advertising served to users in Australia in 2019
Supply-side platform or SSP	A platform used by publishers to set price floors, decide which buyers can bid, and to connect to demand-side platforms (often via programmatic auctions). Historically, a separate ad exchange would run the real-time auctions, but the functions of SSPs are increasingly integrated with those of ad exchanges. For this reason, ad tech providers performing both SSP and ad exchange functions will be referred to as supply-side platforms (or SSPs) in this report.
Targeting data	Data collected from consumers that enable advertisers to more effectively target ads to the the most relevant audience
Third-party data	Data about an individual person collected indirectly from a separate entity instead of directly from the individual. Common types of third party data that may be purchased by websites or advertisers include purchasing history, geographic data and sociodemographic data
Trading desk	An entity assisting with coordinating and executing the programmatic purchase of online ads, and controlling how a programmatic advertising budget is spent. Ad agencies often have in-house trading desks

Appendix C – Key auction mechanics

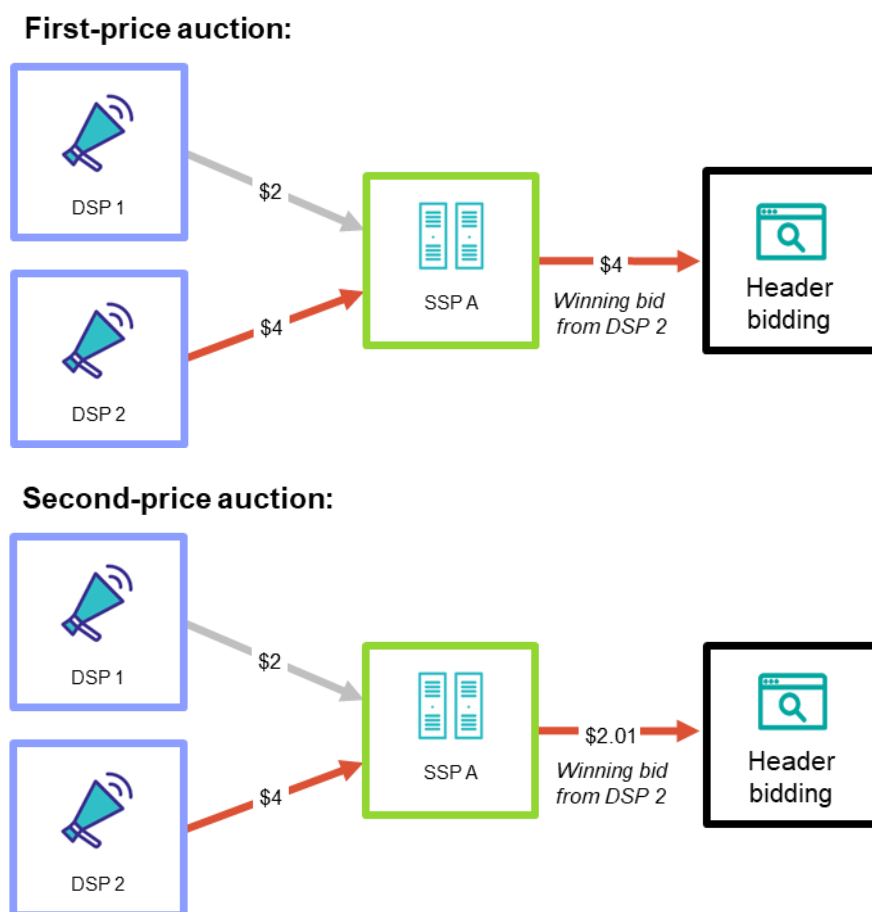
Auction design and mechanics have a significant effect on auction outcomes and the resulting price of ad inventory. This is significant, as the design and mechanics influence the prices advertisers pay for their campaigns and the revenue publishers earn for their ad inventory.

C.1 First-price and second-price auctions

Auctions in the ad tech supply chain can be first-price or second-price (see figure C.1):

- In a **first-price auction**, the highest bid wins and the winner pays the price they bid.
- In a **second-price auction**, the highest bid wins and the winner pays \$0.01 CPM more than the second highest bid.⁶³³
- An overview of the role of auctions in programmatic advertising can be found in chapter 1 section 1.4.

Figure C.1: Examples of first-price and second-price auctions⁶³⁴



⁶³³ Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, p. 24; Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M27.

⁶³⁴ The figures used in this appendix are an example of an auction between DSPs (in SSP A). SSPA A then goes on to submit the winning bid into a header bidding auction.

Second-price auctions were commonly-used in ad tech. In a second-price auction, bidders⁶³⁵ have the incentive to bid the maximum value they assign to an ad impression.⁶³⁶ In general, with this bidding strategy, bidders face a lower risk of significantly overpaying ad impressions when they value these ad impressions significantly more than all the other bidders (since they pay just above the second highest bid), as well as a lower risk of losing an impression where their valuation is greater than the price paid by the winning bidder.

In the past three years, most ad tech auctions have changed to operate on a first-price basis.⁶³⁷ There are two main reasons for this change.⁶³⁸

- In the context of repeated second-price auctions, publishers have the ability and incentive to use floor prices (discussed further below) to increase their revenue in the short term. Over time, this means that the value-revealing properties of second-price auctions are lost as advertisers will start to bid lower than the value they assign to the impression.
- The auction between SSPs (generally the final auction in the supply chain) is a first-price auction. This caused SSPs to change the rules of the second-price auctions that they ran between DSPs, in order to incentivise DSPs to submit higher bids. This would then mean that the bid the SSP sent to the final auction between SSPs would be more likely to win. As such, the SSPs' auctions became more similar to first-price auctions.

In first-price auctions, bidders no longer have the incentive to bid the maximum value they assign to an impression. Rather, bidders will adopt a bidding strategy to minimise the risk of paying significantly more than required to win the impression, while maximising their chances of winning the ad impression. This means they will try to bid somewhere between the maximum value that they assign to the impression and their estimate of the second-highest bid.

C.2 Price floors

Auctions between DSPs and auctions between SSPs generally involve price floors, which are set by publishers. Price floors establish a minimum price for the relevant ad inventory. For both first-price and second-price auctions, this means that bids can only win the auction if they are over the floor price. If no bid is received above the floor price, the ad inventory will go unsold. Therefore, setting a relatively high price floor increases the risk that a publisher's inventory goes unsold and that the publisher will not earn any revenue for the ad inventory. In some ad tech auctions, publishers are able to set different price floors for different bidders.

In a second-price auction, if the bidder with the highest bid is also the only bidder above its floor price, this bidder wins and pays \$0.01 more than the price floor instead of \$0.01 over the second highest bid, which may be lower than the price floor. This is illustrated in figure C.2. This demonstrates how publishers can use price floors to increase their revenue for second-price auctions.

⁶³⁵ Advertisers, DSPs or SSPs, depending on the auction.

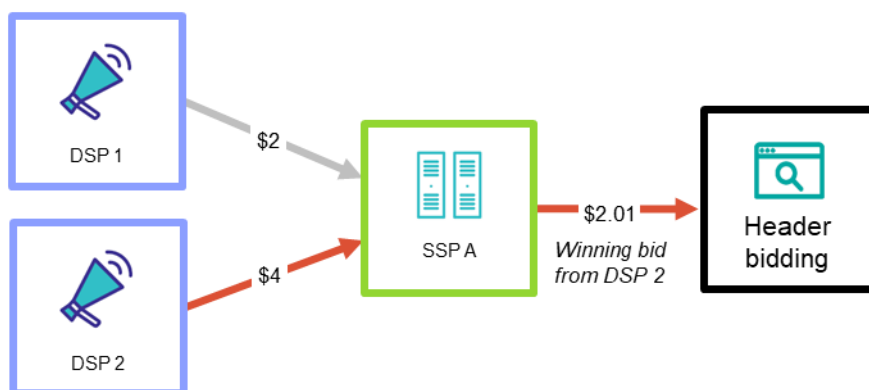
⁶³⁶ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M7.

⁶³⁷ Omnicom Media Group, [Submission to Ad Tech Inquiry Issues Paper](#), 18 May 2020, p. 24; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 29; Verizon Media, [Submission to Ad Tech Inquiry Issues Paper](#), 28 April 2020, pp. 3-4; Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, p. M11; Y. Chen, 'Programmatic advertising is preparing for the first-price auction era', *Digiday*, 5 October 2017, accessed 23 December 2020.

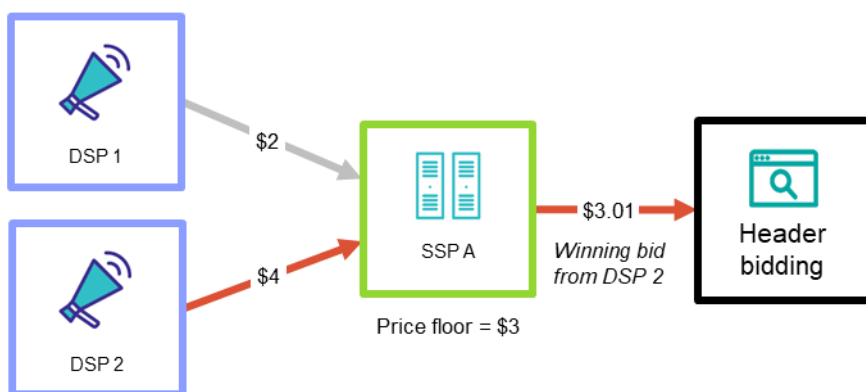
⁶³⁸ Competition and Markets Authority, [Appendix M to Online platforms and digital advertising market study final report](#), 1 July 2020, pp. M11-12.

Figure C.2: Example of second-price auction without and with price floor

No price floor:



Price floor:

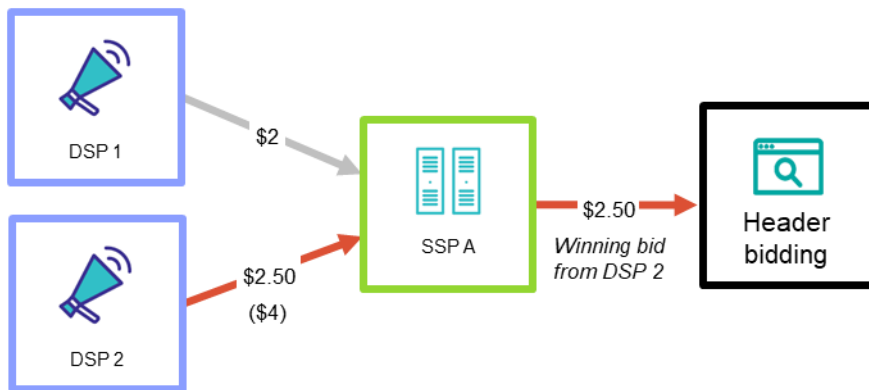


In a first-price auction, publishers can set price floors to incentivise bidders to engage in less bid shading.⁶³⁹ This is illustrated in figure C.3. In this example, DSP 2 values the impression at \$4. Without a price floor, it knows that it is likely to be able to secure the impression for \$2.50, but with the price floor it has to bid at least \$3. This shows how publishers can use price floors to increase their revenue for first-price auctions.

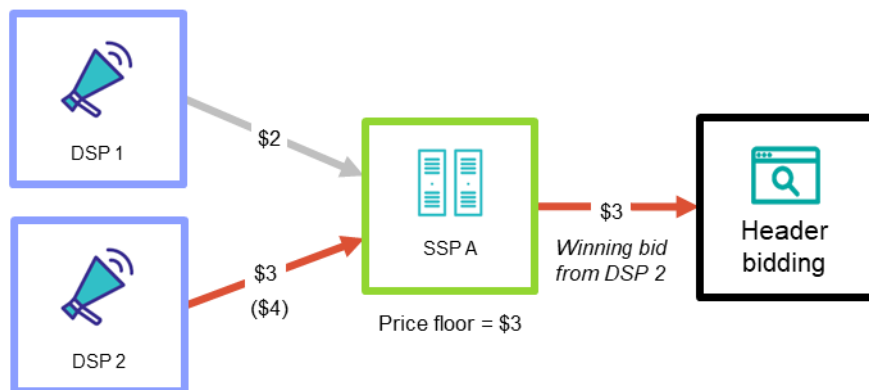
⁶³⁹ Bid shading occurs when an advertiser submits a bid that is lower than their actual valuation for an impression. It is used to prevent the advertiser from overpaying for an ad impression in first-price auctions. Bid shading has become more important to advertisers as ad tech auctions have moved from second price auctions to first price auctions. See also News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 86.

Figure C.3: Example of first-price auction with bid shading, without and with price floor

No price floor (with bid shading):



Price floor (with bid shading):



Appendix D – Overseas investigations regarding consumer tracking for targeted advertising purposes

The practice of tracking consumers for the purposes of targeted advertising is currently the subject of numerous investigations by overseas competition, consumer and privacy regulators, for example:

- On 7 December 2020, the French data protection authority (**CNIL**) issued fines totalling €100 million to Google and €35 million to Amazon for placing cookies for advertising purposes on users' computers without obtaining prior consent and without providing adequate information.⁶⁴⁰
- In August 2020, the US Federal Trade Commission (**FTC**) began investigating Twitter for potentially misusing users' personal information for the purposes of targeted advertising. The FTC's draft complaint alleges that Twitter used the phone numbers and email addresses provided by users to verify and secure their account and provided this information to its advertising partners.⁶⁴¹ This breaches the terms of Twitter's 2011 settlement with the FTC where Twitter was prohibited for 20 years from misleading consumers about the extent to which it protects the security, privacy and confidentiality of users' information.⁶⁴²
- On 7 February 2019, the German Bundeskartellamt found Facebook to be dominant in the market for social networks, and that its practice of collecting, merging and using data in user accounts was an abuse of its dominant position. After Facebook appealed this decision, The Federal Court of Justice upheld this decision, holding that:⁶⁴³
 - there are 'no serious doubts' about Facebook's dominant position in the German market for social networks or that Facebook is abusing this dominant position with the terms of use prohibited by the Bundeskartellamt
 - Facebook's terms and conditions are abusive, as they do not offer users a choice over the extent of the company's tracking and targeting of them, both on and off Facebook platforms, and
 - this has negative impacts on people's personal autonomy, infringing their rights and representing an antitrust abuse of how Facebook is exploiting its dominant position in the market for social networks.
- In September 2019, Google and YouTube agreed to pay a penalty of USD170 million as part of its settlement with the FTC and the New York Attorney General for allegedly collecting personal information from viewers of YouTube channels targeted at children. This information was alleged to have been collected for the purposes of targeted advertising, and obtained without parental consent, in breach of the Children's Online Privacy Protection Act. The FTC stated in its complaint that YouTube had actively marketed itself as a popular destination for children, with its marketing materials stating that YouTube is 'the favourite website for kids 2-12'.⁶⁴⁴

⁶⁴⁰ CNIL, [Cookies: financial penalties of 60 million euros against the company Google LLC and of 40 million euros against the company Google Ireland Limited](#), 10 December 2020; CNIL, [Cookies: financial penalty of 35 million euros imposed on the company Amazon Europe Core](#), 10 December 2020.

⁶⁴¹ Kate Conger, ['F.T.C. Investigating Twitter for Potential Privacy Violations'](#), *The New York Times*, 3 August 2020.

⁶⁴² FTC, [FTC Accepts Final Settlement with Twitter for Failure to Safeguard Personal Information](#), 11 March 2011.

⁶⁴³ Adam Satariano, ['Facebook Loses Antitrust Decision in Germany Over Data Collection'](#), *The New York Times*, 23 June 2020

⁶⁴⁴ FTC, [Google and YouTube Will Pay Record \\$170 Million for Alleged Violations of Children's Privacy Law](#), 4 September 2019.

Appendix E – Examples of recent mergers and acquisitions

Recent non-Google mergers and acquisitions involving ad tech or display advertising services include:

- **Twitter**, which operates MoPub (mobile SSP), acquired **CrossInstall** (mobile DSP) in May 2020. While CrossInstall will initially operate as a standalone unit, Twitter will explore integrating CrossInstall into its supply chain as the integration progresses.⁶⁴⁵
- **The Rubicon Project** (SSP) and **Telaria** (SSP specialised in connected TV) merged in April 2020 and rebranded as **Magnite**.⁶⁴⁶ Magnite's CEO Michael Barrett observed that publishers are looking for independent alternatives to Google, as they are 'reducing the number of partners they sell through and want to work with [SSPs] that can act as a one-stop-shop for all impressions, whether that's display or connected TV'.⁶⁴⁷ **The Rubicon Project** (SSP) also acquired **RTK.IO** (header bidding technology in 2019).⁶⁴⁸
- **Integral Ad Science** (ad verification provider) acquired **ADmantX** (data provider) in November 2019.⁶⁴⁹
- **Xandr** (DSP, SSP and advertiser ad server), acquired **Clypd** (SSP specialised in connected TV) in October 2019.⁶⁵⁰ Xandr is owned by AT&T and was formed after the 2018 merger of AT&T's advertising business and AppNexus.⁶⁵¹
- **Amazon** (DSP), acquired **Sizmek Ad Server** (advertiser ad server) and **Sizmek DCO** (creative management platform) in May 2019.⁶⁵² Previously, Sizmek had operated a full-service ad tech stack and was considered to be an alternative to Google's. Sizmek filed for bankruptcy in 2019 and sold parts of its company to three different companies (Amazon, Zeta Global and Peer39).⁶⁵³
- **Oracle** (DSP, data management platform, and data broker) acquired **Grapeshot** (ad verification provider) in April 2018, **Moat** (ad measurement and verification provider) in April 2017, **BlueKai** (data management platform) in 2014, and **Datalogix** (data broker) in 2014. In September 2020, it was announced that Oracle is also planning to purchase a 20% stake in **Tik-Tok Global**.⁶⁵⁴
- **Tremor** (DSP and SSP, video) acquisition of **Unruly** (SSP, video) in 2019.⁶⁵⁵
- **The Rubicon Project** (SSP) acquired **RTK.IO** (header bidding technology) in 2019.⁶⁵⁶
- **Salesforce** (data management platform) acquired **Tableau Software** (data analytics) in 2019.⁶⁵⁷

⁶⁴⁵ CrossInstall, [CrossInstall has signed a deal to join Twitter](#), 12 May 2020, accessed 12 October 2020; A Blustein, [Twitter Buys Mobile DSP CrossInstall as It Prioritizes Performance Ads](#), *Adweek*, 12 May 2020, accessed 12 October 2020.

⁶⁴⁶ The Rubicon Project, [Rubicon Project and Telaria complete merger following stockholder approvals](#), 1 April 2020, accessed 12 October 2020; R Shields, [Post-Merger, Rubicon Project and Telaria Rebrand as Magnite](#), 30 June 2020, accessed 12 October 2020.

⁶⁴⁷ S Joseph, [Work together around an open solution': As Rubicon and Telaria rebrand as Magnite, the SSP sets out to rival the walled gardens](#), 6 July 2020, accessed 12 October 2020.

⁶⁴⁸ P Murphy, [Rubicon Project acquires RTK.io for \\$16m](#), *AdNews*, 22 October 2019, accessed 12 October 2020.

⁶⁴⁹ Integral Ad Science, [Integral Ad Science Acquires ADmantX, Market Leading Provider of Semantic-Based Solutions for Contextual Advertising](#), 20 November 2019, accessed 12 October 2020.

⁶⁵⁰ AT&T, [Xandr Adds Clypd to its Portfolio of Products and Services](#), 18 October 2019, accessed 12 October 2020.

⁶⁵¹ P Murphy, [Xandr acquires TV advertising sales platform Clypd](#), *AdNews*, 21 October 2019, accessed 12 October 2020.

⁶⁵² Amazon Advertising, [Amazon is acquiring Sizmek Ad Server and Sizmek DCO](#), 31 May 2019, accessed 12 October 2020.

⁶⁵³ R Shields, [2019: The Year of Ad-Tech Darwinism](#), *Adweek*, 20 December 2019, accessed 12 October 2020.

⁶⁵⁴ A Sherman, [TikTok can continue to operate in the U.S., Commerce Department says](#), *CNBC*, 12 November 2020, accessed 26 November 2020.

⁶⁵⁵ L Sullivan, [Ad-Tech Deals Rose 72% in 2019](#), *MediaPost*, 10 February 2019, accessed 12 October 2020.

⁶⁵⁶ P Murphy, [Rubicon Project acquires RTK.io for \\$16m](#), *AdNews*, 22 October 2019, accessed 12 October 2020.

⁶⁵⁷ C Osborne, [Salesforce acquires Tableau Software in \\$15.7 billion deal](#), *ZDNet*, 10 June 2019, accessed 12 October 2020.

- **Roku** (streaming device) acquired **Dataxu** (DSP, video) in 2019.⁶⁵⁸
- **Publicis Groupe** (ad agency) acquired **Epsilon** (data broker) in 2019.⁶⁵⁹
- **Taptica** (DSP, video) acquired **RhythmOne** (SSP, video) and **Tremor** (DSP, video) in 2019.⁶⁶⁰
- **LiveRamp** (data management platform) acquired **Data Plus Math** (ad measurement provider, video) in 2019.⁶⁶¹
- **Smart Ad Server** (publisher ad server and SSP) acquired **Liquid M** (DSP) in 2019.⁶⁶²
- **IPG** (ad agency) acquired **Acxiom** (data broker) in 2018.⁶⁶³
- **Salesforce** (data management platform) acquired **Datorama** (data management platform) in 2018.⁶⁶⁴
- **Amobee** (DSP) acquired **Turn** (DSP and data management platform) in April 2017.⁶⁶⁵
- **Adobe** (DSP and data management platform) acquired **TubeMogul** (DSP, video) in 2017.⁶⁶⁶
- **Dentsu Aegis** (ad agency) acquired **Merkle** (data marketing agency) in 2016.⁶⁶⁷
- **Verizon Media** (DSP) acquired **Yahoo** in 2017 and **AOL** in 2015.⁶⁶⁸

⁶⁵⁸ R Page, [CMO's 2019 round-up of mega adtech and martech buys](#), *CMO*, 31 December 2019, accessed 12 October 2020.

⁶⁵⁹ A Schiff, [Epsilon Could Push Publicis Into A New Privacy Ballgame](#), *adexchanger*, 24 April 2019, accessed 26 November 2020.

⁶⁶⁰ R Shields, [Programmatic Companies Taptica and RhythmOne Merge in \\$176 Million Deal](#), *Adweek*, 4 February 2019, accessed 12 October 2020; L Sullivan, [Ad-Tech Deals Rose 72% in 2019](#), *MediaPost*, 10 February 2019, accessed 12 October 2020; T Howard, [RhythmOne board recommends merger with Taptica](#), *Proactive Investors*, 4 February 2019, accessed 10 December 2020.

⁶⁶¹ R Shields, [LiveRamp's \\$150 Million Data Plus Math Deal Shows the Changing Demands of Television Ads](#), *Adweek*, 26 June 2019, accessed 12 October 2020.

⁶⁶² L O'Reilly, [Smart Adserver acquires LiquidM](#), *Digiday*, 18 December 2019, accessed 12 October 2020.

⁶⁶³ S Sluis, [The 10 Game-Changing Ad Tech Exits of The Decade](#), *adexchanger*, 30 December 2019, accessed 26 November 2020.

⁶⁶⁴ L Kim, [The 10 Most Significant Tech Acquisitions of 2018](#), *Inc*, 27 November 2018, accessed 12 October 2020.

⁶⁶⁵ Amobee, [Amobee Completes Acquisition of Turn to Expand Digital Marketing Technology Solutions](#), 10 April 2017, accessed 12 October 2020.

⁶⁶⁶ A Ha, [Adobe acquires video company TubeMogul for \\$540M](#), *TechCrunch*, 11 November 2016, accessed 10 December 2020.

⁶⁶⁷ S Sluis, [The 10 Game-Changing Ad Tech Exits of The Decade](#), *adexchanger*, 30 December 2019, accessed 26 November 2020.

⁶⁶⁸ J Karstrenakes, [Verizon now officially owns Yahoo, Marissa Mayer resigns](#), *The Verge*, 13 June 2017, accessed 30 November 2020.

Appendix F – Methodology for analysing Ads.txt files

The figures referenced in this report with regards to Ads.txt files are based on an internal study of these files conducted by the ACCC in 2020.⁶⁶⁹

The approach that the ACCC undertook in this study included the following steps, which are described in further detail below:

1. Gathering a list of popular website domains in Australia.
2. For each domain, determining whether it had an Ads.txt file.
3. Downloading the Ads.txt files where they existed and compiling the data together.
4. Cleaning the data from the Ads.txt files.
5. Analysing the extracted data.

F.1 Gathering a list of popular website domains in Australia

The ACCC's analysis was based on a list of the top 10,000 websites in Australia in September 2020 that were frequently visited by consumers in Australia (excluding sites in the Adult Category to become the top 9,178 websites).

F.2 For each domain, determining whether it had an Ads.txt file

To build a database for analysis, the ACCC undertook a web scraping exercise, primarily on 22 October 2020.⁶⁷⁰ For this work we used a custom built application to attempt to access an Ads.txt file for each domain in our list of domains and recorded the results/saved the file.

For the purpose of this exercise, the ACCC created an application in the programming language VB.net. This application took the following steps to attempt to access an Ads.txt file, or to verify one did not exist:

1. It generated a HTTP Web Request, which requests information from a server (much in the same way a user does when entering an address in their browser). This request was configured as follows:
 - With a Chrome User Agent (the equivalent to making the request from a Chrome browser)
 - To accept standard text and html content
 - Using default user credentials.
 - Using default proxy cache.
2. The application then passed a request to the server which concatenated the https prefix and Ads.txt suffix with the domain (e.g. google.com would be https://**google.com**/ads.txt) and made a GET request (a request for data) to that domain.
3. The application then recorded the response:⁶⁷¹
 - *If the request returned a successful response*, the application confirmed the result contained an Ads.txt file (confirming the file content contained text and that the path matched the appropriate format). If this did not contain an Ads.txt file, we recorded that the file did not exist.

⁶⁶⁹ Ads.txt files are a list of authorised sellers (e.g. SSPs or ad networks) for a website's ad inventory.

⁶⁷⁰ There were 9 extra Ads.txt files identified after the initial scraping, not initially included, which were downloaded on 26 October 2020.

⁶⁷¹ Responses were recorded into a CSV file, including the domain which was accessed, whether an Ads.txt file existed and any error code if it one was encountered when attempting to access the Ads.txt file.

- *If the request returned an unsuccessful response*, the application recorded the error code. For 174 of these sites, the error code indicated Forbidden content (e.g. blocked access) and these were manually checked, resulting in the identification of nine sites which had Ads.txt files (which were then manually included in the results).⁶⁷² For other cases with error codes, we recorded that no Ads.txt file existed.

F.3 Downloading the Ads.txt files where they existed and compiling the data together

For domains with Ads.txt files, the web scraping application downloaded a copy of these files automatically. Once all domains had been checked, the web scraping application then compiled the results together into a single data source by reading the Ads.txt files one by one and writing the lines to a single new file. Any records which began with # were removed to a separate file on the assumption that these were comments, as per Ads.txt formatting rules.

F.4 Cleaning the data from the Ads.txt files

Once there was a single structured dataset, cleaning steps were performed on the data, and the data was prepared for analysis.

The following steps were taken to clean the data:

- Where attributes had been placed in the identifiable incorrect column in the source data (e.g. a value of DIRECT – which should be in the Account Relationship column, being placed in a different column) these were moved to the correct column.
- Where multiple vendor records had been placed on a single line, these were moved across multiple lines to be consistent with standard formatting rules.
- Where records for vendors had been included as comment text (and therefore included in the compiled comment data source), these were moved into the main dataset.
- When records were identifiable comments but did not start with # (and therefore had not been excluded) these were manually excluded.
- Identifiable typos were manually fixed (e.g. RESELLER changed to RESELLER).
- Names of vendors were aligned (e.g. Ad Tech changed to adtech.com).

F.5 Analysing the extracted data

Once the above steps had been completed, the analysis was collated in:

- an Excel spreadsheet containing a list of 9,178 domains with associated metadata (e.g. traffic share, category) and whether the site has an Ads.txt file
- an Excel spreadsheet containing a cleaned combined dataset of Ads.txt files, for each site with an Ads.txt file, showing the details of vendors present in each of those Ads.txt files.

The ACCC was able to use standard Excel functionality (functions, charts, PivotTables) to calculate summary statistics on this data.

⁶⁷² ACCC staff performed the checks on a non-networked Macbook Pro using Safari to avoid ACCC firewalls or Chrome specific issues.

Appendix G – Allegations regarding Google’s past and other conduct in supply side auctions

This appendix discusses allegations made by stakeholders relating to the way that Google operated its supply side services in the past, or practices that were implemented by Google some time ago and may be less of a concern today. Specifically it discusses:

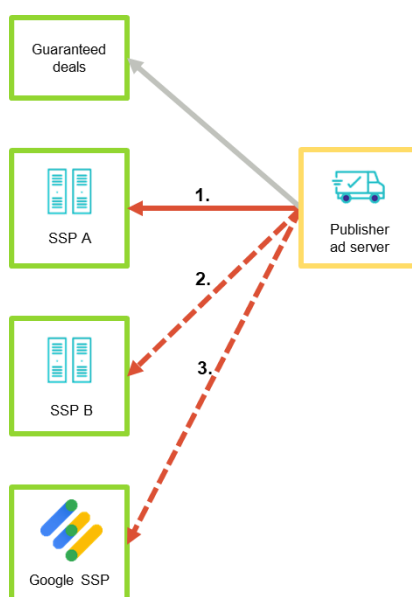
- Google’s introduction of dynamic allocation in 2009
- Google’s introduction of enhanced dynamic allocation in 2014
- Google’s initial response to the introduction of client-side header bidding in 2015.

G.1 Dynamic allocation

The first example raised by stakeholders is Google’s introduction of dynamic allocation on its publisher ad server in 2009.

Before 2009, publishers sold their ad inventory through a ‘waterfall’ process conducted on the publisher ad server.⁶⁷³ Essentially, the publisher ad server offered each ad impression to SSPs, one at a time, in a set order (as shown in figure G.1 below).⁶⁷⁴ Publishers set the order that SSPs would be called based on their estimated bids (which are estimated based on their historical bids). Each SSP would decide in turn whether to bid on the ad impression or not. This would continue until the ad impression was purchased or no SSPs were left to bid.

Figure G.1: The waterfall allocation process occurring on a publisher ad server



Prior to 2009, Google’s publisher ad server operated in the same way. However, in 2009, Google introduced a new system called Dynamic Allocation to change the way ads were sold on its publisher ad server. Under Dynamic Allocation, Google’s publisher ad server would take the publishers’ estimated bids for each SSP (based on their historical bids), and set the highest estimated bid as a price floor. This price floor was sent to Google’s SSP and it was then given an opportunity to submit a real-time bid for the ad impression before other

⁶⁷³ This waterfall system is still used in publisher ad servers in some circumstances.

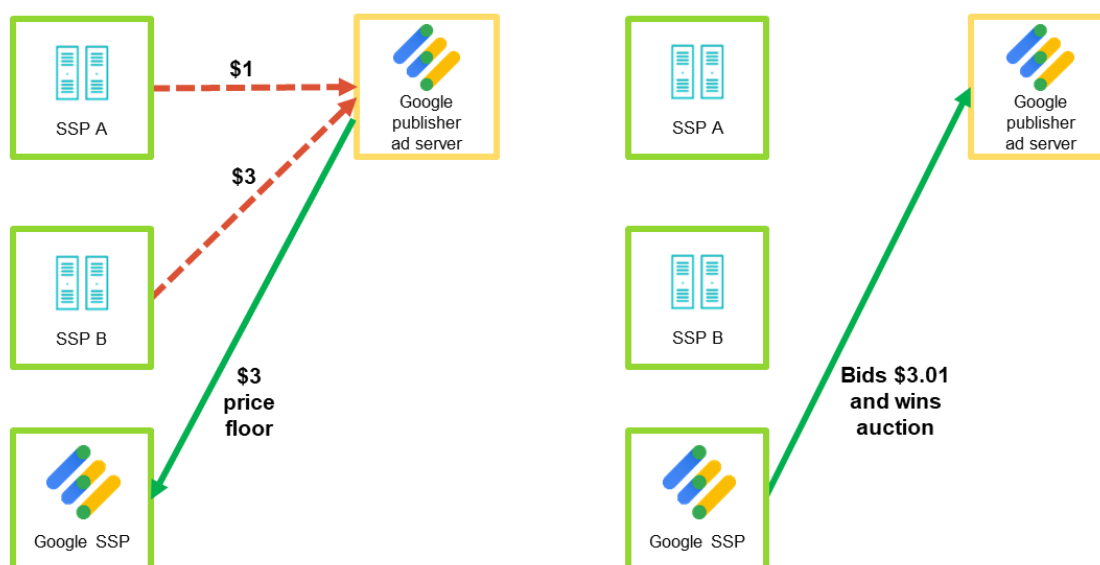
⁶⁷⁴ Typically, any applicable guaranteed deals (either direct deals or programmatic guaranteed deals) would be fulfilled first before the ad impression was made available to SSPs.

SSPs were called (that is, in the milliseconds after a consumer clicks on a website and waits for it to load).⁶⁷⁵ Google's SSP could win the auction as long as it was willing to bid \$0.01 higher than the price floor. This process is illustrated in Figure G.2 below.

Figure G.2: Dynamic Allocation on Google's publisher ad server

1. Google's publisher ad server sends the highest estimated bid from third party SSPs to Google's SSP as a price floor.

2. Google's SSP can then submit a bid higher than the price floor and win the auction immediately before any other SSP is called.



A number of stakeholders submit that Dynamic Allocation advantaged Google's SSP and foreclosed competition from rival SSPs.⁶⁷⁶ For example, News Corp submits that Dynamic Allocation allowed Google's SSP to compete on the basis of real time demand, while rival SSPs were limited to estimated bids based on their historic bid amounts, giving Google's SSP a distinct advantage over competitors.⁶⁷⁷ News Corp further argues that this had the effect of shielding Google's SSP from the competition of other SSPs.⁶⁷⁸ Similarly, Daily Mail Australia submits that through Dynamic Allocation, Google used the key function of the publisher ad server (determining how ad inventory is sold) to favour its own SSP, with the result of allowing Google to 'win more inventory at the lowest price possible'.⁶⁷⁹ Additionally, Geradin and Katsifis submit under Dynamic Allocation, Google's SSP had better information than competing SSPs because of its integration with Google's publisher ad server, and that this allowed Google's SSP to 'cherry pick' the best impressions.⁶⁸⁰

Bitton and Lewis, in their report for Google, submit that Dynamic Allocation solved for 'inefficiency in the waterfall process' and resulted in higher yields for publishers.⁶⁸¹ In particular, Bitton and Lewis explain that Dynamic Allocation allowed publishers to determine

⁶⁷⁵ See, e.g., G. Sloane, '[WTF is dynamic allocation?](#)', *Digiday*, 14 April 2016.

⁶⁷⁶ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 23; Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, pp. 17-18; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, pp. 37-40.

⁶⁷⁷ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 23.

⁶⁷⁸ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 23.

⁶⁷⁹ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, pp. 17 & 23.

⁶⁸⁰ Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, p. 40.

⁶⁸¹ Google – Report from Daniel Bitton and Stephen Lewis, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, pp. 15-16.

in real-time whether there were ad buyers willing to pay a price for ad inventory that was higher than the publisher's estimated bids from each SSP.⁶⁸²

While Dynamic Allocation may have addressed some of the inefficiency in the waterfall structure, it potentially raised competition issues by only allowing Google's SSP to make real time bids, and not allowing other SSPs to do this. This potentially could have made it more difficult for SSPs to compete with Google's SSP. It may also have allowed Google's SSP to win auctions for ad impressions where a rival SSP's real-time bid would have been higher. For instance, in the example set out at Figure G.2 above, Google's SSP wins the auction at \$3.01 based on SSP B's estimated bid amount of \$3 even though SSP B may have been willing to submit an actual bid of \$4 and was ranked above Google's SSP in the waterfall.

G.2 Enhanced Dynamic Allocation

In 2014, Google further developed Dynamic Allocation by introducing Enhanced Dynamic Allocation, which gave Google's SSP the ability to submit real-time bids for ad impressions that were otherwise to be sold under direct deals. Before introducing the new system, under Dynamic Allocation, guaranteed deals (or direct deals) would be fulfilled first, and then Google's SSP would have the opportunity to bid over other SSPs. However, under Enhanced Dynamic Allocation, Google's publisher ad server checked the price for ads sold under guaranteed deals and then estimated bids from non-Google SSPs. It then sends the highest of these as a price floor to Google's SSP, and Google's SSP would then have the opportunity to submit a real-time bid for the ad impression. Google's SSP could win the auction if it bid higher than the price floor, while third-party SSP bids win the ad impression if their estimated bid was higher than the price of the guaranteed deal (and Google's SSP did not bid higher).

⁶⁸² Google – Report from Daniel Bitton and Stephen Lewis, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 15.

Figure G.3 Enhanced Dynamic Allocation on Google’s publisher ad server

1. Google’s publisher ad server checks the estimate bids from third party SSPs and the price of direct sold ads. It sends the highest of these to Google’s SSP as a price floor.

2. Google’s SSP can then submit a bid higher than the price floor and win the auction immediately before any other SSP is called.



Bitton and Lewis, in their report for Google, submit that the introduction of Enhanced Dynamic Allocation increased competition between different demand sources, generating more revenue for publishers.⁶⁸³ Bitton and Lewis further submit that third party SSPs also benefited as they also gained the opportunity to compete against guaranteed deals.⁶⁸⁴

However, News Corp submits that while publisher revenues increased in the short term, this feature allowed advertisers to ‘bypass direct sales and purchase through Google’s ad exchange [SSP] at lower prices’.⁶⁸⁵ News Corp further states that this had the ‘likely effect of weakening the direct sales channel and steering advertisers towards programmatic advertising channels’.⁶⁸⁶ Given Google gained visibility over, and ability to bid on, inventory previously sold via direct deals, News Corp argues that Google was effectively able to secure this more valuable ad inventory which ‘[leaves] less valuable inventory to other exchanges [SSPs] and advertisers’.⁶⁸⁷

⁶⁸³ Google – Report from Daniel Bitton and Stephen Lewis, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, pp. 16-17.

⁶⁸⁴ Google – Report from Daniel Bitton and Stephen Lewis, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, pp. 16-17.

⁶⁸⁵ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 24.

⁶⁸⁶ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 24.

⁶⁸⁷ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 24.

While Enhanced Dynamic Allocation, like Dynamic Allocation, may have addressed some of the inefficiency in the waterfall structure, it is possible that it also provided Google's SSP with a competitive advantage over rivals.

G.3 Google's initial response to header bidding

In 2015, to circumvent Enhanced Dynamic Allocation, publishers developed header bidding, which allowed non-Google SSPs an opportunity to submit bids to compete for inventory on a real time basis, rather than sequentially being called to submit bids like in the 'waterfall' process.⁶⁸⁸ Header bidding is a process that allows multiple SSPs to bid on the same ad inventory at the same time (i.e. to compete against each other in real time), with the winning bid selected via auction. The auction is generally run in the consumer's web browser, before the publisher ad server is called to serve the ad, but it can also be run in a third party server or publisher ad server. However, Google's SSP did not (and still does not) participate in non-Google header bidding (as discussed in chapter 4).

News Corp submits that Google's decision not to participate in header bidding is driven by 'the fact that header bidding posed a credible threat to Google's market power across the ad tech supply chain'.⁶⁸⁹ Along with Daily Mail Australia, it also submits that even after the implementation of header bidding, Google's publisher ad server continued to have the ability to provide Google's SSP with an advantage over other SSPs.⁶⁹⁰ While all other SSPs were now competing with one another on a real-time basis in header bidding auctions, this auction occurred first and the winning bid would then be sent to the publisher ad server. Where Google's publisher ad server was used, Daily Mail Australia and News Corp submit that Google could submit a bid after all the non-Google SSPs had submitted their bids in the header bidding auction.⁶⁹¹ Daily Mail Australia and News Corp both submit that this meant Google retained a 'last look' advantage.⁶⁹²

Google has provided a number of reasons as to why it does not to participate in header bidding (see chapter 4 for a discussion of these).⁶⁹³ Bitton and Lewis, in their report for Google, similarly, submit that Google's decision not to participate in header bidding was motivated by concerns that header bidding carried with it the 'potential for adverse effects on users, advertisers and the ecosystem'.⁶⁹⁴ That is, they suggest that this decision was not motivated by an intent to give Google's SSP an advantage.

The ACCC's views about Google's participation in header bidding are discussed in detail in chapter 4.

⁶⁸⁸ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 24; Geradin and Katsifis, [Submission to Ad Tech Inquiry Issues Paper](#), 3 June 2020, p. 42; Free TV Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 22 May 2020, p. 12.

⁶⁸⁹ News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 25.

⁶⁹⁰ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, pp. 17-18; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, p. 25.

⁶⁹¹ Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 17. News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 24-25.

⁶⁹² Daily Mail Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 2 June 2020, p. 17; News Corp Australia, [Submission to Ad Tech Inquiry Issues Paper](#), 15 May 2020, pp. 24-25.

⁶⁹³ Confidential submission from Google (published with consent).

⁶⁹⁴ Google – Report from Daniel Bitton and Stephen Lewis, [Submission to Ad Tech Inquiry Issues Paper](#), 5 May 2020, p. 19.