Competition and Markets Authority—supplementary written evidence (FEO0114)

House of Lords Communications and Digital Committee inquiry into Freedom of Expression Online

Competition and Markets Authority note on interoperability and competition

1. As requested at the evidence session on 13 April, below is a note on the CMA's experience of interoperability remedies and how they might work in practice, drawing on its experience in this area. We provide references within the text but also attach a reading list of the main documents.

2. As a general principle, effective competition relies on customers being willing and able to switch to alternative providers and that new suppliers which offer better services are able to enter the market.[1] Interoperability is a way to achieve this by reducing the frictions on consumers to use alternatives and by lowering the barriers to entry and expansion for competing businesses.

3. Interoperability is particularly important in digital markets to counter the incumbency advantages arising from network effects, as has been widely recognised in a number of reports, nationally and internationally.[2] Interoperability remedies may also be used to address other forms of coordination failure, such as in Open Banking, where the existing market was not operating as competitively as it should.

4. Our experience is that implementing interoperability requires careful consideration of the specific circumstances involved, and also careful balancing of benefits and risks.[3] Regulatory oversight is likely to be needed not only to establish the regime but also to monitor its ongoing operation and effectiveness in practice, including compliance and enforcement mechanisms. This is illustrated in the case of Open Banking and also the CMA's proposed remedies in our market study into digital advertising and online platforms (digital advertising market study) to address the market power of Google and Facebook.[4] The ability to mandate interoperability remedies is also one of the key tools proposed for the digital markets unit (DMU)[5] to govern the behaviour of particularly powerful firms and unlock competition in digital markets.[6]

Open banking

5. Open Banking was one of the remedies following a CMA market investigation into the UK retail banking market in 2016 which found low

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1 For a further discussion see Appendix G of the Digital Markets Taskforce Advice (Taskforce Advice) at paragraphs 24ff.).

2 For example, the Report of the Digital Competition Expert Panel (DCEP), Unlocking Digital Competition (2019), the reports of the Stigler Center (2019), Committee on Digital Platforms Final Report, and the Special Advisors' report for the European Commission. Competition Policy for the digital era, a report by Jacques Crémer, Yves-Alexandre de

levels of innovation in banking services and low levels of customer engagement in shopping around and switching banks.[7]

6. The CMA's remedies required the largest UK banks to develop 'Open APIs'[8] to provide access to Third Party Providers (TPPs) for retail and SME customer accounts. Through this mechanism, bank customers have been able to share their financial data with trusted third parties offering new and innovative services (such as budgeting apps) in a secure and accessible environment. Open Banking has increased competition by spurring innovative new services and creating more differentiation in the market.

7. The Open Banking remedy has developed over several years. The remedy required that the CMA set up a "special purpose vehicle", the Open Banking Implementation Entity (OBIE) governed by the CMA and funded by the UK's largest banks and building societies. The OBIE, overseen by the Implementation Trustee, was charged with agreeing, implementing and maintaining common open banking standards.[9] The first version of the Open Banking Standard launched in January 2018, a second version in March 2018 and a third version in September 2018.[10] The remedy had to address privacy and security concerns and also ensure that third parties were appropriately regulated such that they could be trusted with consumer data. The remedy was imposed selectively on the larger firms to reduce compliance costs for smaller market participants and in the expectation of widespread later adoption.[11]

8. By allowing access to banking data, with the express consent of the individual customer and in a carefully designed, secure, responsive and trusted regime, Open Banking has resulted in two significant consequences. It has opened up competition to new entrants offering banking services and it has created a new 'ecosystem' of innovative new services. By September 2020, there were over two million customers making use of open banking-enabled products.[12]

Montjoye and Heike Schweitzer (2019). (Special Advisers Report): "The theme of interoperability appears in numerous places in our report, as we believe it to be one of the instruments that can keep markets open".

3 For example, the benefits of increased choice and competition must be balanced against the risks of dampening incentives to invest and in creating standaradised functionality which stifles innovation.

4 Online platforms and digital advertising market study - GOV.UK (www.gov.uk)

5 The DMU is the body charged with creating and implementing a new pro-competitive regime to include an enforceable code of conduct to govern the behaviour of companies with 'strategic market status' (SMS) and pro-competition interventions to tackle the sources of market power. See Digital Markets Unit (non-statutory) - terms of reference - GOV.UK (www.gov.uk)

6 Digital Markets Taskforce Advice (December 2020)

7 Retail banking market investigation final report (publishing.service.gov.uk) See too CMA paves the way for Open Banking revolution - GOV.UK (www.gov.uk)

8 Application Programming Interfaces.

9 The Open Banking Implementation Entity.

10 See About Us - Open Banking

11 Final Report 13.21.

12 Open Banking (September 2020), Real demand for open banking as user numbers grow to more than two million.

9. The Open Banking order itself was time-limited and only provided for the establishment of a new regime and not its continuing oversight (although this was anticipated). In March 2021, therefore, the CMA consulted on the appropriate future mechanism to ensure effective oversight and governance of the Open Banking remedies.[13]

10. An ongoing regime is needed to ensure that the commercial objectives of the largest banks cannot slow the further development of the regime if they are in conflict with the pro-competitive purpose of the remedy. We have made clear that future arrangements for the governance of Open Banking must ensure a framework that is independently-led and accountable, adequately resourced, dedicated to serving the interests of consumers and SMEs, and sustainable and adaptable.

Interoperability in social media

11. In our digital advertising market study we found that the market power of Facebook derives in large part from strong network effects which stem from its large network of connected users and the limited interoperability it allows to other social media platforms. This had the effect of hindering the ability of challengers to enter and expand into the market for social networking. In addition, users are unlikely to want to switch to a competing social network if, by doing so, they lose contact with their existing network even if, in all other respects, it better meets their preferences. The final report therefore considered the potential role of different forms of interoperability to overcome these problems.[14] In particular it analysed the case for interoperability relating respectively to finding contacts, cross-posting and full content interoperability.[15]

12. The analysis found a strong case for mandating greater interoperability in relation to finding contacts and cross posting functionalities on Facebook but that the evidence did not favour more ambitious forms of interoperability such as full content interoperability. These measures would need to be considered and implemented by the DMU. The evidence and reasoning are set out in detail in Appendix W to the final report but the broad reasoning is set out below.[16]

Finding contacts

13. We found that, although limited functionality already existed, tools that make it easier for consumers to access their existing networks across multiple platforms and to invite contacts to competing platforms could

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13 The future oversight of the CMA's open banking remedies - GOV.UK (www.gov.uk)

14 At a high level, these different levels of interoperability have been categorised as:Protocol interoperability - the ability of two services or products to interconnect, technically, with one another; Data interoperability - the ability easily to share data portability on an ongoing basis (for example through APIs as in Open Banking); and 'Full protocol' (or 'full content') interoperability - standards that allow substitute services to interoperate with a high level of integration and standardisation between two systems. See the Special Advisers Report at page 58.

15 In addition, the final report recommended that the DMU be able to intervene if Facebook were to propose reductions in interoperability that restrict rivals' ability to compete directly with it. See paragraphs 91-3. Final report (publishing.service.gov.uk)

16 Appendix W to final report – Assessment of pro-competitive interventions in social media

make new or smaller platforms more attractive to consumers. This could reduce the extent to which same-side network effects act as a barrier to expansion in the social media sector. We therefore supported considering interventions that extend the availability of these tools, or that limit the ability of Facebook to degrade or withdraw access to them, which could help promote competition and benefit consumers.

Cross posting functionality

14. We found there to be a clear benefit to competition from increasing the extent of cross-posting functionality between Facebook and other platforms. This could enable users who wish to share content with a wide audience to spend more time on (and share more content from) a platform that best suits them overall, rather than a platform that has the largest number of users. This could address some of the cross-site network effects by acting as an audience development opportunity, making it easier for smaller platforms to grow their share of time spent online and improve their ability to monetise their services.

15. We thought it unlikely that this would lead to excessive standardisation or reduced incentives to innovate because the specific features under consideration (such as words, pictures and videos) are not recently innovative. We also thought that the ability to reach a wider audience may itself improve incentives to invest and innovate to attract new users.

16. We also considered the privacy risks of this intervention but thought that, as long as the decision to post content across platforms is user-initiated and well-informed, including full clarity over permissions, these concerns should be able to be managed.

Full content interoperability

17. This potential remedy involve a more extensive form of interoperability to allow consumers to post, view and engage with content across platforms without having to switch service.[17] The potential benefits of this measure would be that different social media platforms are more substitutable with each other from the perspective of consumers, while encouraging new entrants and other social media platforms to compete more directly with Facebook. This could, in turn, more directly address the network effects than other interoperability measures because consumers would no longer need to access a particular platform with a large social graph and network, such as Facebook, in order to engage with users of that platform.

18. We generally received a lack of support from market participants to this proposed remedy, however, on the basis that it may lead to excessive standardization across platforms. It was argued that this would reduce incentives on platforms to innovate and differentiate their services. We also noted that full content interoperability could give rise to greater risks associated with user privacy which would need to be managed effectively,

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[17] For instance, a consumer could post messages that could be viewed by their contacts on different social media platforms, and view and interact with messages and content that their contacts originated on different social media platforms.

for example through a consent mechanism to ensure compliance with data protection rights.

19. In making these recommendations, we noted the importance of detailed consideration of the specific circumstances and that interoperability measures carry both potential benefits but also risks to competition and innovation. The benefit comes from overcoming the barrier to expansion created by network effects and facilitating competition and innovation in the non-standardised functionality. The risk comes from the possibility of reduced innovation and variety in respect of standardised functionality and also in the form of potential concerns regarding user privacy.[18] We noted generally that the case for interoperability is greater in respect of functionality which is directly helpful in overcoming identified network effects but which is not highly innovative and in respect of which privacy concerns can be managed effectively.

20. We also recognised the importance of flexible and reviewable interoperability remedies given the fast-evolving nature of digital markets. We therefore recommended that the DMU have a future monitoring role to ensure the continuing effectiveness of these measures and to mandate different forms of interoperability (such as content interoperability), if appropriate, based on its assessment of the effectiveness of the initial interventions and future market developments.

Other data access recommendations in the digital advertising market study

21. The digital advertising market study also considered further forms of data access remedies: access to Google click and query data; the creation of a common user ID in digital advertising markets, and data mobility.[19]

Google's "click and query" data

22. The market study found that the greater scale of search queries seen by Google enabled it to deliver more relevant search results which impeded the ability of other search engines to compete, particularly in relation to uncommon and new queries. We therefore considered that the DMU should have the power to require Google to provide click and query data[20] to third-party search engines to allow them to improve their search algorithms, thus helping to overcome Google's scale advantages in data (provided this could be done without raising privacy concerns).[21]

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18 Paragraphs 27-8 of Appendix W.

19 See Appendix V: assessment of pro-competition interventions in general search and Appendix Z: assessment of potential data-related interventions in digital advertising markets respectively.

20 Data collected by search engines about the search queries entered by consumers and how consumers interacted with the results that they were served. Search engines use click-and-query datasets to improve their algorithms and return more relevant results to queries.

21 Final report at para. 90 and 8.32ff.

23. Such an intervention would, we thought, have a positive impact on competition through helping to overcome barriers to entry and expansion, which should provide a spur to greater innovation. However, the DMU would need to pay careful attention to the design of the remedy, including which data should be within scope, to reduce the risk of third parties copying innovative aspects of Google's algorithm.[22]

Common user IDs

24. The market study also found that Google and Facebook enjoyed a much wider variety of sources of such data in digital advertising which provided a competitive advantage (and that sometimes they restricted other parties' access to data citing data protection reasons).[23] We therefore identified a potential case for mandating data access in principle to improve competition and efficiency in the digital advertising market whilst also noting potential risks to privacy and to incentives to innovate.

25. This would involve requiring a platform to share certain categories of data, such as location data or data from tags and pixels, with third parties, for the purposes of targeting and attribution. To enable the meaningful interpretation of any data shared, this would require the development of a common user ID for targeting and attribution purposes.

26. The final report therefore recommended that the DMU be given powers to introduce common user IDs and data sharing interventions while recognising that both types of intervention raise data protection issues which would need to be carefully managed, such as through aggregation or anoymisation. [24]

Data mobility and digital identity

27. Data mobility interventions can promote greater competition in digital advertising markets by giving consumers greater control over how data about them is held and shared with other parties.[25] This form of intervention may increase competition and innovation on a similar model to Open Banking which ensures that users have full and informed full control over their data. On this basis, privacy risks can be managed because the sharing of data is user-initiated and therefore undertaken with fully informed user consent.

28. Outside digital advertising markets, we also see clear benefits to the creation of similar initiatives such as digital identities to reduce friction and make digital markets more efficient while respecting user privacy. As set out in our digital advertising market study, products such as Personal Information Management services (PIMs) and Personal Data Stores (PDS)

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22 Google argued that sharing clicks-and-query data – even without search results – could allow rivals to reverse engineer aspects of Google's search results since rivals could deduce the likely rank from the volumes of clicks that a link received. We considered that the DMU should undertake further work to consider how this intervention could be designed in a manner that enhances incentives to innovate (Final report at 8.42)

23 Final report at 8.206ff.

24 Final report at 8.240ff.

25 Final report at paragraph 105, 8.244ff and Appendix W.

have the potential to improve privacy protections whilst also enhancing competition, but have a long way to go before being commercially viable at scale.[26]

29. We thought that, in the longer term, the DMU could play a useful role in the development of such markets, for example, relating to setting standards; providing safeguards which support confidence and data security for approved intermediaries and exploring the case for strengthening the data sharing provisions of GDPR, which do not currently cover inferred or derived data.

30. We therefore support and have engaged with government proposals to create a trust framework to establish the principles, policies, procedures and standards governing the use of digital identity which will support widespread trust and adoption.[27] A critical element of that trust framework, as with Open Banking, is that the user initiates the process and has informed control of the secure management and sharing of their information.

The role of standards in interoperable systems

31. The creation of interoperable systems also necessarily involves questions of the appropriate technical standards. Open Banking has adopted 'open' formats such as the JSON data format and OAuth authorisation protocol. While 'open' formats are not necessarily intrinsically better than closed or proprietary systems,[28] the advice of the Digital Taskforce was that the DMU should have the power to mandate the use of open standards where that is important to lower barriers to entry created by network effects or limit the ability of SMS firms to engage in potentially abusive behaviours.[29] Open standards underpin much of the existing internet, for example protocols such as http, smtp and imap.

Privacy considerations

32. As outlined above, it is also critical when designing interoperability remedies to address how privacy and security concerns can be managed.[30] Interoperability, and other data remedies, require careful design and close collaboration with the Information Commissioner's Office.[31]

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26 Final report 8.246-7 and Appendix L of the interim report.

27 The UK digital identity and attributes trust framework - GOV.UK (www.gov.uk)

28 CDEI report at 2.73ff. Industry standards may be developed through collaboration. Examples of such collaborative standard-setting include USB (Universal Serial Bus), SMTP (Simple Mail Transfer Protocol), IMAP (Internet Message Access Protocol) and Hypertext Transfer Protocol). Standard setting bodies such as the w3c also play an important role in establishing standards based on established criteria. In some cases, the standard may be established through competition, for example the VHS analogue video format which 'won' the 'format' war against Betamax.

29 Appendix D at paragraph 29.

30 For example, through consent-led user-initiated data mobility (Appendix W at paragraph 59).

31 For specific areas of collaboration, see chapter 10 of the final report of the digital advertising market study.

33. We set out in Appendix T[32] to the final report of the digital advertising market study our general approach to assessing data remedies, including those relating to interoperability. The appendix illustrates – with examples – how such remedies require detailed and careful evidence-based assessments to balance competing considerations between efficiency, privacy and competition in a specific context. We also established the Digital Regulation Cooperation Forum (DRCF) with the ICO, FCA and Ofcom to ensure, among other things, a joined up regulatory approach to these issues.[33]

10 May 2021

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32 Appendix T: our approach to assessing data remedies (publishing.service.gov.uk)
33 Digital Regulation Cooperation Forum workplan 2021/22 - GOV.UK (www.gov.uk)

Appendix: Reading list (date order)

We refer you to the following studies and reports which inform this paper:

Open banking

1. Main gov.uk page: Retail banking market investigation: overview - GOV.UK (www.gov.uk)
2. Retail banking market investigation final report (publishing.service.gov.uk)
3. Home – Open Banking
4. Future oversight of the CMA's open banking remedies - GOV.UK (www.gov.uk)

DCEP Report

5. Report of the Digital Competition Expert Panel (DCEP), Unlocking Digital Competition (2019).

CMA market study into online platforms and digital advertising

6. Main gov.uk page: Online platforms and digital advertising market study - GOV.UK (www.gov.uk)
7. Appendix L of interim report – Potential approaches to improving personal data mobility (December 2019):
8. Final report (July 2020)
9. Appendix T: our approach to assessing data remedies
10. Appendix V: assessment of pro-competition interventions in general search
11. Appendix W: assessment of pro-competition interventions in social media
12. Appendix Z: assessment of potential data-related interventions in digital advertising markets

Other useful references

13. Committee on Digital Platforms Final Report, Stigler Center (2019).
14. Competition Policy for the digital era, A report by Jacques Crémer, Yves-Alexandre de Montjoye and Heike Schweitzer (2019) (Special Advisers' Report)
15. UK submisson on consumer rights and competition (oecd.org) - 12 June 2020
16. The UK digital identity and attributes trust framework - GOV.UK (www.gov.uk)

Digital Markets Taskforce

17. Digital Markets Taskforce - GOV.UK (www.gov.uk)
18. Advice (December 2020)
19. Appendix D
20. Appendix G

Digital Regulation Cooperation Forum

21. The Digital Regulation Cooperation Forum - GOV.UK (www.gov.uk)