

Completed acquisition by Google LLC of Looker Data Sciences, Inc.

Decision on relevant merger situation and substantial lessening of competition

ME/6839/19

The CMA's decision on reference under section 22(1) of the Enterprise Act 2002 given on 13 February 2020. Full text of the decision published on 16 March 2020.

Please note that [X] indicates figures or text which have been deleted or replaced in ranges at the request of the parties or third parties for reasons of commercial confidentiality.

SUMMARY

1. On 5 December 2019, Google LLC (**Google**), a wholly owned subsidiary of Alphabet Inc. (**Alphabet**), acquired the entire issued share capital of Looker Data Sciences, Inc. (**Looker**) (the **Merger**). Google and Looker are together referred to as the **Parties** and, for statements referring to the future, the **Merged Entity**.
2. Google is a worldwide supplier of a variety of software and internet-based products, operating across a number of sectors including web analytics, online search advertising and cloud computing. Google's parent company Alphabet had worldwide turnover of approximately £103 billion in financial year 2018, approximately £[X] of which was generated in the UK.
3. Looker is a US-based provider of business intelligence (**BI**) tools. BI tools are types of application software designed to analyse, visualise and interpret business data in support of corporate decision-making processes. Looker's worldwide turnover was approximately £[X] in financial year 2018, approximately £[X] of which was generated in the UK.
4. For the purposes of the jurisdictional assessment of the Merger, the Competition and Markets Authority (**CMA**) believes that it is or may be the

case that each of Google and Looker is an enterprise and that these enterprises have ceased to be distinct as a result of the Merger.

5. The CMA believes that the share of supply test is or may be met on the basis that the Parties overlap in the supply of analytics tools that have the capability to automate the ingestion, analysis and visualisation of web analytics data. Google provides these services both through its web analytics tools (Google Analytics and Google Analytics 360) and its BI tool Google Data Studio (**GDS**). Looker provides such services through its BI tools. On this basis, the Parties have a combined share of [20-30]% with an increment of [0-5]% based on the number of individual UK users for these products.
6. The four-month period for a decision has not yet expired. The CMA therefore believes that it is or may be the case that a relevant merger situation has been created.

BI tools

7. The CMA has first assessed the impact of the Merger on the supply of BI tools ('horizontal unilateral effects'). The Parties overlap in the supply of BI tools worldwide (including in the UK) through:
 - (a) GDS, a free BI tool offered by Google that is currently interoperable with Google's suite of products and services, including its cloud-based data warehouse Google BigQuery (**GBQ**) but does not interoperate with the leading rival data warehouses (including those offered by Amazon, Microsoft, Snowflake, Oracle and others); and
 - (b) Looker's own BI tools, which interoperate with more than 45 data warehouse solutions.
8. In line with its recent decision in *Salesforce/Tableau* and the available evidence assessed in this case, the CMA found that the BI tools market is a fast-moving and highly competitive market where numerous providers (including the Parties, Tableau, Microsoft, SAP, IBM/Cognos, Oracle, Qlik and others) continually invest to improve their offer. BI tool providers seek to distinguish themselves from their rivals by offering specific features and additional functionality, which drive customers to 'multi-home' to meet different BI tool needs across their organisation.
9. The CMA assessed whether the Parties are close competitors in the supply of BI tools and whether rival BI tool providers will continue to constrain the Merged Entity post-Merger. In addition to a relatively low combined share of supply worldwide and in the UK, the CMA found that customers and

competitors did not perceive GDS as a viable alternative to Looker. The evidence also indicated that the Merged Entity will continue to face significant constraints, as a wide range of BI tool providers compete vigorously for opportunities.

10. Therefore, the CMA believes that the Merger does not give rise to a realistic prospect of a substantial lessening of competition (**SLC**) as a result of horizontal effects in the supply of BI tools on a worldwide basis.

Access to Google-generated data

11. There are also vertical relationships between the Parties as Google provides a number of services that generate data (ie web analytics and online advertising services) (**Google-generated data**) that can be analysed using a BI tool such as Looker's. This Google-generated data can be stored in data warehouse solutions such as GBQ, alongside a variety of other data relating to different aspects of a customer's business. This aggregated data can then be analysed by customers through BI tools such as Looker's and GDS.
12. The evidence suggests that Google enjoys substantial market power with respect to web analytics and online advertising services. The CMA has considered whether Google could leverage its strength in those upstream markets to partially foreclose rival BI tool providers from accessing Google-generated data sources post-Merger ('vertical effects').
13. To analyse this, the CMA examined the Parties' submissions, large volumes of Google's internal documents covering its strategy and external analyst reports. The CMA also obtained evidence from a significant number of customers and competitors.
14. The CMA first considered whether the Merged Entity would have the ability to engage in a partial foreclosure strategy.
 - (a) According to the available evidence, the CMA found that a material proportion of BI tool customers use BI tools to analyse Google-generated data and that doing so is important to them.
 - (b) In addition, the CMA found that there is a strong body of evidence pointing towards Google having market power in relation to both web analytics and online advertising services. Furthermore, the CMA believes that Google's ability to offer a combination of related products may also enhance its market power in relation to each of these services. This is consistent with the findings of the CMA's recent market study interim report relating to online platforms and digital advertising.

- (c) In light of the available evidence, the CMA concluded that the Merged Entity would have the ability to put in place a range of non-price and price-based foreclosure mechanisms to hamper competing BI tools from accessing Google-generated data. For example, the CMA believes that Google could impose various obstacles to accessing that data, including through restricting access to certain functionalities or through the introduction of charges.
15. On the basis of the above, the CMA found that the Parties may have the ability to partially foreclose competing BI tools.
16. The CMA then considered whether the Merged Entity would have the incentive to engage in a foreclosure strategy.
- (a) The CMA reviewed a significant volume of Google's internal documents to test Google's submission that the rationale for the Merger was to strengthen its cloud business. Considered in the round, the CMA believes that Google's internal documents were consistent with Google's submitted rationale and did not suggest that Google was planning to engage in the foreclosure strategy envisaged under this theory of harm.
- (b) As part of its assessment, the CMA considered the extent of switching to or from each of Google's web analytics and online advertising services, GBQ and the Merged Entity's BI tool as an indicator of the profitability of engaging in a foreclosure strategy. The available evidence suggested that should access to Google-generated data be hindered, this could have negative, albeit modest, repercussions on the amount of advertisers' expenditure on Google's online advertising services (implying that a foreclosure strategy would entail some costs for the Merged Entity). The CMA also found that there is a range of alternative data warehouses to GBQ. While there are material costs involved when switching data warehouse, the CMA notes that switching costs may, for new customers, have little impact on their choice of whether to select GBQ or another data warehouse provider (a relevant factor given the strong growth in the use of data warehouses).
- (c) The CMA then assessed whether the Merged Entity could target a foreclosure strategy towards competing BI tools, as an untargeted strategy affecting all third-party products connecting to Google's products could prove more costly and therefore reduce or eliminate the incentive to foreclose. Based on the available evidence, the CMA found that whilst some degree of targeting is possible, this would require potentially costly changes to Google's current business practices. More significantly, the CMA found that the Merged Entity is unlikely to target limitations on

accessing GBQ solely against competing BI tools using Google-generated data. In light of the discussion about switching in the preceding paragraph 16(b), this means that there would be a risk of GBQ losing customers to a range of competing data warehouses. The CMA placed material weight on this potential negative impact on GBQ, given Google's rationale for the Merger (as indicated in its internal documents) is to incentivise customers to switch **to** GBQ by offering an integrated 'one-stop-shop' for data storage and BI tools.

(d) In addition, the CMA found that pursuing a more limited foreclosure strategy involving only some of the ways of accessing Google-generated data would lessen the extent to which customers are steered towards the Merged Entity's BI tool. These routes may be either the direct connections used by BI tools to connect to Google-generated data, or the connections between Google-generated data and competing data warehouses. Accordingly, the CMA found that this would reduce the benefits for the Merged Entity to engage in this foreclosure strategy.

(e) The CMA also considered the available evidence concerning the relative margins for each of the affected products and possible retaliation by competing BI tool providers. This evidence did not prove conclusive for the assessment.

17. In light of the available evidence, the CMA believes the Merged Entity is unlikely to have an incentive to foreclose competing BI tools. Given the absence of an incentive to pursue a foreclosure strategy, the CMA has not needed to go to the next step of considering the effect that any foreclosure could have on competition.

Decision

18. As a result, the CMA does not believe that it is or may be the case that the Merger has resulted, or may be expected to result, in an SLC as a result of horizontal unilateral or vertical effects.

19. The Merger will therefore **not be referred** under section 22(1) of the Enterprise Act 2002 (the **Act**).

ASSESSMENT

Parties

Google

20. Google is a worldwide supplier of a variety of software and internet-based products and services. Google's parent company Alphabet had worldwide turnover of approximately £103 billion in financial year 2018, approximately £[X] of which was generated in the UK.¹ Alphabet is listed on the London Stock Exchange (amongst others).
21. The Google products relevant to the assessment of the Merger include:
- (a) GDS, a BI tool initially developed as a product for Google's advertising customers which sits under Google Marketing Platform. GDS is compatible with Google's products and services (including its cloud-based data warehouse solution GBQ) but is not interoperable with the leading rival data warehouses (including those offered by Amazon, Microsoft, Snowflake, Oracle and others).² GDS is a free product available to anyone who has (or creates) a Google account;
 - (b) GBQ, a data warehouse solution which is part of Google's cloud computing service. GBQ is specifically designed to be used with BI tools.³ Entry level access to GBQ is offered free of charge, with customers paying a licence fee in increments if their data requirements exceed 10 GB per month;⁴
 - (c) Google Analytics, a website analytics application and service that measures how end users are engaging with websites, web and mobile apps and other interconnected devices. Google offers two versions of its product: (i) Google Analytics, which is provided for free, and (ii) Google Analytics 360, which is targeted at enterprise customers, who pay monthly service fees. The free version of Google Analytics accounts for [X] worldwide and in the UK.⁵ Google Analytics and Google Analytics 360 are together referred to as **Google Analytics**; and

¹ Final Merger Notice submitted on 13 December 2019 (**Final Merger Notice**), Tables under section 6.

² Final Merger Notice, paragraphs 2.14 and 12.32.

³ Final Merger Notice, paragraph 12.59.

⁴ Final Merger Notice, paragraph 12.58.

⁵ Final Merger Notice, paragraph 12.84.

- (d) **Google's Online Advertising products**, a collection of products that automate and manage the processing of online advertising on Google's and other publishers' websites, and which generate advertising-related data. Google's Online Advertising products include: (i) Google Ads, (ii) Google Search Ads 360, (iii) Display & Video 360, (iv) Campaign Manager, (v) AdSense, (vi) Ad Manager, and (vii) AdMob.⁶

Looker

22. Looker is a BI tool provider with a worldwide turnover of approximately £[X] in financial year 2018, approximately £[X] of which was generated in the UK.⁷
23. Looker offers the following products relevant to the assessment of the Merger:
- (a) A BI tool that can be used by businesses to analyse and visualise data for a customer's internal business use. Looker's BI tool interoperates with more than 45 data warehouse solutions and generates [X]% of Looker's total sales,⁸ and
- (b) 'Powered by Looker': an embedded analytics product that allows for direct and seamless integration of Looker's analytics capabilities into customers' software environments. This offers the same analytics capabilities as its BI tool but is marketed as being suitable for customers' external rather than internal business purposes. Powered by Looker accounts for the remaining [X]% of Looker's sales.⁹

Transaction

24. The Merger was completed on 5 December 2019 by way of the acquisition of 100% of the shares in Looker for a purchase price of \$2.6 billion in cash, subject to adjustments.¹⁰
25. The Parties informed the CMA that the Merger was also the subject of review by competition authorities in Austria and the USA.¹¹

⁶ For further information on the online advertising value chain of which Google's products listed above form part, the CMA refers to the market study interim report published on 18 December 2019 (the **Online Platforms Market Study Interim Report**): [Online platforms and digital advertising, Market study interim report](#), paragraphs 5.165-5.239.

⁷ Final Merger Notice, Tables under section 6.

⁸ Looker has an Application Program Interface which allows users to build applications which can interact with the data – see Final Merger Notice, paragraph 2.19.

⁹ Final Merger Notice, paragraph 12.19.

¹⁰ Final Merger Notice, paragraphs 2.9-2.11.

¹¹ Final Merger Notice, paragraphs 2.49-2.50.

Rationale for the Merger

26. Google submitted that the Merger will:
- (a) improve its cloud services offering, by enabling it to offer an interoperable BI tool; and
 - (b) allow it to offer customers an integrated ‘one-stop-shop’ for data storage and BI. This will enable Google to compete more effectively with the leading cloud infrastructure service providers (ie Microsoft and Amazon) who already offer this.¹² Google submitted that the ability to offer a BI tool allows a data warehouse provider to interact directly with end users and to ensure that the software interoperates as seamlessly as possible with the underlying data warehouse.¹³ Google further submitted that some enterprise customers want to source their cloud infrastructure, data warehouse and data analytics services from a single provider.¹⁴
27. The CMA reviewed a significant volume of internal documents in relation to the rationale for the Merger, including documents on Google’s strategy for its cloud services, data warehouse and GDS. The CMA also examined financial documents regarding Google’s valuation of Looker.
28. Overall, the CMA found Google’s internal documents to be consistent with Google’s submissions that its rationale was driven by a strategy to strengthen its cloud services offering.¹⁵ Specifically, the internal documents demonstrate that Google envisages that Looker will be [✂], a strategy designed to allow Google to quickly win new GBQ customers through cross-selling.^{16,17}
29. As regards Google’s reasoning on the importance of offering an integrated solution, the CMA found that these claims were further corroborated by the following additional evidence:¹⁸

¹² Final Merger Notice, paragraphs 2.12-2.18; and Parties’ response to the CMA’s Issues Paper dated 21 January 2020 (**Issues Paper**), paragraph 4.

¹³ Final Merger Notice, paragraph 2.15.

¹⁴ Final Merger Notice, paragraph 2.16.

¹⁵ See, for example, Doc 002, Doc 003 and Doc 004 attached to Google’s response to the CMA’s notice served under section 109 on 11 July 2019 (**S.109 Notice**); Doc 084 and Doc 085 attached to Google’s response to the CMA’s request for information dated 16 August 2019 (**RFI1**); and GOOG-LOGIC-00671268.

¹⁶ Annex 5 attached to the Parties’ response to the CMA’s integration questions dated 4 December 2019 (**Integration Questions**).

¹⁷ See, for example, GOOG-LOGIC-00725430; GOOG-LOGIC-00672249; and GOOG-LOGIC-00672503.

¹⁸ It could be construed that Google already offers, to some extent, an integrated solution as GDS is interoperable and integrates with GBQ. However, Google submitted that its expectation that many of its GDS customers would use other BI tools (in addition to GDS) to serve their analytics needs indicates that this product combination is not as competitive as the one Google will be able to offer post-Merger – see Final Merger Notice, paragraph 12.32.

- (a) Half of the data warehouse customers that responded to the CMA's merger investigation confirmed that they acquire both a BI tool and data warehouse services from the same provider. The most commonly cited reason for this is the superior integration which allows a more seamless, customer-friendly service.¹⁹
- (b) All cloud service providers are evolving to offer a full suite of products and other suppliers already offer a combination of these services. For example, Microsoft, Amazon, Teradata and Oracle offer both data warehouse services and BI tool functionality.²⁰
30. The CMA considers Google's \$2.6 billion valuation of Looker to be indicative of its positive expectations for Looker's growth prospects and commercial success and its view that Looker has the [REDACTED].²¹ The CMA notes that Google's valuation methodology, which was calculated using [REDACTED], is aligned with the multiple range applied in recent comparable acquisitions of high-growth software companies.²²

Procedure

31. The CMA's mergers intelligence function identified this transaction as warranting an investigation.²³
32. The Merger was considered at a Case Review Meeting.²⁴

Background

33. This section provides an overview of the markets in which the Parties are active, focusing on the products and services relevant to the CMA's merger investigation. The Parties overlap in the supply of BI tools. In addition, there are vertical relationships between the Parties as Google is a supplier of web analytics and online advertising services which generate data. BI tools, including those offered by Looker, are used to analyse this Google-generated data, along with data from other sources.

¹⁹ [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED] and [REDACTED] responses to the CMA's questionnaire dated 2 December 2019 (CMA questionnaire).

²⁰ [REDACTED], [REDACTED], [REDACTED] and [REDACTED] responses to CMA questionnaire.

²¹ GOOG-LOGIC-00671632.

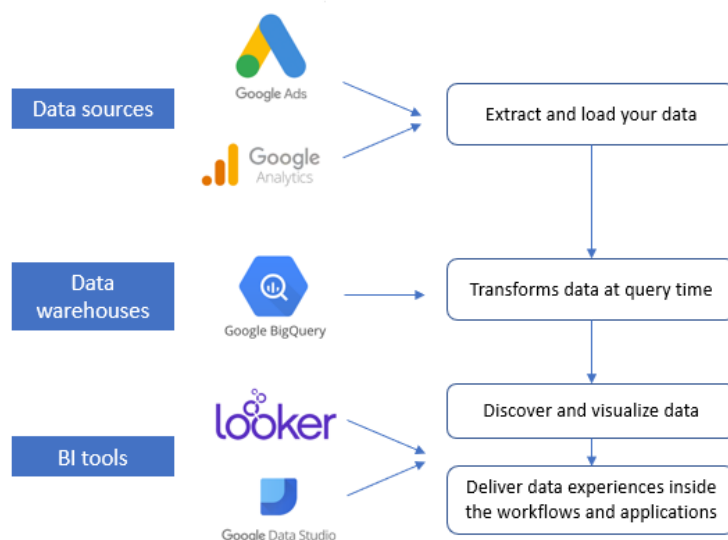
²² Final Merger Notice, paragraph 2.37.

²³ See [Mergers: Guidance on the CMA's jurisdiction and procedure](#) (CMA2), January 2014, paragraphs 6.9-6.19 and 6.59-60.

²⁴ See [Mergers: Guidance on the CMA's jurisdiction and procedure](#) (CMA2), January 2014, from paragraph 7.34.

34. Figure 1 below shows a simplified overview of how the Parties' activities affected by the Merger are connected.

Figure 1: Overview of the Parties' activities affected by the Merger



Source: CMA's analysis based on the visual representation provided by the Parties under paragraph 15.17 of the Final Merger Notice.²⁵

BI tools

35. BI tools are types of application software designed to analyse, visualise and interpret business data in support of corporate decision-making processes. These tools are designed to collect and process large amounts of data including, *inter alia*, customer relationship management (**CRM**) data, financial data, advertising and web analytics data, to discover meaningful trends and produce visual representations of important business metrics.²⁶
36. The BI tools market has been assessed by the CMA in its review of the *Salesforce/Tableau* merger in 2019.²⁷ The CMA considers that *Salesforce/Tableau* provides a good starting point for the analysis of this Merger given that it represents a recent investigation into one of the markets in which both Parties to this case are present. Accordingly, the CMA has assessed and taken into account the evidence and analytical approach used in *Salesforce/Tableau*, where appropriate, when assessing this Merger.

²⁵ See also <https://cloud.google.com/press/pdf/Google-Announces-Intent-to-Acquire-Looker.pdf/>.

²⁶ Final Merger Notice, paragraph 3; and ME/6841/19, *Salesforce/Tableau*, paragraph 26. See also, for example, <https://azure.microsoft.com/en-gb/overview/what-are-business-intelligence-tools/> and <https://www.sisense.com/en-gb/bi-tools/>.

²⁷ ME/6841/19, *Salesforce/Tableau*.

37. As noted in *Salesforce/Tableau*, certain industry reports have distinguished between traditional BI tools and modern BI tools. Traditional BI tools refer to those products centred on reporting functions. By comparison, modern BI tools (i) allow users in a self-service manner to develop and present the results of data exploration and analysis; (ii) develop interactive management information dashboards and reports; and (iii) may support user development with integrated statistical modelling, machine learning or natural language processing and require minimal support of IT specialists to integrate and manage new data sources.²⁸ Within these definitions, both Looker's products and GDS fall within the modern BI tools category.²⁹
38. The global BI tools market was estimated to be worth around \$12.2 billion in 2018, with traditional BI tools accounting for \$7.6 billion and modern BI tools for \$4.7 billion.³⁰
39. The available evidence shows that the BI tools market is fast-moving and dynamic, with players constantly investing in their tools to improve them:
- (a) Modern BI tools continue to be the fastest growing segment with a 23.3% increase in 2018.³¹
 - (b) A 2019 report on Server & Enterprise Software by Bank of America Merrill Lynch states that '[t]he market for analysing and visualizing data is rapidly expanding as vendors continue to innovate and adapt.' The same report further notes that '[p]latform vendors are investing in modernizing their respective legacy analytics suites in order to compete with next generation vendors. These organizations are accelerating this investment, given that next generation vendors are beginning to displace legacy analytics suites in SMB and large enterprise base'.³²
 - (c) A 2019 Forrester report states: 'existing players continue to grow, and dozens of successful start-ups pop into this market every year. Why? The people and process parts of getting insights from data remain challenging. For every successfully deployed solution, at least several efforts have failed. As a result, companies continue to look for new solutions to help them increase the chances of succeeding.'³³

²⁸ ME/6841/19, *Salesforce/Tableau*, paragraphs 17 and 26. Gartner Market Share: Enterprise Application Software, Worldwide, 2018 report; and IDC: Semi-annual Software Tracker, H2 2019.

²⁹ Final Merger Notice, paragraphs 12.9-12.11.

³⁰ Gartner Market Share: Enterprise Application Software, Worldwide, 2018 report.

³¹ Gartner Market Share: Analytics and Business Intelligence, Worldwide, 2018 report.

³² Doc 036 attached to Google's response to S.109 Notice, pages 6 and 15.

³³ Doc 043 attached to Google's response to S.109 Notice, pages 5-6.

(d) This is consistent with each Party's strategic plans. As discussed in paragraphs 75 and 79 below, according to the Parties' internal documents, both Looker and Google have plans to continue to invest in and develop their BI tools offering.

(e) These findings are also consistent with the CMA's findings in its recent investigation in *Salesforce/Tableau*.³⁴

40. As discussed further in paragraphs 112 to 113 below, there are numerous BI tool providers active in the UK and worldwide, including the Parties, Tableau, Microsoft, SAP, IBM/Cognos, Qlik, Oracle and a number of smaller competitors. Each of these players has a similar overall purpose in terms of visualisation and presentation of business data, but with varying specific features and additional functionality.³⁵ The individual characteristics offered by each BI tool is one of the main reasons that customers often use multiple BI tools within their organisations: according to the evidence from third parties and third party reports, the vast majority of customers (approximately 70%) use at least two BI tools. These third parties mentioned that the main reasons for multi-homing relate to (i) better serving the needs of different business units within a single organisation; (ii) the capabilities and strengths varying from one BI tool to another; and (iii) legacy systems and processes.³⁶

Data warehouse services

41. Modern BI tools interoperate with data warehouses that customers use to store the data relating to different aspects of their businesses, such as cloud platforms or data storage facilities (ie on-premises).³⁷ Similarly, software can be run on a customer's own IT systems or can be accessed via a cloud-based software service.³⁸

42. As mentioned in paragraph 21(b) above, Google offers GBQ, a cloud-based data warehouse solution. GBQ was specifically designed to be used with third party BI tools, such as Looker.³⁹ In 2016, Google and Looker entered into a partnership that was designed to facilitate integration between Looker's

³⁴ ME/6841/19, *Salesforce/Tableau*, paragraphs 33-34.

³⁵ Final Merger Notice, paragraph 15.2.

³⁶ Customer responses to CMA questionnaire. See also Dresner: Business Intelligence Competency Centre Market Study, 2019 report.

³⁷ Final Merger Notice, paragraph 19.2.

³⁸ Final Merger Notice, paragraph 5.

³⁹ Final Merger Notice, paragraph 12.59. See also <https://cloud.google.com/bigquery/>.

products and GBQ, such that customers could create a business analytics platform using both services.⁴⁰

43. The global cloud infrastructure market was estimated to be worth around \$80.4 billion in 2018, with spending growth of 46% since the previous year.⁴¹ Amazon is the market leader globally, followed by Microsoft, with shares of 32% and 16%, respectively. Google is third in this market with a share of 8.5%, followed by other smaller players such as Alibaba and IBM.⁴²
44. According to the evidence received during the CMA's merger investigation, customers often multi-source data warehouses for different reasons, including: (i) better serving the needs of different business units; (ii) legacy systems; and (iii) avoiding over-reliance in just one supplier.⁴³

Data sources: web analytics / online advertising

45. BI tools are used to analyse a wide range of business data from numerous sources. This includes, *inter alia*, advertising and marketing data (such as the data generated by Google Online Advertising products), as well as web analytics data of the type collected by Google Analytics, as explained at paragraphs 21(c) and 21(d) above. This data may be stored in different ways and at different locations, including cloud-based data warehouses.⁴⁴
46. With respect to web analytics, although continued growth is expected, third party reports describe it as a 'mature' market.⁴⁵ As demonstrated at paragraph 130 below, Google is the dominant market player (with a market share of over 80% in the UK), followed by a number of significantly smaller players such as Facebook Analytics, Adobe Analytics, Snowplow and Hotjar.⁴⁶ According to the available evidence, most customers currently use more than one web analytics provider (with one of the providers typically being Google).⁴⁷

⁴⁰ Final Merger Notice, paragraph 2.56.

⁴¹ Cloud infrastructure comprises various functionalities including data warehousing. [Canalys: Cloud market share Q4 2018 and full year 2018](#). See also [Canalys: press release on cloud infrastructure spend](#), February 2019. Gartner estimated growth to be 24.6% between 2016 and 2017 – see Final Merger Notice, tables below paragraph 19.4. The CMA notes that these sources measure different services and are not directly comparable. Doc 072 attached to Google's response to RF11 states that '[they] estimate the cloud Infrastructure as a Service market will double over the next 3 years with a CAGR over 25%. [...] Cloud is currently less than 15% of the total IT infrastructure budget but will increase to over 40% of infrastructure spend over the next decade.'

⁴² [Canalysis: Cloud market share Q4 2018 and full year 2018](#).

⁴³ [§], [§] and [§] responses to CMA questionnaire.

⁴⁴ Final Merger Notice, paragraph 19.46.

⁴⁵ Mordor Intelligence: Web Analytics Market – Growth, trends, and forecast (2020 - 2025), 2019 report; and Gartner: Market Guide for Web and Mobile App Analytics, 2018 report.

⁴⁶ Final Merger Notice, paragraphs 12.90-12.92. See also [Datanyze: Market Share, Web Analytics](#).

⁴⁷ Customer responses to CMA questionnaire.

47. Similarly, with respect to online advertising services, the CMA's Online Platform Market Study Interim Report highlights that Google has had very high and stable shares of supply in search advertising in the UK of over 90% for at least the last ten years, and the available evidence does not suggest that many specialised search providers impose a strong competitive constraint on Google. That interim report also identified that Google has the largest shares of supply amongst providers at each level of the display advertising intermediation chain.⁴⁸

Jurisdiction

Relevant framework

48. In the context of a completed transaction, a relevant merger situation exists where the following conditions are satisfied:
- (a) two or more enterprises have ceased to be distinct; and
 - (b) either
 - (i) the value of the target enterprise's UK turnover exceeded £70 million in its last fiscal year (the **turnover test**); or
 - (ii) the enterprises ceasing to be distinct have a share of supply or acquisition in the UK, or in a substantial part of the UK, of 25% or more in relation to goods or services of any description (the **share of supply test**).⁴⁹

Enterprises ceasing to be distinct

49. Each of Google and Looker is an enterprise. As a result of the Merger, these enterprises have ceased to be distinct.

The turnover test

50. The UK turnover of Looker did not exceed £70 million in 2018. Therefore, the turnover test in section 23(1)(b) of the Act is not met.⁵⁰

⁴⁸ [Online platforms and digital advertising, Market study interim report](#), paragraphs 5.56-5.92 and 5.185.

⁴⁹ [Mergers: Guidance on the CMA's jurisdiction and procedure](#) (CMA2), January 2014, paragraph 4.3.

⁵⁰ Final Merger Notice, paragraph 5.2.

The share of supply test

51. The Mergers Guidance on the CMA's jurisdiction and procedure (the **J&P Guidance**) sets out that the share of supply test is satisfied if the merged enterprises both either supply or acquire goods or services of a particular description, and will, after the merger, supply or acquire 25% or more of those goods or services, in the UK as a whole or in a substantial part of it.⁵¹
52. The Parties submitted that the CMA does not have jurisdiction over the Merger as the share of supply test has not been met. As further explained below, the CMA considers that it is or may be the case that the share of supply test is met.

Supply of tools for analysing web analytics data

53. The Act confers on the CMA a broad discretion in describing the relevant goods or services supplied or procured by the merging parties.⁵² The intention of the Act is for the share of supply test to be a key gateway to providing the CMA with the power to intervene in transactions which, like the present one, are relevant to UK markets or activities and may be expected to raise competition concerns that could impact UK consumers.⁵³
54. The J&P Guidance further clarifies that the share of supply test is not an economic assessment of the type used in the CMA's substantive assessment and need not amount to a relevant economic market, but rather requires the CMA to have regard to any reasonable description of a set of goods or services to determine whether the share of supply test is met.⁵⁴
55. Both Google and Looker supply, amongst other products, analytics tools that enable the analysis and visualisation of web analytics data.⁵⁵ In contrast to general purpose data management tools, these analytics tools have the capability to automate the ingestion, analysis and visualisation of web analytics data (**tools for analysing web analytics data**).⁵⁶ Specifically:

⁵¹ [Mergers: Guidance on the CMA's jurisdiction and procedure](#) (CMA2), January 2014, paragraph 4.53.

⁵² Section 23(8) of the Act.

⁵³ In the parliamentary debate at the time of proposed amendments of the Act, it was stated: '[t]he purpose of the test is to take out of scope of merger control a larger number of transactions that are of no economic concern to give business regulatory certainty that they will not fall within merger control. The share of supply test is a more workable test for those purposes.'[...] 'The definition in the Bill is simpler, more flexible and the right text context. ...' - see Hansard Record: Commons Standing Committee B, 30 April 2002.

⁵⁴ [Mergers: Guidance on the CMA's jurisdiction and procedure](#) (CMA2), January 2014, paragraph 4.56.

⁵⁵ Web analytics data includes data on user interaction with websites, web and mobile applications and other interconnected devices.

⁵⁶ Data ingestion occurs in three stages: (i) the extraction (retrieving data from sources), (ii) the transformation (validating, cleaning and normalising data to ensure accuracy and reliability), and (iii) the loading (routing or

56. Google supplies such tools through:
- (a) Google Analytics which, as described above at paragraph 21(c), provides a number of built-in functionalities including the analysis and visualisation of web analytics data.⁵⁷
 - (b) GDS, which enables customers – through the use of a direct connector – to ingest, analyse and visualise Google-generated web analytics data (amongst other types of business data).⁵⁸ The use by UK customers of GDS to analyse web analytics data has been confirmed during the course of the CMA’s merger investigation.⁵⁹
57. Looker’s BI tools – through integration with numerous data storage solutions, as stated at paragraph 23(a) – can ingest, analyse and visualise web analytics data.⁶⁰ The use of Looker to analyse web analytics data has also been confirmed by several of its customers.⁶¹
58. The Parties submitted that they do not supply products of the same description as Google Analytics offers a full web analytics solution whereas Looker offers a BI tool without the additional functionalities (such as the collection and measurement of web analytics data) offered by a full-spectrum web analytics service. The Parties also submitted that the CMA’s approach artificially separates out individual functionalities of a web analytics service, for which there is no independent demand.⁶²
59. The CMA considers that the description of tools for analysing web analytics data captures a distinct set of products that serve particular customer needs.
60. First, as further explained from paragraph 123 below, the available evidence indicates that customers use both specific web analytics applications and general BI tools to visualise and analyse web analytics data, regardless of any variations in functionality between the different tools. In particular, the use by customers of BI tools to analyse web analytics data is corroborated by third

placing the data in its correct silo or database for analysis). Automated data ingestion, by opposition to manual ingestion, entails a seamless and independent dataflow between two or more systems.

⁵⁷ Final Merger Notice, paragraphs 12.34-12.38. Google also acknowledged that Google Analytics provides some analysis and visualisation functionality that customers use – see Final Merger Notice, paragraph 19.57. The Parties also submitted that if the Merged Entity were to limit BI tools’ access to, *inter alia*, Google-generated web analytics data (as discussed further in the competitive assessment), customers would likely switch to using the analysis tools within Google Analytics.

⁵⁸ The Parties recognised that ‘business analytics tools can be used to analyse and visualise website usage data in the same way as other business data’ – see Final Merger Notice, paragraph 12.37.

⁵⁹ One customer confirmed analysing web analytics data generated by Google Analytics in GDS, its sole BI tool provider – see [REDACTED].

⁶⁰ Final Merger Notice, paragraph 12.40.

⁶¹ [REDACTED], [REDACTED], [REDACTED] and [REDACTED] responses to CMA questionnaire.

⁶² Parties’ response to Issues Paper, paragraphs 81-84.

party feedback from the CMA's merger investigation.⁶³ The Parties themselves acknowledged the use of BI tools in addition to web analytics tools such as Google Analytics by customers to analyse and visualise web analytics data.⁶⁴

61. Second, the CMA observes that Looker has developed an add-on application that allows customers to tailor its standard BI tool to analyse and visualise web analytics data in response to consumer demand.⁶⁵
62. Third, the CMA notes that the Parties have further acknowledged that if the Merged Entity were to limit BI tools' access to, *inter alia*, Google-generated web analytics data (as discussed further in the competitive assessment), customers would likely switch to using the analysis tools within Google Analytics.⁶⁶ This also indicates a degree of demand-side substitutability between these products.⁶⁷
63. Finally, the CMA does not consider the fact that there is also a vertical relationship between BI tools on the one hand and web analytics tools on the other to be of relevance to the assessment of whether there is an overlap for the purposes of the share of supply test (or indeed, the competitive assessment).⁶⁸ The Parties' argument that the share of supply test cannot capture mergers where the parties are active at different levels of the supply/procurement chain only applies where the relationship between the parties is purely vertical and there is therefore no horizontal overlap.⁶⁹ In this case, and for the reasons explained in paragraph 55 above, the CMA is of the view that the Parties are active at the same level of the supply chain (in addition to being vertically related).

⁶³ The importance of web analytics data as a source of data for BI tools is considered in the competitive assessment of this Decision.

⁶⁴ Final Merger Notice, paragraphs 12.37 and 12.42.

⁶⁵ Indeed, Looker notes that its policy is that [X].

⁶⁶ Final Merger Notice, paragraph 19.72.

⁶⁷ The CMA notes that the Parties later argued that there were no Looker customers for which Google Analytics would be a substitute, or vice versa – see Parties' response to Issues Paper, paragraph 43. The CMA notes that the fact that a given Google Analytics and/or Looker customer may not find the other offering to be a direct substitute for *all* needs does not prevent a finding of substitutability for some or specific needs (such as in this case, the analysis and visualisation of web analytics data). The CMA further notes that in any event, the reasonable description of services for the purposes of the share of supply test need not equate to an economic market and that evidence of substitutability is an informative, not necessary, condition to defining its boundaries.

⁶⁸ *ie* in the sense that BI tools can be used to analyse data generated by web analytics tools. The Parties characterised Looker and Google as having a purely vertical relationship (see Parties' response to Issues Paper, paragraph 83) – a position undermined by the overlap between various functionalities of Google's and Looker's products, as detailed above at paragraph 55.

⁶⁹ [Mergers: Guidance on the CMA's jurisdiction and procedure](#) (CMA2), January 2014, paragraph 4.56 and footnote 77.

64. For the reasons set out above, the CMA therefore believes that Google and Looker both supply tools for analysing web analytics data, which the CMA believes is a reasonable description of goods or services.
65. Based on available data from the Parties and third party providers of tools for analysing web analytics data (including both web analytics applications and BI tools) on number of UK users (that is, individual users within an organisation) for financial year 2018, the CMA estimates that the Parties have a combined share in the supply of tools for analysing web analytics data in the UK of [20-30]%, with an increment of [0-5]% as a result of the Merger.

Conclusion

66. For the reasons set out above, the CMA believes that it is or may be the case that the share of supply test in section 23 of the Act is met in the supply of tools for analysing web analytics data in the UK.
67. The Merger completed on 5 December 2019. The four-month deadline for a decision under section 24 of the Act is 5 April 2020.
68. The CMA therefore believes that it is or may be the case that a relevant merger situation has been created.
69. The initial period for consideration of the Merger under section 34ZA(3) of the Act started on 17 December 2019 and the statutory 40 working day deadline for a decision is therefore 13 February 2020.

Counterfactual

70. The CMA assesses a merger's impact relative to the situation that would prevail absent the merger (ie the counterfactual). For completed mergers the CMA generally adopts the pre-merger conditions of competition as the counterfactual against which to assess the impact of the merger. However, the CMA will assess the merger against an alternative counterfactual where, based on the evidence available to it, it believes that, in the absence of the merger, the prospect of these conditions continuing is not realistic, or there is a realistic prospect of a counterfactual that is more competitive than these conditions.⁷⁰

⁷⁰ [Merger Assessment Guidelines](#) (OFT1254/CC2), September 2010, from paragraph 4.3.5. The [Merger Assessment Guidelines](#) have been adopted by the CMA - see [Mergers: Guidance on the CMA's jurisdiction and procedure](#) (CMA2), January 2014, Annex D.

Parties' submissions

71. The Parties submitted that the appropriate counterfactual should be the pre-merger conditions of competition.⁷¹ However, the Parties also indicated that the BI tools market is highly competitive and expected to undergo further expansion as data analysis and automated tools become more sophisticated.⁷² In addition, the Parties submitted that absent the Merger:
- (a) Google would have likely continued trying to compete with other cloud competitors by continuing to offer GDS and through operating partnerships with third party BI tool providers.⁷³ The Parties further submitted that Google concluded that Looker was the only viable BI tool provider target for acquisition at this time.⁷⁴
 - (b) Looker would have focused on improving its core product and developing related software applications.⁷⁵

CMA's assessment

72. As noted at paragraph 39 above, the available evidence suggests that the BI tools market is fast-moving and dynamic, with all players investing significantly to improve or develop products. The CMA observed in its *Salesforce/Tableau* decision that '[i]nnovative new functionalities introduced by new entrants continue to drive incumbent BI software providers to evolve and develop their products to remain competitive'.⁷⁶
73. Within this context, the CMA has considered the Parties' respective commercial strategies absent the Merger.

Google

74. Google's internal documents suggest that absent the Merger, Google would have likely continued to invest in GDS (in line with pre-Merger levels). However, these documents give an inconclusive view on whether Google would have pursued the acquisition of another BI tool provider. Specifically:

⁷¹ Final Merger Notice, paragraph 11.1.

⁷² Final Merger Notice, from paragraph 15.4; and Parties' presentation to the CMA on 23 January 2020 (**Issues Meeting presentation**), pages 13-16.

⁷³ Final Merger Notice, paragraphs 18.4-18.6.

⁷⁴ Final Merger Notice, paragraph 18.3.

⁷⁵ Final Merger Notice, paragraph 18.6.

⁷⁶ ME/6841/19, *Salesforce/Tableau*, paragraph 42.

- (a) Google’s internal documents show that Google extensively considered whether to buy an existing BI tool solution or to build a similar capability in-house (using GDS as a foundation).⁷⁷ Several internal documents seem to indicate that Google dismissed the build option as [REDACTED].⁷⁸
- (b) Several internal documents show that Google looked at various alternative targets such as [REDACTED].⁷⁹ These documents further indicate that Looker was perceived to be a particularly good fit for Google [REDACTED]⁸⁰ [REDACTED].⁸¹ Overall, the available evidence does not, however, provide a definitive view on whether Google would have pursued the acquisition of another BI tool provider in the absence of the Merger.

75. Conversely, there is evidence suggesting that Google would have continued to invest in GDS absent the Merger. Although initially developed as an add-on for Google’s advertising customers – without sitting under the Google Cloud Platform – the CMA notes that Google has built specific features to optimise GDS’s performance, particularly for its cloud customers. For example, Google has introduced BigQuery BI Engine, a fast, in-memory analysis service designed to accelerate data exploration and analysis, which has been integrated with GDS.⁸² Similarly, Google has built direct connectors between GDS and a number of Google products including GBQ, Google Analytics and Search Ads 360.⁸³

76. In addition, Google continues to share with its customers regular updates about new features and functionality added to GDS.⁸⁴ Some of Google’s internal documents show that, [REDACTED], product managers within Google Cloud were considering investing in GDS [REDACTED].⁸⁵ One internal document indicates that these plans were later abandoned [REDACTED].⁸⁶ Finally, additional internal documents show Google’s intention to continue investing in GDS for advertising and marketing users post-Merger.⁸⁷

⁷⁷ See, for example, GOOG-LOGIC-00819964.

⁷⁸ Google’s internal documents indicate that it would take [REDACTED] to build the capability founded on GDS with considerable challenges [REDACTED].

⁷⁹ See, for example, Doc 002, Doc 003, Doc 004 and Doc 018 attached to Google’s response to S.109 Notice; GOOG-LOGIC-00672249; GOOG-LOGIC-00652080; and GOOG-LOGIC-00564420.

⁸⁰ Google Cloud Platform relates to those data warehousing services provided by Google through its GBQ service (and others including Google MySQL, Google PostgreSQL and Google Cloud Spanner) – see Final Merger Notice, paragraph 12.58.

⁸¹ GOOG-LOGIC-00672249.

⁸² <https://cloud.google.com/bi-engine/docs/overview>.

⁸³ <https://cloud.google.com/bigquery/docs/visualize-data-studio>; and <https://datastudio.google.com/data>.

⁸⁴ <https://support.google.com/datastudio/answer/9691261>.

⁸⁵ See, for example, GOOG-LOGIC-00120446; GOOG-LOGIC-00002930; and GOOG-LOGIC-00034792.

⁸⁶ GOOG-LOGIC-00569308.

⁸⁷ See, for example, GOOG-LOGIC-00132948 and GOOG-LOGIC-00713465.

77. In light of the evidence set out above, the CMA believes that this suggests that Google's strategy absent the Merger would have been to continue investing in GDS [REDACTED]. In addition, the CMA believes that it is possible that Google would have considered acquiring an alternative BI tool provider, but the evidence is inconclusive on this point.

Looker

78. The available evidence similarly points to Looker continuing to invest in and develop its core BI tools absent the Merger. According to Looker's internal documents, the company [REDACTED].⁸⁸ This is corroborated by Google's internal documents, which indicate that the strategic rationale and valuation for the Merger was in part driven by Looker's strong growth potential.⁸⁹

79. Looker's internal documents further show its commitment to investing in its existing product through improvements to [REDACTED].⁹⁰

(a) Several internal documents highlight that Looker [REDACTED].⁹¹

(b) One document in particular also shows that as part of its strategy Looker [REDACTED].⁹²

Conclusion

80. In light of the evidence set out above, and in the context of the dynamism of the BI tools market, the CMA has assessed the impact of the Merger relative to the pre-merger conditions of competition. The CMA believes that the pre-merger conditions of competition are not static but rather involve an environment where both the Parties (and other market players) would have continued to pursue growth strategies to improve their existing products and develop new product features in the foreseeable future. The relevant factors and implications for future competitive conditions have been taken into account within the CMA's competitive assessment where appropriate.

Frame of reference

81. Market definition provides a framework for assessing the competitive effects of a merger and involves an element of judgement. The boundaries of the

⁸⁸ See, for example, Q.1-14 and Q.1-16 attached to Looker's response to S.109 Notice.

⁸⁹ See, for example, GOOG-LOGIC-00731060; GOOG-LOGIC-00260083; and GOOG-LOGIC-00672249.

⁹⁰ See, for example, Q.1-10 and Q.1-18 attached to Looker's response to S.109 Notice.

⁹¹ See, for example, Q.1-10, Q.1-11 and Q.1-18 attached to Looker's response to S.109 Notice.

⁹² Q.1-21 attached to Looker's response to S.109 Notice.

market do not determine the outcome of the analysis of the competitive effects of the merger, as it is recognised that there can be constraints on merging parties from outside the relevant market, segmentation within the relevant market, or other ways in which some constraints are more important than others. The CMA will take these factors into account in its competitive assessment.⁹³

82. When selecting a candidate market in horizontal mergers, the CMA will include at least the substitute products (narrowly defined) of the merger firms. In non-horizontal mergers, the CMA will include at least one of the products of the merger firms.⁹⁴
83. As noted above, the Parties overlap in the supply of BI tools. In addition, there are non-horizontal relationships between the Parties. Google is a supplier of web analytics and online advertising services which generate data. BI tools, including those offered by Looker, are used to analyse this Google-generated data, along with data from other sources.

BI tools

Parties' submissions

84. The Parties submitted that:⁹⁵
- (a) the narrowest relevant product frame of reference is modern BI tools;
 - (b) within the BI tools market, sub-segmentations based on customer type and customer size are not appropriate as the products' underlying functionality remains essentially the same irrespective of the customer size and type;
 - (c) a further segmentation distinguishing between cloud-native and non-cloud would not be an accurate reflection of the market as BI tools can interoperate with cloud data warehouse solutions as well as on-premises solutions; and

⁹³ [Merger Assessment Guidelines](#), paragraph 5.2.2.

⁹⁴ [Merger Assessment Guidelines](#), paragraph 5.2.11.

⁹⁵ Final Merger Notice, paragraphs 12.1-12.16. The European Commission has defined BI tools as query, reporting and analysis tools, on the one hand, and advanced analytics, on the other – see COMP/M.4944 – SAP/Business Objects, paragraphs 10 and 11. In their submissions, the Parties referred to the overlap in their activities as business analytics software (**BAS**). The CMA notes that the terms BAS and BI are not used consistently within the industry and are often used interchangeably. For simplicity and consistency with the *Salesforce/Tableau* case, the CMA refers to BI in this Decision.

(d) distinguishing between whether a BI tool performs analysis in the data warehouse or within the BI tool is not a meaningful segmentation as the output is essentially the same.

85. The Parties also submitted that the geographic scope is worldwide.⁹⁶

CMA's assessment

86. The Parties are both active in the supply of BI tools.

87. The CMA notes that third party sources, including Gartner and IDC, focus specifically on the BI tools market.⁹⁷ The Parties' internal documents also discuss competition in relation to BI tools software, without going into further segmentation.⁹⁸

88. In *Salesforce/Tableau*, the CMA considered whether to identify separate frames of reference for modern and traditional BI tools but did not ultimately conclude on the frame of reference as no competition concerns arose on any plausible basis.⁹⁹

89. The CMA further notes that the precise product frame of reference does not affect the competitive assessment in this case. Accordingly, based on the evidence above, the CMA has considered it appropriate to assess the impact of the Merger by reference to the supply of BI tools.

90. The Parties' submissions on the geographic scope are consistent with the evidence received by the CMA and are in line with the geographic scope identified in previous cases.^{100,101} The CMA therefore believes that the geographic scope of the supply of BI tools is worldwide.

⁹⁶ Final Merger Notice, paragraph 12.18.

⁹⁷ See, for example, Q.3-1, Q.3-8 and Q3.13 attached to Looker's response to S.109 Notice.

⁹⁸ See, for example, GOOG-LOGIC-00819097 and GOOG-LOGIC-00727098. See also Q.1-1, Q.2-1 and Q.2-6 attached to Looker's response to S.109 Notice.

⁹⁹ ME/6841/19, *Salesforce/Tableau*, paragraphs 59-60.

¹⁰⁰ The Parties' internal documents and industry reports discuss competition globally (see, for example, GOOG-LOGIC-00672249; GOOG-LOGIC-00267550; and GOOG-LOGIC-00819097) and third parties also did not indicate any material differences in competitive interactions across geographic areas.

¹⁰¹ ME/6841/19, *Salesforce/Tableau*, paragraph 67; COMP/M.4944 – *SAP/Business Objects*, paragraph 18; COMP/M.4987 – *IBM/Cognos*, paragraph 16; and COMP/M.5904 – *SAP/Sybase*, paragraph 30.

Web analytics services

Parties' submissions

91. The Parties submitted that Google Analytics falls within a product market for web analytics services.¹⁰²
92. The Parties did not make specific submissions with respect to the geographic scope for web analytics services, although they provided share of supply estimates for web analytics in the UK.¹⁰³

CMA's assessment

93. The CMA found that the Parties' submissions are consistent with the evidence obtained in the course of its merger investigation.¹⁰⁴ The CMA has therefore assessed the impact of the Merger with respect to the supply of web analytics services.
94. With respect to the geographic scope, Google's internal documents consider web analytics as a whole and do not distinguish between competition across different geographic areas.¹⁰⁵ In addition, evidence from competitors was consistent with competition taking place globally, although the CMA notes that some competitors are more geographically focused. Based on the available evidence, the CMA therefore believes that the geographic frame of reference for the supply of web analytics services is worldwide.

Online advertising services

Parties' submissions

95. The Parties submitted that Google's advertising products compete within the broader advertising market against both online and offline players.¹⁰⁶
96. The Parties did not make specific submissions with respect to the geographic scope for this frame of reference, although they did provide share of supply estimates for the UK.¹⁰⁷

¹⁰² Final Merger Notice, paragraph 12.90.

¹⁰³ Final Merger Notice, paragraph 12.90.

¹⁰⁴ Google's internal documents and third-party reports also refer to web analytics as a distinct product area – see, for example, [§]. See also Gartner: Market Guide for Web and Mobile App Analytics, 2018 report.

¹⁰⁵ See, for example, annex 1, documents 14 and 16 attached to Google's response to RFI6.

¹⁰⁶ Final Merger Notice, paragraph 12.111.

¹⁰⁷ Final Merger Notice, paragraphs 12.112 and 12.115.

CMA's assessment

97. In *Google/DoubleClick*, the European Commission (**EC**) drew a distinction between online and offline advertising on the basis of online advertising being capable of reaching a more targeted audience and providing a greater ability to measure the effectiveness of advertising.¹⁰⁸ This is consistent with the preliminary conclusions of the CMA's Online Platforms Market Study Interim Report.¹⁰⁹ Google's internal documents also discuss competition in relation to online advertising.¹¹⁰
98. In *Google/DoubleClick*, the EC further identified a separate market for intermediation in online advertising, thereby drawing a distinction between intermediated and direct sales in online advertising.¹¹¹ Google is active throughout the online advertising supply chain and many of these products are unlikely to be demand-side substitutes.¹¹² Therefore, the CMA believes it may be possible to identify narrower segments within the wider frame of reference of online advertising services.
99. However, it was not necessary for the CMA to reach a conclusion on the exact boundaries of the product frame of reference in relation to online advertising services in this case, since no competition concerns arise on any plausible basis as set out at paragraphs 118 and 229 below. The CMA has therefore assessed the impact of the Merger by reference to the supply of online advertising services.^{113,114}
100. With respect to the geographic scope, the evidence received by the CMA suggests that online advertising services operate on a global basis.¹¹⁵ The CMA therefore believes that the geographic frame of reference is worldwide. However, it was not necessary to reach a conclusion on the geographic frame of reference, since, as set out below, no competition concerns arise on any plausible basis.

¹⁰⁸ COMP/M.4731 – *Google/DoubleClick*, paragraph 45.

¹⁰⁹ In particular, evidence gathered from advertisers and media agencies suggested that there was limited substitutability between video display advertising and TV advertising (the two types of advertising considered most likely to be comparable) – see [Online platforms and digital advertising market study interim report](#), paragraphs 5.25-5.26.

¹¹⁰ See, for example, annex 1, documents 11 and 20 attached to Google's response to RFI6.

¹¹¹ COMP/M. 4731 – *Google/DoubleClick*, paragraph 68.

¹¹² For example, a publisher ad server will not be a demand side substitute to a demand-side platform given the clear difference in functionality of these products.

¹¹³ This approach is consistent with the purpose of market definition as described in the [Merger Assessment Guidelines](#), paragraphs 5.2.1-5.2.3.

¹¹⁴ For the avoidance of doubt, the CMA is not referring here to the provision of online advertising space.

¹¹⁵ In particular, third parties did not indicate that competitive conditions in online advertising vary across geographic areas; Google's internal documents (☒) and industry reports discuss competition globally (see, for example, Gartner: Magic Quadrant for Ad Tech, 2019 report; Technology Insight for Marketing Analytics, 2019 report; and Critical Capabilities for Ad Tech 2018 report).

Conclusion on frame of reference

101. For the reasons set out above, the CMA has considered the impact of the Merger in the following frames of reference:
- (a) the supply of BI tools on a worldwide basis;
 - (b) the supply of web analytics services on a worldwide basis; and
 - (c) the supply of online advertising services on a worldwide basis.
102. However, it was not necessary for the CMA to reach a conclusion on any of these frames of reference, since, as set out below, no competition concerns arise on any plausible basis.

Competitive assessment

103. As set out in the following sections, the CMA has assessed the following theories of harm:¹¹⁶
- (a) horizontal unilateral effects arising from the loss of competition in the supply of BI tools on a worldwide basis; and
 - (b) vertical effects arising from the foreclosure by the Merged Entity of competing BI tools from accessing Google-generated data sources (in particular, data generated from Google Analytics and Google's Online Advertising products) on a worldwide basis.¹¹⁷

Horizontal unilateral effects in the supply of BI tools

104. Horizontal unilateral effects may arise when one firm merges with a competitor that previously provided a competitive constraint, allowing the merged firm profitably to raise prices or to degrade quality on its own and without needing to coordinate with its rivals.¹¹⁸ Horizontal unilateral effects are more likely when the merging parties are close competitors. To assess whether it is or may be the case that the Merger has resulted, or may be expected to result, in an SLC in relation to horizontal unilateral effects in

¹¹⁶ The CMA also considered whether there were other theories of harm that could arise as a result of the Merger, including the possibility that Looker could have developed products to compete with Google's current product offering or the likelihood of and possible implications of Google building a BI tool capability similar to Looker's. However, the CMA considered that the available evidence indicated that other possible theories of harm would not give rise to competition concerns at an early stage in its investigation. Therefore, these theories of harm are not discussed in detail in this Decision.

¹¹⁷ The CMA refers in this Decision to 'Google-generated data sources' as shorthand for data generated from Google Analytics and Google's Online Advertising products.

¹¹⁸ [Merger Assessment Guidelines](#), from paragraph 5.4.1.

relation to the supply of BI tools on a worldwide basis the CMA has considered evidence in relation to:

- (a) shares of supply;
- (b) the closeness of competition between the Parties;
- (c) the competitive constraints from alternative BI tool providers; and
- (d) innovation and product development.

Shares of supply

105. Since GDS is currently provided to customers free of charge, the CMA has considered shares of supply as measured by individual user numbers. The Parties submitted that their combined UK share of supply of BI tools (by number of users) is [0-10]% (depending on the underlying assumptions), with an increment of between [0-5]%.¹¹⁹
106. As part of its merger investigation, the CMA received data on user numbers from the Parties as well as from competing BI tool providers.¹²⁰ According to this data, both Looker and Google each have a share of supply of [0-5]% and a combined UK share of supply of [0-5]%.
107. The CMA considers that BI tools are highly differentiated such that shares of supply may not be informative of the competitive interactions between products.¹²¹ For these reasons, the CMA has placed limited weight on the shares of supply in its competitive assessment. Rather, the CMA has considered a range of other evidence, discussed further below, to assess the closeness of competition between the Parties and the competitive constraints imposed on the Parties by their competitors.

Closeness of competition between the Parties

108. The Parties submitted that they are not close competitors. In particular, GDS is a free product primarily used by Google's advertising customers to analyse

¹¹⁹ Final Merger Notice, paragraphs 14.12-14.21 and associated tables. These estimates were based on estimated revenues for each competitor provided from third party reports, IDC and Gartner, and a range of assumptions on revenue per user. The Parties did not provide data on a worldwide basis; however, the CMA received worldwide revenue data from Looker in the context of *Salesforce/Tableau*, in which the CMA found that Looker had an approximately [0-5]% share of supply (by revenue) in the supply of BI tools worldwide – see ME/6841/19, *Salesforce/Tableau*, Table 1.

¹²⁰ Some third parties were only able to provide figures for a range of products, including a number of products that do not appear to be BI tools and are therefore unlikely to be alternatives to GDS or Looker's BI tools.

¹²¹ [Merger Assessment Guidelines](#), paragraph 5.3.2.

advertising performance. Unlike enterprise BI tools, such as Looker, GDS does not support important third-party products making it unsuitable for many enterprise customers. The Parties further submitted that GDS has limited data analysis and visualisation capabilities.¹²² The Parties submitted that this was supported by:

- (a) a comparison of Looker and GDS's functionality, which demonstrates significant differences between these products;
- (b) third-party reports, which indicate that Looker has a low share of supply and do not list GDS as a competitor;
- (c) Looker's website, which does not compare Looker to GDS; and
- (d) an analysis of Looker's sales opportunities between 2016 and 2019, which shows the negligible sales opportunities competed for by the Parties.¹²³

109. Consistent with the Parties' submissions, the CMA believes that the Parties' BI tools do not compete closely. In particular:

- (a) Looker's internal documents identify a number of competitors in the supply of BI tools but do not identify GDS as a competitor.¹²⁴ This is consistent with Google's internal documents which (i) describe GDS's limitations [REDACTED], (ii) note that GDS is not used by most customers as a BI solution tool; and (iii) include references to third party reports in which GDS is not listed as a BI tool.¹²⁵ These internal documents are consistent with responses from a number of customers that commented on the limitations of GDS's functionality;
- (b) Looker's global sales opportunities data does not identify GDS as a material constraint. For example, according to this data, Looker competed against GDS in only [REDACTED] of the total opportunities where a competitor was recorded between 2016 and 2019.¹²⁶ This global sales opportunities data is consistent with a data set focused on the UK, in which GDS was

¹²² Final Merger Notice, paragraph 15.3(b).

¹²³ Final Merger Notice, paragraphs 15.19-15.24 and 14.1-14.5.

¹²⁴ See, for example, Q.2-3, Q.2-6 and Q.2-7 attached to Looker's response to S.109 Notice.

¹²⁵ See, for example, Doc 002 attached to Google's response to S.109 Notice; Doc 084 attached to Google response to RF11; and GOOG-LOGIC-00672249.

¹²⁶ CMA analysis of data provided as annex 6 to Parties' response to RF11.

recorded as a competitor only in [REDACTED] opportunities where a competitor was recorded in 2018 and 2019;^{127,128}

- (c) GDS is not identified as a competitor in third-party reports assessing competition between BI tools;¹²⁹
- (d) few customers viewed GDS as an alternative to Looker (or to their existing BI tool if the customer did not use Looker).¹³⁰ As mentioned in paragraph 112(d), these customers also identified a range of alternative BI tools; and
- (e) all BI tool competitors who responded to the CMA's merger investigation identified Looker as a competitor to their BI product.¹³¹ However, the same competitors responding in the *Salesforce/Tableau* case did not identify GDS as a strong competitor.¹³²

110. In light of the available evidence set out above, the CMA therefore believes that the Parties are currently not close competitors in the supply of BI tools.

Competitive constraints from alternative BI tool providers

111. The Parties submitted that there are numerous, large competitors offering BI tools including Microsoft, SAP, Oracle, IBM, Tableau and Qlik.¹³³

112. The CMA believes that the Parties currently face competitive constraints from a number of other BI tool providers. This is supported by a range of evidence – in particular:

- (a) Looker's internal documents indicate that it competes with a range of other BI tool providers, including Tableau, Qlik, Microsoft Power BI, 'Legacy BI' products (eg MicroStrategy, IBM/Cognos, Business Objects) and 'Emerging BI' products (eg SiSense, Periscope and Domo).^{134,135}

¹²⁷ CMA analysis of data provided as annex 7 to Parties' response to RF11.

¹²⁸ The CMA acknowledges that there are some limitations with this data that could underestimate the Parties' closeness of competition. In particular: [REDACTED]. Therefore, the CMA has given limited weight to this evidence.

¹²⁹ See, for example, Doc 048, Doc 075 and Doc 076 attached to Google's response to S.109 Notice.

¹³⁰ [REDACTED], [REDACTED], [REDACTED], [REDACTED] and [REDACTED] responses to CMA questionnaire.

¹³¹ Teradata responded negatively when asked if it considered Looker to be a competitor but clarified that this is because Teradata does not offer an equivalent product – see Teradata's response to CMA questionnaire.

¹³² [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED] and [REDACTED] responses to CMA questionnaire.

¹³³ Final Merger Notice, paragraphs 15.4-15.9.

¹³⁴ The CMA notes that Periscope and Sisense merged in May 2019 – see <https://www.periscopedata.com/press/sisense-to-merge-with-periscope-data-forming-analytics-powerhouse>.¹³⁵ Q.2-3 and Q.2 attached to Looker's response to S.109 Notice.

This is consistent with Looker's online marketing materials, which compare Looker to Tableau, SiSense and Microsoft Power BI.¹³⁶

- (b) When contemplating the Merger, Google identified in its internal documents a range of competitors to Looker in the supply of BI tools, including Tableau, Qlik and Microsoft Power BI.¹³⁷
- (c) Looker's global sales opportunities data identifies a range of competitors to Looker. According to this data, Tableau was recorded as a competitor for [redacted] of opportunities, Periscope for [redacted] of opportunities, SiSense for [redacted] of opportunities and Domo and Microsoft Power BI for [redacted] of opportunities, in the period between 2016 and 2019.¹³⁸ As noted at paragraph 109(b), GDS accounts for [redacted] of the opportunities in this data set. Similarly, the UK data set lists a range of competitors including: Tableau ([redacted]), SiSense ([redacted]), Microsoft Power BI ([redacted]) and Mode Analytics ([redacted]) for the period between 2018 and 2019.¹³⁹
- (d) Third-party reports identify Looker as one of a number of BI tool competitors.¹⁴⁰
- (e) Third parties also identified a range of alternative BI tool providers. On average, each customer identified three to four alternative suppliers to Looker. These customers identified a significant number of alternative suppliers in total. Many of these alternative suppliers were referred to by only a few respondents but SiSense, Qlik, Microsoft Power BI and Tableau were all referred to by a significant number of respondents.
- (f) The above evidence is consistent with the CMA's findings in the recent *Salesforce/Tableau* decision, which found evidence of a number of competing BI tool providers including Microsoft Power BI, Qlik, SAP, IBM/Cognos, MicroStrategy and a number of smaller competitors.¹⁴¹ It is also consistent with the relative lack of concerns received from third parties in relation to this theory of harm.¹⁴²

¹³⁶ <https://looker.com/compare/looker-vs-tableau>; <https://looker.com/compare/looker-vs-sisense>; and <https://looker.com/compare/looker-vs-power-bi>.

¹³⁷ See, for example, GOOG-LOGIC-00267550.

¹³⁸ CMA analysis of data provided as annex 6 to Parties' response to RF11.

¹³⁹ CMA analysis of data provided as annex 7 to Parties' response to RF11. [redacted]. However, for the reasons explained in footnote 128, the CMA has placed limited weight on this evidence.

¹⁴⁰ See, for example, Doc 048 and Doc 049 attached to Google's response to S.109 Notice; Doc 075 and Doc 076 attached to Google's response to the CMA's questions dated 26 July 2019.

¹⁴¹ ME/6841/19, *Salesforce/Tableau*, paragraphs 86-88.

¹⁴² The CMA received only one concern from a customer and no concerns from competitors regarding this theory of harm. The concerned customer noted that the Merger will further concentrate Google's control of the BI tools market ([redacted]). However, the CMA did not find these concerns to be corroborated by the evidence the CMA has assessed, as outlined in paragraphs 105-113.

113. The CMA therefore believes that the Parties face significant constraints from other BI tool suppliers.

Innovation and product development

114. As discussed above from paragraph 72, the CMA has received evidence that absent the Merger the Parties would take steps to improve their own BI tools, in line with the dynamic nature of this market. In light of this evidence, the CMA considered the impact of the Merger on innovation and product development.

115. The Parties submitted in this respect that:

(a) Looker has no plans to expand beyond its BI tools, focusing on constantly improving and innovating its core product in the face of strong competition, and developing related software applications.¹⁴³

(b) Google would have likely continued trying to compete with other cloud competitors by continuing to offer GDS and operating partnerships with third party BI tool providers.¹⁴⁴

116. As discussed from paragraph 72, according to the Parties' internal documents, Google would have continued to invest in GDS absent the Merger and Looker was committed to investing in its existing BI tools. A third party report also flags how Looker is offering new technologies to address the needs of developers.¹⁴⁵

117. However, while the CMA believes that both Parties would have made improvements to their offerings in the absence of the Merger, such improvements and investments are likely to be commensurate with those being made by other competitors that will continue to constrain the Merged Entity (in line with the dynamic nature of this market). As explained in paragraph 109, the CMA found that the Parties are not close competitors at present, and that there is little evidence to suggest that the extent of competitive interaction between the Parties would have materially increased in future absent the Merger. Therefore, the CMA believes that the Merger will not result in competition concerns in relation to innovation and product development.

¹⁴³ Final Merger Notice, paragraphs 15.16 and 18.6.

¹⁴⁴ Final Merger Notice, paragraphs 18.4-18.6.

¹⁴⁵ Doc 036 attached to Google's response to S.109 Notice.

Conclusion on horizontal unilateral effects

118. For the reasons set out above, the CMA believes that the Parties are not close competitors in the supply of BI tools and there are a number of other BI tool providers that will continue to constrain the Merged Entity post-Merger. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in relation to the supply of BI tools on a worldwide basis.

Vertical effects

119. Vertical effects may arise when a merger involves firms at different levels of the supply chain, for example a merger between an upstream supplier and a downstream customer or a downstream competitor of the supplier's customers.¹⁴⁶
120. As described above, Google provides a number of products that generate data (such as Google Analytics and Google's Online Advertising products) that can be analysed using a BI tool, such as Looker's. Through GBQ, Google also provides a data warehouse that can be used to aggregate data for analysis using a BI tool. In this context, the CMA has considered whether Google could use its services which generate data and GBQ to foreclose competing BI tool providers. As described further below, the CMA has focused on the possibility of partial foreclosure, ie whether the Merged Entity could make access to the inputs it controls more expensive or less convenient for competing BI tool providers post-Merger.¹⁴⁷
121. The CMA's approach to assessing vertical theories of harm is to analyse (a) the ability of a merged entity to foreclose competitors, (b) its incentive to do so, and (c) the overall effect of the strategy on competition.¹⁴⁸ In assessing the Merger, the CMA has considered ability and incentive (which are discussed in turn below) but has not needed to reach a view on effects.

Ability

122. To assess the Merged Entity's ability to foreclose competing BI tools, the CMA has considered:

¹⁴⁶ [Merger Assessment Guidelines](#), paragraphs 4.1.4. and 5.6.2.

¹⁴⁷ As distinct from total foreclosure which would involve entirely preventing users from using rival BI tools to analyse Google-generated data and/or from using rival BI tools to access data in GBQ.

¹⁴⁸ [Merger Assessment Guidelines](#), paragraph 5.6.6.

- (a) the extent to which accessing web analytics and online advertising data is important for BI tools;
- (b) whether Google has market power in relation to web analytics and online advertising services; and
- (c) the mechanisms that the Merged Entity could use to achieve this foreclosure strategy.

Importance of accessing web analytics and online advertising data for BI tools

123. The Parties submitted that the Merged Entity does not have the ability to foreclose competing BI tools as Google-generated data sources are not a core data source for BI tools.¹⁴⁹ To support their submission, the Parties argued that the value of BI tools lies in making connections across different datasets. The Parties submitted that, as the ability to make these connections requires common identifiers (such as a customer email address) and Google-generated data sources are not collated on the basis of such identifiers, the latter have limited value for a BI tool.¹⁵⁰
124. However, the CMA believes that businesses (ie BI tool users) can generate valuable insights without linking data at an individual level. There is value in being able to link analytics on, for example, the operational performance of a given customer-oriented part of a retail website, advertising conversions and sales that would not require individual identifiers. Moreover, there are examples of Google-generated data sources being linked with other datasets. For instance, Google Analytics 360 integrates with Salesforce.com to make importing data easier.¹⁵¹
125. The Parties further submitted that [REDACTED] Looker customers use the connectors Looker makes available to Google-generated data sources.¹⁵² However, the CMA believes that the use of connectors will tend to understate the importance of a particular data source. Feedback from the CMA's merger investigation confirms that a significant number of Looker customers use data sources without a pre-built Looker connection. Rather than using a connector, some customers prefer to import and store their data in a data warehouse. In this regard, the Parties noted that [REDACTED] Looker's customers analyse their data by connecting Looker to their chosen data warehouse.¹⁵³

¹⁴⁹ Parties' response to Issues Paper, paragraph 72.

¹⁵⁰ Final Merger Notice, paragraphs 19.47-19.49.

¹⁵¹ Final Merger Notice, paragraph 12.86.

¹⁵² Parties' response to Issues Paper, paragraph 72.

¹⁵³ Final Merger Notice, paragraph 19.35.

126. The CMA's merger investigation also highlighted that, contrary to the Parties' submissions, Google-generated data sources are important for a material number of BI tool customers. In particular:
- (a) Almost all competing BI tool providers indicated that the ability to access data from Google Analytics is 'important' or 'very important'. The majority of customers contacted by the CMA also reported analysing data from Google Analytics in their BI tools.
 - (b) A significant proportion of competing providers of BI tools considered that data from Google's Online Advertising products is important for users of their BI tool.¹⁵⁴ BI tool customers indicated that their usage of data from Google's Online Advertising products differed substantially as between different Google products.¹⁵⁵ Nonetheless, a significant number of customers reported using BI tools to analyse data from at least some of these products.
127. Additional evidence also indicates that BI tools are used by customers to analyse data from Google-generated data sources and that this is an important functionality for BI tools. In particular:
- (a) Looker advertises its ability to analyse Google Ads and Google Analytics data and a connector between Looker and Google Ads has been developed.¹⁵⁶ Other BI tools also advertise their ability to analyse Google Ads and Google Analytics data and Tableau has also built a Google Analytics connector.¹⁵⁷ The fact that BI tool providers engage in such activities indicates that analysing this data using a BI tool is important for a material number of customers. Consistent with this, one competitor submitted that its ability to analyse Google-generated data was instrumental to the launch and initial success of its BI tool;
 - (b) post-Merger, Google is considering developing [REDACTED].¹⁵⁸ This suggests that Google considers digital advertising data (including data generated from

¹⁵⁴ Competitor responses indicated that Google Ads was the relatively most important and Google Search Ads 360 the second most important. Google Display & Video 360, Campaign Manager, AdSense, Ad Manager and Ad Mob were seen as similarly important.

¹⁵⁵ Data from Google Ads was used the most often. After that, similar numbers of respondents said they used data from Google Search Ads 360, Google Display & Video 360 and Campaign Manager. Very few respondents responded using data from Google Ad Sense and Google Ad Mob.

¹⁵⁶ <https://looker.com/solutions/marketing-analytics>. Looker also has connectors to other sources of online advertising data (eg Bing Ads, LinkedIn Ad Analytics and Facebook Ad Account) – see annex 19 to Final Merger Notice.

¹⁵⁷ See, for example, <https://www.qlik.com/us/products/qlik-connectors/google-analytics>; <https://www.tableau.com/about/blog/2019/4/get-started-google-ads-connector-improve-ad-campaign-performance-105153>; and <https://looker.com/platform/blocks/source/google-analytics-premium-360-by-google>. See also Final Merger Notice, paragraph 12.136.

¹⁵⁸ Final Merger Notice, paragraph 24.6. [REDACTED] – see Final Merger Notice, paragraphs 12.44 and 19.58.

Google's Online Advertising products) to be a fruitful source of data for BI tools; and

(c) numerous internal documents identify data generated by Google Analytics as an example of a data that can be analysed using Looker.¹⁵⁹

128. Based on the evidence outlined above, the CMA believes that a material proportion of BI tool customers use these tools to analyse Google-generated data and that doing so is important to these customers.

Market power in relation to web analytics and online advertising services

129. As described in paragraph 128, the evidence suggests that analysing Google-generated data is important for a material proportion of BI tool customers. To assess the Merged Entity's ability to foreclose competing BI tools, the CMA also examined whether BI tool customers could easily reduce their reliance on Google-generated data, for example by switching to alternative providers of the services which generate this type of data, ie web analytics and online advertising services. To do this, the CMA has assessed the extent to which Google has market power in relation to these underlying services. As part of this analysis, the CMA investigated whether the inter-relationships between the products in these markets are likely to further enhance Google's market position.

- *Web analytics services*

130. The available evidence is consistent with Google Analytics being the leading web analytics provider (both globally and in the UK):

(a) Google estimates that its share of supply in web analytics is approximately 80% in the UK (based on domains). Google is, therefore, the market leader by a significant margin, with its competitors all having less than 10% share: the next largest player, Facebook Analytics, has a share of just 7%, followed by Snowplow (2%), Hotjar (1%), Matomo (1%) and some smaller players, none of which have a share above 1%.¹⁶⁰

(b) A Google internal document states that '[Google Analytics] & [Google Analytics 360] are analytics leaders in the market', with only Facebook Analytics and Adobe Analytics described as 'key competitors'.¹⁶¹

¹⁵⁹ See, for example, GOOG-LOGIC-00811953 and GOOG-LOGIC-00672249. See also Parties' teach-in presentation to the CMA on 28 August 2019.

¹⁶⁰ Final Merger Notice, paragraphs 12.90-12.92. See also [Datanyze: Market Share, Web Analytics](#).

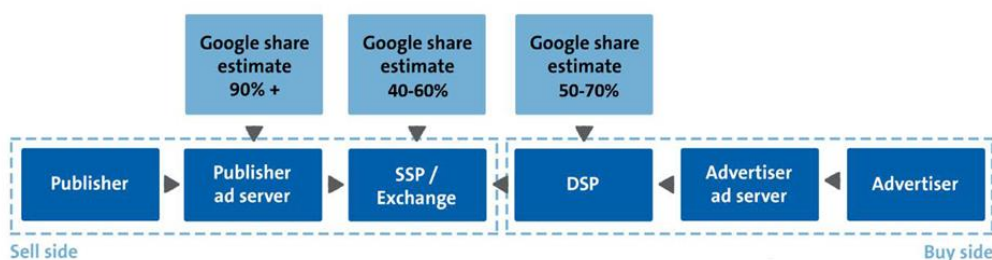
¹⁶¹ Annex 1, document 14 attached to Google's response to RFI6.

(c) Adobe Analytics was the only competing product referred to as an alternative to Google Analytics by a material number of web analytics customers.

- *Online advertising services*

131. The CMA’s Online Platforms Market Study Interim Report highlights Google’s strength across the entire value chain of digital advertising intermediation.¹⁶² This report found that Google accounts for more than 90% of search advertising revenues, a factor that supported the CMA’s provisional conclusion that ‘Google has substantial market power in search advertising.’¹⁶³ In this case, the CMA considers that Google’s position in search advertising is likely to be indicative of the market position of Google Ads and Google Search Ads 360, which are the Google products providing access to Google’s online search advertising inventory. The interim report also identified that Google has the largest shares of supply amongst providers at each level of the display advertising intermediation chain (relevant to Google Ads, Display & Video 360, AdSense, Ad Manager, and AdMob, as summarised in the diagram below).¹⁶⁴

Figure 2: Google’s role in display advertising intermediation



Source: CMA’s Online Platforms Market Study Interim Report. In the market study, Google AdX, Google Ad Sense and Google AdMob were included in the definition of supply-side platforms (SSPs) and Google Display & Video 360 and Google Ads in the definition of demand-side platforms (DSPs).

132. This summary of Google’s position in online advertising is consistent with other available evidence considered by the CMA in the course of its investigation, including:

¹⁶² *Online platforms and digital advertising, Market study interim report*, paragraph 5.185.

¹⁶³ *Online platforms and digital advertising, Market study interim report*, paragraphs 5.56 and 5.92.

¹⁶⁴ *Online platforms and digital advertising, Market study interim report*, paragraph 5.185. The CMA notes that the shares of supply in the interim report have been based on data received from the intermediaries and the coverage of this data is not complete. Therefore, Google’s shares may be over-estimated.

- (a) Plum Consultancy’s 2019 report on online advertising for the Department of Digital, Culture, Media & Sport, which found that Google Display & Video 360 is the largest DSP by share of UK programmatic display advertising expenditure and that Google accounts for the majority of search advertising;¹⁶⁵
 - (b) Google’s internal documents, which focus on Facebook, Adobe and Amazon as Google’s main competitors in online advertising services.¹⁶⁶ One of these internal documents concludes that ‘Google and Facebook are regarded as industry leaders’;¹⁶⁷ and
 - (c) third party responses, in which:
 - (i) a number of online advertising customers stated that there are no alternatives to Google Ads. Microsoft Bing was the most commonly cited competitor to Google Ads but was only mentioned by a minority of customers. Further, the CMA understands that Microsoft Bing only offers an alternative to the search advertising offered by Google Ads, while Google Ads can also be used to access display advertising; and
 - (ii) a number of online advertising customers identified Marin and Kenshoo as the closest alternatives to Google Search Ads 360. However, Google’s internal documents (referred to at paragraph 132(b)) identify limits to [redacted] of these providers.
- *Google’s ability to offer a range of related products*

133. The CMA has considered whether the interactions between Google’s activities in the markets for web analytics and online advertising services could impact its market position.

134. In this regard, according to the available evidence, the CMA believes that the inter-relationships between Google’s various products may enhance Google’s market power. In particular:

- (a) The CMA’s Online Platforms Market Study Interim Report provisionally found that advertisers’ decision-making on digital advertising is data-driven as they seek to understand the effectiveness of their advertising campaigns.¹⁶⁸ For this reason, a platform’s ability to show the effectiveness of advertising through data collected from their own

¹⁶⁵ Plum Consultancy: [Online advertising in the UK](#), January 2019, pages 11, 54 and 59.

¹⁶⁶ See, for example, annex 1, documents 4 and 5 attached to Google’s response to RFI6.

¹⁶⁷ Annex 1, document 4 attached to Google’s response to RFI6, slide 25. See also slide 34 [redacted].

¹⁶⁸ [Online platforms and digital advertising, Market study interim report](#), paragraphs 5.10, 5.12 and 5.144.

consumer-facing services and third-party sites and apps (eg through web analytics) is important for driving advertising expenditure.¹⁶⁹ Companies who collect data from web analytics services have the ability to provide a richer set of data to the users of their services.

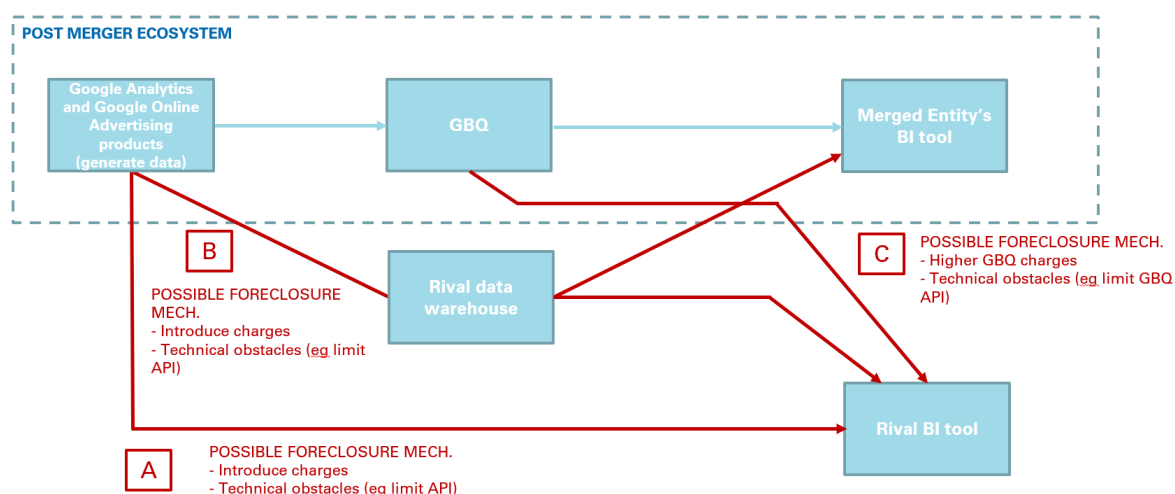
(b) A Google internal document states that [REDACTED]. [REDACTED].¹⁷⁰ This same document also indicates that [REDACTED].¹⁷¹ Finally, this document states: [REDACTED].¹⁷²

135. Based on this evidence, the CMA believes that Google has market power in relation to web analytics and online advertising services. Furthermore, the CMA believes that Google’s ability to offer a combination of related products may also enhance its market power in relation to each of these services.

Possible foreclosure mechanisms

136. The CMA considered whether mechanisms exist that the Merged Entity could use to partially foreclose rival BI tools. The diagram below provides an overview of the ways in which competing BI tools access and analyse Google-generated data. It also summarises the possible partial foreclosure strategies that the Merged Entity could adopt.

Figure 3: Stylised overview of possible foreclosure mechanisms



Source: CMA analysis.

¹⁶⁹ *Online platforms and digital advertising, Market study interim report*, paragraph 5.144.

¹⁷⁰ Annex 1, document 14 attached to Google’s response to RFI6, slide 5.

¹⁷¹ Annex 1, document 14 attached to Google’s response to RFI6, slide 6.

¹⁷² Annex 1, document 14 attached to Google’s response to RFI6, slide 21.

137. The CMA understands that, pre-Merger, users of a competing BI tool who wish to analyse data from Google Analytics and Google's Online Advertising products could:
- (a) connect directly to the data using their BI tool (**Route A** in Figure 3);¹⁷³
 - (b) extract the data into a non-Google data warehouse and then analyse it using their BI tool (**Route B** in Figure 3); or
 - (c) extract the data into GBQ and then analyse it using their BI tool (**Route C** in Figure 3).
138. The CMA has considered both the non-price and price-based mechanisms that the Merged Entity could use to impede Routes A, B and C. The distinct issue of whether these impediments could be targeted at competing BI tools is discussed in the context of foreclosure incentives in paragraphs 187 to 208 below.
139. The CMA believes that impeding Routes A, B and C in combination would make a foreclosure strategy more impactful as it would limit the alternative ways in which customers of competing BI tools could access the data sources. However, as discussed in the incentive assessment below, different routes are likely to have different costs and benefits associated with them, thereby affecting the Merged Entity's incentive to use each.
140. Mechanisms for non-price foreclosure by impeding each of Routes A, B and C are discussed in turn below, followed by mechanisms for price-based foreclosure, and finally consideration of an alternative route for accessing Google-generated data that the Parties submitted would allow any attempt to foreclose to be circumvented.
- *Mechanisms for non-price foreclosure: ability to impede direct connections with competing BI tools (Route A)*
141. Data from Google Analytics and Google's Online Advertising products is accessible via published application programming interfaces (**APIs**). BI tools can offer a direct connection (or 'native connection') to this data using the API (Route A).¹⁷⁴ Direct connections allow analysis to be performed on the latest available data and mean there is no need to move data outside the source

¹⁷³ The CMA notes that there is no equivalent to Route A for Looker as: (i) Looker does not connect directly to the underlying data source; and (ii) Looker users must move the relevant data to a data warehouse – see Parties' response to Issues Paper, paragraph 52.

¹⁷⁴ Final Merger Notice, paragraph 19.55.

system for analysis.¹⁷⁵ Connectors and other tools developed by third parties such as Fivetran, Stitch Data and Simba can also be used to convey information to a BI tool.¹⁷⁶

142. The majority of competing BI tool providers contacted by the CMA confirmed that they have a direct connection to Google Analytics. For Google's Online Advertising products the feedback was mixed, with some competing BI tool providers indicating that they use direct connections (ie Route A), while others submitted that they connect to data warehouses (ie Routes B and C, discussed at paragraphs 147 to 151).
143. Google fully controls the extent to which its products' APIs can be used. The CMA believes that there are several possible ways in which competing BI tools' access through Route A could be degraded, thereby providing an ability to foreclose. For example:¹⁷⁷
- (a) API limits could be revised downwards, for example by reducing the amount of data available per query or the number of queries that can be made in a fixed time period;
 - (b) the number of API keys could be restricted, making them less easily available;
 - (c) the Merged Entity could reduce the resources dedicated to maintaining the API so that any outages take longer to be fixed; and/or
 - (d) the Merged Entity could choose not to keep the API up to date with the latest features.
144. A number of suppliers of competing BI tools have suggested that such strategies would be possible and, if implemented, would adversely affect them. There is also evidence of APIs being restricted in such ways in other contexts. Google APIs already have some limitations: for example, Google Analytics restricts the amount of data that it can return in a single query.¹⁷⁸ There are also examples of other companies limiting their APIs.¹⁷⁹ This

¹⁷⁵ Final Merger Notice, paragraph 12.128. A competing provider of BI tools noted that API connections provide a better customer experience and ensure that the data is accurate and reliable. In contrast, it considered loading Google Ads data into GBQ to be a complicated process that often does not produce accurate data.

¹⁷⁶ Final Merger Notice, paragraph 19.59.

¹⁷⁷ The Parties submitted that restricting access to APIs for direct connections would not prevent competing BI tools from accessing Google-generated data through a third party connector such as Fivetran – see Parties' response to Issues Paper, paragraph 54. However, the CMA believes that if the Merged Entity degraded its API then this would also affect competing BI tools using third party connectors that access that API.

¹⁷⁸ https://help.tableau.com/current/pro/desktop/en-us/examples_googleanalytics.htm.

¹⁷⁹ In 2012, Twitter limited its API in a way that hampered apps that reproduced Twitter's core functionality – see https://blog.twitter.com/developer/en_us/a/2012/changes-coming-to-twitter-api.html. In 2018, Instagram

suggests that such strategies may be both technically possible and commercially beneficial in some contexts.

145. Data can also be extracted without using an API, for example by downloading it as a csv file.¹⁸⁰ However, these alternatives may be cumbersome and inconvenient and may not provide equivalent security protections.¹⁸¹ Therefore, the CMA believes that extraction of data through alternative mechanisms is not a realistic, viable alternative to APIs for many customers.

146. The CMA notes that Google currently has partnership agreements with certain competing BI tools with respect to access to Google Analytics. However, the CMA believes that these agreements may provide limited contractual protections to prevent Google from engaging in foreclosure by impeding Route A.^{182,183}

- *Mechanisms for non-price foreclosure: ability to affect connections to competing data warehouses (Route B)*

147. The Parties submitted that BI tools can also connect to data from Google Analytics and Google's Online Advertising products through the third party data warehouses in which the customer chooses to store this data.¹⁸⁴ Connectors developed by third parties can be used to extract and load data into a data warehouse. The Parties submitted that analysis done inside a data warehouse is flexible and swift but – since a duplicate copy of the data is created – the user needs to update the data when the source data changes.¹⁸⁵

148. The CMA believes that potential restrictions on the APIs of Google Analytics and Google's Online Advertising products (as discussed in paragraph 143 in relation to Route A) could also be used to hamper access to this data via Route B. For example, the Merged Entity could introduce changes to its APIs to reduce the quantity or quality of Google-generated data that can be

significantly reduced the maximum number of API calls per hour – see

<https://techcrunch.com/2018/04/02/instagram-api-limit/2018/04/02/instagram-api-limit/>.

¹⁸⁰ Final Merger Notice, paragraph 19.55. Data may also be extracted in the form of spreadsheets, which has similar disadvantages to exporting as a csv file – see Final Merger Notice, paragraph 12.136.

¹⁸¹ Final Merger Notice, paragraph 12.136. It would also have the same drawback as Route B (see paragraph 147), namely that the user needs to update the data when the source data changes.

¹⁸² For example, because the agreements are time limited and include specific terms enabling Google to vary its public API access terms [§].

¹⁸³ The Parties also submitted that the restrictions under the General Data Protection Regulation (**GDPR**) would limit the Merged Entity's ability to adopt a foreclosure strategy based on impeding access to Google-generated data – see Parties' response to Issues Paper, paragraphs 30 and 57. However, the CMA believes that the GDPR applies to the processing of personal data of natural persons and does not cover the processing of personal data which concerns legal persons or undertakings established as legal persons. The CMA therefore does not believe that the GDPR would prevent the Merged Entity from impeding access to Google-generated data.

¹⁸⁴ Final Merger Notice, paragraph 12.135.

¹⁸⁵ Final Merger Notice, paragraph 12.129.

exported to a third-party data warehouse, or the frequency with which the data can be refreshed. This would affect the quality of analysis that can be conducted by a BI tool accessing the data via Route B.

- *Mechanisms for non-price foreclosure: ability to affect connections from GBQ to competing BI tools (Route C)*

149. As described in paragraph 120, data, including Google-generated data, can be stored in GBQ and analysed using BI tools. Considering restrictions on access to GBQ (as a data warehouse that can be used to aggregate data, including Google-generated data) is therefore an important aspect of the CMA's assessment of the Merged Entity's ability to engage in foreclosure. The consequences of hindering access to GBQ are considered in the context of foreclosure incentives from paragraph 161; this takes into account GBQ's market position and the Parties' argument that Google has no visibility over the data stored in GBQ and could not engage in any strategy to hinder access to **just** Google-generated data.¹⁸⁶

150. The majority of BI tool providers that responded to the CMA's merger investigation said that their BI tools have a direct connection to GBQ. Of the respondents to the CMA's merger investigation, all competing BI tool providers indicated that accessing GBQ is important, and over half of BI tool customers indicated that they use BI tools to analyse data from GBQ.

151. The CMA believes that there are several ways in which the Merged Entity could engage in non-price foreclosure by hindering connections to GBQ (and thus ultimately, to Google-generated data), including:¹⁸⁷

- (a) the Merged Entity could update the GBQ API in ways that make it less convenient or well suited to access by third party software (similar to the API restrictions discussed in paragraph 143);
- (b) the Merged Entity could also restrict access to certain functionality to its own services;¹⁸⁸ and/or

¹⁸⁶ Parties' response to Issues Paper, paragraphs 30-31.

¹⁸⁷ Since the purpose of data warehouses is to store data on customers' behalf this implies that refusing access to that data outright is not credible since this would render GBQ redundant.

¹⁸⁸ For example, Google's BigQuery BI Engine (which allows faster in-memory analysis) can currently only be accessed from GDS, [X] – see Final Merger Notice, paragraph 12.67. Pre-Merger, Looker announced a plan to integrate with BigQuery BI Engine – see Annex 5 attached to Parties' response to Integration Questions, page 4.

(c) the Merged Entity could terminate the GBQ partnerships it currently has with various providers of BI tools.¹⁸⁹ Partners can access support and development services from Google, including technical guidance, in order to support integration with Google's services.¹⁹⁰ Some competing BI tools providers that responded to the CMA's merger investigation told the CMA that the partnership program provides them with assistance, and that ending that partnership could be disruptive.

- *Conclusion on the ability to engage in non-price foreclosure*

152. Based on the evidence set out above, the CMA believes that a range of mechanisms for partial non-price foreclosure are available. The CMA believes that the Merged Entity has the ability to use non-price mechanisms to hamper access to Google-generated data sources by users of competing BI tools, including by limiting the functionality of the APIs of Google Analytics, Google's Online Advertising products and GBQ, and by scaling back GBQ's partnerships with suppliers of competing BI tools.

- *Mechanisms for price-based foreclosure*

153. The CMA also considered whether the Merged Entity could raise the price of access to Google-generated data sources for users of competing BI tools.

154. Google does not currently charge customers of Google Analytics or Google's Online Advertising products to access their data.¹⁹¹ Google submitted that there was no economic rationale for it to do so, and that there were no internal documents evidencing their consideration of such a strategy.¹⁹² However, the CMA has received no evidence to indicate that the Merged Entity lacks the ability to engage in price-based foreclosure in relation to Routes A and B in Figure 3.

155. GBQ customers pay either a flat rate or on a 'pay as you go' basis for querying data held in GBQ.¹⁹³ When 'pay as you go' customers use BI tools to analyse data held on GBQ they incur a charge. Consequently, the Merged Entity could engage in price-based foreclosure by increasing the price of

¹⁸⁹ The Google Cloud Partner Advantage Program Agreement [§]; the Google Cloud Platform Program Agreement also provides [§]. Of the BI tools most frequently used by GBQ customers, [§] – see Final Merger Notice, paragraph 12.71 and footnote 58.

¹⁹⁰ For BI tool developers, the relevant partnership model is the 'Build Engagement Model' – see Final Merger Notice, paragraphs 2.55, 2.62-2.63 and 2.66-2.67.

¹⁹¹ Final Merger Notice, paragraph 12.125.

¹⁹² Parties' response to Issues Paper, paragraphs 44-45.

¹⁹³ Final Merger Notice, paragraphs 12.58 and 12.70.

queries to GBQ and accordingly hindering access to Google-generated data for users of competing BI tools (Route C in Figure 3).¹⁹⁴

156. Such a strategy could have a significant impact on the cost of using competing BI tools: according to the responses from customers received during the CMA's merger investigation, GBQ charges could represent a significant proportion of the costs of using a BI tool. Although there were some variations in the responses received, for all but one of the respondents the amount of additional payments for running queries was at least 50% of the amount spent on BI tools, and in the majority of cases was larger than the amount spent on BI tools.

157. On the basis of the evidence above, the CMA believes that the Merged Entity has the ability to use price mechanisms to raise the price of accessing Google-generated data sources for users of competing BI tools. The Merged Entity could introduce charges for extracting data from Google Analytics and Google's Online Advertising products and/or raise the price that competing BI tools pay for GBQ queries.

- *The alternative route for accessing Google-generated data submitted by the Parties*

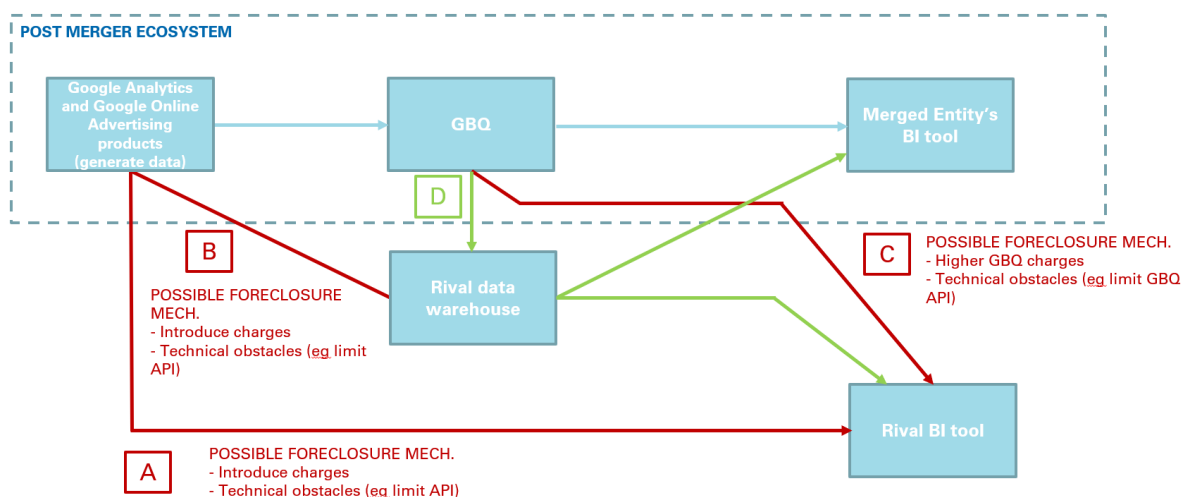
158. The Parties submitted that any foreclosure strategy could easily be circumvented because, once the data has been exported to GBQ, it could then be transferred to a different data warehouse (**Route D** in Figure 4 below). The Parties submitted that moving data to another data warehouse is easy because:

- (a) data warehouses are developed using industry standards;
- (b) exporting data into a data warehouse is either free or has minimal cost and storage costs are typically very low; and
- (c) customers frequently operate multiple data warehouses within a single provider's cloud infrastructure.¹⁹⁵

¹⁹⁴ The Parties submitted that Google could not pursue a price-based foreclosure strategy as GBQ charges customers and not third-party software providers for making queries from GBQ – see Parties' response to Issues Paper, paragraph 34. The CMA acknowledges that charges are made to customers but does not consider this distinction to be relevant since increasing the prices paid by customers provides a more direct means of influencing consumer behaviour and therefore enhances any ability to foreclose.

¹⁹⁵ Parties' response to Issues Paper, paragraphs 19-25.

Figure 4: Parties' alternative route to access Google-generated data



Source: Parties' response to Issues Paper, paragraph 19.

159. However, the CMA believes that Route D is not a credible alternative for most customers who use BI tools to analyse Google-generated data for the following reasons:

- (a) although moving data between warehouses is technically feasible, regularly relying on this, in order to analyse Google-generated data, is likely to be inconvenient for customers, as it adds an additional step.¹⁹⁶ In addition, automating this process requires a degree of technical expertise, which some BI tool users may not possess. Moving data between multiple warehouses also imposes an additional cost on the customer (eg establishing the connection and ongoing data transfer costs). Competing BI tools would thus still be placed at a material disadvantage if their customers had to use Route D in order to analyse Google-generated data; and
- (b) Route D is only readily available to a small sub-set of customers: those who are already using GBQ (plus another database). Google has a modest share (8.5%) of the cloud infrastructure market worldwide.¹⁹⁷ Therefore, the CMA believes that it is likely that most BI tool customers use rival data warehouses and will not readily be able to use Route D to circumvent the Merged Entity's foreclosure strategy.

¹⁹⁶ The CMA further notes that the Parties acknowledged that transferring data from GBQ to another data warehouse was not the most efficient method of data transfer (Issues Meeting, 23 January 2020).

¹⁹⁷ Final Merger Notice, paragraphs 19.3-19.4.

Conclusion on ability

160. On the basis of the evidence set out above, the CMA believes that the Merged Entity has the ability to partially foreclose competing BI tools because:
- (a) a material proportion of customers use BI tools to analyse web analytics and online advertising data and the ability of the BI tool to access this data is important to these customers;
 - (b) Google has substantial market power in relation to both the supply of web analytics and online advertising services. Google's collection of products, and the inter-relationships between them, is also likely to enhance Google's market power; and
 - (c) a range of non-price and price-based foreclosure mechanisms could be used by the Merged Entity to foreclose competing BI tools.

Incentive

161. In assessing whether the Merged Entity would have the incentive to foreclose competing BI tools, the CMA has considered the potential impact on its profits. Depending on how any foreclosure strategy is targeted, the impacts referred to in paragraphs 162(b), 163(a) and 163(b) may affect customers of Google's services that do not use BI tools.¹⁹⁸
162. The Merged Entity may benefit from increased profits as follows:
- (a) foreclosing competing BI tools (through Routes A, B and/or C) is likely to have a positive impact on the profits generated by the Merged Entity's BI tool, due to an increase in sales (eg as customers currently not using the Merged Entity's BI tool switch to it) and possibly higher prices; and
 - (b) hampering access to Google-generated data sources (through Routes A and B) might also prompt some data warehouse users to switch to GBQ (eg because it interoperates more smoothly with those data sources). This may also increase sales of products that are complementary with GBQ, such as other cloud services.
163. On the other hand, the Merged Entity may suffer from a reduction in profits as follows:

¹⁹⁸ For example, restrictions aimed at hindering Routes A and B for competing BI tools could also affect a customer that just wishes to access Google-generated data sources in order to store that data for its records. In principle, that customer might respond by switching to GBQ for its data storage needs (as described in paragraph 162(b)) or by switching away from the Google service generating that data (as described in paragraph 163(a)).

- (a) hampering access to Google-generated data sources (through Routes A, B and/or C) potentially has a negative impact on the Merged Entity's profits if customers switch away from the services generating that data or reduce their advertising spend using Google products; and
 - (b) hampering access to GBQ (through Route C) may also result in some GBQ customers switching to competing data warehouses that offer smoother interoperability with the customers' software. This may also reduce sales of products that are complementary with GBQ, such as other cloud services.
164. To assess the extent to which the Merged Entity would have an incentive to foreclose competing BI tools, the CMA considered:
- (a) Google's internal documents and the Merger rationale, to assess Google's view of the profitability of different strategies;
 - (b) the relative ease of switching between BI tools compared to switching to or from Google's other products (including Google Analytics, Google's Online Advertising products and GBQ), to assess the magnitude of the benefits of foreclosure (such as extra BI tool sales) and the drawbacks (customers switching away from Google products as described in paragraph 163);
 - (c) whether any foreclosure strategy could be targeted at competing BI tools, to assess the scale of switching away from Google products and thus the drawbacks of engaging in foreclosure;
 - (d) the extent to which the Merged Entity's incentives will change relative to the pre-Merger situation;
 - (e) relative margins, to assess the extent of changes in profits when customers are gained and/or lost as a result of a foreclosure strategy; and
 - (f) possible retaliation by competing BI tool providers, to test the extent to which this may disincentivise the Merged Entity from engaging in foreclosure.

Internal documents and the Merger rationale

165. The Parties submitted that there is an absence of internal or external documents that relate to a vertical foreclosure strategy.¹⁹⁹ As discussed above from paragraph 26, Google submitted that its rationale for the Merger is

¹⁹⁹ Parties' response to Issues Paper, paragraph 5.

to increase the attractiveness of Google's cloud business. The Parties further submitted in the context of this vertical theory of harm that its rationale for the Merger was developed with no reference to Google's advertising or web analytics businesses (with the Executive and Business Sponsors for the deal being exclusively from Google's Cloud team) and that its rationale was inconsistent with limiting GBQ customers' ability to access their data or choose which other software products to use.²⁰⁰ The Parties also submitted that jeopardising GBQ sales for BI tools would risk adversely affecting sales of other Google cloud products.²⁰¹

166. As discussed in paragraph 27, the CMA has reviewed a significant volume of internal documents to understand Google's rationale for the Merger, including strategy documents on its cloud services and data warehouse services. These documents are consistent with Google's submission that the main objective of the Merger was to strengthen its cloud business. These documents do not suggest that the Merger was motivated by a desire to limit access to Google-generated data sources by other BI tools post-Merger.²⁰² The CMA notes that the absence of explicit references to such a strategy does not necessarily indicate that such a strategy has never been considered (or would not be considered post-Merger). However, the CMA acknowledges that Google's internal documents do not suggest that Google is currently planning to engage in foreclosure strategies.

Relative ease of switching

167. As discussed in paragraphs 162 to 163 above, a foreclosure strategy may result in customers:
- (a) switching away from Google Analytics and Google's Online Advertising products and/or reducing advertising spend with Google;
 - (b) switching to or from GBQ, depending on the precise routes impeded by any foreclosure strategy; and
 - (c) switching to the Merged Entity's BI tool.
168. The extent of switching to or from these different categories of products will affect the profitability of engaging in foreclosure: the greater the extent of the

²⁰⁰ Parties' response to Issues Paper, paragraph 4.

²⁰¹ Parties' response to Issues Paper, paragraphs 17 and 61.

²⁰² The CMA also notes that a number of these internal documents were produced in the ordinary course of business before Google began contemplating the possibility of the Merger in December 2018. The CMA considers such documents to have greater evidentiary value in this respect than documents prepared in anticipation of the Merger (which may have been prepared in anticipation of review by competition agencies).

switching away from the Merged Entity's products, the greater the drawbacks of engaging in foreclosure.²⁰³ Factors that affect the scale of switching include whether attractive alternatives exist and the level of switching costs. These factors are considered below.

- *Google Analytics and Google's Online Advertising products*

169. With respect to Google Analytics, the available evidence indicates that switching away from this product may be difficult as there are limited alternatives. As set out in paragraphs 130 and 135, the CMA believes Google has market power in the supply of web analytics and, although there is a range of other providers, none of these, with the exception of Adobe Analytics, were considered to be an alternative to Google Analytics by a significant number of customers.
170. With respect to Google's Online Advertising products, the CMA considers that customers are unlikely to switch away from these Google products:
- (a) As described at paragraphs 131 to 132, the evidence is consistent with Google having substantial market power in online advertising services, indicating that there are likely to be few good alternatives for customers to switch to.
 - (b) Moreover, as discussed in paragraph 134, Google Analytics provides Google with an advantage in relation to advertising. Even if hampering access to Google Analytics data reduced the attractiveness of advertising with Google, advertisers may be reluctant to shift online advertising spend to another provider since that alternative is likely to only have limited web analytics data.²⁰⁴
171. The Parties submitted that, rather than completely switching away from Google's Online Advertising products, customers could reduce their advertising expenditure using Google's products. The Parties submitted that Google-generated data allows advertisers to assess the performance of their campaigns and therefore access to it supports advertising expenditure.²⁰⁵ The Parties referred to two case studies to support this submission [§]. As a result, the Parties submitted that limiting access to Google-generated data would harm advertising spend.²⁰⁶

²⁰³ *Merger Assessment Guidelines*, paragraphs 5.6.11(a)-5.6.11(b).

²⁰⁴ See also *Online platforms and digital advertising market study interim report*, paragraphs 5.144- 5.145.

²⁰⁵ For example, because it allows future campaigns to be targeted more effectively which encourages greater advertising expenditure.

²⁰⁶ Parties' response to Issues Paper, paragraphs 40-42.

172. The available evidence is consistent with access to Google-generated data supporting advertising spend with Google. This is shown, for example, by a Google internal document which describes how Google Analytics [REDACTED] (see paragraph 134(b)) and is also consistent with the CMA's Online Platforms Market Study Interim Report (see paragraph 134(a)). Finally, it is consistent with Google's current practice of making this data available to customers free of charge (see paragraphs 210 to 211).
173. In this context, the Parties submitted that Google earns [REDACTED] revenues from advertising services. They calculated that a fall of [0-5]% in these revenues would offset any extra profits from additional sales of BI tools, and that the Merged Entity thus does not have an incentive to engage in foreclosure.²⁰⁷
174. The CMA does not believe that the Parties' calculation, which is based on Google's total advertising revenue, is informative. In particular, the vast majority of the Merged Entity's advertising revenues are likely to be unaffected by any foreclosure strategy. For example, customers that analyse Google-generated data are unlikely to be affected if they do so using GDS, Google Analytics or Google's Online Advertising products (rather than a BI tool).
175. Overall, the CMA believes that the extent to which advertisers would reduce their expenditure on Google's Online Advertising products is modest given the limited alternatives to Google's Online Advertising products.²⁰⁸ However, the CMA also notes that Google does not appear to have restricted access to this data to date, despite the potential benefits to GBQ of doing so (as discussed in paragraphs 210 to 210 a pre-Merger strategy of foreclosing rival data warehouses has similarities to a post-Merger strategy of impeding access to Routes A and B). This is consistent with the Parties' argument that a foreclosure strategy would have a negative impact on its advertising business.
- GBQ
176. The Parties submitted that GBQ faces strong competition from large rival data warehouse providers including Microsoft, Amazon and Snowflake. As a result, if the Merged Entity were to limit its customers' ability to access its data

²⁰⁷ Parties' response to Issues Paper, paragraphs 16 and 59-69.

²⁰⁸ See paragraph 170 above.

warehouse, they could quickly switch to alternative data warehouse providers.^{209, 210}

177. The CMA believes that customers that wish to switch away from GBQ have a range of credible alternatives:

- (a) Google is the third largest cloud service provider worldwide (according to the total cloud infrastructure spending), behind the two leading players Amazon and Microsoft.²¹¹
- (b) Almost all data warehouse customers that responded to the CMA's merger investigation identified Amazon and Microsoft as alternatives to GBQ. The majority also identified Snowflake as an alternative to GBQ. All competing data warehouse providers identified Amazon, Microsoft and Snowflake as competitors.²¹² Respondents to the CMA's merger investigation also referred to various other alternative data warehouse providers.²¹³

178. Most data warehouse customers who responded to the CMA's merger investigation highlighted material barriers to switching data warehouse provider.²¹⁴ The main barriers they identified were:

- (a) migrating the data into the new data warehouse securely and accurately. There are also costs associated with data transfer;^{215, 216}

²⁰⁹ Final Merger Notice, paragraphs 19.40-19.43; and Parties' response to Issues Paper, paragraphs 34 and 43.

²¹⁰ The Parties also submitted that reducing GBQ's interoperability with competing BI tools (which currently account for at least 95% of the market) would impair GBQ's ability to serve almost all users of BI tools – see Parties' response to Issues Paper, paragraph 32. Insofar as this is a distinct point, the CMA does not believe that it informs the assessment of the Merged Entity's incentives. As observed by the Parties, a foreclosure strategy would affect a large number of BI tool users. This would increase both (i) the number of customers that potentially switch away from the Merged Entity's products but also (ii) the number of customers that potentially switch to the Merged Entity's BI tool.

²¹¹ Final Merger Notice, Table under paragraph 19.4. This is consistent with evidence from Google internal documents (see, for example, Doc 001 attached to Google's response to S.109 Notice, slides 6, 12 and 17).

²¹² [REDACTED], [REDACTED], [REDACTED], [REDACTED] and [REDACTED] responses to CMA questionnaire.

²¹³ All the data warehouse providers contacted by the CMA identified additional competitors. Alternatives mentioned by more than one customer were Oracle, IBM, SAP and open source options such as Hadoop.

²¹⁴ Only a minority of data warehouse customers submitted that switching costs were modest – see [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED] responses to CMA questionnaire.

²¹⁵ Data warehouse customers raising this point included [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED] and [REDACTED] – see responses to CMA questionnaire.

²¹⁶ The cost of data transfer depends on the amount of data that is moved and will thus vary between data warehouse users. One customer ([REDACTED]) estimated that transferring all its existing data would cost between £10,000 and £20,000. However, it is not clear to the CMA how representative this figure is.

- (b) ensuring the new data warehouse works smoothly with other software used by the customer (eg the tools used to ingest data into the warehouse or generate reports for the customer's business);²¹⁷ and
- (c) configuring the new data warehouse effectively, which may require training.²¹⁸

179. However, according to the available evidence, the CMA believes that these switching costs may be reduced in some cases. First, the use of data warehouses is growing.²¹⁹ For a new customer deciding whether to select GBQ or another data warehouse, switching costs may have little impact on their choice of provider. Should GBQ become less attractive, these prospective customers could simply choose a different data warehouse. Second, as mentioned in paragraph 44 above, the available evidence indicates that many customers use multiple data warehouses.²²⁰ These customers may be able to readily shift some of their ongoing expenditure away from GBQ to their other data warehouse.²²¹

180. Overall, the CMA believes that there is a range of competing data warehouses. While there are material costs involved with switching data warehouse, it is possible to mitigate these costs.

- *Merged Entity's BI tool*

181. The Parties submitted that if the Merged Entity were to engage in a foreclosure strategy, at least some customers would not switch to the Merged Entity's BI tool since Looker does not currently provide a direct connection to any third-party software.²²²

182. The CMA notes that it did not receive any evidence showing that this lack of a direct connection was a material barrier to switching to the Merged Entity's BI tool for a significant number of customers. Rather, the CMA believes that the Merged Entity's BI tool is at least a credible alternative and that customers would consider switching to it as a result of a foreclosure strategy. All competing BI tool providers who responded to the CMA's merger investigation

²¹⁷ [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED] and [REDACTED] responses to CMA questionnaire.

²¹⁸ [REDACTED], [REDACTED], [REDACTED], [REDACTED] and [REDACTED] responses to CMA questionnaire.

²¹⁹ Gartner estimated that infrastructure as a service and infrastructure utility services grew by 24.6% between 2016 and 2017 and Canalys estimated that worldwide cloud infrastructure spending grew by 46.5% between 2017 and 2018 – see Final Merger Notice, table under paragraph 19.4.

²²⁰ The majority of data warehouse customers that responded to the CMA's merger investigation used more than one data warehouse.

²²¹ In the event that these customers wished to cease using multiple data warehouses, and discontinue their use of GBQ, they may be able to avoid some of the set-up costs discussed in paragraph 178 (eg retraining costs). ²²² Parties' response to Issues Paper, paragraphs 52-53.

identified Looker as a competitor.²²³ This is also supported by the Parties' internal documents and by third-party reports.²²⁴

183. The CMA's merger investigation found a spectrum of views about the costs of changing BI tool provider. At one end, some BI tool users indicated that there were few barriers to switching and/or only modest costs.²²⁵ At the other end, some users said that the costs were significant.²²⁶ Many customers identified obstacles to switching BI tool including:

- (a) the integration of the new BI tool with various datasets;
- (b) recreation of all the dashboards and reporting used by the business within the new BI tool;
- (c) retraining teams to use the new platform; and
- (d) differences in functionality meaning that alternative BI tools may be less suitable for the customer's requirements.

184. Importantly, the CMA's merger investigation found that a significant number of BI tool customers had switched BI tool in the last three years.²²⁷ On the basis of the evidence cited above, the CMA believes that a material proportion of BI tool users adversely affected by a potential foreclosure strategy would consider switching to the Merged Entity's BI tool.

185. The Parties also submitted that, rather than switching to the Merged Entity's BI tool as a result of a foreclosure strategy, customers could instead use the analysis tools within Google Analytics and Google's Online Advertising products.²²⁸ However, the analysis tools within Google Analytics and Google's Online Advertising products are unlikely to be attractive substitutes for a significant number of BI tool customers, given their more limited functionality.²²⁹ Therefore, the CMA believes that customers are unlikely to switch to these other Google products in response to a foreclosure strategy.

²²³ See paragraph 109(e).

²²⁴ See paragraphs 112(a) to 112(d).

²²⁵ See, for example, [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED] and [REDACTED] responses to CMA questionnaire.

²²⁶ See, for example, [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED] and [REDACTED] responses to CMA questionnaire.

²²⁷ Customer responses to CMA questionnaire.

²²⁸ Parties' response to Issues Paper, paragraph 75.

²²⁹ The limitations of GDS are explained in the Final Merger Notice – see for example at paragraphs 12, 2.13-2.14 and 15.3.B.

- *CMA's conclusions on ease of switching*

186. In summary, the CMA believes that:

- (a) completely switching away from Google Analytics or Google's Online Advertising products may be difficult as there are limited alternatives. However, access to Google-generated data supports advertising spend with Google. If access to this data were hindered, then advertisers may reduce their expenditure on Google's Online Advertising products by a modest amount;
- (b) there is a range of competing data warehouses. While there are material costs of switching data warehouse, these will often be mitigated; and
- (c) a material proportion of BI tool users would consider switching to the Merged Entity's BI tool if they were adversely affected by a foreclosure strategy.

Targeting any foreclosure strategy at competing BI tools

187. As discussed above, the CMA believes that the Merged Entity has the ability to impede the different routes that are used to access Google-generated data. The CMA has also considered whether these impediments could be targeted at competing BI tools rather than applying to all users requiring access. The Merged Entity's incentive to engage in a foreclosure strategy depends in part on how well-targeted it could be: a foreclosure strategy targeted at competing BI tools analysing Google-generated data is likely to involve less loss of revenue than an untargeted strategy affecting all third-party products. This is because a targeted strategy would reduce the effects on users of Google's products who do not use BI tools or who do not analyse Google-generated data. As a result, a targeted foreclosure strategy would reduce the risk of customers who do not use BI tools switching to competitors of Google's products.

188. The CMA considered whether the Merged Entity could target foreclosure using each of Routes A, B and C in Figure 3.

- *Scope to target foreclosure at competing BI tools accessing Google Analytics and Google's Online Advertising products using direct connections (Route A)*

189. Hindering access to Google-generated data using Route A is unlikely to affect the Merged Entity's BI tool. Currently Looker does not connect to Google-generated data using Route A (see footnote 173).

190. The Parties submitted that customers of Google Analytics and Google's Online Advertising products are likely to extract the associated data (i) for analysis using specialist tools (ie not BI tools) or general-purpose data management tools (eg Excel), and (ii) for storage.²³⁰ The CMA has not received clear evidence from the Parties about whether these other uses are material in comparison to BI tools. However, a competing supplier of BI tools provided evidence that was partly consistent with the Parties' submission. This provider indicated that Google-generated data is also used for the purposes of operational applications (eg CRM systems and marketing management systems) and machine learning algorithms (eg to automate the allocation of advertising funds), although these other uses are relatively less important than BI tools.²³¹ Consequently, the CMA believes that, without some targeting towards BI tools, foreclosure using Route A would lead to a greater loss of revenue for the Merged Entity.
191. The Parties submitted that Google can only identify which third party software is connecting to its APIs if the third-party software self-reports its identity.²³² For customers using the Google Analytics APIs, Google stated that it has some information about the origin of the API call but does not distinguish between individual users and intermediary software providers.²³³ The Parties further submitted that the Merged Entity could not prevent users of competing BI tools from accessing data from Google Analytics and Google's Online Advertising products without preventing data exports by all customers.²³⁴
192. If the Merged Entity sought to hamper the ability of competing BI tools to access Google-generated data, these tools would likely cease to identify themselves. However, the CMA believes there may be other ways the Merged Entity could largely target restrictions on Route A towards competing BI tools, including by:
- (a) requiring or incentivising software to identify itself. The Merged Entity could waive charges or technical limits for certain classes of applications (but not BI tools) provided they identify themselves. For example, the Merged Entity could build an additional component to its API that blocks access to third parties unless they have been certified. According to

²³⁰ Parties' response to RFI6, questions 16 and 18.

²³¹ This competitor also noted that the importance of different use cases is also likely to vary between different parts of an organisation – see Note of call with [X].

²³² Final Merger Notice, footnote 59.

²³³ Parties' response to RFI6, question 20. Google Analytics also has a formal integration with Salesforce and GBQ [X] – see Final Merger Notice, paragraph 12.128.

²³⁴ Final Merger Notice, paragraphs 19.59, 19.61 and 19.71.

evidence received from third parties, there are examples of APIs that require identification in this way,²³⁵ or

(b) restricting the API in a manner that has a particularly negative impact on competing BI tools, while having a lesser impact on most other types of software (eg further restricting the amount of data that could be extracted with a single API call or restricting the number of API calls allowed in a given period of time).

- *Scope to target foreclosure at competing BI tools connecting to competing data warehouses (Route B)*

193. As discussed in paragraph 192(a), the Merged Entity could require or incentivise software accessing Google Analytics and Google's Online Advertising products to identify itself. This would allow the Merged Entity to identify that data was being extracted into a rival data warehouse and omit GBQ from any restrictions. However, it would not allow Google to determine whether data transferred into a competitor's data warehouse would subsequently be used by a BI tool or instead for one of the other purposes set out in paragraph 191. As a result, these alternative uses could be adversely affected by any restrictions on Route B.

194. In addition, impediments on transferring Google-generated data to competing data warehouses would also hamper the ability of those data warehouse customers to analyse this data using the Merged Entity's BI tool. As a result, for customers that continue to use Route B, a foreclosure strategy may not encourage them to use the Merged Entity's BI tool. However, such a strategy may also encourage customers to start accessing this data via GBQ (rather than via Route B), and once a customer has switched to GBQ there would be a stronger incentive also to use the Merged Entity's BI tool (eg because it will be closely integrated with GBQ).

- *Scope to target foreclosure at competing BI tool providers accessing data via GBQ (Route C)*

195. The CMA believes that the Merged Entity will be able to identify when its BI tool is accessing GBQ. As a result, customers using the Merged Entity's BI

²³⁵ [X] said that the LinkedIn and Facebook APIs require applications to identify themselves and be pre-approved. Once an application provider obtains certification it requires a unique key to enter when making an API call – see Note of call with [X]. Qlik said that SAP have implemented a certification process – see Qlik's response to CMA questionnaire.

tool can be omitted from any restrictions on accessing GBQ and will not be disadvantaged by any foreclosure strategy.

196. In considering the scope for targeting restrictions on Route C, the CMA has distinguished between two issues:
- (a) the scope for targeting restrictions on accessing GBQ at competing BI tool providers, as opposed to access to GBQ by other applications and for other purposes; and
 - (b) whether restrictions on competing BI tool providers could be targeted at instances where they are accessing Google-generated data from GBQ, as opposed to other types of data.
197. In relation to the first issue, the Parties submitted that API calls from BI tools account for [REDACTED] of queries to GBQ.²³⁶ The Parties also submitted that limiting customers' ability to access Google's cloud services would affect its cloud customers more generally, rather than just their use of BI tools.²³⁷
198. [REDACTED].²³⁸ Therefore, although Google might be able to identify queries to GBQ from competing BI tools, BI tools could also cease identifying themselves if the Merged Entity tried to specifically target queries from them.²³⁹ However, currently queries from third party BI tools represent [REDACTED] of all queries to GBQ.²⁴⁰ Therefore, the CMA considers that blanket restrictions on the ease and/or price of access to GBQ could have considerable wider impact (as many customers who do not use BI tools would also be affected).²⁴¹
199. However, the CMA believes that the Merged Entity could change its practices to target a foreclosure strategy at competing BI tools and lessen the wider impact on other GBQ users. In particular, similar to paragraph 192(a) above, the Merged Entity could require or incentivise software connecting to GBQ to identify itself. For example, it could adopt a new policy towards unidentified API calls (eg by charging them more or forcing software to identify itself).²⁴²

²³⁶ Parties' response to Issues Paper, paragraph 34.

²³⁷ Final Merger Notice, paragraph 19.43; and Parties' response to Issues Paper, paragraph 34.

²³⁸ [REDACTED] – see Final Merger Notice, footnote 59.

²³⁹ [REDACTED].

²⁴⁰ [REDACTED] – see Final Merger Notice, paragraph 12.76.

²⁴¹ It might be easier to target some specific actions. If the Merged Entity scaled back its GBQ partnerships (as discussed in paragraph 151(c)), the CMA believes that this could be targeted at providers of competing BI tools.

²⁴² One third party gave several examples of how restrictions could be targeted, including blocking certain IP addresses (although this would not be perfectly accurate) or requiring users to provide a certificate. It also believed that by examining how a query is built it is possible to identify the tool behind it – see Note of call with [REDACTED].

200. GBQ customers that do not use BI tools would be somewhat affected by such a strategy, since it would no longer be costless for their software to remain anonymous. The CMA has not received any evidence on whether the impact on these customers would be material.²⁴³
201. In relation to the second issue (namely, whether restrictions on competing BI tool providers could be targeted at instances where they are accessing Google-generated data from GBQ), the Parties submitted that once data is stored in GBQ, Google has no visibility over it. As a result, any obstacles to third party BI tools accessing GBQ would affect these tools' ability to analyse all data held on GBQ (not just Google-generated data).²⁴⁴ The Parties' submission is consistent with the CMA's understanding of the operation of data warehouses, whereby the data warehouse provider does not have visibility over the data being stored by the customer.
202. In summary, in relation to both issues raised in paragraph 196, the Merged Entity is likely to find targeting difficult. The CMA believes that any foreclosure strategy using GBQ (ie Route C) could not be targeted at instances where GBQ customers are attempting to use competing BI tools to analyse Google-generated data. As noted at paragraph 128, Google-generated data sources are important to a material proportion of, but not all, BI tool customers. Therefore, this limitation on targeting is likely to significantly increase the loss of revenue resulting from any attempt to foreclose competing BI tools using Route C, since customers seeking to analyse non-Google-generated data may choose to switch data warehouse and, as noted at paragraphs 177 to 180, there are a number of credible alternatives to GBQ.
- *CMA's conclusion on targeting*
203. With one exception (see paragraph 193), the CMA believes that the Merged Entity will be able to identify when Google-generated data is being accessed using its BI tool. As a result, customers using the Merged Entity's BI tool (and its other services) will not be disadvantaged by any foreclosure strategy.²⁴⁵
204. The CMA believes that restrictions on accessing Google-generated data through Route A could largely be targeted against competing BI tools. Targeting BI tools would also require changes to Google's current business

²⁴³ Google submitted that it does not know why third-party software providers do not complete the user agent field. It may be because this field does not appear relevant to them or because they wish to remain anonymous – see Final Merger Notice, footnote 59. A third party said that third parties not identifying themselves currently is mostly because they are not required to do so – see Note of call with [redacted].

²⁴⁴ Parties' response to Issues Paper, paragraphs 30-31.

²⁴⁵ For example, the Merged Entity's BI tool could identify itself when accessing GBQ.

practices, for example technical changes to the Merged Entity's APIs and/or operating an ongoing certification system. The CMA considers that making these changes would involve some costs but has received very little evidence in relation to their scale.²⁴⁶

205. Hindering competing data warehouses' access to Google-generated data (Route B) will not just affect competing BI tools.
206. More significantly, the Merged Entity is unlikely to be able to target limitations on accessing GBQ (Route C) solely against competing BI tools' use of Google-generated data. This increases the loss of revenue associated with attempting to foreclose using this route and the CMA believes that there is a significant risk that GBQ would lose customers to a range of competing data warehouses.²⁴⁷
207. The CMA considers that these risks of a negative impact on GBQ are likely to imply that the Merged Entity would not have an incentive to use Route C as part of a foreclosure strategy. This is particularly so given that such a strategy would be inconsistent with the merger rationale.²⁴⁸
208. Pursuing a more limited foreclosure strategy that only impedes Routes A and B would mitigate the negative impact on GBQ and may lessen any negative impact on Google's Online Advertising products. However, that more limited foreclosure strategy:
 - (a) Would also lessen the extent to which customers are steered towards the Merged Entity's BI tool, since GBQ customers could continue to use competing BI tools without additional impediment. This would therefore reduce the benefits for the Merged Entity of engaging in a foreclosure strategy of this nature; and
 - (b) Would still entail some drawbacks for the Merged Entity, since customers using Routes A and B would still be hampered from accessing Google-generated data and may thus switch away from the services generating that data (ie Google's web analytics services and Online Advertising products) or reduce their advertising spend using these Google products.

²⁴⁶ A third party thought targeting was likely to be costly and time consuming but did not provide any evidence – see Note of call with [redacted].

²⁴⁷ This is notwithstanding the offsetting potential positive impacts of a foreclosure strategy on GBQ, as discussed in paragraph 162(b).

²⁴⁸ See paragraphs 165 and 166 above.

Incentives and inferences from pre-Merger behaviour

209. The Parties submitted that, pre-Merger, Google has not limited the interoperability of Google-generated data to promote GBQ. They submitted that this provides a compelling natural experiment showing that foreclosure would not be profitable, particularly as they submit that customers cannot be steered towards Looker.²⁴⁹
210. In principle, Google could have restricted competing data warehouses' access to Google-generated data sources pre-Merger. The CMA is not aware of Google having pursued such a strategy. This suggests that Google believes that:
- (a) some customers would have responded by switching away from Google Analytics and/or Google's Online Advertising products, or by reducing their advertising spend with Google; and
 - (b) too few customers would have responded by switching to GBQ from other data warehouses to offset the drawbacks of such a strategy.
211. The implication that, pre-Merger, restricting access to Google-generated data would have negative consequences for Google is reinforced by its Pre-merger policy of making this data available without charge.²⁵⁰
212. A pre-Merger strategy of foreclosing rival data warehouses has similarities to a post-Merger strategy of impeding access to Routes A and B, but not to Route C.²⁵¹ A post-Merger strategy involving only Routes A and B would mean that BI tool users wishing to maintain unimpeded access to Google-generated data sources would need to change data warehouse to GBQ.²⁵² However, having done so, they could continue to use their preferred BI tool.
213. If the Merged Entity did not make any additional sales of its BI tool as a result of such a strategy (ie if all the benefits came from customers switching to GBQ) then the impact on its profits is likely to be similar to the pre-Merger foreclosure strategy discussed in paragraph 210. This suggests that the

²⁴⁹ Parties' response to Issues Paper, paragraph 46. The Parties also submitted that Google has not sought to restrict access to Google-generated data in order to promote GDS – see Final Merger Notice, paragraph 19.69.

²⁵⁰ Parties' response to the CMA's request for information dated 15 November 2019, question 13.

²⁵¹ As discussed in paragraph 207, it is unlikely that the Merged Entity would have an incentive to use Route C as part of a foreclosure strategy.

²⁵² Simply switching to the Merged Entity's BI tool would not allow customers to avoid the effects of this foreclosure strategy. Currently Looker does not connect to Google-generated data using Route A (see footnote 173) so, at least in the near term, the Merged Entity's BI tool will only be usable with a data warehouse. However, customers using a competing data warehouse (Route B) would still have their access to Google-generated data hindered, regardless of which BI tool they use (see paragraph 194).

Merged Entity is unlikely to have an incentive to just impede access to Routes A and B, unless it believes that this will increase sales of its BI tool.

214. Contrary to the Parties' submission, the CMA believes hindering Routes A and B is likely to result in some additional sales of the Merged Entity's BI tool (although, as discussed in paragraph 208, less so than a more comprehensive foreclosure strategy). This is consistent with:
- (a) the Merged Entity considering plans to more closely integrate the former Looker BI tool with Google products, [REDACTED];²⁵³
 - (b) the Parties' view that some customers prefer to purchase a portfolio of products, including business analytics and cloud infrastructure, from their supplier;²⁵⁴ and
 - (c) the CMA's merger investigation where the most commonly cited advantage of purchasing both a data warehouse and a BI tool from the same supplier is superior integration which makes for a more seamless, customer friendly service.²⁵⁵
215. Therefore, the CMA believes that, as a result of the Merger, there is a potentially increased incentive to impede access to Routes A and B. However, the CMA acknowledges that the absence of Google having engaged in such a strategy pre-Merger suggests that the strength of such an incentive may be limited.

Relative margins

216. The relative level of variable profit margins can provide evidence on the incentive to engage in foreclosure.²⁵⁶ The CMA sought to gather data on the margins associated with various products supplied by the Parties.
217. Evidence supplied by the Parties implies that Looker's average yearly margin per customer was approximately \$[REDACTED] in 2018.²⁵⁷

²⁵³ Final Merger Notice, paragraphs 24.8-24.14.

²⁵⁴ Parties' response to Issues Paper, paragraph 4. See also paragraph 29.

²⁵⁵ [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED] and [REDACTED] responses to CMA questionnaire.

²⁵⁶ *Merger Assessment Guidelines*, paragraph 5.6.11(c).

²⁵⁷ [REDACTED]. Data taken from annexes 1 and 2 to Looker's response to the CMA's request for information dated 11 December 2019 (RF17). Looker's professional services are defined in the Parties' response to the CMA's request for information dated 31 October 2019, question 16.

218. Google was able to provide margin data for Google Analytics and for some Google Online Advertising products but not for many important products, including [REDACTED].²⁵⁸
219. Google provided margin data for GBQ customers. However, users of BI tools are unlikely to be ‘average’ GBQ customers. For example, [REDACTED].²⁵⁹ In addition, [REDACTED].²⁶⁰
220. Given the incomplete nature of the available margin data, the CMA has placed very little weight on it other than to note that the reported Looker margins appear to be [REDACTED].

Possible retaliation by competing BI tool providers

221. The Parties submitted that, in response to any attempted foreclosure, large suppliers of competing BI tools could stop supporting Google Cloud, including GBQ.²⁶¹ The Parties also submitted that suppliers of competing BI tools that control access to important data sources (eg Salesforce) could respond by limiting interoperability with the Merged Entity’s BI tool.²⁶² These responses would reduce the attractiveness of the Merged Entity’s products.
222. Based on the available evidence, the CMA believes it is unclear whether competitors would be likely to respond in either of the ways claimed by the Parties:
- (a) Feedback on this issue from the CMA’s merger investigation was limited but did not support the Parties’ position.²⁶³
- (b) The supply of BI tools is fairly fragmented.²⁶⁴ If a single competing BI tool ceased supporting Google Cloud then it would make that tool less attractive to customers, who may switch elsewhere. This may discourage individual BI tool suppliers from pursuing such a strategy unless they were confident that others would do likewise. Without coordination, it may be

²⁵⁸ Parties’ response to RF17, question 6(a).

²⁵⁹ Parties’ response to RF17, question 4. Similarly, some BI tool users provided figures on the additional payments they make to third parties holding their data for running queries using their BI tool (see paragraph 156 above). [REDACTED] (Table 3 and 3bis of the CMA’s Issues Paper dated 21 January 2020).

²⁶⁰ Parties’ response to Issues Paper, paragraph 61.

²⁶¹ Parties’ response to Issues Paper, paragraph 18.

²⁶² Parties’ response to Issues Paper, paragraph 76.

²⁶³ The CMA asked competitors how they would respond to any strategy by Google to restrict their BI tool customers’ ability to analyse Google’s data sources. The responses the CMA received were limited. Several competitors ([REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED] and [REDACTED]) found it difficult to answer. [REDACTED] – see competitor responses to CMA questionnaire.

²⁶⁴ In *Salesforce/Tableau* the CMA estimated shares of supply in modern BI tools software by worldwide revenue. The largest three suppliers were Salesforce-Tableau [20-30]%, Qlik [10-20]% and IBM/Cognos [10-20]% – see ME/6841/19, *Salesforce/Tableau*, Table 1.

less likely that third parties would cease to support Google Cloud in the way the Parties are suggesting.

- (c) Not all providers of competing BI tools control access to important data sources that would allow them to retaliate against the Merged Entity's BI tool.
- (d) It may not be clear to third parties that the Merged Entity is actively engaging in a non-price partial foreclosure strategy. For example, Google may claim that any restrictions on its products' APIs are for other reasons. This may discourage or limit competitors' responses to the Merged Entity's behaviour.

223. Based on the evidence above, the CMA believes that competitors may not be able to retaliate in the way claimed by the Parties. Accordingly, the CMA has placed little weight on the possibility of retaliation when assessing the Merged Entity's incentive to foreclose.

Conclusion on incentive

224. The CMA believes that the Merged Entity is unlikely to have an incentive to pursue a foreclosure strategy affecting the ability of competing BI tools to connect to GBQ (ie a strategy involving Route C). This is because restrictions on this route could not be targeted solely against competing BI tools' use of Google-generated data. By making GBQ less attractive, and given GBQ's market position, there is a significant risk that GBQ would lose customers to the range of competing data warehouses. It would also be contrary to the Merger rationale, which is to strengthen the competitive offering of GBQ.

225. The CMA has also considered a more limited foreclosure strategy that only restricts access to Google Analytics and Google's Online Advertising products (ie just hindering Routes A and B). Such a strategy could mitigate the negative impact of any attempted foreclosure on GBQ's profitability. However there remain drawbacks to such a strategy. Hindering competing data warehouses' access to Google-generated data (Route B) will not just affect competing BI tools. Restrictions on accessing Google-generated data through Route A could largely be targeted against competing BI tools but are likely to involve some costs.²⁶⁵

226. A more limited foreclosure strategy involving only Routes A and B might prompt some customers to switch to GBQ. In this respect, it would be similar to a foreclosure strategy that Google could pursue prior to the Merger and

²⁶⁵ For example, technical changes to the Merged Entity's APIs and/or operating an ongoing certification system.

which would favour GBQ. However, the Merger would lead to some increase in the Merged Entity's incentive to engage in this foreclosure strategy, since at least some customers switching to GBQ would be likely to switch to the Merged Entity's BI tool as well.

227. The CMA considers that Google's pre-Merger behaviour, for example its decision to provide access to Google Ads and Google Analytics data free of charge, is consistent with its submissions that there would be material drawbacks associated with such a foreclosure strategy, for example the risk of customers who are unable to analyse their data reducing their advertising expenditure with Google.
228. Overall, the CMA believes that these drawbacks indicate that there is not a realistic prospect of the Merged Entity having an incentive to foreclose competing BI tools. Given this conclusion, the CMA has not considered the effect that any foreclosure could have on competition.

Conclusion on vertical effects

229. For the reasons set out above, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of vertical effects in relation to the foreclosure by the Merged Entity of competing BI tools from accessing Google-generated data sources (in particular, data generated from Google Analytics and Google's Online Advertising products) on a worldwide basis. This is on the basis that, while the Merged Entity may have the ability to partially foreclose competing BI tools, the CMA believes it is unlikely to have an incentive to do so, for the following reasons:
- (a) the Parties' internal documents do not suggest Google was planning to engage in the foreclosure strategy envisaged under this theory of harm;
 - (b) the CMA's analysis of the ease of switching from Google's products suggests that a foreclosure strategy could have a negative impact on Google's advertising business in particular;
 - (c) while some degree of targeting of the foreclosure strategy against competing BI tools is possible, this would entail potentially significant costs for Google's business – particularly on GBQ, which would be contrary to Google's Merger rationale; and
 - (d) the evidence suggests that a more limited foreclosure strategy would reduce the extent to which customers are steered towards the Merged Entity's BI tool (thus reducing the benefits of a foreclosure strategy).

Barriers to entry and expansion

230. Entry, or expansion of existing firms, can mitigate the initial effect of a merger on competition, and in some cases may mean that there is no SLC. In assessing whether entry or expansion might prevent an SLC, the CMA considers whether such entry or expansion would be timely, likely and sufficient.²⁶⁶
231. However, the CMA has not had to conclude on barriers to entry or expansion as the Merger does not give rise to competition concerns on any plausible basis.

Third party views

232. The CMA contacted customers and competitors of the Parties. A few customers raised concerns regarding the possibility for Google to reduce Looker's interoperability with products outside of the Google ecosystem (eg competing data warehouses). Similarly, a few competitors also raised concerns as to Google's ability to leverage its market position in online advertising to limit access, deteriorate quality or charge customers more for access to Google-generated data sources.
233. Third party comments have been taken into account where appropriate in the competitive assessment above.

Decision

234. Consequently, the CMA does not believe that it is or may be the case that the Merger has resulted, or may be expected to result, in an SLC within a market or markets in the United Kingdom.
235. The Merger will therefore **not be referred** under section 22(1) of the Act.

Joel Bamford
Senior Director, Mergers
Competition and Markets Authority
13 February 2020

²⁶⁶ [Merger Assessment Guidelines](#), from paragraph 5.8.1.

END NOTES

ⁱ The Parties have requested to clarify that paragraph 130(a) should read as follows: 'Based on data from Datanyze, Google would have a share of supply in web analytics is approximately 80% in the UK (based on domains). Google is, therefore, the market leader by a significant margin, with its competitors all having less than 10% share: the next largest player, Facebook Analytics, has a share of just 7%, followed by Snowplow (2%), Hotjar (1%), Matomo (1%) and some smaller players, none of which have a share above 1%.'