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Competition in Digital Advertising Markets – Note by Spain

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More documents related to this discussion can be found at
http://www.oecd.org/daf/competition/competition-in-digital-advertising-markets.htm

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1. This contribution by the Spain's National Commission for Markets and Competition[1] (CNMC) addresses the subject of the roundtable on "Digital advertising markets", to be held in the November 2020 meeting of the Working Party No.2 on Competition and Regulation (WP2).

2. It is structured as follows. The first section aims at depicting the value chain of digital advertising[2]. The second section deals with the assessment of the economic framework[3]. The third section addresses potential competition concerns that may arise in digital advertising[4]. The fourth section explores other relevant policy areas, such as consumer, privacy and data protection[5]. The fifth and last section concludes with alternative policy options for promoting competition and other objectives in digital advertising markets[6].

1. The value chain of digital advertising

3. Abundant analyses have been written[7] about the value chain of digital advertising, perhaps because of two reasons:

   - From a theoretical point of view, the complexity of the sector makes it an interesting issue as such.
   - From a policy perspective, understanding the value chain is key to ascertain potential competition problems that may arise (to be developed in Section 3): integration of services, the role of data, self-preferencing in vertically integrated platforms, etc.

[1] This contribution has been prepared by the staff of the CNMC and shall not be regarded as the official position of the CNMC unless it refers to CNMC approved documents. Part of the knowledge used to prepare this submission relies on the understanding gained along the ongoing CNMC's market study on online advertising (initiated in 2019 with a first stage of public consultation) and does not refer to any specific market or geographical area but to qualitative intuitions and general trends, which may be different in some instances. Specifically, when issues and concerns are mentioned in Section 3, they should not be interpreted in any case as infringements of competition law but as market dynamics suggested by some authors and experts (not necessarily reflecting CNMC's views). Therefore, since the study is still ongoing (although it is expected to be published shortly), views expressed in this contribution on market structure and potential competition issues of online advertising are still of a preliminary nature and may change in the course of the investigation.

[2] Covered in the first block of questions of the OECD call for contributions (sections I of the Annex).

[3] Covered in the second block of questions of the OECD call for contributions (section II of the Annex).

[4] Covered in the third and fourth block of questions of the OECD call for contributions (section III of the Annex).

[5] Covered in the fifth block of questions of the OECD call for contributions (section IV of the Annex).

[6] Covered in the sixth block of questions of the OECD call for contributions (section V of the Annex).

[7] Bitton, D., Pearl, D., Dolmans, M., & Mostyn, H. (2019) "Competition in Display Ad Technology: A Retrospective Look at Google/Doubleclick and Google/Admob", *CPI Antitrust Chronicle*, 1(2), 41-49; CMA (2020) *Online platforms and digital advertising market study: Final report*; Geradin, D., & Katsifis, D. (2020). "Trust me, I'm fair": analysing Google's latest practices in ad tech from the perspective of EU competition law. *European Competition Journal*, 16(1), 11-54; Kemp, K. (2020) *Submission in Response to the Australian Competition & Consumer Commission Ad Tech Inquiry Issues Paper*, https://ssrn.com/abstract=3587239.

4. But, apart from the intrinsic interest of studying the value chain because of the two previous ideas, it is also relevant to compare the value chain of digital advertising (Figure 2) with the traditional one (Figure 1). This can shed light on the disruption caused by digitization.

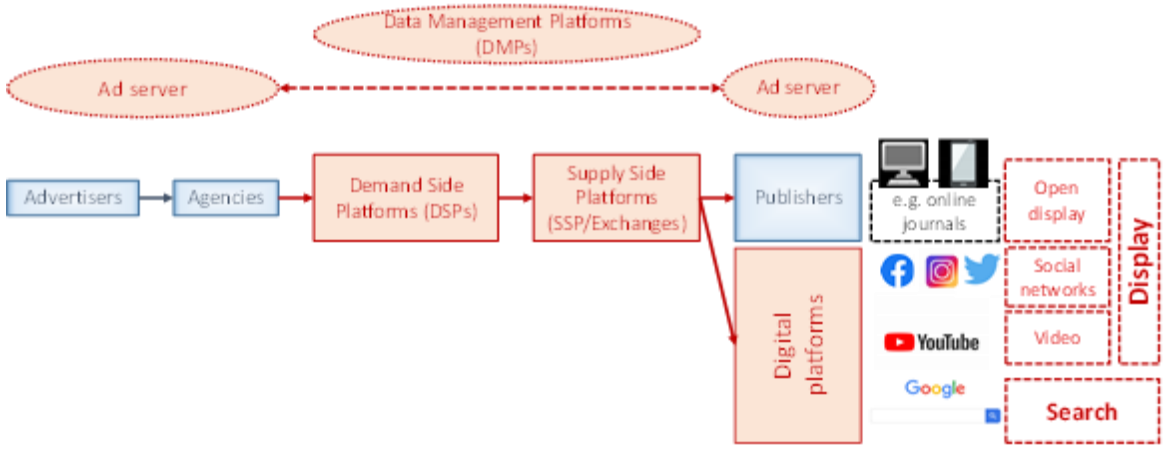
5. Figure 1 portrays the traditional way of doing business in advertising. Advertisers, and agencies thereof, competing to buy publishers' advertising space (e.g newspapers or audiovisual services). Market power on the buyers'/advertisers' side depends on each campaign size or on the general budget. Market power on the sellers'/publishers' side depends on their audience. Some publishers/spaces can be especially appealing for specific advertisers (not only due to the size of the audience but also) because of the audience's profile (but targetability at the individual level is generally unfeasible).

Figure 1. The value chain of traditional advertising

Source: own elaboration

6. Figure 2 illustrates the disruption driven by online advertising. Firstly, traditional publishers have to adapt their technology in order to be viewable on new devices (e.g. through online journals or over-the-top audiovisual services). And this is not the only (nor the most relevant) change.

Figure 2. The value chain of digital advertising



Source: own elaboration

7. In Figure 2 we can also spot two more shocks:

   - The emergence of digital platforms competing with traditional publishers for audiences, and hence competing for advertisers' budget too. In order to capture the attention of users, platforms provide them services they value such as search engines, audiovisual content or social networks. Thanks to network effects, platforms can subsidize these services (typically provided at a monetary price of zero[8]) with the fees they charge to advertisers. Indirect Network Effects are more

[8] Although users pay with their data and attention, as explained in Section 2.

potent in digital business models because scale[9], learning[10] and scope[11] economies are much more potent. So digital platforms have a comparative advantage vis-à-vis traditional publishers. And digital platforms with a huge audience accumulate big data[12] as a by-product. Data is going to be another key source of comparative advantage (further analyzed in Section 2) for digital platforms (vis-à-vis traditional publishers) because it allows to target advertising at the level of individuals. Therefore, platforms are competitive not only because they capture great audiences but also because they can target advertising.

- The emergence of new intermediaries[13], forcing traditional agents (agencies and publishers) to compress their mark-ups. Some digital platforms with huge and attractive advertising inventories (e.g. Google) are also present in this intermediation layer. Demand-Side Platforms (DSPs) aggregate advertisers'/agencies' bids and Supply-Side Platforms (SSPs) aggregate publishers' offer of space, with (most and an increasing share of) trades being matched through programmatic auctions to reduce transaction costs. DSPs and SSPs can enrich their bids/offers with targetability options, and this explains the relevance of data management platforms (DMPs), whose services can be integrated in DSPs/SSPs to improve targetability or measurability. Ad servers are needed on both sides of the market to ensure the connection in the terms that have been negotiated in DSPs/SSPs. Ad serving services can also be integrated in DSPs (for advertisers) and in SSPs (for publishers).

8. To sum up, we have seen that digital advertising has disrupted the value chain. Digital platforms have cemented their competitive advantage thanks to the generation of huge audiences, the accumulation of data and the integration of intermediation services.

9. Actually, Figure 2 only depicts accurately the reality of the so-called "open display" (the inventory of traditional publishers on the internet, e.g. online journals). As shown in Figure 3, the inventory of most relevant platforms in social networks, audiovisual content or search engines is auctioned in SSPs but sold through their integrated DSP.

[9] Digital platforms face less physical constraints than traditional publishers.

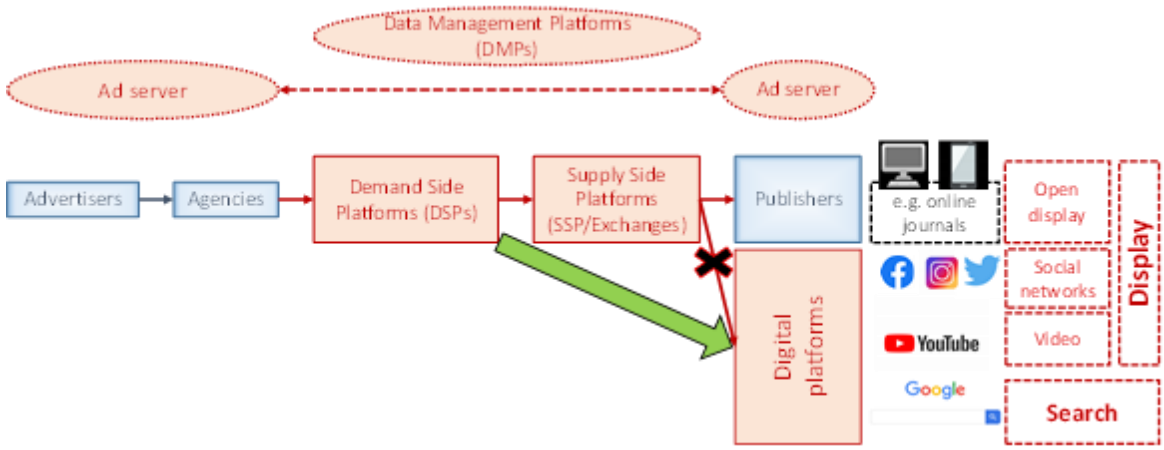
[10] Strong learning effects (dynamic scale economies) due to the economics of big data (for instance, through the improvement of algorithms via machine learning and artificial intelligence).

[11] Data-driven business models exhibit scope economies because of the horizontal application of some of the technologies used and, especially, owing to the economics of big data (which incentivises the accumulation of a wide variety of data through envelopment or ecosystem strategies).

[12] Big data can be defined as databases of big volume, wide variety and accumulated at a high velocity (the 3Vs), hence databases of huge value (the 4th V).

[13] Actually, the ecosystem is much more complex than figure 2 and there are other intermediaries. Agencies bids' in DSPs are negotiated through trading desks. Advertisers and publishers (especially those of a smaller size) can also meet in ad networks (which merge space whose demand is relatively low).

Figure 3. The value chain of digital advertising for big platforms' inventory



Source: own elaboration

10. This exacerbates the three abovementioned sources of competitive advantage for digital platforms: huge audiences, high-quality databases and service integration. The role of these forces (especially databases) is further explained in Section 2.

2. The economic framework of digital advertising

11. The disruptive nature of digital advertising rests on the relevance of data, with two dimensions.

    - Targetability: a wide variety of users' data (browsing history, geolocation, sociodemographic characteristics, interests…) can be obtained or estimated in order to target advertising at the level of the individual.
    - Measurability: data can also be used to better gauge the effectiveness of advertising campaigns.

12. In order to understand this disruptive force of data, it is again pertinent to compare digital advertising with the traditional one (as we have done in Section 1 with the value chain).

13. Advertising, be it digital or traditional, is a two-sided market. In this setting, platforms face two pricing decisions, i.e. what to charge each of the two sides: consumers and advertisers. Traditionally, most platforms present in the advertising industry have tended to subsidize consumers (the more elastic side) in order to exploit network effects, charging most (if not all) the monetary cost to advertisers. This is even more exaggerated in digital advertising: consumers are heavily subsidized[14] with zero (or even negative[15]) prices for search engines, social networks or audiovisual content; while advertisers bear all the monetary cost.

[14] One reason for this could be consumers' low willingness to pay for digital services. See: Holzweber, S. (2017). "Market Definition for Multi-Sided Platforms: A Legal Reappraisal", *World Competition*, 40(4), 563-582

[15] The price could be considered to be negative given that the use of complementary products (e.g. e-mail accounts, message services, premium services) is bundled and subsidized too. See: Evans, D. S. (2013) "Attention Rivalry among online platforms", *Journal of Competition Law & Economics*, 9(2), 313-357.

14. Advertising-funded business models, be them digital or traditional, face a third pricing decision: attention[16]. In other words, users spend time being subject to advertising campaigns. Therefore, the combination of content and ad placement is also a pricing decision. When two advertising-funded firms are competing aggressively, they will try to offer the best deal for consumers: more content and less ad placement. Again, this is more prominent in digital advertising: newcomers or fierce competitors will tend to improve quality and experience for consumers[17], not only with lower ad placement and more content[18] but also with better usability and layout (especially, because this generates data as a by-product, with the importance we emphasize in the next paragraph). But when platforms reach some market power (or if markets have tipped), they can gradually increase ad placement[19] (i.e. raising the "attention price" for consumers).

15. And finally, digital advertising faces a fourth pricing decision which is not present in traditional advertising: data. Agents active in this market will have to decide the exhaustiveness of data collection, i.e. how much they make users pay with their personal data (personal information, browsing history…), in order to improve their inference of consumers' preferences, refining targetability.

16. These last two dimensions of pricing are interconnected. Platforms will tend to maximize audience, attention and time spent on the platform (reducing ad placement if needed, adding more free services with ecosystem and envelopment strategies) to increase data collection. Accumulating more data about specific users implies improving targetability for all users (because data can be extrapolated to infer other users' preferences/interests), but especially for their direct users, whose data and attention they have already got and who are already in the platforms' ecosystem (and therefore subject to its targeted advertising). Well-targeted advertising is key[20] not only to attract marketers (whose investment in ads would be more productive, since they reach their intended audience) but also to keep users (since targeted advertising is less irritating and can be more informative and interesting for consumers).

17. Therefore, two main conclusions can be drawn from this particular multi-sidedness of digital advertising:

    - Even if the monetary cost is zero for consumers and totally born by advertisers, the economic cost is shared by both agents: consumers pay with their attention (ad placement) and data. Therefore, all these are variables of competition and affect consumer welfare.

    - Dynamics of competition tend to favour business models where consumer use is heavily subsidized: free services and relatively low or convenient ad placement (except for companies with some room to exercise market power) in order to increase audience and generate more data (and improve advertising, which attracts more marketers and helps to keep users). Attracting wide audiences' attention and targeting abilities (by understanding preferences and purchasing intent) are the two

[16] Prat, A., & Valletti, T. M. (2018). *Attention Oligopoly*, https://ssrn.com/abstract=3197930; Wu, T. (2018) "Blind Spot: The Attention Economy and the Law", *Antitrust Law Journal*, 82(3).

[17] Evans, D. S. (2013). Attention Rivalry among online platforms. Journal of Competition Law & Economics, 9(2), 313-357.

[18] Apparently, this was key for Myspace to be displaced by Facebook, see: Wu, T. (2018) "Blind Spot: The Attention Economy and the Law", *Antitrust Law Journal*, 82(3).

[19] This would be the case of Google Search. See: Wu, T. (2018) "Blind Spot: The Attention Economy and the Law", *Antitrust Law Journal*, 82(3).

[20] CMA (2020) *Online platforms and digital advertising market study: Final report*.

key drivers of comparative advantage in online advertising[21]. This is not so different from the economies of scope which exist in traditional advertising between selling content (to attract attention) and ads (to monetize that attention), which generate network effects in turn. But these scope and network economies are more powerful in digital advertising when adding targetability and data (and the learning economies associated with those) to the equation[22].

18. The prominence of network effects and the role of data are behind some of the competition issues analysed in Section 3.

3. Potential competition issues in digital advertising

19. The prominence of network effects and the role of data (with learning, scope and scale economies) generates a trend towards an increasing degree of concentration (winner-takes-it-all dynamics). This concentration can also be achieved through mergers, when companies buy a potential competitor or a firm with a complementary database.

20. Concentration as such is not a problem. It may be a cause for concern when interacting with the issues we mention below.

3.1. Integration of services

21. Concentration can alter competitive dynamics given the common trend of integrating services along the value chain. For instance, advertisers (and agencies thereof) and medium-size competitors in the ad tech ecosystem (DSPs and SSPs) may be affected by the fact that in order to access big audiences of digital platforms (social networks, audiovisual content, search engines…), their own DSP has to be used. Therefore, the prominence of digital platforms in audience generation affects their competitiveness as a DSP, creating switching costs[23].

3.2. Data dependency

22. As has been explained below, data is the main variable of competitiveness in digital advertising. Firms compete in the data they can collect from consumers (in order to refine targetability) and there are even data-driven mergers.

23. The exploitation of data is non-rival. But data are a priori excludable, and regulation actually promotes excludability in general. Therefore, they are not a pure public good but a "club good". In economic terms, one could consider that data could be non-excludable if big databases were easily replicable. But scale, learning, scope and network economies imply an advantage for big companies which have entered a market first (they have gained size and experience to improve data management, especially taking into account the learning economies associated with algorithms and artificial intelligence). Hence, data can be a competitive constraint and a barrier to entry.

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[21] CMA (2020) *Online platforms and digital advertising market study: Final report*; Decarolis, F., Goldmanis, M., & Penta, A. (2018) *Recent developments in online Ad Auctions*.

[22] Evans, D. S. (2019) *Advertising, Content, and Welfare*, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3466274.

[23] Geradin, D., & Katsifis, D. (2020) ""Trust me, I'm fair": analysing Google's latest practices in ad tech from the perspective of EU competition law", *European Competition Journal*, 16(1), 11-54.

24. In order to accumulate data in the online advertising industry, there are two basic alternatives[24]:

- First-party data a firm gets when someone visits directly her inventory (e.g. her app or website). In order to track the same user's visits to the web, the industry has traditionally used "cookies[25]" to exploit information from the browsing behaviour (visited pages on the domain, reactions to content/advertisements…). Therefore, traditional publishers can accumulate first-party data on their audience (and even advertisers, through their website or apps). But platforms have an enormous advantage here, not only because their audience is bigger[26] but also because they have other ways to access data:
  - The login mechanism allows some platforms to match cookies with relatively reliable real personal information (e.g. age, address and contact details, interests…) revealed by users[27]. This is useful *per se* but also because it allows to use this deterministic data to infer personal data/interests of other "anonymous" agents with similar browsing behaviour. The power of this login mechanism is leading most traditional publishers to "registration walls" (requiring users to register and log-in to use the website and access content) so that they are able to build a base of first-party data that can be pooled in "data parnerships" to access other firms'/publishers' data[28].
  - Given the envelopment strategies of some platforms, some of them may exploit data from devices, enriching a user's profile if the session is logged in (in different devices at the same time) and also through other methods (like the IP address and geolocation).
  - Platforms can accumulate data on browsing behaviour beyond their properties (e.g. when individuals are using a web browser or when accessing URLs through apps or webs), or whenever users' session is active (e.g. logged in user accounts). Some platforms can also integrate first-party data with third-party data, as explained below.
- Third-party data firms accumulate data when someone visits other domains that have allowed (those firms) to track users on that website (e.g. by installing third-party cookies). Firms active in the ad tech stack (DSPs, SSPs, DMPs…) are the ones most interested in these data, in order to enrich the users' profile (relying on their behavior across the web) in order to refine targetability. As explained above,

[24] Geradin, D., & Katsifis, D. (2020). Taking a Dive Into Google's Chrome Cookie Ban. Retrieved from SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3541170.

[25] A simple text file stored in the user's browser which could be equivalent to an anonymized ID. See: Kemp, K. (2020) *Submission in Response to the Australian Competition & Consumer Commission Ad Tech Inquiry Issues Paper*, https://ssrn.com/abstract=3587239.

[26] Given the economics of big data (scale, learning, scope and network effects) an advantage of a given scale can have exponential effects.

[27] Geradin, D., & Katsifis, D. (2020). ""Trust me, I'm fair": analysing Google's latest practices in ad tech from the perspective of EU competition law", *European Competition Journal*, 16(1), 11-54.

[28] Data acquired this way is called second-party data, since it is collected in other websites as third-party data, but its quality is much higher (at the level of first-party), given that partnerships may include mechanisms to track users across the web and ensure frictionless data syncing among participants. See: Kemp, K. (2020) *Submission in Response to the Australian Competition & Consumer Commission Ad Tech Inquiry Issues Paper*, https://ssrn.com/abstract=3587239.

platforms which are able to transact the sale of open display inventory with many publishers are the most competitive in data accumulation, especially if they can also integrate first-party data.

25. As a consequence of all this, there are several ways through which "data dependency" and the role of some agents can affect competition:

    - The prominence of digital platforms in audience generation affects their competitiveness in other areas of the value chain, in particular, by offering data analytics as a DMP (and also measurement and attribution services) and enriching the bids/offers in terms of targetability as a DSP and/or a SSP. Furthermore, cookie matching[29] is 30%-40% less efficient when taking place between different companies, this favouring vertically integrated platforms (as explained below).
    - Data dependency creates switching costs owing to potential problems of portability. Provider switching costs are relevant in some segments such as the ad server market, especially for publishers[30]. In other stages of the value chain, single-homing will affect competition similarly to switching costs. For instance, advertisers' (and agencies') propensity for single-homing in DSP[31] can be the result of technical reasons (related to data issues) or of scale[32] (since only bigger advertisers can afford having more than one DSP in order to seek more competitive services through diversification and comparison).
    - The industry apparent trend to eliminate "cookies"[33] is likely to relatively increase the weight of platforms in data collection, given their above-mentioned comparative advantage in first-party data (through multiple ways).

26. The relevance of data, as explained in the first of the three previous ideas favours vertical integration. This can lead to other issues, like self-preferencing.

3.3. Self-preferencing

27. The relevance of data and the general complexity of the sector incentivizes vertical integration. This creates an obvious motivation for favouring own services. This self-preferencing could have a negative impact on publishers and/or advertisers and on static and dynamic efficiency if it is not transparent and justified on objective (economic or technological) reasons.

28. The presence of some intermediaries in all the stages of the value chain could create some concerns and undermine the theoretical efficiency of sequential auctions to allocate advertising budget and inventory. Firstly, each DSP runs an auction among its

[29] The confirmation that two cookies which have visited different domains are actually the same. See: Geradin, D., & Katsifis, D. (2020) "Taking a Dive Into Google's Chrome Cookie Ban", https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3541170.

[30] Geradin, D., & Katsifis, D. (2019) "An EU competition law analysis of online display advertising in the programmatic age", *European Competition Journal*, 15(1), 55-96; Scott Morton, F. M., & Dinielli, D. C. (2020) *Roadmap for a Digital Advertising Monopolization Case Against Google*, Omidyar Network.

[31] Scott Morton, F. M., & Dinielli, D. C. (2020) *Roadmap for a Digital Advertising Monopolization Case Against Google*, Omidyar Network.

[32] Apart from other issues mentioned above, such as the exclusive access to specific platforms' inventory.

[33] Recently, Google announced its plan to plan to phase out support for third-party cookies in Chrome. Other major players are likely to follow. See: Schuch, J. (2020) "Building a more private web: A path towards making third party cookies obsolete", https://blog.chromium.org/2020/01/building-more-private-web-path-towards.html.

advertisers/agencies. Secondly, each SSP runs an auction among DSPs. Thirdly, SSPs have to be ranked by publishers ad servers.

29. There may be concerns with the first and second stages[34]. If in the second phase, SSPs run a second-price auction[35], then the DSP can keep the difference between the price of the first auction and the price of the second auction. Actually, if the first stage is moving to a first-price model[36], the difference earned by the DSP is higher and so is its fee (proportional to advertising expenditure). This would result in lower payments to the other side of the market (publishers) but vertically integrated platforms would not be affected (what they lose on the publishers' side, e.g. as an SSP, can be recovered on the advertiser's side, as a DSP).

30. There are concerns with the third stage too[37]. Companies integrating publishers ad serving and a SSP may use the former to favour bids channeled through the latter (even if those bids are not the most profitable for the publisher). Although there may be are other technical issues (such as latency[38], compatibility with mobile navigation or interoperability factors) and economic reasons (such as the estimation of the expected click-through rates, which may alter the bids ranking) behind this issue too.

31. Other economic and technological reasons for a more efficient matching between agents belonging to the same (vertically integrated) company, include the (above-mentioned) "cookie syncing" between a DSP and a SSP. The same dynamics also affect the services provided by ad servers (with better understanding between ad servers on both sides of the market when belonging to the same company) and DMPs, which can be integrated with DSPs (for advertisers) and SSPs (for publishers).

32. In any case, self-preferencing can also be due to a lack of transparency, a problem with more dimensions that we aim at analyzing below.

3.4. Lack of transparency

33. The complexity of online advertising (matching of transactions through programmatic means, multi-stage value chain with sequential auctions, interoperability issues) can lead to contexts of lack of transparency. Opacity regarding prices[39] and indicators of performance[40] can distort the competitive process. Agents would not be equipped to take

[34] Geradin, D., & Katsifis, D. (2019) "Google's (Forgotten) Monopoly – Ad Technology Services on the Open Web", *Concurrences*, 3; Scott Morton, F. M., & Dinielli, D. C. (2020) *Roadmap for a Digital Advertising Monopolization Case Against Google*, Omidyar Network.

[35] Where the maximum bid wins the auction but it pays the price announced by the second bidder (plus a minor charge, e.g. 1 cent).

[36] Where the maximum bid wins the auction and pays the announced price.

[37] Geradin, D., & Katsifis, D. (2019) "An EU competition law analysis of online display advertising in the programmatic age", *European Competition Journal*, 15(1), 55-96; Geradin, D., & Katsifis, D. (2020) ""Trust me, I'm fair": analysing Google's latest practices in ad tech from the perspective of EU competition law", *European Competition Journal*, 16(1), 11-54; Scott Morton, F. M., & Dinielli, D. C. (2020) *Roadmap for a Digital Advertising Monopolization Case Against Google*, Omidyar Network.

[38] The website takes longer to load.

[39] Geradin, D., & Katsifis, D. (2019) "Google's (Forgotten) Monopoly – Ad Technology Services on the Open Web", *Concurrences*, 3.

[40] Scott Morton, F. M., & Dinielli, D. C. (2020) *Roadmap for a Digital Advertising Monopolization Case Against Google*, Omidyar Network.

optimal decisions, jeopardizing static and dynamic efficiency. This lack of transparency can interact in a negative manner with the abovementioned issues of concentration, data dependency and service integration.

34. Apart from the abovementioned distortions on the value chain (through alterations in sequential auctions), lack of transparency can result in other competition concerns.

35. Firstly, conditions applied to advertisers by some platforms can be non-objective, non-transparent and discriminatory and be subject to abrupt changes[41], harming not only advertisers but also users of digital services. Big players have the ability to impose not only conditions but also technical standards[42] that favour their business model (which, as explained in Section 2, tends to be data accumulation, with an impact on consumers that we analyse in the next paragraph).

36. Secondly, conditions applied to users by some platforms, especially regarding data collection and privacy standards, can have an impact on competition (beyond the perspective of consumers' privacy and data protection). Market dynamics (analysed in Section 2) have led to the prominence of business models based on exhaustive data collection. And data (as explained in Section 2) is a variable of competition. This has led some authorities to conclude that the collection of excessive data can be considered an abuse[43]. This also interacts with the transparency issue to the extent that opaque conditions for consumers may lead to a lack of consumers' awareness of the use of their data. With more empowered consumers, perhaps alternative business models (not so intensive in data collection) could flourish, leading to wider effective choice options for consumers and more optimal decisions.

37. Thirdly, the lack of transparency can cover potential anticompetitive conducts by some undertakings. For instance, advertisers can collude to lower bids in auctions[44] or to refrain from competing with rival brands[45]. Even if these are forms of traditional collusion, complexity of advertising markets (programmatic auctions, use of algorithms, etc.) can make this more opaque (to be detected by Authorities).

38. We have seen that consumer data are relevant from a competition perspective. But they are also important from other policy perspectives, as we analyse in Section 4.

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[41] This would be the case of the Decision 19-D-26 of 19 December 2019 of the French Competition Authority regarding Google Ads, see: https://www.autoritedelaconcurrence.fr/en/press-release/autorite-de-la-concurrence-hands-down-eu150m-fine-abuse-dominant-position.

[42] Like specific standards for websites in mobile devices (AMP, Accelerated Mobile Pages). See: Caffarra, C. (2019). ""Follow the Money" - Mapping issues with digital platforms into actionable theories of harm", *Concurrences*, 91579.

[43] This the case of the Bundeskartellamt decision on Facebook, provisionally confirmed by the German High Court: https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Pressemitteilungen/2020/23_06_2020_BGH_Facebook.pdf?__blob=publicationFile&v=2; https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2019/07_02_2019_Facebook.html.

[44] Decarolis, F., Goldmanis, M., & Penta, A. (2018) *Recent developments in online Ad Auctions*.

[45] Colangelo, G. (2020) "Competing Through Keyword Advertising", *Journal of Competition Law & Economics*. See also the case "1–800 Contacts, Inc. v. Lens.com, Inc" in the US: https://www.ftc.gov/system/files/documents/cases/1-800_contacts_ca2_ftc_answering_brief_10-7-19.pdf.

4. Implications of digital advertising for consumer, data and privacy protection

39. In the digital context, boundaries between jurisdictions are increasingly blurred, given the complexity of the challenges posed by the rapid technological advance. This is why there is a growing consensus on the need for cross-cutting and flexible responses from the authorities involved in the public debate.

40. In particular, competition, privacy and consumer protection fields are converging more than ever before when it comes to digitalisation[46]. More specifically, data-driven business models, which have rapidly flourished in the past years, have raised questions on competition but also about privacy and consumer protection (as explained above, the source of this market power comes, to a large extent, from consumers' data and the way they are collected, stored, transmitted, and used).

41. Indeed, given the substantial commercial and strategic value of data, their accumulation, control and use may raise competition concerns and eventually affect consumer's welfare. Therefore, establishing a regulatory framework that guarantees an adequate level of consumer protection and privacy, while at the same time providing an open and level playing field for businesses to develop innovative data-based services, is a challenging issue, still under debate.

42. On the one side, it is well acknowledged that competitive markets generally help achieve the goals of consumer and privacy policy. However, in the context of digital markets, it has been argued that intense competition could encourage a 'race to the bottom' on consumer protection or privacy standards. Conversely, enforcing consumer / privacy rules may make markets more competitive, in particular, by enabling consumers to make well-informed decisions about their choices, but it has also been argued that consumer / privacy regulations may not result pro-competitive, as they may limit innovative entry, or even favour large incumbents in complex ecosystems.

43. The CNMC does not have the mandate of consumer protection (nor data nor privacy), as it happens in other countries, but we always tend to include the standpoint of final consumers, relying on the conviction that competition policy is an effective tool to protect consumers and the other way around.

44. From that perspective, the CNMC has tended to back pro-competitive principles such as interoperability and data portability (in areas such as the sharing economy or financial services). In data-intensive activities, such as online advertising, portability increases consumers' ownership over their data. Besides, it can foster competition by reducing switching costs and by ensuring that consumers can actually multi-home (combine two or more business providers for an analogue service). Therefore, consumers have to be empowered with actual choice possibilities with more ownership, control and information on the use of their data, as it will help discipline business to improve their services to consumers, for instance, by increasing quality or privacy.

45. If National Competition Authorities (NCA) succeed in enforcing and promoting fair competition, innovative business models will enter these markets and consumers will be able to effectively choose if they want (or not) less privacy for more services. Hence, we will attain positive results in terms of both competition and consumer protection. This

[46] The German Bundeskartellamt found an exploitative abuse of dominance by Facebook under the competition law. In contrast, the Italian AGCM used consumer law, rather than competition law. See: https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2019/07_02_2019_Facebook.html; https://en.agcm.it/en/media/press-releases/2018/12/Facebook-fined-10-million-Euros-by-the-ICA-for-unfair-commercial-practices-for-using-its-subscribers%E2%80%99-data-for-commercial-purposes.

process, from the institutional point of view, could warrant cooperation mechanisms between agencies as a first step, especially for those NCAs which do not hold competences on privacy and/or consumer protection.

46. In conclusion, the need for holistic responses to digitalisation challenges is a growing issue, as the interaction between competition, consumer and data protection law reveals. Balanced privacy and consumer rights regulations that do not jeopardize competition on those markets are required. Similarly, competition enforcement and advocacy should not overlook privacy and consumer protection issues when analysing and monitoring data-driven markets. Cooperation between agencies appears to be crucial to do so, as explained in Section 5.

5. Policy options to face the challenges posed by digital advertising

47. The challenges posed by digital advertising are relevant and complex so the optimal response is likely to warrant a reflection on different fronts. Furthermore, these issues are intertwined with general debates on the policy response to Big Tech (beyond digital advertising). But on this contribution we will focus on the specific topic of digital advertising, even if some of the ideas are also relevant in the Big Tech policy discussion.

5.1. Competition policy

48. The best way to tackle most of the challenges raised by online advertising seems to be competition policy. Competition policy offers a case-by-case approach to investigate whether some of the potential concerns (mentioned in Section 3) fit into actionable theories of harm. Competition policy tools include the ability to impose (if needed) remedies, be them behavioural or structural, and even interim measures.

49. Therefore, competition policy offers a flexible framework to adapt to complex industries such as online advertising. Nonetheless, perhaps more and better resources are needed (in specialized units) to deal with the complexity of digital markets, in order to ensure that Competition Authorities have adequate expertise to make sound decisions in this field.

50. The competition policy response is likely to include an effective scrutiny of some mergers. As explained above, market power may be attained through winner-takes-it-all dynamics because of scale, learning, scope and network effects in data-intensive digital services. But also through business consolidation. Given the envelopment and ecosystem strategies of most of the firms relevant in digital advertising, mergers can affect competition substantially even if apparently they are not involving potential competitors.

51. But, apart from merger control, antitrust tools can adapt to theories of harm related to potential concerns in online advertising markets. Issues considered in Section 3 (i.e. tying and bundling to leverage market power, foreclosure or discrimination in the access to inputs, unjustified self-preferencing or lack of transparency and undue abrupt changes in trade conditions) could eventually lead to a finding of an abuse of dominance.

5.2. The role of regulation

52. If regulation were to be enacted to overcome some of the challenges raised by digitization and, specifically, by online advertising, it is crucial that it is well-designed in order to avoid

unintended effects on competition[47]. That is why the advocacy role of competition authorities is so important to promote good regulation. Competition agencies' opinions must be heard and taken into account in order to ensure that legislation is consistent with principles of necessity, proportionality and minimum distortion.

53. For instance, stringent privacy regulations can make it more difficult for small, nascent and innovative firms to enter a market and grow to challenge the position of incumbent and dominant companies in digital advertising. Generally, regulatory compliance costs tend to be relatively more onerous for small firms and newcomers.

54. And, specifically, regulations on consumer consent[48] may be benefitting big platforms in digital advertising[49], since we navigate through their properties more conveniently (platforms obtain consent more straightforwardly, just after the first user login). This may help Big Tech companies broaden and improve their (already high quality) first-party databases, cementing their competitiveness. This advantage of big digital advertising platforms in data accumulation is likely to be exacerbated by the movement of the industry to eliminate "cookies[50]" (as explained in Section 3.2).

55. It is important to recall that remedies in competition policy can always impose a "regulatory solution". And they do it in a flexible manner and following a case-by-case approach, being able to target (if warranted) only those firms with market power (avoiding the above-mentioned one-size-fits-all costs of regulation).

56. Nonetheless, there are cases where the enactment of some type of regulation could promote competition in online advertising:

    - The introduction of procompetitive principles of data portability and interoperability. The Spanish CNMC has already praised these principles in the areas of Fintech[51] and the sharing economy[52].

[47] Under horizontal regulation, obligations imposed on operators are typically not modulated according to sector specificities or market features such as market power. See: CNMC (2020): "Contribution to OECD Roundtable on Consumer data rights and competition", https://one.oecd.org/document/DAF/COMP/WD(2020)38/en/pdf.

[48] For instance, in the EU the General Data Protection Regulation (GDPR).

[49] Some experts point to the fact that the EU the General Data Protection Regulation (GDPR) is increasing concentration in data markets and undermining efficiency and innovation by restricting integration of independent databases which may lead small agents to take advantage of synergies and scope economies to challenge the position of dominant players. See, for example: Gal, M.S., & Aviv, O. (2020): "The Competitive Effects of the GDPR" Journal of Competition Law & Economics, Volume 16, Issue 3, September 2020, Pages 349–391, https://doi.org/10.1093/joclec/nhaa012; Geradin et al (2020). "GDPR Myopia: How a Well-Intended Regulation ended up Favoring Google in Ad Tech" TILEC Discussion Paper No. 2020-012, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3598130; Batikas, M, S Bechtold, T Kretschmer and C Peukert (2020), "European privacy law and global markets far data", CEPR Discussion Paper DP14475, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3560282; Johnson et al (2020): "Privacy & Market Concentration: Intended & Unintended Consequences of the GDPR" Available at SSRN: https://ssrn.com/abstract=3477686.

[50] Geradin, D., & Katsifis, D. (2020). Taking a Dive Into Google's Chrome Cookie Ban. Retrieved from SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3541170.

[51] See, in particular, paragraph 4.67 and section 6.6. of the CNMC (2018) market study on Fintech: https://www.cnmc.es/expedientes/ecnmc00118

[52] CNMC (2020): "Contribution to OECD Roundtable on Consumer data rights and competition", https://one.oecd.org/document/DAF/COMP/WD(2020)38/en/pdf.

- The consideration of measures that can increase consumer awareness and ownership regarding the use of their data.
- The generalization of some principles such as transparency and fairness[53] for digital advertising platforms when trading with advertisers (and agencies thereof), publishers or other firms in the ad tech sector.

57. Finally, many voices[54] are calling for a new ex ante regulation framework for digital markets to enforce principles like ensuring access or non-discrimination (no self-preferencing). This tool for digital markets would affect most of the main platforms active in online advertising.

6. Conclusions

58. Advertising is a very relevant industry to the extent that it allows new and innovative firms to convey marketing messages to consumers in order to compete with incumbents. That is why ensuring an adequate level of competition in digital advertising is so relevant. If digital advertising is affordable and efficient, this will foster competition throughout the economy.

59. Furthermore, digital advertising has a direct impact on consumers via novel issues such as privacy and data protection.

60. Digital advertising has been, in general, a positive disruption, increasing the efficiency of campaigns and bringing new innovations. However, competition and regulatory authorities must be ready to intervene when competition and consumer welfare can be negatively affected.

[53] In the EU, for instance, it could be done through the inclusion of online advertising in the scope of the "P2B Regulation".

[54] CMA (2020) *Online platforms and digital advertising market study: Final report*; ACCC (2019) *Digital Platforms Inquiry – Final Report*.