

Appendix D: Context to and use of evidence in this investigation

- D.1 This appendix presents context to our investigation and sets out how we have used evidence in it. It includes:
- (a) an outline of previous CMA work in this area;
 - (b) some relevant international context to the investigation;
 - (c) an overview of our evidence gathering and the range of evidence we have used;
 - (d) our approach to the use of evidence; and
 - (e) our primary research amongst consumers.

Previous CMA work

- D.2 This investigation builds on significant prior CMA work connected to mobile ecosystems:
- (a) First, in June 2021 the CMA commenced its Mobile Ecosystems Market Study (**MEMS**). This study considered in detail the key products and services within Apple's and Google's mobile ecosystems. The final report was published in June 2022 and found that Apple and Google hold an effective duopoly in mobile ecosystems.
 - (b) Second, the CMA carried out investigations under the Competition Act 1998 into Apple's and Google's conduct regarding their policies related to how in-app payments work within native apps:
 - (i) An investigation commenced in March 2021 relating to Apple's conduct in relation to the distribution of apps on iOS and iPadOS devices in the UK, in particular the terms and conditions governing app developers' access to Apple's App Store.
 - (ii) An investigation commenced in June 2022 relating to Google's conduct in relation to the distribution of apps on Android devices in the UK, in particular Google Play's rules which oblige certain app

developers to use Google Play's own billing system for in-app purchases.

- (c) Both these investigations were closed in August 2024 on the grounds of administrative priorities – noting that, should both of Apple and Google or one of them be designated as having SMS in connection with any digital activities in the mobile sector, the CMA would be able to use its new powers under the Act to consider the range of issues raised by parties more holistically than it otherwise could under the specific Competition Act 1998 investigations.
- (d) Third, the CMA made a market investigation reference on 22 November 2022 in relation to Mobile Browsers and Cloud Gaming (**MBCG MI**). The investigation concluded in March 2025, with the inquiry group finding 'adverse effects on competition' and making a recommendation to the CMA Board to consider the concerns raised and potential remedies as part of this SMS investigation.

International context

- D.3 Several competition authorities globally have investigated or taken action in relation to Google's Mobile Platform in recent years. Although our SMS investigation is focused on Google's activities in the UK, Google's Mobile Platform operates globally, and we have sought to learn from international findings in conducting our own investigation.
- D.4 In the EU, under the DMA, the European Commission has designated Google as a gatekeeper in respect of Android, the Play Store and Chrome, meaning the obligations of the DMA apply. The Commission has launched a non-compliance investigation, finding Google provisionally non-compliant for its approach to steering.
- D.5 A number of other jurisdictions are taking action to impose ex ante rules that affect the supply of mobile ecosystems, including in Japan, where new legislation, the Mobile Software Competition Act, prohibits anti-steering arrangements and the prevention of alternative app stores, alternative in-app payment systems and alternative browser engines.
- D.6 The US Department of Justice has an ongoing action in relation to Google in respect of its search services. The case covers Google's agreements with

device manufacturers for distribution of Google search on Mobile Devices as well as the role of Google Chrome as an access point to search.

D.7 Google's Mobile Platform is also the subject of a number of litigation proceedings in both the UK and other jurisdictions.

Evidence used in this investigation

D.8 During our investigation, we gathered a wide range of evidence from Google as well as stakeholders across the digital economy and the wider public. We conducted this evidence gathering process through the following means:

- (a) ITC: At the outset of the investigation, we published the ITC alongside the Investigation Notice inviting views on the scope and main avenues of the investigation. We received 54 ITC responses from third parties and published non-confidential responses on the case page.
- (b) Engagement with Google: The CMA extensively engaged with Google formally and informally throughout the investigation. Google had multiple opportunities to present facts, make submissions in support of its positions and comment on our emerging thinking in addition to formally responding to the Proposed Decision. These opportunities included:
 - (i) an invitation to respond to the ITC;
 - (ii) in-person meetings with CMA decision-makers;
 - (iii) engagement with the case team and CMA senior executives, including through meetings and 'teach-ins'; and
 - (iv) responses to formal and informal requests for information which we sent to Google. Through these requests we obtained qualitative evidence, internal documents, and quantitative data.
- (c) Evidence from other market participants, in particular:
 - (i) We obtained information (including both qualitative and quantitative information) and/or held bilateral meetings with over 150 market participants. This included large and small app developers, mobile browser vendors, manufacturers of smartphones and/or tablets, firms that make connected devices such as wearables or smart speakers,

developers of AI foundation model-based services, providers of payment services and digital wallets, telecommunication operators and app store providers.

- (ii) We also held an app developer workshop to explore the issues and hear market participants' views. There were 13 representatives from app developers and associations. A summary of the app developer workshop was published on our case page.
- (d) Consumer market research: we engaged an independent market research company (Accent Research) to conduct a quantitative survey to inform the investigation. We issued an Invitation to Comment on the Consumer Survey before instructing Accent Research. The findings of this research are published on the case page. We set out further details on this later in this Appendix.
- (e) Engagement with experts and other regulators: We met with several subject matter experts and members of our Growth and Investment Council. We also coordinated with Ofcom and the Financial Conduct Authority (the **FCA**), taking account of our duties under section 107 of the Act which require us to consult those bodies where we propose to exercise our regulatory digital markets functions in respect of which Ofcom and the FCA have concurrent functions. We also engaged on an informal basis with Ofcom, the FCA, the Payment Systems Regulator (the **PSR**), the Bank of England and the Information Commissioner's Office.
- (f) Obtaining financial projections from Google: We requested financial projections from Google in relation to future revenues and profitability. We set out further details on this in Appendix B.
- (g) Accessing publicly available information, where this is relevant and reliable.

D.9 In order to be proportionate and targeted, where we were aware of submissions and evidence obtained in other CMA investigations which we considered to be relevant to this investigation, we have used that information for the purposes of this investigation, giving notice to the relevant party which provided the information to the CMA. Throughout this decision the provenance of all the information we are relying on is set out clearly in footnotes.

Our approach to the use of evidence

Our general approach and the Guidance

- D.10 This section sets out our general approach to the use of evidence as informed by the Guidance. In the following sections, we explain in more detail how we approach the use of third-party evidence and internal documents in this investigation.
- D.11 The CMA does not have a prescriptive list of evidence that it will take into account in its SMS assessment and it may rely on a range of quantitative and/or qualitative evidence, with the balance between the two varying across investigations. The evidence used will depend on the specifics of the case.¹
- D.12 In line with the Guidance, we have decided the weight it is appropriate to place on a particular piece of evidence, taking into account, for example, its relative quality. There is no set hierarchy between quantitative evidence, such as consumer surveys or econometric analysis, and qualitative evidence, such as internal documents or statements of relevant firms. Further, there are no quantitative thresholds for when the two SMS conditions are met. The CMA may use different methods and approaches depending on the specific circumstances and the form, depth or complexity of the analysis may vary across investigations, even in the same industry.²
- D.13 We may rely on relevant evidence gathered and analysis carried out in other cases, including for example market studies involving potential SMS firms, or other cases under the CMA's digital markets functions or its other tools, where relevant. We have done so in this investigation. In doing so, we have been mindful of when and for what purpose the evidence was initially gathered and considered the weight it should be given and the extent to which it should be updated or corroborated, in particular given market developments since the evidence was gathered.³
- D.14 We have assessed the totality of the evidence together and in the round, including giving due regard to the extent that our view on the interpretation of a piece of evidence is corroborated by other evidence available to us.

¹ CMA194, paragraph 2.76.

² CMA194, paragraph 2.77.

³ CMA194, paragraph 2.78.

D.15 We have assessed whether Google has substantial and entrenched market power and a position of strategic significance in relation to the relevant digital activity on the balance of probabilities, and based on an in-the-round assessment of the evidence available to us.⁴

Our approach to assessing third-party evidence

D.16 During the course of the investigation, Google made submissions both in correspondence and in formal submissions regarding our approach to evidence gathering and assessment; and on certain procedural issues.

D.17 The CMA's procedures in SMS investigations are designed to enable it to fulfil its duty to promote competition for the benefit of consumers in an efficient manner, while ensuring that the due process rights of parties which are likely to be affected by CMA decisions are fully respected. While the CMA ensures that parties' rights of due process are fully respected, it may not be able to accommodate all requests made by parties (eg for access to underlying evidence) during the course of an investigation, particularly where this would not be consistent with the statutory framework within which the CMA operates or would undermine the efficient conduct of the CMA's investigation.

D.18 In its response to the Proposed Decision, Google submitted that:

- (a) the Proposed Decision improperly dismisses or ignores relevant evidence that Google has provided and independent market research agencies have collected, favouring instead unverified assertions of third parties;⁵
- (b) the Proposed Decision relies on evidence from a 'self-selecting sample' of developers;⁶
- (c) on several important issues, we have failed to act rationally in properly gathering and assessing the relevant evidence;⁷ and

⁴ CMA194, paragraph 2.80.

⁵ [Google's response to Proposed Decision](#), paragraph 4.

⁶ [Google's response to Proposed Decision](#), paragraph 18.

⁷ [Google's response to Proposed Decision](#), footnote 53.

(d) third parties' views in relation to the future impact of AI and other developments effectively confirmed that Google's position is not entrenched.⁸

- D.19 As explained above, we have gathered evidence from a wide range of different sources to inform our investigation, including submissions by Google and many other stakeholders; internal documents; our consumer survey; engagement with subject matter experts and other regulators; and share of supply estimates. Accordingly, submissions from market participants other than Google are only one category of evidence we have considered and, in doing so, we have consulted with, and considered evidence from, a wide range of different types of stakeholders in order to assess the issues that have been the subject of this investigation.
- D.20 As is the case in any investigation, we recognise that market participants may have an interest in its outcome. When using the views of market participants as evidence, we have given due regard to a range of factors including the incentives of the party giving that view, the extent to which the party had knowledge or expertise that was relevant to the subject areas being explored as part of our assessment, the extent to which the party provided evidence to support its view, and the extent to which the view was, or was not, aligned with other evidence available to us.
- D.21 In relation to gathering evidence from app developers specifically, we recognised that app developers are a large and diverse stakeholder group. To ensure that our evidence base was balanced, and not unduly influenced by the views of individual app developers, we adopted an objective approach to identifying a balanced sample of developers to contact. First, we requested data from Apple and Google on apps listed on their respective app stores. Based on this data, we identified a sample of developers that spans different sizes (based on number of downloads and revenue received from in-app payments) and categories.
- D.22 The approach described above also informed our forward-looking assessment. Specifically, we asked Google as well as a significant number of stakeholders with whom we engaged (including via the ITC, information requests, bilateral meetings and engagement with subject matter experts) whether they considered there are any expected or foreseeable market or technological

⁸ Google's response to Proposed Decision, [redacted]. Note that we address this submission more fully in Chapter 8, section titled 'Artificial intelligence (AI)'.

developments that will impact Mobile Ecosystems and/or Google's position in Mobile Ecosystems over the next five years. We then carefully considered this broad base of evidence in arriving at our conclusions.

D.23 Lastly, the fact that we have not referred to all of the evidence provided does not mean that we have not considered it. We have assessed all submissions made to us and taken steps to ensure that Google and other stakeholders have had appropriate opportunities to present their positions and provide relevant evidence to us. We have also ensured that Google as the investigated firm had the opportunity to respond to third-party submissions in response to the Proposed Decision (whilst ensuring the confidentiality of commercially sensitive information).

Our approach to assessing internal document evidence

D.24 In response to the Proposed Decision, Google submitted that the CMA mischaracterised Google's internal documents in a number of respects.⁹ We have carefully assessed the evidence including the internal documents in light of Google's submissions in arriving at our conclusions.

D.25 We gathered internal documents from Apple and Google through information requests issued under section 69 of the Act. Overall, we gathered 158 internal documents from Apple, and 304 from Google produced at the board of directors or senior management level covering: (i) competitive trends; (ii) potential technological disruptions; (iii) extent of competition with competitors and competitive monitoring; and (iv) switching behaviour. We also reviewed internal documents submitted to the CMA in the context of recent investigations, in particular the MBCG MI.

D.26 This internal document evidence informed our assessment in several areas including our assessment of constraints on Google's Mobile Platform, in particular: (i) our assessment of competitive constraints on Google's Mobile Platform from rival Mobile Ecosystems (Chapter 6); (ii) our assessment of competition from alternatives to Google's content provision and distribution (Chapter 7); and (iii) our assessment of technological and market developments on a forward-looking basis (Chapter 8).

⁹ Google made an overarching submission that its internal documents do not support an SMS finding. [Google's response to Proposed Decision](#), paragraph 3c. Further, Google provided detail on individual documents, providing a view on the correct interpretation of each document. Google's response to Proposed Decision [[↗](#)].

D.27 We set out below our approach to internal documents in this investigation:

- (a) In considering the weight to be placed on internal document evidence, we took into account a number of factors, including the content of the documents, the context in which the documents were produced, and the date on which the documents were created. We have not based our assessment on quantitative counts of the number of documents (eg mentioning a certain competitor or topic), and instead, assessed the internal document evidence's strength in the round, exercising our expert, regulatory judgement.
- (b) We have also considered the internal document evidence in the context of Apple and Google being the only two significant providers of Mobile Platforms. We have taken this context into account in assessing the extent to which references to Apple in Google's internal documents, eg comparing performance or monitoring features, are indicative of the strength of the competitive constraint imposed by Apple.
- (c) We have assessed all the internal documents on a neutral basis to ensure that we took into account material evidence relevant to the assessment of the SMS conditions, regardless of whether the documents are supportive or unsupportive of any conclusion that such conditions are satisfied.
- (d) In our assessment of the internal documents, we have placed more weight on documents that were created before the regulatory process began, and where the evidence contained in such documents is corroborated by other evidence.¹⁰

Primary research with consumers

D.28 We engaged an independent market research company (Accent Research) to conduct a quantitative survey to inform the investigation. This was focused on understanding:

- (a) consumer purchasing behaviour in the UK smartphone market;

¹⁰ Typically, we place more evidentiary weight on internal documents prepared in the ordinary course of business and which pre-date when regulatory process was in contemplation (see for example our approach in the mergers context as set out in CMA129, paragraph 2.29(a)). We note that MEMS was launched in June 2021 concluding in June 2022 and MBCG MI was launched in November 2022 concluding in March 2025. This timeline means that it is unlikely there are any documents that are both recent and pre-date potential intervention in mobile ecosystems in the UK.

- (b) switching between smartphone brands and operating systems;
- (c) consumer behaviour in using apps; and
- (d) consumer behaviour in conducting online search activities.

D.29 The findings of this research, the Accent Mobile Consumer Survey, were published on the case page alongside the Proposed Decision.¹¹

D.30 In response to the Proposed Decision, Google provided submissions in relation to the interpretation of the survey evidence. The submissions covered a number of topics, including user satisfaction, barriers to switching and new analysis of premium and non-premium users' smartphone preferences.¹²

The interpretation of survey evidence

D.31 We have presented our view on the survey evidence within our assessment in this decision. Within this section of Appendix D, we consider the submissions made by Google in relation to our interpretation of the survey findings.

D.32 The points we make in this section relate only to the survey evidence. As outlined above, we note that the survey is only one of the evidence sources we have used as part of our assessment, and our findings are based on considering all the evidence in the round.

Barriers to switching

D.33 In its response to the Proposed Decision, Google submitted that the Proposed Decision 'cursorily seeks to evade' evidence of 'high levels of satisfaction shown in the Accent Mobile Consumer Survey and found in the MEMS', and that this is 'irrational' because 'the CMA commissioned the relevant survey question in the first place and identified satisfaction as an option to explain the choice not to switch'.¹³

D.34 The survey response options are intended to elicit why consumers say they did not switch. This does not mean that the CMA determines that any single

¹¹ [Accent Mobile Consumer Survey](#).

¹² [Google's response to Proposed Decision](#); Submission from Google [38].

¹³ [Google's response to Proposed Decision](#), paragraph 14.

reason, in and of itself, implies effective competition. This decision sets out the CMA's position on user expression of satisfaction.¹⁴

D.35 Following the Proposed Decision, Google submitted that Android non-switchers were 'making a conscious choice to stick with Android because they are happy', a minority of non-switchers select switching barriers and that, 'none of the top six reasons for users not to switch from Android-to-iOS relate to switching barriers' (in reference to the Accent Mobile Consumer Survey).¹⁵ We do not agree with this interpretation of the Accent Mobile Consumer Survey findings and note the following:

- (a) The findings show that 55% of Android non-switchers, and 58% of Android marginal users, chose one or more barrier.
- (b) The most frequent reason given by Android users for not switching was 'I thought iOS phones were too expensive' (51% of Android non-switchers and 54% of Android marginal users).
- (c) It is not correct that 'none of the top six reasons for users not to switch from Android-to-iOS relate to switching barriers'. The third most frequently selected reason for not switching for Android marginal users was 'I felt it would be too much hassle to switch' (31%), and the sixth most frequently selected reason for not switching for Android non-switchers was 'I didn't want to spend time learning how to use iPhone' (26%).¹⁶

D.36 Following the Proposed Decision, Google submitted that 'the CMA's survey found that many of the reasons Android users stick with Android relate to users comparing the relative benefits and disbenefits of Android vs. iPhone', and that this is inconsistent with low literacy/awareness of Apple products. Google listed a number of survey responses to the question which asked smartphone users why they did not switch or consider switching when they obtained their current smartphone: 'I did not like the operating system for iPhones', 'I identified more closely with Android than iPhones', 'I did not like the design of iPhones', 'Android had access to a wider range of mobile apps', 'iPhones were lower quality', 'Android had access to mobile apps with better prices', 'Android had

¹⁴ See Chapter 6.

¹⁵ Submission from Google [38].

¹⁶ [Accent Mobile Consumer Survey](#), pages 46 and 53.

better privacy features', 'Android had better security features', and 'I don't like Apple products'.¹⁷

- D.37 While some reasons given may indicate a knowledgeable comparison between Android and iOS (eg 'I did not like the operating system for iPhone'), most reasons could equally be based on perception as much as knowledge (eg 'I thought iPhones were lower quality'). When developing the questionnaire we added 'I thought...' to several of the response options, in recognition of the fact that user reasoning could be based on perception rather than personal experience or knowledge. As such, we cannot infer from users' responses that they have high levels of knowledge in relation to the specific offerings of the alternative operating system.

Google analysis of premium and non-premium users' smartphone preferences

- D.38 In its response to the Proposed Decision, Google submitted that the CMA had not provided evidence that non-premium Android users may value Android innovations differently to premium users.
- D.39 Google further submitted that this had not been 'tested' in the Accent Mobile Consumer Survey as the 'Survey never asked premium and non-premium users about innovations'; and that the survey only demonstrated that a range of different factors are important to users. Google also submitted, 'The fact that 58% of all Android users consider price to be important says nothing about whether premium and non-premium users value different innovations or the same ones'.¹⁸
- D.40 To support this submission, Google presented bespoke analysis of the Accent Mobile Consumer Survey. It presented analysis exploring the non-price reasons given by Android users for choosing their current smartphone. Google's analysis differed from the analysis in our consumer survey report: '(i) it includes only the most important [reason] given by respondents; (ii) it presents the responses separately for premium (>£600) devices and non-premium device users; and (iii) it excludes responders that gave 'overall price' as their most

¹⁷ Submission from Google [38].

¹⁸ [Google's response to Proposed Decision](#), paragraph 32 (footnote 36, footnote 37).

important reason, as a means to identify the non-price reasons for choosing a device.’¹⁹

- D.41 Google submitted that the new analysis demonstrated that there are ‘no material differences between premium and non-premium users’ in respect of the ‘non-price reasons’ selected by Android users. Further, Google submitted that evidence from the survey indicating that Android users were focused on price ‘says nothing whatsoever about how premium and non-premium users, respectively, value non-price innovations of the Android’.²⁰
- D.42 We have reviewed Google’s submission and conducted additional analysis as detailed below. We consider that the Accent Mobile Consumer Survey indicates that non-premium and premium users may value quality improvements and innovations differently.
- D.43 The Google analysis excludes respondents who selected ‘overall price’ as the main reason for choosing a device, introducing a substantial amount of bias and producing unrepresentative findings. 36% of non-premium Android users are excluded from the Google analysis, and of those, 69% had a device value of £0-300.²¹ The resulting analysis is therefore not representative of Android users. Excluding a disproportionate number of people with low value phones artificially makes the non-premium and premium sub-groups more similar. To be representative of Android users, all valid responses should be included in analysis.
- D.44 Furthermore, we maintain that overall price is an important aspect of a smartphone for Android users, with 47% selecting ‘overall price’ in the top three reasons for choosing their device.²²
- D.45 We conducted new analysis, similar to that submitted by Google. The analysis presents the proportion of users who selected each of the factors presented as the most important factor in their decision to get a particular smartphone, split by non-premium and premium users (the non-premium users are further split into £0-300 and £301-600 categories). Like the Google analysis, it restricts the sample to Android users and focusses on the single most important factor

¹⁹ Submission from Google [redacted].

²⁰ Submission from Google [redacted].

²¹ Weighted analysis of Q7 ‘Which one of these was the most important?’ (in reference to Q6B, which asked ‘Which factors were MOST important at the time in your decision to get that particular personal smartphone?’) split by non-premium (£0-600) and premium (£601+) device, based on the estimated smartphone purchase price (Q12), restricted to Android users only.

²² [Accent Mobile Consumer Survey](#), Figure 13.

respondents identified as the reason for choosing their device. It differs from the analysis submitted by Google in retaining 'overall price' in the analysis and thus all valid responses by Android users (making it representative of Android users).

Table D.1 Most important reason for choosing current smartphone by non-premium and premium Android users (percentages)

	Non-premium (£0-300) (%)	Non-premium (£301-600) (%)	Premium (£601+) (%)
Overall price	42.0	27.0	**18.4
Brand (e.g. Apple, Samsung, Nokia, Google, Sony)	8.6	10.8	**18.1
Camera	4.4	10.7	**13.7
I just wanted a newer version of my previous phone	9.5	10.2	8.8
Storage capacity/memory	6.8	8.7	7.1
Operating system (the pre-installed software that powers the device, e.g. Apple iOS, Google Android)	5.1	7.5	6.8
Battery life	5.9	6.6	6.0
Speed (how fast the phone can perform different functions)	2.4	3.4	4.8
Product design (e.g. the look of the phone)	0.6	2.0	*3.7
Compatibility with other personal devices (e.g., laptop/tablet, smart watches, headphones, etc)	2.1	3.3	2.9
Screen size	3.1	3.7	2.9
Security features (e.g. virus protection, protection from hacking)	2.4	1.3	2.0
Range and quality of mobile apps that can be installed on the phone (ie downloaded after you set up your device via app store app)	1.0	1.8	1.2
Web browser(s) available on this device	0.7	0.0	1.0
Privacy features to control how my private information is used or tracked by companies when using apps or websites	0.7	0.4	0.6
Availability of AI tools and features, such as AI assistance for writing, summarising text, or searching for photos.	0.2	0.0	0.5
Range and quality of mobile apps that come with the phone (ie pre-installed apps when you first set up your device)	0.9	0.8	0.3
The games I can play on it	0.2	0.6	0.0
Cost of apps/app subscriptions available on the device	0.2	0.0	0.0
Other	3.3	1.2	1.6

Source: CMA Analysis of microdata from the Accent Mobile Consumer Survey.

** Premium users statistically significantly different to both £0-300 and £301-600 non-premium groups at the 95% confidence level.

* Premium users statistically significantly different to the £0-300 non-premium group at the 95% confidence level.

Weighted analysis of Q7 'Which one of these was the most important?' (in reference to Q6B, which asked 'Thinking back to when you first got your current personal smartphone. Which factors were MOST important at the time in your decision to get that particular

personal smartphone?'). Results split by device value, classified as 'non-premium' (£0-300 and £301-600) and 'premium' (£601+), based on the estimated smartphone purchase price (Q12). Android users only. N=1,154.

D.46 In contrast to the analysis presented by Google, we observe differences between non-premium and premium Android users. Table D.1 shows:

- (a) 'Brand' is statistically significantly more likely to be selected by users with premium devices (18%) compared to those with non-premium devices (9% of users with £0-300 devices; 11% of users with £301-600 devices).
- (b) 'Camera' is statistically significantly more likely to be selected by users with premium devices (14%) compared to those with non-premium devices (4% of users with £0-300 devices; 11% of users with £301-600 devices).
- (c) 'Overall price' is statistically significantly more likely to be the main reason for choosing a device for users with non-premium smartphones (selected by 42% of users with £0-300 devices; 27% of users with £301-600 devices) than it is for users with premium smartphones (18%).
- (d) 'Product design (eg the look of the phone)' is statistically significantly more likely to be selected by users with premium devices (4%) compared to those with £0-300 devices (0.6%).