STRATEGIC MARKET STATUS INVESTIGATION INTO GOOGLE'S MOBILE PLATFORM

Proposed Decision

23 July 2025

The Competition and Markets Authority has excluded from this published version of the provisional findings report information which it considers should be excluded having regard to the three considerations set out in section 244 of the Enterprise Act 2002 (specified information: considerations relevant to disclosure). The omissions are indicated by [✂]. Some numbers have been replaced by a range. These are shown in square brackets. Non-sensitive wording is also indicated in square brackets.

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1. SUMMARY

1.1 On 1 January 2025, the Digital Markets, Competition and Consumers Act 2024 (**the Act**) established a new regime to boost competition in digital markets. The digital markets competition regime is designed to take a balanced and proportionate approach to driving greater competition in digital markets, unlocking opportunities for innovation and economic growth across the UK tech sector while protecting UK consumers and businesses from unfair or harmful practices. It is focused on a small number of firms which are very powerful in particular digital activities that are linked to the UK. Only those designated with 'strategic market status' (**SMS**) in such activities are within scope of the regime.[1]

1.2 The Act gives the Competition and Markets Authority (**CMA**) the ability to designate a firm as having SMS. Before doing so, we must carry out an investigation to determine whether the tests in the Act are met. These are, in summary, that the firm has:

(a) turnover of more than £1 billion in the UK or £25 billion globally; and

(b) 'substantial and entrenched market power' and 'a position of strategic significance' in respect of a digital activity linked to the UK (referred to as the **SMS conditions**).

1.3 If we designate a firm as having SMS, we can then introduce measures to promote competition and protect consumers in relation to the relevant digital activity, subject to further procedural steps and always in line with the principle of proportionality.

1.4 On 23 January 2025, we began our 'SMS investigation' into whether to designate Google as having SMS in respect of its mobile operating system, native app distribution services and its mobile browser and browser engine (now referred to as its **Mobile Platform**), used on smartphones and tablets (together **Mobile Devices**). We set out our grounds for launching the investigation in the notice we published on the same day (the **Investigation Notice**).[2]

1.5 We also published an invitation to comment (the **ITC**) in which we explained that we chose to launch this SMS investigation because of the potential impact for people, businesses and the UK economy of effective competition in mobile platforms.[3]

[1] Digital markets competition regime guidance, December 2024 (**CMA194**), paragraphs 2.1-2.2.
[2] CMA's investigation notice to Google in relation to the launch of initial strategic market status investigation dated 23 January 2025. On the same day, we also launched an investigation into whether to designate Apple with SMS in respect of its operating system, native app distribution services, and mobile browser and browser engine on mobile devices.
[3] Invitation to comment

1.6 This Proposed Decision sets out our provisional view that Google has SMS in the provision of its Mobile Platform under the digital markets competition regime.

1.7 Almost all adults in the UK currently have access to a mobile device[4] and almost all of these mobile devices use a Mobile Platform provided by Apple or Google. Mobile devices with Apple's Mobile Platform have a [50-60%] share of supply and those with Google's Mobile Platform, which also include mobile devices made by Samsung and Motorola, have a [40-50]% share. Consumers use the Mobile Platform on their mobile devices to access, view and engage with digital content and services – for example browse the internet, engage and communicate with friends on social networks, watch videos and play games.

1.8 Google's Mobile Platform is therefore vital for hundreds of thousands of UK businesses distributing digital content and services to consumers on mobile devices.[5] Furthermore, these businesses are often competing with Google which itself produces digital content and services for consumers, for example Google Search, Google Maps and YouTube.

1.9 The UK has a vibrant app developer community, representing Europe's largest app economy by revenue and app developer count. In total, the UK app economy generates an estimated 1.5% of the UK's GDP while supporting c.400,000 jobs across direct, indirect and other supporting functions.[6] It is therefore essential that this part of the digital economy works well, creating opportunities for all market participants, large and small, to invest, innovate and grow. And when this market works well in the UK, it creates more opportunities for UK app developers to compete globally.

1.10 More broadly, many UK businesses today use a native app as a key part of their digital offering – from transport to takeaways, retail, finance and fitness – these businesses range from large corporates to small start-ups across many different sectors of the economy. Some businesses distributing digital content and services may rely solely on native apps as their main channel to reach customers, without a website or physical store. This includes those operating in key growth areas of the economy like gaming and fintech. It is therefore essential for a wide range of UK businesses and their customers that competition works well in relation to Google's Mobile Platform. And where this is the case, it is expected to deliver positive growth, investment and innovation opportunities for the UK economy.

[4] uSwitch; https://www.uswitch.com/mobiles/studies/mobile-statistics/
[5] In the UK in 2020, there were [800,000-900,000] app developers making a total of [2.5-3] million native apps available on Android devices through the Play Store; Mobile Ecosystem Market Study, Interim Report, paragraph 3.168.
[6] See https://assets.publishing.service.gov.uk/media/67c820ccd0fba2f1334cf23f/The_App_Association.pdf and https://actonline.org/wp-content/uploads/220912_ACT-App-EU-Report.pdf; GDP contribution includes direct economic impact (direct revenue earned by companies in the sector), impact due to spillover effects (the rise of M-commerce), and indirect impact (wealth beyond the companies in the app industry, including other productive sectors and households); jobs estimates cover direct jobs (software developers, mobile app specialists), indirect jobs (suppliers to the app developers) and induced jobs (jobs created by the spending of the direct and indirect jobs).

1.11 Through our investigation thus far, we have heard widespread concerns as to how a lack of competition in relation to Google's Mobile Platform is impacting the ability of app developers (and businesses more broadly) to grow and bring innovative new products and services to market. These concerns include:

(a) *App review:* Google reviews all apps before allowing them to be distributed on its Play Store. We have heard concerns that the review process can be lengthy and unpredictable, adding risk for UK app developers; in particular, where an app or update is innovative, there is additional uncertainty as to how Google's Play Store Developer Distribution Terms will apply and whether Google will permit such an app or update.

(b) *Access to commercially sensitive data of competitors:* As part of its review of all apps, Google reviews new apps and updates to apps which compete with its own apps (for example, it reviews new apps and updates to existing search engines, video-sharing or mapping tools which compete with Google Search, YouTube or Maps). We have heard concerns that this means it has access to lots of data and information about its competitors which it could use unfairly to improve its own services.

(c) *Ranking Play Store results:* As part of its operation of the Play Store, Google controls the ranking algorithm which dictates search results when a user searches for an app. We have heard concerns Google uses this to preference its own apps over those of third parties.

(d) *Play Store commission rates:* Google charges a commission to app developers for distributing apps through its Play Store. Whilst the commission paid varies, the highest rate of 30% applies to digital content and services sold through apps distributed via the Play Store. We have heard concerns that this high rate of commission makes the distribution of some digital content and services unviable, with implications for producers of digital content and services like streaming of music and TV, newspapers, audiobooks, in-app gaming purchases like coins or tokens. Google places some restrictions on the ability of app developers to steer consumers outside of the app, for example to alternative ways to purchase digital content and services.

(e) *The impact of Google's agreements with device manufacturers:* Google itself only manufactures a small minority of mobile devices, however its operating system, Android, is deployed on mobile devices operated by other companies, such as Samsung and Motorola. Google then uses agreements with mobile device manufacturers to influence how its own services, like Play, Chrome, Google Search, Maps and YouTube, are distributed across these mobile devices. In this way, Google's mobile ecosystem supports Google's wider business by generating traffic for its search engine and other services

which generate digital advertising revenues.[7] Google's agreements with device manufacturers cover which Google services are pre-installed on the device, where they are placed (for example whether on the home screen), whether they are set as the default, and other promotional placement. We have heard that as a result of these agreements, Google can exert significant control over the content and services Android users access on mobile devices.

1.12 Taken cumulatively, these concerns could mean that UK consumers lose out, for example:

(a) new and valuable innovations could be held back, for example apps offering innovative services utilising AI.

(b) choice is more limited, for example consumers miss out on the wider set of options available for accessing content on their mobile devices, such as rival app stores, web apps, super-apps or rival browsers.

(c) prices are higher than they should be, for example app store commissions are above a competitive rate and this feeds through into the price consumers pay for digital content and services accessed through the mobile platform.

Our proposed description and scope of the digital activity

1.13 The CMA may designate a firm as having SMS in relation to one or more digital activities. A 'digital activity' is the provision of a service by means of the internet, or the provision of digital content.

1.14 We propose to describe the relevant digital activities in this investigation as follows:

(a) Mobile Operating System – the provision of an operating system or equivalent, which acts as an intermediary between hardware and software on a mobile device, enabling software applications and services to run on the mobile device.

(b) Native App Distribution - the provision of a service which enables the installation, distribution and operation of native apps on mobile devices, which are apps written to run on the Mobile Operating System.

(c) Mobile Browser and Browser Engine - the provision of a mobile browser and mobile browser engine, which comprises:

[7] The CMA also has a live SMS investigation in relation to Google's general search and search advertising services. See: SMS investigation into Google's general search and search advertising services - GOV.UK

(i) the provision of a software application that enables users of mobile devices to access and search the internet and interact with web content; and

(ii) the provision of a mobile browser engine, which is the underlying technology which native apps on mobile devices use to transform web page source code into content with which users can engage.

1.15 Together, we refer to these activities as a Mobile Platform which is used to facilitate interactions between users and providers of digital content and services on mobile devices in order to allow users to access, view and engage with such content and services on their mobile devices.

1.16 We consider the Google services and digital content which allow it to fulfil its role as a Mobile Platform are the Android operating system, the Google Play Store, and Google's Chrome browser and Blink browser engine.

1.17 Our definition of this digital activity does not include mobile devices themselves. However, we recognise in our analysis that the Mobile Platform and the device on which it is deployed are closely interlinked. Similarly, content accessed via the Mobile Platform, such as apps themselves, are not within the scope of the defined digital activity. We refer to Google's broader activities, including mobile devices, the Mobile Platform, and content accessed via the Mobile Platform as **Google's Mobile Ecosystem**.

Our provisional findings on whether Google has SMS in its Mobile Platform

1.18 On the evidence we have seen to date, we provisionally find that Google's Mobile Platform meets the SMS conditions.

1.19 In relation to the first SMS condition, we provisionally find that Google has substantial and entrenched market power in respect of the provision of its Mobile Platform.

1.20 Google's Mobile Platform faces limited competitive constraint from rival Mobile Ecosystems. As set out above, Apple and Google are the largest Mobile Platforms with Apple's Mobile Platform having a [50-60]% share and Google's [40-50]%. Within this, however, Apple and Google focus on different price segments. For example, smartphones with Apple's Mobile Platform accounted for 71% of new smartphones sold over £300 and smartphones with Google's Mobile Platform accounted for 100% of new smartphones sold under £300. Consumers purchase replacement mobile devices relatively infrequently. Once they make a purchase, they are locked into that Mobile Platform and, even when they do come to replace their device, often do not consider switching, rather remaining an 'Apple' or 'Android' user. This is partly driven by concerns about losing data when switching

between the two. There is limited evidence of Google improving the quality of its Mobile Platform in response to competition and often improvements are motivated by other factors, such as driving broader use of Google's own services like search. These findings are reinforced by agreements between Apple and Google which limit their incentives to compete.

1.21 For app developers distributing digital content and services through Google's Mobile Platform, the evidence shows that they have little alternative if they want to reach a significant user base.

1.22 There are significant barriers to entry and expansion, which limit the threat of a new rival emerging or an existing rival growing into a greater competitive constraint on Google. The need to attract a sufficient number of app developers to make the platform attractive for consumers as well as attract a sufficient number of consumers to make the platform attractive for app developers ('indirect network effects') is a particularly strong barrier which the likes of Microsoft, Samsung, Mozilla and Amazon have been unable to successfully navigate. Evidence indicates that, although technological developments such as AI[8] and AR/VR products may affect Google's conduct in relation to its Mobile Platform, they are not expected to significantly change Google's position in the next five years.

1.23 We also provisionally find that Google faces limited competitive constraints in relation to its content distribution (Play Store and Chrome) from within its Mobile Ecosystem and from non-mobile alternatives.

1.24 Whilst alternative app stores are available on Android, Google's Play Store is responsible for [90-100]% of first-time native app downloads and we find other alternative app stores like the Samsung Galaxy Store provide limited competitive constraint. Similarly, Google's Play Store faces limited competition from other methods of content distribution like side-loading, web apps, cloud-based gaming platforms, super apps and AI-based content distribution. Furthermore, non-mobile content distribution alternatives (such as gaming platforms) are typically seen as complements rather than substitutes to the Play Store.

1.25 In mobile browsers, Google's Chrome mobile browser also faces limited competitive constraints within Google's Mobile Ecosystem. Whilst alternative browsers are available, Google's Chrome has a 79% share of supply on Android and faces limited competitive constraint from alternative browsers in its Mobile Ecosystem like Microsoft Edge and Mozilla Firefox. Competition in relation to its browser engine Blink and its provision of in-app browsing is even more limited. Alternatives to mobile browsers (namely native apps and AI tools), only provide a limited competitive constraint for a limited set of use cases. Non-mobile browsing

[8] Artificial intelligence (AI) refers to computer systems that can perform tasks that normally require human intelligence, such as understanding language or solving problems.

alternatives (such as desktop browsing) are generally considered a complement rather than a substitute for mobile browsing.

1.26 There are no expected or foreseeable developments that are likely (whether individually or in combination) to be sufficient in scope, timeliness and impact to eliminate Google's substantial market power in the provision of its Mobile Platform over the next five years. This includes market developments, technological developments and regulatory developments. Accordingly, our provisional view is that Google's substantial market power in the provision of its Mobile Platform is entrenched.

1.27 In relation to the second SMS condition, we provisionally find that Google has a position of strategic significance in the provision of its Mobile Platform. Google's Mobile Platform is used by a very large number of UK users (eg to access, view and engage with digital content and services on their mobile devices) and businesses in the UK (eg as a means of reaching those users). The services provided by Google as part of its Mobile Platform are important to a wide range and large number of other businesses in the UK to provide digital content and services to users of Android devices.

Next steps

1.28 We therefore propose to designate Google as having SMS in respect of the provision of its Mobile Platform. We are now consulting on that proposal and will take account of responses to our consultation in making a final decision prior to the statutory deadline for our investigation in October.

1.29 A finding that Google has SMS does not imply that it has acted anti-competitively, nor does it impose any automatic constraints on Google's conduct. If we designate Google as having SMS, it would then be open to us to seek to introduce interventions through Conduct Requirements or Pro-Competition Interventions to promote greater competition and protect consumers. Any such measures would themselves be subject to a further legal process, including further public consultation, prior to being imposed. We will only intervene where we can demonstrate that an intervention is effective and proportionate to address a clear concern.

1.30 The digital markets competition regime is designed to be flexible and highly targeted, with a participative engagement process – involving all stakeholders, from the largest firms to challengers and consumer groups. The CMA is also embedding our '4Ps' – Proportionality, Pace, Predictability and Process – into our approach to avoid any action we take hampering innovation or creating uncertainty which could chill investment.

1.31 To support pace and predictability, alongside our SMS investigation we are looking in parallel at potential actions we might take were Google to be designated. Specifically, to provide greater predictability for Google and other market participants, we are going further than the legislation requires by publishing a Roadmap of how we propose to prioritise these actions during the first half of any designation period. If we reach a final decision that Google has SMS, we expect to begin consulting on initial Conduct Requirements shortly after any decision to designate Google with SMS.

1.32 In taking decisions on which measures to consult on, we will be guided by the CMA's prioritisation principles and the government's recent strategic steer. This includes: prioritising those interventions which have a clear and beneficial impact for UK consumers, businesses and the UK economy; prioritising pro-growth and pro-investment interventions as well as those which can support growth and international competitiveness in the growth-driving sectors identified in the government's industrial strategy; and considering the interplay of digital markets issues with the actions of other regulators and government bodies domestically and internationally.

1.33 We welcome consultation responses on this Proposed Decision by 20 August 2025. We must reach a final decision on whether to designate Google as having SMS by 22 October 2025.

2. CONTEXT TO THE INVESTIGATION

Background on Google and its Mobile Ecosystem

2.1 Google is a technology company that provides many important services in the digital world, including search, email, video-sharing and mapping.

2.2 Mobile devices are a key method by which users access content and services online and so a large part of Google's focus in its Mobile Ecosystem is on controlling the distribution of its own content and services to mobile users.

2.3 The core of Google's Mobile Platform is its Android operating system. This is deployed on Google's own Pixel mobile devices, but Google also licenses Android to other device manufacturers like Samsung and Motorola.[9] The operating system determines and controls a range of features that are important to users of mobile devices, from the appearance of the user interface through to the speed, technical performance and security of the device. It also determines what kinds of software can run on the device, including all applications, such as native apps and mobile browsers.

2.4 Apps are software that provide additional functionalities to the mobile devices and mobile operating system on which they are installed. The mobile device manufacturer determines which apps are pre-installed and Google enters into agreements with mobile device manufacturers to pre-install many of its services, like Play, Chrome, Search, Maps and YouTube on the devices they manufacture. As well as covering pre-installation, these agreements also cover promotion such as where Google services are placed (for example whether on the home screen) and whether they are set as the default.

2.5 Users can also download third-party apps from a range of sources using Android mobile devices,[10] the most used of which is Google's Play Store which is generally pre-installed.[11] The Play Store accounted for [90-100]% [✂] of native app downloads on Android mobile devices in the UK in 2024.[12] The Play Store enables consumers to search, select, purchase, install, and review millions of apps and enables many hundreds of thousands of businesses, large and small to describe, distribute and promote their content and services via apps to millions of users. Google sets certain standards and requirements for apps wishing to be distributed

[9] Google's Android operating system is available on an open-source basis: Google produces and maintains its own version of Android, while also enabling other developers to modify (or 'fork') Android to create their own version. An Android fork is a version of Android falling outside of Google's compatibility requirements. For example, Amazon's Fire OS is an Android fork. The majority of active smartphones in the UK that use Android use Google's version and in this proposed decision, we refer to Android as shorthand for Google' version.
[10] Users can also download apps from other app stores, such as the Samsung Galaxy Store, or sideload apps (for example download and install an app direct from a website).
[11] Indeed, under Google's agreements with device manufacturers, manufacturers can license key Google apps and APIs only if the Play Store is pre-installed and prominently placed.
[12] Source: CMA analysis of data from market participants

via the Play Store.[13] Google also charges commission for distribution of apps via the Play Store and distributes many of its own first-party apps through the Play Store.

2.6 An important type of app is a mobile browser, which enables users to interact with content on the web. Android mobile devices often come with Google's Chrome browser pre-installed and this is the most used browser on Android (79%). Google also operates its own mobile browser engine Blink. The browser engine is responsible for processing HTML, CSS and JavaScript code and rendering websites into the visual format that users see on their mobile devices. Browser engines play an important role in the user experience of mobile browsing, as they can impact speed, stability and levels of compatibility with different web content and standards. Most browsers used on Android are Chromium-based, meaning that they use browser engines based on Blink.[14]

2.7 Figure 2.1 below shows the key elements of Google's Mobile Ecosystem.

Figure 2.1: Google's Mobile Ecosystem

[13] Developer Policy Center
[14] MEMS final report, paragraph 2.27. Chromium is the open-source Chrome browser code that includes the Blink engine and parts of the Chrome browser except for some of Google's proprietary features.

2.8 Google generates the large majority of its revenue through selling digital advertising, primarily search advertising.[15] Its position in digital advertising is supported by its agreements with, and payments made to, mobile device manufacturers. Although it manufactures its own mobile devices, and generates revenue from its Play Store, Google's Mobile Ecosystem also supports Google's business by generating traffic for its search engine and other services that generate advertising revenue (including mobile apps such as YouTube).

2.9 In the financial year ending December 2024, Google's total global revenues were $350 billion,[16] a significant proportion of which (at least $[✂] billion), related to its Mobile Ecosystem.[17,18]

2.10 Mobile search accounted for the majority ([✂]) of mobile revenues globally, and the Play Store (including Play Advertising) accounted for a further [✂] [5-15]%. The remainder related to other mobile advertising revenues (including in-app advertising), other mobile services,[19] and Pixel mobile devices. Google does not directly monetise Chrome or Android but indirectly monetises them through the Play Store and mobile advertising.

Previous CMA work

2.11 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.[20]

(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

[15] Form 10-K for Alphabet INC filed 02/05/2025, page 64.
[16] Form 10-K for Alphabet INC filed 02/05/2025, page 53.
[17] Mobile Ecosystem revenues accounted for the majority of the global revenues for the Google Services segment, which generated revenues of $304.9 billion in the financial year ending December 2024.
[18] Google response to section 69 notice [✂]. CMA estimate of revenue related to Google's Mobile Ecosystem includes the following revenue categories: mobile Search, Play Store (including Play Store Advertising), other mobile advertising, Pixel devices, [✂].
[19] Including [✂].
[20] https://www.gov.uk/government/publications/mobile-ecosystems-market-study-final-report.

UK, in particular the terms and conditions governing app developers' access to Apple's App Store.[21]

(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.[22]

(iii) 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.[23]

(c) 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.[24]

International context

2.12 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.

(a) 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.[25]

(b) 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

[21] Investigation into Apple AppStore - GOV.UK
[22] Investigation into suspected anti-competitive conduct by Google - GOV.UK
[23] https://assets.publishing.service.gov.uk/media/66c5991067dbaeb97a13e513/Case_closure_statement.pdf, https://assets.publishing.service.gov.uk/media/66c596e9808b8c0aa08fa861/Case_closure_statement.pdf.
[24] https://assets.publishing.service.gov.uk/media/67d1abd1a005e6f9841a1d94/Final_decision_report1.pdf.
[25] Commission sends preliminary findings to Alphabet under the Digital Markets Act

arrangements and the prevention of alternative app stores, alternative in-app payment systems and alternative browser engines.[26]

(c) The US Department of Justice has ongoing action in relation to Google in respect of its search services.[27] 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) Google's Mobile Platform is also the subject of a number of litigation proceedings in both the UK and other jurisdictions.[28]

Our investigation to date

2.13 Since launching our investigation, we have gathered a wide range of evidence from Google, stakeholders across the digital economy, and the wider public:

(a) ITC: At the outset of the investigation, we published the ITC[29] 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.[30]

(b) Engagement with Google: The CMA engaged with Google formally and informally throughout this initial stage of the investigation. Google had multiple opportunities to present all material facts, make submissions in support of its position and comment on our emerging thinking. 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 requested information (including both qualitative and quantitative information) and/or held bilateral meetings with 126 market participants.

[26] MSCA_SubordinateLegislations_and_Guidelines.pdf
[27] United States and State of Colorado v Google LLC
[28] See the regulatory and other developments section in Chapter 8, Concluding on SEMP and POSS.
[29] Invitation to comment.
[30] SMS investigation into Apple's mobile ecosystem - GOV.UK

These included large and small app developers, mobile browser vendors, companies that manufacture smartphones and/or tablets, firms that make connected devices such as wearables or smart speakers, companies that develop AI foundation model-based services, providers of payment services and digital wallets, telecoms operators and companies that provide app stores.

(ii) We also held an app developer workshop to explore the issues and hear their views. It was attended by attended by 12 app developers and an industry association. A summary of the app developer workshop was published on our case page.[31]

(d) Consumer market research: We engaged an independent market research company (Accent Research) to conduct quantitative research to inform the investigation, focused on understanding:

(i) consumer purchasing behaviour in the UK smartphone market;

(ii) switching between smartphone brands and operating systems;

(iii) consumer behaviour in using apps; and

(iv) consumer behaviour in conducting online search activities.

(e) The findings of this research are published on the case page.[32]

(f) Engagement with experts and other regulators: We met with several subject matter experts and members of our Growth and Investment Council. We also liaised with fellow regulators including Ofcom, the Financial Conduct Authority, the Payment Systems Regulator, the Bank of England, and the Information Commissioner's Office.

2.14 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.[33] Throughout this proposed decision the provenance of all the information we are relying on is set out clearly in footnotes.[34]

[31] SMS investigation into Google's mobile ecosystem – GOV.UK
[32] SMS investigation into Google's mobile ecosystem – GOV.UK
[33] As envisaged by CMA194, paragraph 5.93.
[34] In particular, we have used information obtained by the CMA during the Mobile Ecosystems Market Study and the Mobile Browsers and Cloud Gaming Market Investigation which we considered to be relevant to the matters we are investigating as part of this investigation.

3. UNDERTAKING AND TURNOVER

3.1 This chapter is structured as follows:

(a) We first consider the Google undertaking which is the subject of our proposed decision;

(b) We then consider whether the 'turnover condition' is met in relation to the Google undertaking.

The Google undertaking

This section describes the Google undertaking which is the subject of our proposed decision. We provisionally consider that the Google undertaking includes Alphabet Inc., Google LLC, Google Ireland Limited, and Google UK Limited.

3.2 The Act provides that the CMA may designate an 'undertaking' as having SMS in respect of a digital activity carried out by the undertaking (where the conditions in the Act are met).[35]

3.3 'Undertaking' has the same meaning as it has for the purposes of Part 1 of the Competition Act 1998.[36]

3.4 The concept of 'undertaking' covers any entity engaged in an economic activity, regardless of its legal status and the way in which it is financed. It is 'an economic unit even if in law that economic unit consists of several persons, natural or legal'.[37] An undertaking does not therefore correspond to the commonly understood notions of a legal entity or corporate group, for example under English commercial or tax law.[38]

3.5 Multiple persons (such as a parent company and its subsidiaries) will usually be treated as a single undertaking if they operate as a single economic entity. This will be the case where one exercises 'decisive influence' over another – for example, a parent company which decides the commercial policy of its subsidiaries.[39]

3.6 The Act requires us to describe the undertaking to which any SMS designation would relate.[40] Our Guidance explains that where an undertaking comprises

[35] Section 2(1) of the Act.
[36] Section 118(1) of the Act.
[37] C-97/08 *Akzo v Commission,* paragraphs 54 – 55.
[38] *Sepia Logistics Limited v Office of Fair Trading* [2007] CAT 13, paragraph 70.
[39] CMA194, footnote 2. Where a parent company holds all or virtually all of a subsidiary's share capital or all of its voting rights, there is a rebuttable presumption that it exercises decisive influence over, and therefore forms a single undertaking with, that subsidiary. See, for example, C-97/08 *Akzo v Commission*, paragraph 60; C-595/18 P *Goldman Sachs v Commission*, paragraphs 35-36.
[40] Section 15(3)(a) of the Act.

multiple companies, we will usually seek to identify the parent company and the main subsidiaries responsible for carrying on the digital activity, rather than providing an exhaustive list of the entities making up the undertaking at the relevant point in time.[41]

3.7 The Google undertaking we propose to designate as having SMS in respect of its Mobile Platform includes (but is not limited to) Alphabet Inc., Google LLC, Google Ireland Limited, and Google UK Limited – respectively the parent company and the main subsidiaries responsible for carrying on the Mobile Platform digital activity (and its component parts) that is the subject of this proposed decision. We provisionally consider that these entities form part of a single economic unit engaged in an economic activity and therefore constitute an undertaking within the meaning of the Act:

(a) Google LLC[42] contracts with third parties regarding the licensing of the Android operating system.[43] It is also involved in providing Google services, such as first party apps, on compatible Android mobile devices in the UK. In addition, it oversees the Play Store in the UK, including key decision makers for the Play Store. It also provides services in respect of the Chrome mobile browser and the Blink browser engine in the UK, and contracts with third parties in relation to the distribution of Google's apps and services.[44]

(b) Google Ireland Limited also contracts with third parties in relation to the distribution of Google's apps and services.[45]

(c) Google UK Limited[46] is the employer of Google's personnel in the UK,[47] and provides intra-group services to other Google entities.[48]

3.8 Each of Google LLC, Google Ireland Limited and Google UK Limited is ultimately wholly owned by Alphabet Inc.[49]

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[41] CMA194, paragraph 2.104, footnote 78 and paragraph 2.90.
[42] A private limited company incorporated in Delaware, United States of America under registered number 3582691, with its registered office at 1600 Amphitheatre Parkway, Mountain View, CA 94043, United States of America.
[43] Google's response to section 69 notice [✂].
[44] Google's response to section 69 notice [✂].
[45] Google's response to section 69 notice [✂].
[46] A private limited company incorporated in the United Kingdom under registered number 03977902, with its registered office at 1 St. Giles High Street, London, WC2H 8AG, United Kingdom.
[47] Google's response to section 69 notice in relation to SMS investigation into Google's general search and search advertising services [✂].
[48] Google UK Limited, Directors' Report and Financial Statements, Financial Year ended 31 December 2023, page 19. Google described Google UK Limited in similar terms in Google's response to section 69 notice in relation to SMS investigation into Google's general search and search advertising services [✂].
[49] A public listed company incorporated in Delaware, United States of America under registered number 5786925, with its registered office at 1600 Amphitheatre Parkway, Mountain View, CA 94043, United States of America. Google's response to section 69 notice in relation to SMS investigation into Google's general search and search advertising services [✂]. The corporate structure charts Google submitted indicate that each of Google LLC, Google Ireland Limited and Google UK Limited is wholly owned by XXVI Holdings Inc., which is in turn 'Controlled by Alphabet Inc.' Although the structure charts do not indicate the proportion of voting rights or shares held by Alphabet Inc, a US regulatory filing from

The turnover condition

This section considers whether the 'turnover condition' is met in relation to the Google undertaking. We provisionally consider that the global turnover threshold and the UK turnover threshold (either of which would suffice) are both exceeded – and therefore the turnover condition is met in relation to the Google undertaking.

3.9 The CMA may not designate an undertaking as having SMS in respect of a digital activity unless the 'turnover condition' is met in relation to the undertaking.[50]

3.10 The turnover condition is met in relation to an undertaking if the CMA estimates that:

(a) the total value of the global turnover of an undertaking, or where the undertaking is part of a group,[51] the global turnover of that group in the relevant period exceeds £25 billion (the **Global Turnover Threshold**); or

(b) the total value of the UK turnover[52] of an undertaking, or where the undertaking is part of a group, the UK turnover of that group in the relevant period exceeds £1 billion (the **UK Turnover Threshold**).[53]

3.11 The 'relevant period', in each case, means:

(a) the most recent period of 12 months in respect of which the CMA considers that it is able to make an estimate of the total value of the relevant turnover of the undertaking or group; or

(b) if the CMA estimates that the relevant turnover of the undertaking or group in the period of 12 months prior to the period in (a) above was higher, that earlier period of 12 months.[54]

3.12 Further details on the methodology for estimating turnover are set out in the Digital Markets, Competition and Consumers Act 2024 and Consumer Rights Act 2015 (Turnover and Control) Regulations 2024 (the **Turnover Regulations**), Schedule 1.

January 2025 states that Alphabet Inc. holds '100% equity interest and more than 99% voting interest in XXVI Holdings [Inc]' (Streamlined Submarine Cable Landing License Applications, 10 January 2025, Federal Communications Commission, bottom of page 2, SCL00509S.pdf). The presumption that Alphabet Inc. exercises decisive influence over XXVI Holdings Inc. (and therefore indirectly over each of Google LLC, Google Ireland Limited and Google UK Limited) therefore applies.

[50] Sections 2(3) and 7(1) of the Act.

[51] An undertaking is part of a group if one or more bodies corporate which are comprised in the undertaking are members of the same group as one or more other bodies corporate. Two bodies corporate are members of the same group if (a) one is the subsidiary of the other, or (b) both are subsidiaries of the same body corporate (section 117 of the Act).

[52] Turnover relating to UK users or UK customers: section 8(3) of the Act. UK user' and 'UK customer' are defined at section 118(1) of the Act as meaning any user or, as the case may be, customer who it is reasonable to assume (a) in the case of an individual, is normally in the UK; and (b) in any other case, is established in the UK.

[53] In each case, turnover arising in connection with any activities is taken into account: section 8(2) and (3) of the Act.

[54] Section 7(6) of the Act.

3.13 Our Guidance explains that the CMA's starting point for assessing relevant turnover will usually be the undertaking and/or group's latest published accounts.[55] Further, the CMA expects that the most recent period of 12 months in respect of which it is able to make an estimate of the total value of the relevant turnover of the undertaking or group will in most instances be the 12-month period covered by those accounts.[56]

3.14 For the reasons set out below, we provisionally consider that the global turnover threshold and the UK turnover threshold (either of which would suffice) are both exceeded – and therefore the turnover condition is met in relation to the Google undertaking.[57]

3.15 Alphabet Inc.'s most recent published accounts report revenues of $350 billion (£273.8 billion[58]) for the financial year ending 31 December 2024.[59]

3.16 Alphabet Inc.'s published accounts also include a geographic breakdown of global revenues on a regional basis, based on the addresses of its customers. The UK is part of the EMEA (Europe, Middle East and Africa) revenue reporting region, which reported revenues of $82.1 billion (£64.2 billion[60]) for the financial year ending 31 December 2024.[61]

3.17 While Alphabet Inc.'s published accounts do not include UK-specific revenue figures, Google estimates its UK revenues, based on the addresses of its customers, to be approximately $[✂]billion (£[10-20] billion).[62] Google has also confirmed that its UK turnover would exceed the UK turnover threshold if assessed under the Turnover Regulations.[63,64]

[55] Where the CMA is assessing turnover for the purposes of the UK turnover threshold, this will include considering any geographic breakdown contained in the published accounts. See CMA194, paragraph 2.37.
[56] CMA194, paragraph 2.39.
[57] Pursuant to section 7(2) of the Act, where the undertaking is part of a group, the turnover of the whole group should be considered. For the avoidance of doubt, we have therefore considered the turnover of the Google group as a whole (with Alphabet Inc. as the ultimate parent company) rather than just the turnover attributable to the main subsidiaries responsible for carrying out the relevant digital activity.
[58] Using the UK Office for National Statistics' average exchange rate for USD vs GBP of 1.2783 for the period from 1 January 2024 to 31 December 2024.
[59] Form 10-K for Alphabet INC filed 02/05/2025. Given the scale by which Google's reported turnover exceeds the global turnover threshold, we have not conducted a more detailed assessment of its global turnover based on the methodology specified in the Turnover Regulations.
[60] Using the UK Office for National Statistics' average exchange rate for USD vs GBP of 1.2783 for the period from 1 January 2024 to 31 December 2024.
[61] Form 10-K for Alphabet INC filed 02/05/2025.
[62] Google's response to section 69 notice in relation to SMS investigation into Google's general search and search advertising services [✂].
[63] Google's response to section 69 notice in relation to SMS investigation into Google's general search and search advertising services [✂].
[64] We recognise there may be differences between the way a company accounts for UK turnover in its financial statements and the UK turnover threshold methodology set out in the Turnover Regulations. However, as Google has confirmed that its UK turnover would exceed the UK turnover threshold if assessed under the Turnover Regulations, we have not conducted a full assessment of turnover relating to UK users or UK customers.

4. DIGITAL ACTIVITY

Introduction

This chapter sets out how we have described the digital activities which are the focus of this investigation. It sets out that we have provisionally concluded that:

(a) the relevant digital activities should be: (i) the Mobile Operating System, (ii) Native App Distribution, and (iii) Mobile Browser and Browser Engine; and

(b) it would be appropriate to treat those activities as a single digital activity. We refer to this single activity as the Mobile Platform, whose purpose is to facilitate interactions between users and providers of digital content and services on Android mobile devices[65] in order to allow users to access, view and engage with such content and services on their mobile devices.

This chapter also considers whether Google's provision of its Mobile Platform is 'linked to the UK' and we provisionally conclude that it is.

4.1 This chapter is structured as follows:

(a) Legal framework and Guidance;

(b) Overview of the digital activities set out in the Investigation Notice;

(c) Our approach to describing the Mobile Operating System activity;

(d) Our approach to describing the Native App Distribution activity;

(e) Our approach to describing the Mobile Browser and Browser Engine activity;

(f) Our approach to grouping those activities; and

(g) Our assessment that the Mobile Platform activity is linked to the UK.

Legal framework and Guidance

4.2 For the purposes of the Act, digital activities are:[66]

(a) the provision of a service by means of the internet, whether for consideration or otherwise;

[65] Android mobile devices refer to mobile devices in Google's Mobile Ecosystem.
[66] Section 3(1) of the Act.

(b) the provision of one or more pieces of digital content,[67] whether for consideration or otherwise; and

(c) any other activity carried out for the purposes of an activity within (a) or (b) above.

4.3 The CMA may treat (or 'group') two or more digital activities carried out by a single undertaking as a single digital activity where:[68]

(a) the activities have substantially the same or similar purposes; or

(b) the activities can be carried out in combination with each other to fulfil a specific purpose.

4.4 Where the CMA treats (ie groups) two or more digital activities carried out by an undertaking as a single digital activity, the SMS conditions will be applied to the grouped digital activity as a whole.[69]

4.5 The Act requires us to describe the digital activities with respect to which any SMS designation would have effect.[70]

4.6 Our Guidance explains that we will indicate which of the existing products offered by the firm we consider to be within the scope of the digital activity at the relevant point in time.[71]

4.7 In identifying a digital activity and considering which of the firm's products it may comprise, we will typically look at how those products are offered and consumed. For example, we may consider how the firm structures itself and its business model, how businesses and consumers use and access its products, and any interlinkages among them. This will focus on factual information and will not require an assessment of the competitive constraints on the firm or a market definition exercise.[72] Our Guidance explains that identifying digital activities is a case-specific assessment and the CMA may vary its approach between investigations depending on the particular circumstances of a case.[73]

4.8 Our Guidance also explains that an SMS firm will need to assess on an ongoing basis during the designation period which of its products fall within the description of the digital activity – for example, as it adapts products over time, changes their functionality or introduces new ones. As such, other products not included in the list may nevertheless fall within the scope of the digital activity. While the CMA has

[67] 'Digital content' means data which is produced and supplied in digital form, section 330 of the Act. This includes software, music, computer games and apps, CMA194, paragraph 2.9.
[68] Section 3(3) of the Act.
[69] CMA194, paragraph 2.65
[70] Section 15(3)(b) of the Act.
[71] CMA194, paragraph 2.107.
[72] CMA194, paragraph 2.10
[73] CMA194, paragraph 2.11.

the ability in the course of a designation to revise the description of the designated digital activity if it changes its view of that activity (provided it remains substantially the same),[74] the CMA is not obliged to use this power each time the firm makes changes to its corporate structure or the way it carries out the digital activity. Instead, the SMS firm must assess the extent to which its activities fall within the scope of the designation whenever it makes any such changes.[75]

Overview of Google's digital activities as set out in the Investigation Notice

4.9 In the Investigation Notice issued to Google at the start of our investigation, we set out three activities, namely:[76]

(a) **Mobile Operating System**, described as the provision of 'a mobile operating system or equivalent, which acts as an intermediary between hardware and software on the mobile device, enabling software applications (referred to as applications or apps) and services to run on the device';

(b) **Native App Distribution**, described as the provision of 'a service which enables the installation, distribution and operation of native apps on mobile devices, which are apps written to run on the Mobile Operating System'; and

(c) **Mobile Browser and Browser Engine**, described as the provision of 'a mobile browser and mobile browser engine, which comprises:

(i) the provision of a software application that enables users of mobile devices to access and search the internet and interact with web content; and

(ii) the provision of a mobile browser engine, which is the underlying technology which native apps on mobile devices use to transform web page source code into content with which users can engage'.

4.10 The description of those three activities applied to 'mobile devices', which was defined to include both smartphones and tablets. In other words, each of the three activities described above encompassed both smartphones and tablets.

4.11 We also explained that each of those three activities (ie the Mobile Operating System, Native App Distribution, and Mobile Browser and Browser Engine), may be a digital activity within the meaning of the Act; and further that they may be treated as a single digital activity (ie 'grouped' together) 'as they can be carried out in combination with each other to fulfil the specific purpose of facilitating

[74] Section 15(4) of the Act
[75] CMA194, paragraphs 2.107 and 2.108.
[76] Investigation Notice, paragraph 3.

interactions between users and providers of digital content and services (as applicable) on mobile devices in order to allow users to access, view and engage with such content and services on their mobile devices'.[77]

4.12 The Investigation Notice also explained that, based on Google's current business model, we considered that the main Google services and digital content likely to be included in the provision of each of the three activities included:[78]

(a) For Mobile Operating System, the operating system currently known as Android, that is (i) used on Google's own mobile devices; and (ii) licensed by Google to certain third-party Original Equipment Manufacturers (**OEMs**)[79] under agreements referred to as the Android Licence Agreements;[80]

(b) For Native App Distribution:

(i) the pre-installation, placement and defaults settings of Google's own apps on Android mobile devices by OEMs;

(ii) the process for users to 'sideload' native apps onto Android mobile devices;

(iii) the installation, distribution and operation of third-party native apps through the Play Store; and

(c) For Mobile Browser and Browser Engine, the mobile browser currently known as Google Chrome and the browser engine currently known as Blink.

4.13 In the ITC, we explained how we had arrived at these preliminary views.[81]

4.14 In the following sections, we set out the evidence we have obtained since and our provisional decisions in relation to:

(a) Our descriptions of the relevant digital activities – Mobile Operating System, Native App Distribution and Mobile Browser and Browser Engine – and the scope of those activities;

(b) Grouping the described digital activities as a single digital activity; and

(c) Whether the relevant digital activity is linked to the UK.

[77] Investigation Notice, paragraphs 4-5.
[78] Investigation Notice, paragraph 6.
[79] We use the terms OEM and device manufacturer interchangeably.
[80] The Investigation Notice, paragraph 6, footnote 1 also stated that '[t]hese agreements include but are not limited to the European Mobile Application Distribution Agreement, under which Mobile Device manufacturers license APIs needed for many apps to run, and the Android Compatibility Commitment under which Mobile Device manufacturers agree to maintain a certain minimum level of compatibility with a baseline version of Android; the latter is set out in the Compatibility Definition Document. See MEMS, Appendix E, in particular at paragraphs 4-5 and 19-30'.
[81] ITC, pages 17-23.

Mobile Operating System

This section assesses the extent to which our initial description of the Mobile Operating System digital activity remains appropriate in light of submissions and evidence received. We provisionally consider that it does.

Mobile Operating System: The provision of a mobile operating system or equivalent, which acts as an intermediary between hardware and software on the mobile device, enabling software applications (referred to as applications or apps) and services to run on the device.

4.15 When we launched the investigation, we explained that the Mobile Operating System is the pre-installed software layer on mobile devices, which acts as an intermediary between hardware and software on the mobile device, and with which all other software on a mobile device must interoperate.[82]

Submissions on our description and scope of Mobile Operating System

4.16 We asked in our ITC: 'Do you have any views on the scope of our investigations and descriptions of […] Google's mobile ecosystem digital activities?'[83]

4.17 In response to the ITC, Google submitted that 'the CMA will need to consider carefully and objectively the boundaries of any products that fall within the scope of a potential designation decision, as well as the open and customizable limits of Android, which gives OEMs extensive freedoms but necessarily places limits on Google's control.'[84]

4.18 Google also explained in response to the CMA's requests for information that there is no distinction between Android for smartphones and tablets:[85]

(a) Google does not distinguish between the development of Android for smartphones and tablets and it has developed a single version of Android for both types of devices;

(b) It has taken this approach because of the substantial overlap in the functionalities and features of smartphones and tablets. Specifically, these categories of hardware have similar user interfaces (UIs)/screens and touchscreen functionality, and are used in similar ways; and

[82] ITC, paragraphs 51-54.
[83] ITC, Box 4 on page 23.
[84] Google response to ITC, page 3.
[85] Google's response to section 69 notice [✂].

(c) Google's operating system on laptops and desktops (Chrome operating system) is distinct from the Android operating system on smartphones and tablets.

4.19 Third parties were broadly supportive of our proposed scope and descriptions of the Mobile Operating System digital activity. However, a few of them submitted that we should broaden or clarify the scope in certain respects. We received submissions on the following:

(a) **Whether 'middleware' and associated services should be in scope:** Epic Games submitted that our description should be broadened to include all complementary services such as associated middleware, APIs and interaction with hardware.[86]

(b) **Whether connectivity functionalities should be in scope**: Mobile UK considered that our description should include control over connectivity.[87]

(c) **Whether voice assistants (also known as virtual assistants)[88] should be in scope:** Radiocentre submitted that Google's virtual assistant(s) should be seen as 'an integrated software element of operating systems',[89] while the BBC considered that they should fall within the scope of the investigation.[90]

4.20 CCIA, on the other hand, stated that the overall breadth of our investigation presents a risk that it 'will include services that are subject to more or less competition, with a risk of the analysis neglecting competitive constraints that apply to some of these services'.[91] CCIA's submissions also apply to the Native App Distribution and Mobile Browser and Browser Engine activities.

Our assessment

4.21 In light of the submissions and evidence we have received, we provisionally consider that the description of the Mobile Operating System digital activity set out in our Investigation Notice remains appropriate and it is not necessary to make any changes for the following reasons:

[86] Epic Games Response to the ITC, pages 1-2.
[87] Mobile UK Response to ITC, paragraph 5.
[88] Both of these terms tend to be used interchangeably. Throughout this Proposed Decision we refer to voice assistants unless quoting a third party which used the term virtual assistant.
[89] Radiocentre Response to ITC, paragraph 2.3.
[90] BBC Response to ITC, paragraph 1.
[91] CCIA Response to ITC, page 1.

(a) In line with the Guidance, we have considered the proposed description taking account of how Google's Mobile Operating System is offered by Google, and how the users consume it.[92]

(b) In particular, Google does not distinguish between the development of Android for smartphones and tablets and develops and provides a single version of the Mobile Operating System for both types of devices.

(c) We have also considered the similarities between user interfaces, screens and touchscreen functionality referred to by Google, which support the provisional finding that Google's Mobile Operating System is used in the same or similar ways by users of Android for smartphones and tablets.

4.22 Taking this evidence in the round, we provisionally consider that for the purposes of this investigation, it remains appropriate to describe a single Mobile Operating System activity.

4.23 We also set out below our response to the specific points raised by third parties in relation to the treatment of middleware and voice assistants.

Whether middleware is within scope

4.24 As noted above, Epic Games asked us to clarify whether middleware and related features form part of the Mobile Operating System activity.

4.25 Middleware is a broad term and can cover a range of functionalities. We consider that there are specific functionalities as set out below which form part of the operating system because they act as intermediaries between the hardware and software of Android mobile devices and contribute to enabling apps to run on them. This encompasses, for example: (i) Google Cast SDK in Google Play Services which allows apps to access networking hardware and stream content to TVs; and (ii) LiteRT in the Google Play services runtime which includes APIs allowing apps to access the GPU and run FM services.

4.26 As such, we consider that middleware and associated services are captured within our description of the Mobile Operating System digital activity.

Whether connectivity functionalities are within scope

4.27 APIs providing access to connectivity functionalities fall within our description of the Mobile Operating System digital activity. These APIs play an intermediary role by providing applications and services with access to connectivity hardware and

[92] As explained above, the Guidance explains that the CMA can adopt a functional approach to describing a digital activity by reference to the nature of the products and how they are offered and consumed: CMA194, paragraphs 2.10-2.11.

functionalities built on top of the hardware, including the ability to access the internet over a network connection.

Whether voice assistants are within scope

4.28 Voice assistants (**VAs**) are AI-based software which allow users to control their device verbally.

4.29 As noted above, two respondents to the ITC asked us to clarify whether VAs form part of the Mobile Operating System activity.

4.30 In order to assess whether Google's VAs form part of the Mobile Operating System activity, we have considered the extent to which these products integrate with Android and play an intermediary role between hardware and software:

(a) Google's VAs are integrated into the operating system through supporting functionalities that allow them to access device data, work with other apps and interact with the user. However, they function primarily as native apps and do not fulfil an intermediary role between software and hardware.[93] Therefore, they do not fall within the scope of the Mobile Operating System activity.

(b) In contrast, supporting functionalities, such as those that allow Google's VAs to interact with other apps on Android mobile devices, including Intents and Gemini Extensions, fall within our description of the Mobile Operating System, as they provide access to device data and other applications or functionalities.

Native App Distribution

This section assesses the extent to which our initial description of the Native App Distribution digital activity remains appropriate in light of the submissions and evidence received. We provisionally consider that it does.

Native App Distribution: The provision of a service which enables the installation, distribution and operation of native apps on mobile devices, which are apps written to run on the Mobile Operating System.

4.31 When we launched the investigation, we explained in the ITC that:[94]

[93] We understand from our engagement with Ofcom that VAs may play an intermediary role between users and content under Part 6 of the Media Act 2024 for radio selection service users.
[94] ITC, paragraphs 55-56.

(a) A ‘native app’ means an app that is written to run on a specific operating system;

(b) A ‘native app distribution platform’ means a platform for users to discover, download, and have apps automatically updated; and for businesses to have access to a large user base to whom they can distribute their apps and associated content; and

(c) The most common method for distributing apps is through a mobile app store such as Google’s Play Store.

Submissions on our description and scope of Native App Distribution

4.32 In response to the ITC, Google explained that:

(a) ‘Google Play has a single app-vetting process for apps running on Android OS. It does not have separate processes for reviewing apps on smartphones v apps on tablets’;[95] and

(b) ‘There is considerable synergy between developing an app for Android smartphones and tablets. Indeed, it is possible for an app developer to distribute one app for both smartphones and tablets, and many do so’.[96]

4.33 In response to the ITC, the following third parties provided submissions on our description and scope of the Native App Distribution digital activity. These focused on **developer tools**:

(a) Epic Games stated that app distribution involves a range of activities from app development to consumer use and that the CMA should include all of these in our description of the Native App Distribution activity. Thus, our description and scope of the activity should include: developer tools for app developers, app distribution through channels outside app stores, discovery and review of apps, app updates, performance and design.[97]

(b) Qoria submitted that our description and scope of the Native App Distribution activity should cover the cloud management tools app developers must use to deploy and manage their apps.[98]

Our assessment

4.34 In light of the submissions and evidence we have received, we provisionally consider that the description of the Native App Distribution digital activity set out in

[95] Google’s response to section 69 notice [✂].
[96] Google’s response to section 69 notice [✂].
[97] Epic Games Response to the ITC, pages 3-4.
[98] Qoria Response to the ITC, pages 3-4.

our Investigation Notice remains appropriate for this investigation and it is not necessary to make any changes.

4.35 We have taken account of how Native App Distribution is offered by Google, and how users consume it.[99] In particular, Google makes the Play Store available to users on both smartphones and tablets. It has the same app review process for smartphones and tablets; and app developers can distribute one app for both smartphones and tablets.[100]

4.36 As noted above, some third parties asked us to clarify whether tools, notably cloud management and developer tools, form part of the Native App Distribution activity. The developer tools mentioned by the third parties fall within the digital activity for the following reasons:

(a) The cloud management tools mentioned by third parties enable the installation and/or distribution of native apps on mobile devices, for example Google Play Console. Such tools fall within our description because they provide services such as app publishing portals that enable the distribution of native apps to mobile devices.

(b) The developer tools mentioned by third parties support the development, testing and distribution of native apps, for example Android Studio or Firebase. Such tools fall within our description because they provide services such as building and cryptographic signing of Android App Bundle files and delivery of beta versions of apps which enable the installation, distribution and operation of native apps on mobile devices.

(c) The APIs mentioned by third parties enable the installation, distribution and operation of native apps, for example Google Play Developer APIs.[101] Such interfaces fall within our description because they enable app developers to automate aspects of application deployment and management, thereby enabling the installation, distribution and operation of native apps on mobile devices.

(d) Middleware falls within our description to the extent that it enables the installation, distribution and operation of native apps and does not otherwise form part of the Mobile Operating System digital activity. For example, apps which integrate with Google Play Billing rely on functionality provided by the Google Play Services middleware to operate.[102]

[99] As explained above, the Guidance explains that the CMA can adopt a functional approach to describing a digital activity by reference to the nature of the products and how they are offered and consumed: CMA194, paragraphs 2.10-2.11.
[100] Google's response to section 69 notice [✂].
[101] See https://developer.android.com/google/play/developer-api.
[102] See Google Play's billing system documentation, https://developer.android.com/google/play/billing/alternative

Mobile Browser and Browser Engine

This section assesses the extent to which our initial description of the Mobile Browser and Browser Engine activity remains appropriate in light of the submissions and evidence received. We provisionally consider that it does.

Mobile Browser and Browser Engine: The provision of a mobile browser and browser engine which comprises:

(a) the provision of a software application that enables users of mobile devices to access and search the internet and interact with web content; and

(b) the provision of a mobile browser engine, which is the underlying technology which native apps on mobile devices use to transform web page source code into content with which users can engage.

4.37 When we launched the investigation, we explained that:[103]

(a) A 'mobile browser' translates website code into content that is shown on the device screen to users. Mobile browsers have user-facing functionality such as favourite webpages and browsing history, and store users' data such as passwords and payment details. A default search engine is set as part of the browser;

(b) A 'mobile browser engine' is the underlying technology which browser applications on mobile devices use to transform web page source code into content which users can see and engage with. Browser engines are crucial for determining browser performance and functionalities;

(c) As part of our investigation, we would consider Google's Chrome browser which is pre-installed on almost all Android devices and had a share of supply of 77% on Android devices in 2023; and its Blink browser engine, which had a share of supply of 95% of browsers operating on Android devices;

(d) Web content can also be accessed through native apps, in 'in-app browsers'. In-app browsers are used in apps such as Snapchat, Facebook, search widgets in Google search and email clients such as Gmail. In-app browsing appears to account for a substantial proportion of all browsing on mobile devices; and

(e) We would consider how in-app browsing technology is provided on Android devices.

[103] ITC, paragraphs 62-67.

Submissions on our description and scope of Mobile Browser and Browser Engine

4.38 Google did not comment on the proposal to describe the Chrome web browser on Android smartphones and Android tablets together. In relation to the Blink browser engine, Google submitted that Blink is developed as a cross-platform product and there are no substantive differences in how Blink operates on smartphones and tablets.[104]

4.39 In response to the ITC, ACT/The App Association submitted that our discussion of in-app browsing should be expanded and made more precise, noting that '[i]t would be useful to clarify how the CMA defines in-app browsing, especially given that it plays an increasingly important role in digital interactions'.[105]

Our assessment

4.40 In light of the submissions and evidence we have received, we provisionally consider that the description of the Mobile Browser and Browser Engine activity set out in our Investigation Notice remains appropriate in this investigation, and it is not necessary to make any changes.

4.41 We have taken account of how Google's mobile browser and browser engine is offered by Google, and how users consume it.[106] In particular, Google makes the mobile browser available for users on both smartphones and tablets; and the browser engine is developed as a cross-platform product and there are no substantive differences in how the browser engine operates on smartphones and tablets.[107]

4.42 The mobile browser and browser engine are closely integrated services and digital content which are provided and consumed as a package and function as such on Google's Mobile Platform. Our provisional view is that, taking account of how Google provides the mobile browser and browser engine to users of its Mobile Platform and how these users consume them, they form part of a single digital activity. This is because in order to allow mobile browsing Google supplies the following elements: (i) its back end browser engine, currently Blink, which renders websites that users can see and engage with; and (ii) its front end mobile browser, currently Chrome, which provides user facing functionality. Indeed, while users may not always be aware of the existence of the browser engine, it is the core underlying software component of a mobile browser that handles the rendering

[104] Google's response to section 69 notice [✂].
[105] ACT/The App Association Response to ITC, page 3.
[106] As explained above, the Guidance explains that the CMA can adopt a functional approach to describing a digital activity by reference to the nature of the products and how they are offered and consumed: CMA194, paragraphs 2.10-2.11.
[107] Google's response to section 69 notice [✂].

and display of web content.[108] We note that no third party has specifically commented on our proposal to describe Google's mobile browser and browser engine, together as one digital activity.

4.43 As noted above, ACT asked us to clarify what we mean by in-app browsing. In-app browsing relies on an underlying browser engine to render web content. Thus, given its functional description, we provisionally consider that in-app browsing is captured within our description of the Mobile Browser and Browser Engine digital activity.

4.44 We provisionally consider that the description in the MBCG MI for in-app browsing remains appropriate: 'In-app browsing refers to the situation in which a user accesses web content while they are already in a native app that is not a dedicated mobile browser'.[109]

Proposed description of the digital activities

4.45 For the reasons set out above, we have provisionally decided to describe the following three digital activities for the purposes of this investigation:

(a) **Mobile Operating System**, which we describe as the provision of a mobile operating system or equivalent, which acts as an intermediary between hardware and software on the mobile device, enabling software applications (referred to as applications or apps) and services to run on the device.

(b) **Native App Distribution**, which we describe as the provision of a service which enables the installation, distribution and operation of native apps on mobile devices, which are apps written to run on the Mobile Operating System.

(c) **Mobile Browser and Browser Engine**, which we describe as the provision of a mobile browser and mobile browser engine, which comprises:

(i) The provision of a software application that enables users of mobile devices to access and search the internet and interact with web content; and

(ii) The provision of a mobile browser engine, which is the underlying technology which native apps on mobile devices use to transform web page source code into content with which users can engage.

[108] The browser engine is responsible for processing HTML, CSS, and JavaScript code, and rendering websites into the visual format that users see on their mobile devices. In practical terms, this means the browser engine provides important features which determine the speed and performance of the browser. See MBCG MI Final Report, paragraph 2.9-2.10.
[109] MBCG MI Final Report, paragraph 2.55.

4.46 Based on Google's current business model, we provisionally conclude that the above digital activities include:

(a) For the Mobile Operating System: (i) the operating system currently known as Android, that is used on Google's own mobile devices and licensed by Google to certain third-party OEMs; (ii) any middleware acting as an intermediary between hardware and software, such as Google Cast SDK in Google Play Services; and (iii) supporting functionalities that allow Google's VAs to interact with other apps on Android mobile devices, such as Intents and Gemini Extensions;

(b) For Native App Distribution: (i) the pre-installation, placement and defaults settings of Google's own apps on Android mobile devices by OEMs; (ii) the process for users to 'sideload' native apps onto Android mobile devices; and (iii) the installation, distribution and operation of third-party native apps through the Play Store. This includes cloud management tools such as Google Play Console; developer tools for developing, testing and distributing native apps such as Android Studio or Firebase; and APIs for enabling the installation, distribution and operation of native apps, including interfaces such as Google Play Developer APIs; and

(c) For Mobile Browser and Browser Engine: (i) Google's mobile browser, Google Chrome; and (ii) Google's browser engine, Blink.

Grouping Mobile Operating System, Native App Distribution and Mobile Browser and Browser Engine

This section assesses our proposal to group Google's digital activities in light of the submissions and evidence received. We provisionally conclude that the Mobile Operating System, Native App Distribution, and Mobile Browser and Browser Engine activities should be treated as a single digital activity, referred to as a Mobile Platform. Our provisional view is that these activities can be carried out in combination with each other to fulfil a specific purpose and/or have substantially the same or similar purposes.

4.47 When we launched our investigation, we explained that '[t]he provision of a mobile operating system, native app distribution and a mobile browser and browser engine could be considered as a single digital activity'.[110] This is because the individual digital activities 'can be carried out in combination with each other to fulfil the specific purpose of facilitating interactions between users and providers of digital content and services (as applicable) on Android mobile devices in order to

[110] ITC, paragraph 69.

allow users to access, view and engage with such content and services on their mobile devices'.[111]

Submissions on our grouping proposal

4.48 Google did not comment our proposal to group the digital activities.

4.49 Third parties that commented on the grouping proposal in response to the ITC were supportive, including:

(a) Coalition for App Fairness which submitted that the digital activities have substantially the same purpose: 'the operation of an integrated ecosystem for mobile devices, and they are carried out in combination to fulfil that purpose'. It further submitted that the activities are 'closely interlinked' and grouping may be 'the most logical and proportionate approach as certain CRs may apply to more than one of the three product groups'.[112]

(b) Epic Games which submitted that we must take a 'holistic approach' to our investigation, which 'could mean grouping together some of the digital activities that have the same purpose or are often used in combination, in particular where this will make it harder for […] Google to evade compliance with potential interventions'.[113]

(c) Movement for an Open Web which submitted that it welcomes our grouping proposal under section 3(3) of the Act.[114]

(d) Mozilla which submitted that:[115]

(i) Grouping the activities together would 'reflect the reality that […] Google have market power across an ecosystem of products'.

(ii) Otherwise, there are risks of 'an enforcement gap where, for technical reasons due to how particular digital activities have been defined, it may become difficult for the CMA to take enforcement action'.

(iii) 'Grouping together the activities as a mobile ecosystem provides greater flexibility that will enable the CMA to take into account future technological advances'.

[111] Investigation Notice, paragraphs 4-5.
[112] Coalition for App Fairness Response to the ITC, page 2.
[113] Epic Games Response to the ITC, pages 1-2.
[114] Movement for an Open Web Response to ITC, page 2.
[115] Mozilla Response to ITC, page 4.

Our assessment

Legal framework and guidance

4.50 As set out above, the Act allows us to group two or more digital activities carried out by a single undertaking as a single digital activity where:[116]

(a) the activities have substantially the same or similar purposes; or

(b) the activities can be carried out in combination with each other to fulfil a specific purpose.

4.51 Our Guidance explains that the CMA will interpret these conditions broadly.[117] For example, the concept of purpose may refer to any relevant aspect of how the products are made, marketed, sold, accessed, or consumed, and may therefore relate to customer needs or preferences rather than technical complementarity.[118]

4.52 We therefore consider that a central consideration when assessing whether it would be appropriate to exercise our power to group digital activities is to consider the purpose of the activities and how the relevant digital activities are: (i) provided by Google on the one hand; and (ii) consumed by users in practice on the other hand. This means that any grouping of digital activities needs to reflect how the relevant digital activities are carried out.

The purpose of the digital activities

4.53 We provisionally consider that the relevant purpose that makes it appropriate for us to group Google's digital activities as a single 'Mobile Platform' digital activity remains as described in the ITC: facilitating interactions between users and providers of digital content and services (as applicable) on Android mobile devices in order to allow users to access, view and engage with such content and services on their mobile devices.

4.54 The three relevant digital activities (the Mobile Operating System, Native App Distribution, and Mobile Browser and Browser Engine) in combination form a complementary package of services and digital content to fulfil the purpose described above of facilitating interactions between users and providers of services and digital content on Android mobile devices. This purpose is also reflected in each of the digital activities individually. Google provides an integrated

[116] Section 3(3) of the Act. Explanatory notes to the Act, paragraph 103.
[117] CMA194, paragraph 2.14.
[118] The Explanatory Notes to the Act also provide instructive grouping examples as follows: (i) a number of services under different brands with a common function, allowing users, such as advertisers and publishers, to communicate with each other under section 3(3)(a); and (ii) services and products which are part of the same supply chain, such as services selling advertisements and the provision of an advertising platform under section 3(3)(b).

package encompassing these services and digital content to users and they are often consumed as an integrated package by users:

(a) Google's Android operating system is pre-installed software that acts as the intermediary between hardware (mobile devices) and software; this software facilitates interactions between users and providers of digital content and services;

(b) Google's native app distribution, which includes the Play Store and pre-installation of first party apps, provides the channel through which native apps are provided on most Android mobile devices; facilitating interactions between users and providers of digital content and services;

(c) Google's mobile browser and browser engine, which includes Chrome and Blink, provides the route by which users access content provided on the web by businesses; again, this digital activity facilitates interactions between users and providers of digital content and services.

4.55 Consistent with our prior work in respect of mobile ecosystems,[119] we have provisionally found that most non-Apple mobile devices use Google's version of Android subject to certain agreements between Google and OEMs as set out in Annex C. The cumulative effect of these agreements is that Google's Play Store and its mobile browser Chrome are generally licensed and distributed alongside Google's Android.

4.56 We have also considered how consumers engage with the operating system, native app distribution, the mobile browser and browser engine when using their mobile devices to access and engage with content. The operating system is pre-installed software which powers Android mobile devices. As noted above, a large majority of apps in the UK are downloaded on Android from the Play Store. Google's agreements with OEMs also contain provisions financially incentivising pre-installation and prominent placement of Chrome, which runs on Blink, and Chrome is pre-installed on the majority of Android devices in the UK.[120] We therefore consider that from the consumers' perspective, the operating system, native app distribution, the mobile browser and browser engine constitute a package of integrated products and services which they use in combination with each other as part of Google's Mobile Ecosystem.

4.57 We have also taken into account other market participants' submissions which are consistent with our understanding of how the individual digital activities are offered by Google and consumed by users. As set out above, the submissions were supportive of our grouping proposal and emphasised the appropriateness of grouping given the close interlinkages and seamless integration between the

[119] MEMS Final Report, paragraph 2.20.
[120] MBCG MI Final Report, Appendix B, paragraph 47.

elements of the Mobile Platform in fulfilling the purpose of connecting users and content providers. Consistent with this integration, third parties also noted that grouping would facilitate the design of potential interventions that may apply to several of the individual digital activities and avoid potential circumvention.

4.58 In addition, we understand that the interlinkages between these digital activities are likely to remain in place and potentially become a more important characteristic of Google's Mobile Ecosystem over the forward-looking assessment period of the next five years. We received multiple third-party submissions that technological developments such as AI and connected devices are likely to enhance the importance of integration for competition in mobile ecosystems and for how users and developers interact with mobile devices. This is explained further in 'Competition to Google's Mobile Platform arising from other technological developments' section in Chapter 6.

4.59 Our provisional view is that the relevant purpose under section 3(3) should remain as described in the ITC: facilitating interactions between users and providers of digital content and services (as applicable) on Android mobile devices in order to allow users to access, view and engage with such content and services on their mobile devices.

Provisional conclusion on grouping the relevant digital activities

4.60 We provisionally conclude that:

(a) Google's Mobile Operating System, Native App Distribution, and Mobile Browser and Browser Engine activities can be carried out in combination with each other to fulfil a specific purpose.[121] The relevant 'purpose' is facilitating interactions between users and providers of digital content and services (as applicable) on Android mobile devices in order to allow users to access, view and engage with such content and services on their mobile devices. Indeed, our provisional view, taking account of Google's submissions and our understanding of Google's digital activities, is that not only *can* the activities be carried out in combination with each other to fulfil the specific purpose, but that they *are*, as a matter of fact, carried out in combination with each other by Google to facilitate interactions between users and content providers as (i) Google provides an integrated package encompassing these products and services to users; and (ii) from the consumers' perspective, Android, the Play Store and Chrome/Blink constitute a package of integrated products and services which they use in combination with each other to access content and services on their mobile devices.

[121] Under section 3(3)(b) of the Act.

(b) In light of our provisional conclusion that the relevant digital activities can and should be grouped as a single Mobile Platform digital activity under section 3(3)(b), it is not necessary to determine whether the activities also have substantially the same or similar purposes under section 3(3)(a). Nevertheless, on the basis of the evidence set out in this section, we provisionally conclude that Google's Mobile Operating System, Native App Distribution, and Mobile Browser and Browser Engine activities have substantially the same or similar purposes.[122] Android is pre-installed software that powers Android smartphones and tablets and acts as the intermediary between hardware (mobile devices) and software. The Play Store allows users to discover, download, and have apps automatically updated; and businesses to access a large user base to whom they can distribute their apps and associated content. Chrome (powered by the mobile browser engine Blink) enables users of mobile devices to access and search the internet and interact with web content provided by businesses. Each of these activities has the purpose of facilitating interactions between users and providers of digital content and services on Android mobile devices in order to allow users to access, view and engage with such content and services on their mobile devices, and therefore have substantially the same or similar purposes.

The digital activity is linked to the UK

This section considers whether Google's provision of the digital activity is 'linked to the UK'. We provisionally conclude that each of the conditions in the Act (any one of which would suffice) is satisfied and therefore that Google's provision of its Mobile Platform is linked to the UK.

4.61 The CMA may designate an undertaking as having SMS in respect of a digital activity carried out by the undertaking where the CMA considers that the digital activity is 'linked to the UK'.[123]

4.62 A digital activity is linked to the UK if:

(a) The digital activity has a significant number of UK users;[124]

(b) The undertaking that carries out the digital activity carries on business in the UK in relation to the digital activity; or

[122] Under section 3(3)(a) of the Act.
[123] Section 2(1)(a) of the Act.
[124] There is no quantitative threshold for how many UK users can be considered 'significant': the CMA's assessment may consider the firm's absolute position and/or the number of UK users it has relative to other undertakings (CMA194, paragraph 2.22).

(c) The digital activity or the way in which the undertaking carries on the digital activity is likely to have an immediate, substantial and foreseeable effect on trade in the UK.[125]

4.63 Based on the evidence we have obtained, we provisionally consider that each of the conditions in the Act (any one of which would suffice) is satisfied and therefore that Google's provision of its Mobile Platform is linked to the UK. As set out below, this is the case across the component parts of its Mobile Platform: namely, its Mobile Operating System, Native App Distribution and Mobile Browser and Browser Engine.

Mobile Operating System

4.64 Google's Mobile Operating System (Android) has a significant number of UK users:

(a) In 2024, there were [30-40] [✂] active Android smartphone mobile devices and [5-10] [✂] Android tablet devices in the UK.[126] This is a very significant number of users in the UK, particularly in the context of a UK population of 69 million.[127]

(b) Google has consistently been one of the largest suppliers of operating systems for both smartphones and tablets in the UK for almost a decade. In each year from 2015 to 2024, [40 – 50%] [✂] of active smartphones were Android devices.[128] In each year from 2017 to 2024, [20 – 30%] [✂] of active tablets were Android tablets.[129]

4.65 Google carries on business in the UK in relation to the provision of a Mobile Operating System:

(a) Google supplies smartphones and tablets – which incorporate its operating system – in the UK. In 2024, in the EMEA region, Google generated $[0 – 5 billion] [✂] from sales of its own Android smartphones and $[0 – 20 million] [✂] from sales of its own Android tablets.[130]

[125] Section 4 of the Act.
[126] Google's response to section 69 notice [✂].
[127] According to estimates reported by Worldometer, in 2024, the UK population was around 69 million.
[128] The CMA has measured shares of supply on the basis of active devices. CMA analysis of data from market participants. In particular: Apple's response to section 69 notice [✂]; Google's response to section 69 notice [✂]; and Huawei's response to section 69 notice [✂]. More detail on shares of supply is set out in Annex A.
[129] The CMA has measured shares of supply on the basis of active devices. CMA analysis of data from market participants. In particular: Apple's response to section 69 notice [✂]; Google's response to section 69 notice [✂]; Amazon's response to section 69 notice [✂]; and Huawei's response to section 69 notice [✂]. More detail on shares of supply is set out in Annex A.
[130] Google's response to section 69 notice [✂].

(b) Google licenses its Android operating system in the UK to third party device manufacturers; and

4.66 As the provider of one of the main mobile operating systems in the UK, being used on [40-50]% [✂] of active smartphones in the UK in each year from 2015 to 2024, and [20-30]% [✂] of active tablets in each year from 2017 to 2024,[131] the effect on trade in the UK of Google's provision of its Mobile Operating System is likely to be immediate, substantial and foreseeable.

Native App Distribution

4.67 Google's Native App Distribution has a significant number of UK users:

(a) Under the terms of Google's agreements with OEMs, all approved Android smartphones and tablets have the Google Play Store pre-installed and placed prominently at device set-up.[132]

(b) In 2024, Google's Play Store had a [90-100%] [✂] share of supply for first-time native app downloads within Google's Mobile Ecosystem in the UK.[133]

(c) The Play Store has a significant number of first-time downloads and active users in the UK. In the UK in 2024, the Play Store had [✂] [1.5 – 2 billion] first-time downloads of native apps[134] and an average of [✂] [2 – 3 million] daily active users.[135,136]

(d) The Play Store hosts a significant number of app developers, who conduct their business by providing a wide range of apps to users. For example, the monthly average number of app developers on the Play Store in 2024 in the UK was [✂] [0 – 1 million] and the monthly average number of native apps listed was [✂] [2 – 3] million.[137]

[131] The CMA has measured shares of supply on the basis of active devices. CMA analysis of data from market participants. In particular: Apple's response to section 69 notice [✂]; Google's response to section 69 notice [✂]; Amazon's response to section 69 notice [✂]; and Huawei's response to section 69 notice [✂]. More detail on share of supply is set out in Annex A.
[132] See Annex C for further detail on Google's agreements with OEMs.
[133] The CMA has measured shares of supply on the basis of first-time native app downloads on Android devices. Analysis of data from market participants based on Google's response to section 69 notice [✂], Samsung's response to section 69 notice [✂]; Xiaomi's response to section 69 notice [✂]; Oppo's response to section 69 notice [✂]; and Aptoide's response to section 69 notice [✂]. See Annex A for further information.
[134] Google's response to section 69 notice [✂].
[135] Daily active users means the number of users that downloaded a native app from the Play Store each day.
[136] Google's response to section 69 notice [✂]. See Annex A for further information.
[137] Google's response to section 69 notice [✂].

4.68 Google carries on business in the UK in relation to Native App Distribution: In 2024, the value of customer billings and net revenues on the UK Play Store were £[✂] [0 – 5 billion] and £[✂] [0 – 2 billion] respectively.[138,139]

4.69 Given the volume and financial value of transactions it supports, Google's provision of Native App Distribution is likely to have an immediate, substantial and foreseeable effect on trade in the UK.

Mobile Browser and Browser Engine

4.70 Google's Chrome Browser and Blink Browser Engine have a significant number of UK users:

(a) In March 2025, Chrome had a 79% share of supply of browsers within Google's Mobile Ecosystem in the UK, and in 2024 Chrome had a share of supply of 46% across all mobile devices in the UK.[140]

(b) Chrome has a high number of active monthly users with [✂] [40 – 50 million] active monthly UK users on Android in December 2024.[141]

(c) In March 2025, Blink had a share of supply of at least 98% for browser engines used within Google's Mobile Ecosystem in the UK.[142]

4.71 Google carries on business in the UK in relation to the provision of its Mobile Browser and Browser Engine as it supplies Chrome and Blink in the UK.

4.72 As the provider of one of the two main Mobile Browsers and Browser Engines in the UK for mobile devices and the main one used in Android mobile devices, the effect on trade in the UK of Google's provision of a Mobile Browser and Browser Engine is likely to be immediate, substantial and foreseeable.

[138] Customer billings means the value of user spend in third-party apps processed by Google Play's billing system and net revenue means the value of customer billings retained by Google via its billing system.
[139] Google's response to section 69 notice [✂]. See Annex A for further information see Annex A on Market Outcomes
[140] CMA analysis of publicly available Cloudflare data. For more detail on Android browser shares see Annex A. For more detail on browser shares across all smartphones see Annex A [Annex A on Market Outcomes].
[141] Google's response to section 69 notice[✂]. Monthly active users is measured by Google as a snapshot of unique active users over the past 28 days on the first day of each month between January 2022 and December 2024.
[142] CMA analysis of publicly available Cloudflare data. For more detail on Android browser shares see Annex A.

5. THE SMS CONDITIONS: OVERVIEW

In this chapter we provide an overview of the substantive conditions set out in the Act for determining whether an undertaking has strategic market status (SMS). We also explain the approach we have taken to our assessment as to whether Google meets these conditions in respect of its Mobile Platform.

Our assessment is set out in the chapters which follow in which we consider: (i) the competitive constraints on Google's Mobile Platform from rival Mobile Ecosystems; (ii) competitive constraints on Google's mobile content distribution from alternatives within its Mobile Ecosystem, as well as non-mobile alternatives; and (iii) the final elements of our SEMP analysis as well as our POSS assessment.

For the reasons set out in this section, we provisionally consider that Google meets both SMS conditions in respect of its Mobile Platform. For the avoidance of doubt, the evidence set out in this section also supports the conclusion that Google would meet both SMS conditions in respect of each of the core components of the Mobile Platform.

5.1 This chapter covers:

(a) The legal framework and Guidance

(b) Our assessment approach.

The legal framework and Guidance

This section explains the legal framework and Guidance in respect of the SMS conditions. The CMA may designate an undertaking as having SMS in respect of a digital activity carried out by the undertaking where the CMA considers that the undertaking meets 'the SMS conditions' in respect of the digital activity.[143]

The SMS conditions are that the undertaking has:[144]

- substantial and entrenched market power; and
- a position of strategic significance,

in respect of the digital activity.

Substantial and entrenched market power

5.2 The first SMS condition requires an assessment of a firm's market power. This is largely an assessment of the available alternatives and the extent to which they

[143] Section 2(1)(b) of the Act.
[144] Section 2(2) of the Act.

provide a competitive constraint on the firm's product or service. This includes alternatives available in the present and possibilities for entry and expansion.

5.3 Our Guidance explains that:

(a) While 'substantial' refers to the extent of market power and 'entrenched' is intended to ensure a firm is not designated where its market power is only transient, our assessment of each element will typically draw on a common set of evidence.[145]

(b) Where a firm operates a two-sided (or multi-sided) platform serving distinct but related customer groups, we will generally consider both customer groups and the alternatives available to each; and the interlinkages between the sides of the platform, including the role of network effects.[146]

(c) Where the CMA 'groups' two or more of the firm's digital activities into a single digital activity, the SMS assessment will relate to the grouped activity as a whole. In practice, we may consider evidence relevant to market power of individual products and whether and how any interlinkages between these may contribute to market power across the digital activity, for example whether the firm's position in one activity in the group reinforces its position in another.[147]

5.4 To assess whether an undertaking has substantial and entrenched market power in respect of a digital activity, the CMA must also carry out a forward-looking assessment of a period of at least five years, taking into account developments that:[148]

(a) would be expected or foreseeable if the CMA did not designate the undertaking as having SMS in respect of the digital activity; and

(b) may affect the undertaking's conduct in carrying out the digital activity.

5.5 Our Guidance explains that when carrying out that forward-looking assessment, we will consider developments that may affect the firm's market power, including (1) market developments such as emerging technology, innovation and new entrants and (2) regulatory developments.[149]

5.6 We will not seek to make precise predictions about the likely development of the industry. Instead, we will consider whether relevant developments are likely to be sufficient in scope, timeliness and impact to eliminate the firm's substantial market

[145] CMA194, paragraph 2.54.
[146] CMA194, paragraph 2.52.
[147] CMA194, paragraph 2.65. See also paragraph 2.16.
[148] Section 5 of the Act.
[149] CMA194, paragraph 2.59.

power.[150] Where the CMA has found evidence that the firm has substantial market power at the time of the SMS investigation, and where there is no clear and convincing evidence that relevant developments will be likely to dissipate the firm's market power, this will generally support a finding that market power is entrenched.[151]

Position of Strategic Significance

5.7 An undertaking has a position of strategic significance in respect of a digital activity where one or more of the following conditions is met:[152]

(a) the undertaking has achieved a position of significant size or scale in respect of the digital activity;[153]

(b) a significant number of other undertakings use the digital activity as carried out by the undertaking in carrying on their business;

(c) the undertaking's position in respect of the digital activity would allow it to extend its market power to a range of other activities;

(d) the undertaking's position in respect of the digital activity allows it to determine or substantially influence the ways in which other undertakings conduct themselves, in respect of the digital activity or otherwise.

5.8 Our Guidance provides further details as to how the CMA will assess each condition.[154]

Our assessment approach

This section sets out our approach to assessing whether Google meets the SMS conditions in respect of its Mobile Platform. We set out the main users of Google's Mobile Platform as well as how we have considered the link between Google's Mobile Platform and wider Mobile Ecosystem. Finally we explain how our assessment is laid out in the chapters which follow.

[150] CMA194, paragraph 2.60.
[151] CMA194, paragraph 2.62.
[152] Section 6 of the Act.
[153] A position of significant size could refer to the number of users in relation to the relevant digital activity. A position of significant size or scale may also depend on the undertaking's size relative to the digital activity. There is no quantitative threshold for when size or scale can be considered 'significant'. Explanatory notes to the Act, paragraph 114. See also CMA194, paragraph 2.70.
[154] CMA194, paragraphs 2.68 to 2.75.

Users of Google's Mobile Platform

5.9 We set out in Chapter 4 that we consider Google's Mobile Platform to consist of its Android operating system, its Play Store and Chrome browser and Blink browser engine.

5.10 As set out in the Figure 5.1 below, we consider there to be three main groups relevant to the consideration of competition in relation to Google's Mobile Platform:

(a) **OEMs who produce mobile devices with Google's Mobile Platform pre-installed:** Google produces its own mobile devices, and it also licenses its Mobile Platform to be installed on mobile devices produced by third-party OEMs such as Samsung, Xiaomi and Oppo.[155]

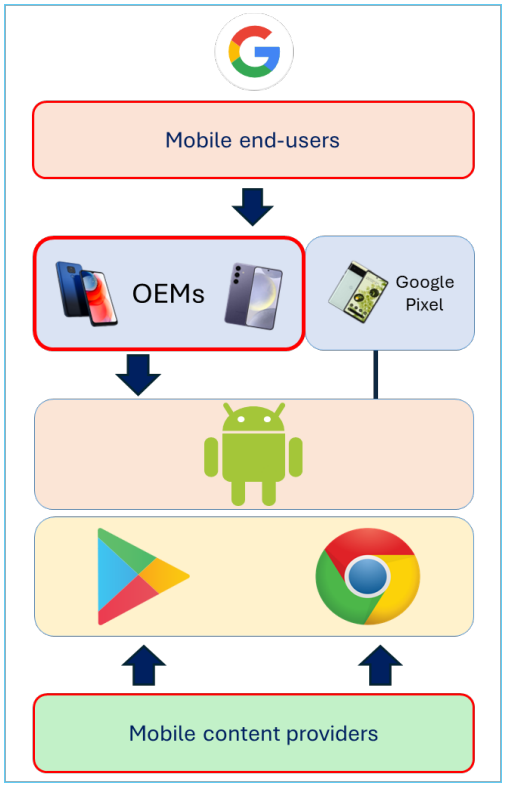
(b) **End-users who purchase mobile devices with Google's Mobile Platform pre-installed:** When an end-user purchases an Android mobile device from a third-party OEM or Google, it comes pre-loaded with Google's operating system, Android, Google's Play Store, and typically with the Chrome browser using the Blink browser engine.[156] Each of the elements of Google's Mobile Platform is typically used by end-users to access content on their mobile devices.

(c) **Content providers who use Google's Mobile Platform to provide content to end-users:** App developers and providers of web content use Google's Mobile Platform to provide their content and services to end-users.

5.11 As such, our assessment of the competitive constraint on Google's Mobile Platform will consider this from the perspective of all three of these groups, in line with the approach set out in our Guidance.[157]

[155] There are a series of agreements under which OEMs are allowed to use different elements of Google's Mobile Ecosystem. We provide more detail on these agreements in Annex C.
[156] The pre-installation of the Google Play Store on Android mobile devices in discussed in more detail in Annex C, and the Mobile Browsers Cloud Gaming Market Investigation found that Chrome was pre-installed on approximately 90 – 100% of Android devices in the UK between January 2022 and February 2024 (MBCG MI, paragraph 8.209).
[157] See CMA194, paragraph 2.52, which notes that '[i]n digital markets, many firms operate two-sided (or multi-sided) platforms which serve two (or more) distinct but related customer groups. Where the potential SMS firm operates such a platform, the CMA will generally consider both customer groups and the alternatives available to each. The CMA will also consider the interlinkages between the sides of the platform, including the role of network effects and any role these may play in creating barriers to entry.' We consider that paragraph is equally applicable where (as here) a platform contains three distinct but related customer groups.

Figure 5.1 The main user groups of Google's Mobile Platform



The link between the Mobile Platform and the wider Mobile Ecosystem

5.12 Mobile end-users purchasing a smartphone or tablet are buying into a Mobile Ecosystem which includes the mobile devices themselves, the Mobile Platform deployed on this hardware, as well as the digital content accessible via the platform. Our consumer survey results show that end-users purchasing a mobile device care about both hardware and software features across the wider Mobile Ecosystem.[158] When assessing the competitive constraint on Google's Mobile Platform, it is therefore often necessary to consider the broader Mobile Ecosystem (especially the mobile device hardware), rather than only focus on the core software components that make up the Mobile Platform. This is reflected in our assessment.

5.13 Similarly, a wide range of digital content is accessible within Google's Mobile Ecosystem, including many products and services provided by third parties. Some of these apps could themselves provide a competitive constraint on Google's Mobile Platform, or elements within it like the Play Store or Chrome. For example, Mozilla's Firefox browser is offered as an alternative to Google's Chrome browser within Google's Mobile Ecosystem. We therefore also take this into account in our

[158] For example, our consumer survey found that important factors when choosing a smartphone included the following: (i) 50% of iOS users and 53% of Android smartphone users mentioned 'camera'; (ii) 46% of iOS users and 56% of Android smartphone users mentioned 'battery life'; (iii) 41% of iOS users and 50% of Android smartphone users mentioned 'storage capacity/memory'; (iv) 36% of iOS users and 43% of Android smartphone users mentioned 'screen size'; (v) 23% of iOS users and 16% of Android smartphone users mentioned 'security features'; and (vi) 17% of iOS users and 11% of Android smartphone users mentioned 'privacy features'. Accent Mobile Consumer Survey, Figure 9.

assessment and consider the extent to which Google's Mobile Platform, or elements within it, face competition from within its broader Mobile Ecosystem.

Structure of our assessment

5.14 Our analysis of the SMS conditions is divided into three chapters.

5.15 The first SMS chapter of our analysis focuses on SEMP and **competitive constraints on Google's Mobile Platform from rival Mobile Ecosystems.** We consider the competitive constraints in relation to each group (OEMs, end-users and content providers) in turn.

5.16 We also consider barriers to entry and expansion for Mobile Platforms and the extent to which Google faces a competitive constraint from the threat of a new Mobile Platform emerging; as well as market and technological developments which could impact competition to Google's Mobile Platform over the next five years.

5.17 The second SMS chapter of our analysis focuses on SEMP and **competitive constraints on Google's mobile content distribution** from alternatives **within its Mobile Ecosystem** as well as **non-mobile alternatives**. As set out above, an Android mobile device comes pre-installed with Google's Mobile Platform. However, users may then access content in alternative ways, for example by choosing to use a third-party alternative to Google's Chrome browser. This section therefore focuses on alternatives to Google's Native App Distribution and alternatives to Google's Mobile Browser and Browser Engine. We also consider the extent of constraint exerted by non-mobile alternatives such as games consoles and desktop browsers. Finally, we consider the extent of any current competitive constraint from alternative content distribution and market and technological developments which could impact this over the next five years.

5.18 The third SMS chapter sets out the final elements of our SEMP analysis – regulatory developments and profitability analysis. It then presents our assessment of whether Google has a position of strategic significance, before **concluding on whether Google meets both SMS conditions.**

5.19 Our assessment draws on an analysis of shares of supply in mobile operating systems, evidence from Google's internal documents, evidence from third parties, data from International Data Corporation (**IDC**), and our consumer survey.

6. SEMP: CONSTRAINTS ON GOOGLE'S MOBILE PLATFORM FROM RIVAL MOBILE ECOSYSTEMS

In this chapter, we consider the competitive constraints on Google's Mobile Platform from rival Mobile Ecosystems. We assess competition between Mobile Ecosystems for OEMs, end-users and for content providers and consider the constraint that this exerts on Google's Mobile Platform. We also consider the extent to which Google is constrained by the threat of entry and expansion of competing Mobile Ecosystems, and whether technological and market developments may exert a competitive constraint on Google's Mobile Platform, both now and in the future.

We provisionally conclude that Google's Mobile Platform faces limited competitive constraint from rival Mobile Ecosystems. Although there is evidence of competition between Google's and Apple's Mobile Ecosystems, the overall constraint imposed by Apple on Google's Mobile Platform is limited. Other non-Apple Mobile Ecosystems do not impose a material competitive constraint and there are significant barriers to entry and expansion. In addition, we provisionally find that expected or foreseeable market and technological developments such as AI, connected devices and AR/VR products which may have an effect on Mobile Ecosystems are unlikely to be sufficient in scope, timeliness and impact to alter these findings in the next five years.

6.1 The analysis in this section is structured as follows. We assess the extent to which Google's Mobile Platform is constrained by considering:

(a) The threat of OEMs switching to license another Mobile Platform on the mobile devices they manufacture;

(b) Competition between Mobile Ecosystems for end-users;

(c) Competition between Mobile Ecosystems for content providers;

(d) The threat of entry or expansion by rival Mobile Platforms; and

(e) Competition which may emerge from market and technological developments.

6.2 Finally, we provisionally conclude on the competitive constraint on Google's Mobile Platform from rival Mobile Ecosystems.

Competition for OEMs

This section assesses the extent to which Google's Mobile Platform is constrained by the threat of OEMs switching to license another Mobile Platform on the mobile devices they manufacture. We provisionally conclude that Google is the only licensable Mobile Platform available and it faces extremely limited constraint from the threat of OEMs switching to license a different Mobile Platform. This allows Google to control the use of its Mobile Platform and the placement and promotion of its broader services on Android mobile devices.

6.3 In this section, we first explain the role of third-party OEMs in the supply chain for Android mobile devices in the context of Google's business model. We then consider the extent to which there are alternatives available to OEMs and the implications for their agreements with Google.

Role of third-party OEMs

6.4 Until 2016, Google did not manufacture any of its own mobile devices. Google established its position in mobile by developing the Google Mobile Platform and licensing it to multiple third-party mobile device manufacturers. This approach of 'partnering' with multiple OEMs helped Google to quickly spread the adoption of its Google Mobile Platform and contributed to its success as Android was able to reach a critical mass of end-users and content providers.[159] Google has manufactured its own mobile devices (Pixel devices) since 2016 but these only account for a small proportion of Android devices[160] and Google chooses to continue to use third-party OEMs to manufacture and distribute almost all mobile devices using its Google Mobile Platform.

6.5 As set out Chapter 2, Google's main source of revenue comes from selling digital advertising, primarily search advertising.[161] Mobile devices are a key gateway through which users search the internet. They generally have apps preinstalled that include search access points, such as browsers, search apps and widgets, and voice assistants. Google's Mobile Ecosystem supports its search business, as it facilitates the promotion of Google's products and services related to Google search or even allows for Google's search engine to be set or selected as the default search app or search engine within a mobile browser. Being the preset default general search engine is particularly valuable because consumers rarely change the preset default.[162]

[159] We explain the importance of indirect network effects within the 'Barriers to entry and expansion in Mobile Platforms' section below.
[160] Pixel mobile devices accounted for [0 - 5%] [✂] of active Android devices in the UK in 2024. CMA analysis based on Google's response to the CMA's section 69 notice [✂].
[161] For more detail see Annex B.
[162] For more detail see SMS Proposed Decision in respect of Google's general search services, User access and default positions section (paragraphs 5.134 to 5.154).

6.6 The OEM plays a role in deciding how its mobile devices are set up (including which apps are preinstalled and the selection of defaults). However, OEMs are required to enter into a series of agreements with Google if they wish to (i) use the Android operating system, (ii) install the Play Store or at least one of Google's other first party apps and (iii) be eligible to receive payments from Google.[163] These agreements are relatively complex and vary across OEMs and even across mobile devices for a given OEM. They act to specify how Google's Mobile Platform can be used and detail the payments which OEMs can receive in return for preinstalling, setting as a default or otherwise promoting Google's products and services. We provide more detail on Google's agreements with OEMs in Annex C.

Alternatives available to OEMs

6.7 We find that there is extremely limited constraint on Google from the risk that OEMs will switch their mobile device manufacturing to support another Mobile Platform for the following reasons:

(a) Third-party OEMs have told us that **Android is the only established licensable mobile operating system** and that no licensable alternatives to Android are expected to emerge in the UK over the next five years.[164] We explain in the 'Shares of supply' and 'Barriers to entry and expansion in Mobile Platforms' sections below that only the Mobile Platforms of Amazon and Huawei (in China) have gained a significant number of users. We also note that: (i) Amazon confirmed it has no plans to [✂];[165] and (ii) Huawei submitted that it is subject to constraints on its ability to compete in the UK [✂].[166]

(b) We do not expect any new Mobile Platforms to emerge over the next five years due to there being high barriers to entry and expansion as set out in the 'Barriers to entry and expansion in Mobile Platforms' section below. In particular, we note that OEMs are unlikely to switch to a new Mobile Platform provider as: (i) it is unlikely to offer the mobile content which end-users want;[167] (ii) OEMs would face significant financial[168] and resource/time[169]

[163] [✂]; and 3 responses to section 69 notices: [✂].
[164] 8 responses to section 69 notices: [✂].
[165] Amazon's response to section 69 notice [✂].
[166] As explained in the 'Competition from non-Apple Mobile Platforms for end-users' section, US legislation from May 2019 meant that Huawei could no longer access Google's apps and services, including GMS. The last Huawei smartphone device model was sold in early 2023, and subsequently no new Huawei smartphone models have been available in the UK market. Huawei's response to section 69 notice [✂].
[167] We explain in the 'Barriers to entry and expansion in Mobile Platforms' section below that the provision of content is strongly influenced by indirect network effects.
[168] 3 responses to section 69 notices: [✂].; [✂].; and [✂].
[169] 3 responses to section 69 notices: [✂].; [✂].; and [✂].

costs if they switched away; and (iii) the new provider would be unlikely to be able to replicate Google's payments.[170]

6.8 Conversely, Google has a range of different OEMs that it can partner with and the presence of Google's Pixel devices shows that it is also able to manufacture its own mobile devices.

6.9 As a result, we find that Google is in a position of relative strength when entering into agreements with third-party OEMs. We reviewed Google's contracts with the five largest Android OEMs in the UK and note that each of them had elected to enter all agreements offered by Google.[171]

6.10 We consider that Google faces extremely limited constraint from the threat of OEMs switching to license a different Mobile Platform. This results in Google having substantial market power in its negotiations with OEMs, allowing it to control the use of its Mobile Platform and the placement and promotion of its broader services. As we discuss further below, this in turn strengthens the position of Google's Mobile Platform from an end-user facing and content-provider facing perspective and raises barriers to entry and expansion for potential rivals who could provide a constraint on part or all of Google's Mobile Platform.

6.11 While Google has limited involvement in the pricing and distribution of Android mobile devices, as set out in Chapter 4, we consider that competition substantially takes place for the bundled product of a Mobile Platform with the associated mobile device and so although our focus is on Google's Mobile Platform, we have considered the role of Android mobile devices as part of our assessment where appropriate.

Competition for end-users

This section assesses the extent to which Google's Mobile Platform faces competition for end-users from rival Mobile Ecosystems. We provisionally conclude that Google's Mobile Platform faces limited constraint when competing for end-users.

Our analysis of shares of supply demonstrate that Google and Apple have held high and stable shares over a sustained period, with other Mobile Ecosystems accounting for only a small share. In addition to the stable duopoly, we find that the two largest Mobile Ecosystems have a different focus, with Apple holding a greater share of higher-priced mobile devices, and Google's Android holding a larger share of the sale of lower-priced mobile devices, which limits the extent to which they compete head-on for users.

[170] As described in more detail in Annex C, the CMA estimates that in 2024 Google made net payments in respect of UK devices to each of the five largest Android OEMs in the UK in the range of £[0–50] million [✂] to £[100–200] million [✂]. CMA analysis [✂].
[171] [✂]. According to CMA analysis of Statcounter data (Mobile Vendor Market Share United Kingdom | Statcounter Global Stats), these five OEMs accounted for around 75% of Android smartphones in 2024 [✂].

Consumer behaviour in the context of substantial barriers to switching further dampens competition and we find that end-users are often 'sticky' and disinclined to switch. We also find that revenue sharing agreements between Apple and Google limit their incentive to compete for users. Considered in the round, we find that these factors result in limited competition between Apple's and Google's Mobile Platforms. In line with this, when considering evidence on outcomes, we observe limited competition on price and quality between the two.

The only other Mobile Ecosystem with a material share of supply is Amazon. We consider that the evidence on market features and outcomes points towards it providing a weak constraint on Google as it only supplies tablets and Amazon's tablets do not have access to the suite of Google's popular apps through Google Mobile Services (**GMS**).[172]

6.12 The section is structured as follows:

(a) First, we set out what we understand to be the key parameters of competition for mobile end-users;

(b) Second, we consider Google's share of supply in Mobile Platforms relative to its rivals.

(c) Third, we assess the competitive constraint imposed on Google by Apple's Mobile Platform. This is divided into four sections:

(i) The level of differentiation between Google's and Apple's Mobile Ecosystems;

(ii) The level of switching by end-users between Google and Apple, with a particular focus on premium end-users;

(iii) Outcomes of competition in terms of price and quality; and

(iv) The impact of Google's agreements with Apple.

(d) Fourth, we assess the competitive constraint imposed on Google by other non-Apple Mobile Platforms like Amazon and Huawei.

(e) Finally, we provisionally conclude on competition for end-users.

6.13 As set out in Chapter 4, we consider that smartphones and tablets using Google's Mobile Platform differ slightly in terms of how they are consumed by users, mainly relating to certain differences in use case. We have assessed competition for users with this in mind and draw out below any differences in the evidence we have gathered for the two types of devices.

[172] GMS is a suite of Google applications and APIs that come pre-installed on Android mobile devices.

6.14 Before we assess the extent of competition from Apple, we first set out what we understand to be the key parameters of competition for mobile end-users.

Parameters of competition for end-users

6.15 With respect to a mobile end-user's purchase of a mobile device, we note that an end-user does not pick a Mobile Platform in isolation, but rather chooses a Mobile Ecosystem, considering the mobile device, the Mobile Platform and the content that can be accessed via that Mobile Platform. We have therefore set out the parameters of competition in relation to the Mobile Ecosystem but explained which parameters are mainly related to the Mobile Platform and therefore to our SEMP assessment.

6.16 Based on evidence from Google, third parties, and from our consumer survey, we consider that Google competes with alternative suppliers of Mobile Ecosystems over the following parameters.[173]

(a) **Price –** This includes both the price of the mobile device (which Google only sets directly with respect to its Pixel devices) and the price of other fees more directly related to the Mobile Platform, like the cost of content consumed. As discussed in more detail in the 'Competition from Google for end-users: Level of differentiation' section, our consumer survey showed that price was an important factor in users' smartphone purchase decision. The level of other fees within the Mobile Ecosystem appears relatively unimportant with only 3% iOS users and 4% of Android smartphone users selecting 'cost of apps/app subscriptions available on the device' as an important factor in their purchase decision.[174]

(b) **Quality –** End-users care about a number of factors related to the quality of Mobile Ecosystems, including:

(i) Features, functionality and performance: This includes factors such as the ease of use, security and privacy features, battery life, camera quality and screen size among others.[175] Manufacturers and Mobile Platform providers compete by innovating to provide new or improve existing features and functionalities.

[173] Google's responses to section 69 notices: [✂]; Apple's response to invitation to comment, pages 2, 3 and 5. 3 responses to section 69 notices: [✂]; [✂]; Accent Mobile Consumer Survey.
[174] Accent Mobile Consumer Survey, Figure 9.
[175] For example, our consumer survey found that important factors when choosing a smartphone included the following: (i) 50% of iOS users and 53% of Android smartphone users mentioned 'camera'; (ii) 46% of iOS users and 56% of Android smartphone users mentioned 'battery life'; (iii) 41% of iOS users and 50% of Android smartphone users mentioned 'storage capacity/memory'; (iv) 36% of iOS users and 43% of Android smartphone users mentioned 'screen size'; (v) 23% of iOS users and 16% of Android smartphone users mentioned 'security features'; and (vi) 17% of iOS users and 11% of Android smartphone users mentioned 'privacy features'. Accent Mobile Consumer Survey, Figure 9.

(ii) Content available on their devices: generally, Mobile Ecosystems that allow end-users to access more and better-quality content, whether via native apps or mobile browsers, will be more attractive to end-users. This will primarily depend on the app store(s) available to end-users on that mobile device.

(iii) Interoperability: for many end-users, the ability of the Mobile Platform to interoperate with a range of other devices that they have, be their other mobile devices or 'connected' devices such as smart watches, is an important factor. For example, our consumer survey found that 39% of iOS users and 20% of Android smartphone users cited 'compatibility with other personal devices' as an important reason for purchasing their smartphone.[176]

(c) **Brand** - For some end-users, the brand of the Mobile Ecosystem, including the associated mobile operating system, is an important factor in their choice of mobile device. End-users' perceptions of each brand will be driven by a variety of factors including past user experience, marketing and the parameters of competition outlined above. Our consumer survey found that 57% of iOS users and 45% of Android smartphone users mentioned brand as an important factor in their smartphone purchase decision, with 24% of iOS users and 12% of Android smartphone users selecting it as the most important factor.[177][178]

6.17 We focus on these parameters in our assessment of the competitive constraint on Google's Mobile Platform set out below.

Shares of supply

6.18 In this section, we set out shares of supply in the UK based on the Mobile Ecosystem used by end-users.[179] We explain our methodology and the data we have used to calculate shares of supply in Annex A, including analysis for smartphones and tablets separately.[180]

[176] Accent Mobile Consumer Survey, Figure 9.
[177] Accent Mobile Consumer Survey, Figure 9, Figure 12, Figure 13.
[178] Our consumer survey results also indicate that the features of brand that are important to users are familiarity (cited by 24% of respondents), ease of use (cited by 23% of respondents), compatibility with other devices (cited by 16% of respondents) and trustworthiness/reliability (cited by 16% of respondents). Source: Accent Mobile Consumer Survey, Figure 14. Responses were unprompted.
[179] As set out in Chapter 4, a Mobile Ecosystem includes the Mobile Platform, the mobile devices themselves, and the digital content accessible via the platform. Google's Mobile Ecosystem is offered across both smartphones and tablets, and we consider users effectively make a choice as to which Mobile Ecosystem they use when purchasing a mobile device as that device will come pre-loaded with an operating system associated with a given ecosystem. Thus, the number of users of a given operating system equals the users of the corresponding Mobile Ecosystem. We explain our methodology and the data we have used to calculate shares of supply in Annex A.
[180] In summary, this indicates that (i) for smartphones Google and Apple hold an effective duopoly in the UK. Smartphone suppliers using alternative Mobile Ecosystems have achieved negligible shares of supply (<1%). We find that the duopoly has remained stable with little change over a sustained period of time and this trend is consistent with a

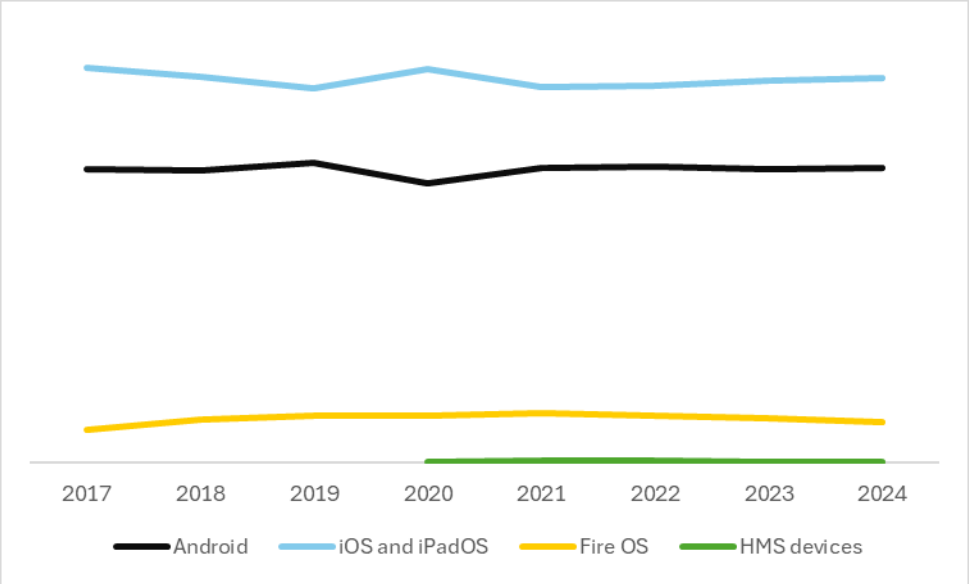
6.19 Google's Mobile Ecosystem has accounted for a persistently material and stable share of supply in each of the last eight years. Figure 1.1 shows that, based on the volume of active mobile devices in the UK, Google's and Apple's Mobile Ecosystems have been the two largest players in terms of shares of supply in the UK in the period 2017 to 2024.[181] Specifically:

(a) Google's Mobile Ecosystem has accounted for between [30 – 40%] [✂] and [40 – 50%] [✂] of active mobile devices in each year;[182]

(b) Apple's Mobile Ecosystem has accounted for between [50 – 60%] [✂] of active mobile devices in each year;[183] and

(c) Amazon's Mobile Ecosystem has accounted for between [5 – 10%] [✂] of active mobile devices in each year.[184]

Figure 6.1: Mobile Ecosystem shares of supply based on volume of active smartphones and tablets in the UK (2017 – 2024)



Source: CMA analysis of data from market participants. Notes (i) For confidentiality purposes there is no y-axis on this graph. The lines plotted on the graph show the relative positions of market participants in terms of their shares of supply. (ii) HMS devices are devices that meet Google Android compatibility requirements but rely on Huawei's Huawei Mobile Services (instead of GMS). Huawei was only able to provide data from 2020.[185]

6.20 There are mobile devices active in the UK using Mobile Ecosystems other than those of Google and Apple, such as /e/, and CalyxOS. However, each account for

lack of effective competition; and (ii) for tablets, Google faces two competitors with non-negligible shares of supply (Apple and Amazon). Tablets using the Google Mobile Ecosystem have regularly had the second largest share of supply. We consider this is consistent with there being limited effective competition in tablets.

[181] The following shares have been calculated based on data from market participants. In particular: Apple's response to of section 69 notice [✂]; Google's response to section 69 notice [✂]; Amazon's response to section 69 notice [✂]; and Huawei's response to section 69 notice [✂].

[182] CMA analysis of data from market participants including Google's response to section 69 notice [✂].

[183] CMA analysis of data from market participants including Apple's response to section 69 notice [✂].

[184] CMA analysis of data from market participants including Amazon's response to section 69 notice [✂].

[185] MEMS, page 30, paragraph 3.6.

a negligible number of active mobile device users. We have found that there is no operating system provider in active mobile devices besides Google, Apple and Amazon that has a share of supply of more than [0 – 5%] [✂] in any of the last five years,[186] and the data collected on Huawei's HMS devices indicates that it represented [0 – 5%] [✂] of active mobile devices since 2020.[187]

6.21 While our assessment below includes consideration of the constraint from other Mobile Platforms, the shares of supply data illustrate that Apple has consistently been the only sizeable competitor to Google's Mobile Ecosystem and the two have remained the strongest players in Mobile Ecosystems by some distance for at least the last seven years. The shares of supply analysis therefore indicates that the two have acted as a stable duopoly over a substantial period of time.

6.22 In the following sections (in particular, 'Competition to Google's Mobile Platform arising from other technological developments' and 'Regulatory developments' in Chapter 8), we find there are no foreseeable or expected market or technological developments that are likely to significantly change Google's position, such that we do not anticipate substantial change to these shares of supply over the next five years.

Competition from Apple's Mobile Platform for end-users

6.23 Given our finding that Google and Apple have acted as a stable duopoly for a number of years, this section considers evidence on the constraint on Google from Apple's Mobile Platform when competing for end-users. As set out earlier, our analysis here is split into four sub-sections:

(a) The level of differentiation between Apple and Google's Mobile Ecosystems;

(b) The level of switching by end-users between Google and Apple;

(c) The outcomes we observe in terms of competition on price and quality; and

(d) The impact of Google's agreements with Apple.

[186] CMA analysis based on data from market participants Apple's response to section 69 notice [✂]; Google's response to section 69 notice [✂]; Huawei's response to section 69 notice [✂]; and Statcounter data (see Mobile & Tablet Operating System Market Share United Kingdom | Statcounter Global Stats).
[187] Huawei was only able to provide this data from 2020 due to the availability of data in its database. CMA analysis of data from market participants based on Huawei's response to section 69 notice [✂].

Competition from Apple for end-users: Level of differentiation

6.24 We have analysed pricing data to determine whether Google and Apple compete for the same end-users or whether they are instead focused on different groups of customers.[188]

6.25 The analysis demonstrates that Apple and Google focus predominantly on different price segments, with Apple holding a higher share of higher-priced mobile devices, and Google holding a higher share of lower-priced mobile devices.[189] In particular, Figure 6.2 shows the proportion of new smartphones shipped into the UK by £100 price bands in 2024, separately for iOS and Android. As detailed further in Annex A, the IDC pricing data indicates that:

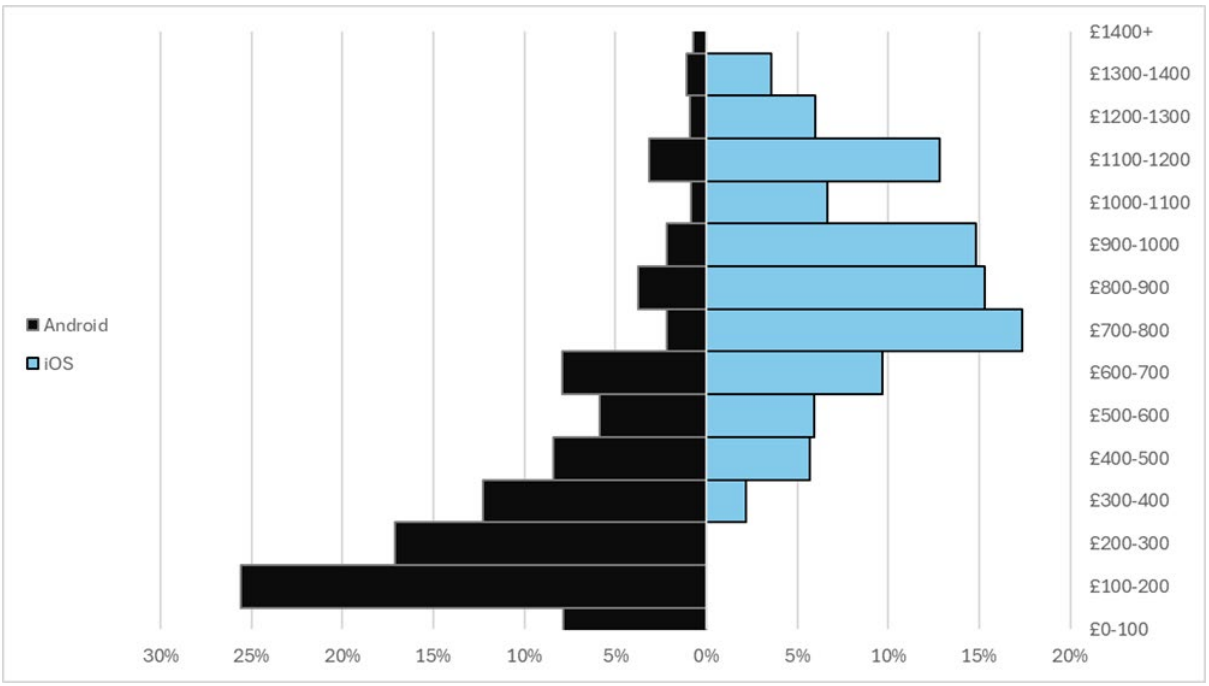
(a) No new iOS smartphones are sold for £300 or less, whereas smartphones using Google's Mobile Platform account for 100% of new mobile devices sold for less than £300. Further, 51% of new smartphones using Google's Mobile Platform were sold for £300 or less in 2024. [190]

(b) There is an overlap between iOS and Android in the range above £300. However, iOS smartphones accounted for 71% of new smartphone devices sold for over £300 in 2024, and new smartphones using Google's Mobile Platform accounted for 29%.[191]

(c) Apple is also absent from the very top price bracket of >£1400.[192]

[188] We have conducted an analysis of the prices of mobile devices using IDC data to inform our competitive assessment – focusing on comparing prices of devices using Google's Mobile Platform and Apple's mobile devices.
[189] We are unaware of any formal consistent definitions for whether, and if so how the smartphone market is segmented. However, we note that it is commonplace for stakeholders to refer to different 'segments', 'price bands' or 'tiers of devices'. Several of Google's internal documents break the market down into different price segments and contain [✂] Google's internal documents: [✂]. [✂].
[190] CMA analysis of IDC data from "IDC Worldwide Quarterly Mobile Phone Tracker".
[191] CMA analysis of IDC data from "IDC Worldwide Quarterly Mobile Phone Tracker".
[192] CMA analysis of IDC data from "IDC Worldwide Quarterly Mobile Phone Tracker". We note that the >£1400 price bracket represents a very small proportion of overall sales.

Figure 6.2: Proportion of smartphones shipped into the UK by £100 price bracket for iOS and Android respectively (2024)



Source: CMA analysis of IDC data from "IDC Worldwide Quarterly Mobile Phone Tracker". Notes: For the purposes of this analysis, we have not split out Huawei's HMS devices from devices using Google's Mobile Platform.

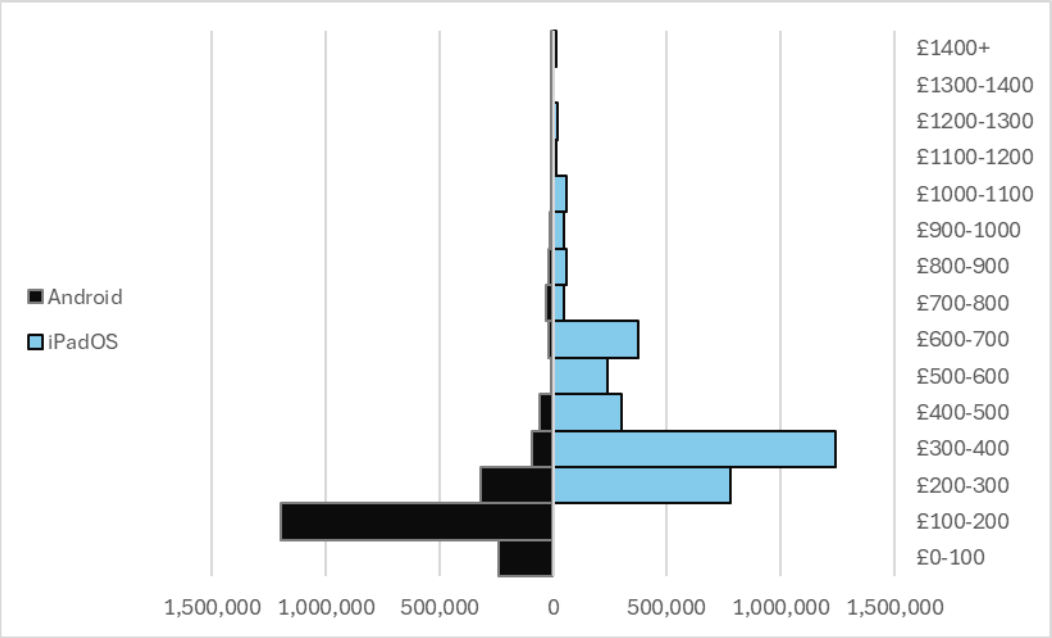
6.26 Figure 6.3 shows the volume of new tablets shipped into the UK by £100 price bands in 2024, separately for iPadOS and Android. As detailed further in Annex A, the IDC pricing data indicates that:

(a) The majority of new Android tablets (86%) were sold for £300 or less in 2024, compared to 24% of new Apple iPads.[193]

(b) There is more overlap between iPadOS and Android in the range above £300. However, 76% of new iPads sold for over £300 in 2024, compared to 14% of new Android tablets.[194]

[193] CMA analysis of IDC data from "IDC Worldwide Quarterly Personal Device Tracker"
[194] CMA analysis of IDC data from "IDC Worldwide Quarterly Personal Device Tracker"

Figure 6.3: Volume of tablets shipped into the UK by £100 price bracket for iPadOS and Android respectively (2024)



Source: CMA analysis of IDC data from "IDC Worldwide Quarterly Personal Device Tracker". Notes: For the purposes of this analysis, we have not split out Huawei's HMS devices from devices using Google's Mobile Platform.

6.27 Our provisional assessment that Google and Apple are focused predominantly on different price segments is also supported by Google's internal documents and submissions, our consumer survey and evidence from third parties:

(a) Google's internal documents are consistent with our pricing analysis, including two presentations which show that: [✂];[195] [✂][196]

(b) Our consumer survey results indicate that price is more important for Android smartphone users than iOS users, which is consistent with Google's Mobile Ecosystem holding a higher share of the sale of lower-priced mobile devices. For example, 58% of all Android smartphone users mentioned 'overall price' as an important factor in their decision to purchase a new smartphone, with 30% considering it the most important factor. In contrast, only 33% of iOS users mentioned it as an important factor, with 10% considering it the most important factor.[197] Similarly, 51% of Android smartphone users who did not switch to iOS at their last purchase mentioned iPhones being too expensive as a reason for not switching, compared to only 1% of iOS users who did not switch to Android reporting Android phones being too expensive as a reason for not switching. [198]

[195] Google's internal document, [✂]
[196] Google's internal document, [✂]
[197] Accent Mobile Consumer Survey, Figure 9, Figure 13, Figure 12.
[198]Accent Mobile Consumer Survey, Figure 36, Figure 35.

(c) Apple and Samsung submitted that mobile devices using Google's Mobile Platform and Apple mobile devices compete with one another, with Android and iOS devices available at most pricing points.[199] However, Samsung recognised that Apple is particularly strong in premium segments.[200] Other OEMs provided limited evidence on the extent to which iOS and Android mobile devices compete on price.[201]

Competition from Apple for end-users: End-user switching

6.28 We have found that Google and Apple's stable duopoly has been maintained over a substantial period of time and that they have a different focus across the market which limits the extent to which they compete head-on for users. This section considers the evidence on end-user switching, mainly based on our consumer survey evidence. We note that switching evidence alone may not provide a full picture of the level of competition and we have interpreted it carefully in the round alongside other evidence. We find that consumer behaviour further supports that there is limited competition between Google and Apple for end-users. In the context of substantial barriers to switching, we find that end-users are often 'sticky' and disinclined to switch from their current Mobile Ecosystem which further limits competition between the two Mobile Platforms.

6.29 Mobile end-users purchase a new mobile device relatively infrequently. Google submitted that UK end-users replace their mobile device approximately every two years.[202] However, evidence indicates that UK end-users have increasingly been holding on to their mobile devices for longer before replacing them, with most users replacing their smartphone devices every four years, compared to every two years five years ago.[203,204] In respect of tablet devices, evidence suggests UK end-users replace their tablets less frequently than smartphones, with around a third of tablet users replacing their devices every five to six years.[205] Once a user has purchased a mobile device, they are therefore likely to be locked in to that Mobile Ecosystem for a substantial period of time.

6.30 Furthermore, the large majority of device purchases relate to replacement mobile devices, meaning that most end-users are already currently within either Google's or Apple's Mobile Ecosystems.[206] This is especially the case for smartphones where most users purchase a replacement device, with our consumer survey

[199] Apple's response to section 69 notice [✂]; and Samsung's response to section 69 notice [✂].
[200] Samsung's response to the section 69 notice [✂].
[201] 3 responses to section 69 notices: [✂].
[202] Google's response to section 69 notice [✂].
[203] vodafone.co.uk/newscentre/press-release/this-is-your-phones-life-lifetime-service-promise/
[204] We also note that most mobile devices receive software and security updates for around five to seven years. Smartphone Security: Check How Long A Phone Will Receive Security Updates - Which?
[205] 45% of smartphone owners would rather upgrade than repair | YouGov
[206] Based on the shares of supply set out in the 'Shares of supply' section above.

finding that for only 1% of users is their current smartphone their first smartphone.[207,208]

Level of switching

6.31 Our consumer survey specifically considered the degree to which end-users moved, or considered moving, between Mobile Ecosystems when they last replaced their smartphone.[209,210] As shown in Figure 6.4, our consumer survey results show that, while there is some switching between Google's and Apple's Mobile Ecosystems, the amount of switching is relatively limited and the large majority of customers did not even consider the alternatives available to them when they last replaced their smartphone and simply chose between devices available within their current Mobile Ecosystem. In particular:

(a) For those users whose previous smartphone was based on Google's Android:

(i) 14% switched from Android to Apple's iOS.

(ii) 10% considered switching but ultimately did not do so.

(iii) 76% did not consider switching at all.

(b) For those users whose previous smartphone was an iPhone:

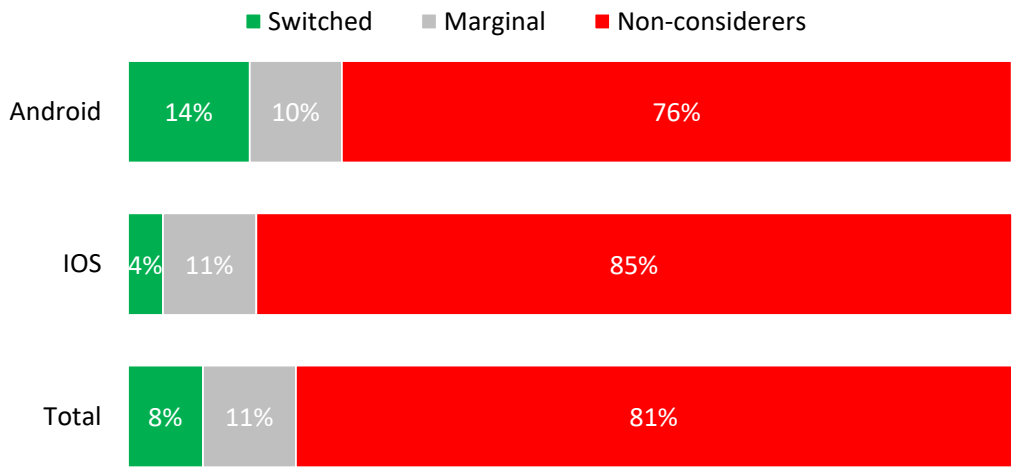
(i) 4% switched from iOS to Android.

(ii) 11% considered switching but ultimately did not do so.

(iii) 85% did not consider switching at all.[211]

[207] Accent Mobile Consumer Survey, page 27
[208] Our assessment of end-user switching focuses primarily on smartphones, due to the fact that smartphones account for around 80% of mobile devices in 2024 and the fact that the evidence we have received (including Google's internal switching estimates and RFI responses) has focused predominantly on smartphones. We draw out differences for tablets where relevant.
[209] The consumer survey undertaken by Accent Research used a random probability methodology and surveyed 2,851 smartphone users.
[210] Our consumer survey did not target tablet users but did ask some questions which about barriers to switching where the presence of devices linked to the user's operating system was an option users could choose. Further detail can be found in Accent Mobile Consumer Survey.
[211] Accent Mobile Consumer Survey, Figure 27

Figure 6.4: Switching status based on the smartphone a customer owned prior to their current one



Source: Accent Mobile Consumer Survey, Figure 27. Notes: Marginal users are users that considered switching operating system when purchasing a new smartphone but ultimately did not; Non-considerers are users that did not consider switching operating system when intending to buy a new smartphone; Switchers are users that switch operating system when purchasing a new phone.

6.32 These results show that end-users are less likely to switch from Apple's iOS smartphones to Google's Android than vice versa. However, the level of switching away from Google is still limited with over three quarters of users with an Android smartphone not considering switching from their existing Mobile Ecosystem.

6.33 Google's internal data indicates that in 2024 around: (i) [✂] [10 – 20%] of Android smartphone users switch to iOS at each purchase decision; and (ii) [✂] [10 – 20%] of iOS users switch to Android at each purchase decision.[212] It further noted that switching rates from Android to iOS are greater for higher-priced mobile devices with Android losing around [✂] [20 – 30%] of users to iOS for devices priced at $700.[213] Further, Google submitted that it is harder for users to switch from iOS to Android, [✂].[214]

6.34 We note that it is difficult to draw direct comparisons between the switching rates from our consumer survey and the switching rates from Google's internal data (as set out above), as these are based on different methodologies.[215] Nevertheless, we note that Google's submitted switching rates from Android smartphones to iOS are of a similar order of magnitude to those we find in our consumer survey.

[212] Google noted that this data subject to a number of assumptions (eg it is based only on users signed-in to their Google account) and stated figures should be treated as rough estimates only. Google's response to section 69 notice [✂].
[213] Google's position paper [✂].
[214] Google's position paper [✂].
[215] In particular: (i) our switching rates are based on survey data and represent the proportion of users who owned an Android smartphone at the time of purchasing their current smartphone and switched to an iPhone; and (ii) Google's estimates are based on their own user data and represent the proportion of Android users who purchased a new smartphone in the year 2024 and switched to an iPhone. Google's response to section 69 notice [✂].

6.35 We also asked third-party OEMs about user switching behaviour. Apple submitted that switching rates are material.[216] However, other OEMs submitted that there is limited switching between Mobile Ecosystems.[217,218]

6.36 There is little evidence to suggest that switching behaviour is likely to change over the next five years.

(a) Google submitted that switching tools have the potential to lead to a greater number of users switching between Mobile Ecosystems in future, while also making the Android platform a more attractive proposition for users switching between operating systems.[219]

(b) Apple submitted that given the dynamic nature of competition in mobile devices, it cannot predict how user switching will change over the next five years, but that given users can easily switch, switching rates could rapidly change depending on relative attractiveness of competing mobile devices.[220]

(c) Huawei considered that user switching behaviour was [✂].[221]

(d) Motorola anticipated that ecosystem loyalty would continue.[222]

(e) Xiaomi suggested that some Apple mobile device users might be tempted to switch if Android mobile devices continue to offer cutting-edge innovations, and conversely that Apple's innovations could further solidify Apple's position.[223]

Nature of switching

6.37 As set out earlier, evidence shows Google and Apple have differentiated offerings and focus on serving different device price tiers. The evidence indicates that switching, when it does occur, often involves users upgrading or downgrading into a different price segment, rather than switching between similarly priced mobile devices. We consider that this pattern is consistent with the differentiated focus of

[216] Apple's response to section 69 notice [✂].
[217] 4 responses to section 69 notices:[✂].
[218] We note that in response to the Invitation to Comment: (i) Chamber of Progress highlighted that switching between Apple's and Google's Ecosystems is viable and actively facilitated, for example by Google making core services like Chrome, Search, Gmail, and Maps available on Apple's mobile devices, which reduces switching costs for consumers (Chamber of Progress's response to invitation to comment dated 12 February 2025, pages 1 to 4.); and (ii) International Center for Law and Economics argued that there is high user churn between iOS and Android, with consumers frequently switching between the two and therefore not suffering from 'lock-in'. It further noted that data portability measures, such as Apple's 'Move to iOS' and Google's 'Data Transfer Tool', further reduce switching costs. (International Center for Law and Economics' response to invitation to comment dated 12 February 2025, page 3 to 6.)
[219] Google's response to section 69 notice [✂].
[220] Apple's response to section 69 notice [✂].
[221] Huawei's response to section 69 notice [✂].
[222] Motorola's response to section 69 notice [✂].
[223] Xiaomi's response to section 69 notice [✂].

Google's and Apple's Mobile Ecosystems and a more limited form of competition. For example:

(a) Google submitted a presentation from 2023 which illustrates that user switching typically occurs between market segments. The document indicates that [✂] while [✂].[224]

(b) A third-party report submitted by Apple suggests that Apple faces a limited threat of customers switching to Android when considering a similar premium mobile device price tier.[225]

6.38 This indicates that users that switch away from Google are often those who are less constrained by price and are able to upgrade to a more expensive mobile device and users switching to Google are more focused on price and are seeking a cheaper alternative to an Apple mobile device.

6.39 We note that this switching pattern is consistent with our consumer survey results which show that 51% of Android smartphone users that did not switch Mobile Ecosystem when purchasing a new phone mentioned iPhones being too expensive as a reason for not switching.[226,227]

Competition for premium users

6.40 Google submitted that the new mobile device market is growing, with a significant shift to the premium segment.[228] It noted that competition for premium users is intense and it competes hard to win these users over to Android.[229] In particular, it said switching rates from Android to iOS are greater for higher-priced mobile devices [✂].[230] It further stated that premium users have outsized importance and competition for these users results in innovation that benefits users of Android mobile devices in all price brackets.[231]

6.41 We have considered these submissions and assessed whether there is stronger competition for premium users which benefits all users of Google's Mobile Platform and whether there is a particularly strong incentive for Google to compete for premium users.

6.42 Firstly, as set out in the 'Competition from Apple for end-users: Level of differentiation' section above, we note our provisional assessment that Google and

[224] Google's internal document, [✂]. Whilst this document refers to global switchers, we note that switching patterns appear to be broadly consistent for the UK (for example see Google's internal document, [✂].
[225] Apple's internal document [✂].
[226] Accent Mobile Consumer Survey, Figure 36.
[227] In comparison, only 1% of iOS users who did not switch mentioned Android phones being too expensive as a reason for not switching. Accent Mobile Consumer Survey, Figure 35
[228] Google's position paper [✂].
[229] Google's position paper [✂].
[230] Google's position paper [✂].
[231] Google's position paper [✂].

Apple are focused predominantly on different price segments with Google focused on lower priced mobile devices and Apple on higher priced mobile devices. For the purposes of our analysis below, we have considered the premium segment as consisting of smartphones priced at more than £600,[232] where new iOS smartphones have a share of 82% and new Android smartphones have a share of 18%.

6.43 We do not find evidence overall that competition for the premium segment is especially strong. We note that:

(a) A number of Google's documents discuss competition with Apple for premium users [✂].[233] This indicates that, consistent with our broader findings, there is some competition with Apple for end-users.

(b) However, our consumer survey results show that premium users, when considering all users (both iOS and Android smartphones), were not more likely to switch operating system than non-premium users.[234,235]

(c) While our consumer survey results show that a higher proportion of Android smartphone users switch to iOS when they purchase a premium smartphone, we consider that this result is consistent with what we would expect to see based on the differentiation set out above. As discussed in the 'Nature of switching' section above, this does not mean that Apple and Google do not compete for end-users but suggests that they do not compete closely.

6.44 We note the following with respect to Google's submission that the premium segment holds an outsized importance which creates a strong incentive for Google to compete:

(a) We have considered how the number of premium users has changed over time. A number of Google internal documents refer to a 'premiumisation' trend in the market [✂].[236] However, our shares of supply analysis indicates that this is not the case when the threshold for what is defined as a 'premium' mobile device is adjusted for inflation. Our analysis of IDC data suggests that, when adjusted for inflation: (i) the share of mobile devices sold in the UK

[232] As set out in footnote 187, we are unaware of any formal consistent definitions for whether, and if so how the smartphone market is segmented. However, we note that it is commonplace for stakeholders to refer to different 'segments', 'price bands' or 'tiers of devices'. Several of Google's internal documents [✂] and contain [✂]. Google's internal documents: [✂][✂].
[233] Google's internal documents: [✂][✂].
[234] The percentage of users switching operating systems when they last purchased their current smartphone was similar for users with smartphones costing less than £300 (8%), £301-£600 (9%), £601-£900 (7%) and £901+ (9%). Accent Mobile Consumer Survey, Figure 32.
[235] Respondents were instructed to estimate the purchase price of their current phone from a range of price bands (price as new if gifted/refurbished). Discrete price band estimates are likely to contain measurement error. Error is likely to be greater where phones were purchased less recently, gifted or refurbished. Discrete price bands have been aggregated to address these issues.
[236] For example, a presentation from 2023 notes that [✂]. Google's internal document, [✂]. Similarly, a presentation from January 2024 states that [✂]. We note that Google [✂].

in the premium segment has slightly decreased between 2021 and 2024;[237] and (ii) Android's share of the premium segment in the UK has remained relatively stable over this period.[238]

(b) We recognise that on average a premium user accounts for greater revenue relative to a user in a lower segment. However, our analysis shows that significant revenues can still be generated from lower-end users. While the average Play service fee and search ads revenue per device for low-end Android device users is around half of that for high-end Android device users, low-end Android device users still generate [✂] of Google's total Play fee and search ads revenue.[239] In addition, it is commonplace that in differentiated markets firms choose to focus their efforts on segments where they expect to maximise their returns and it is not the case that firms will always congregate around the highest spending customers. Therefore, it does not follow that just because premium users account for greater revenue on average than low-end users, Google has an incentive to target those users. We note that Google's revenue-sharing agreements with Apple, as set out in 'Competition from Apple for end-users: Impact of Google's agreements with Apple' section below, limit Google's incentive to compete head-on with Apple as it risks undermining what is a financially and strategically important arrangement for both parties.

(c) To the extent that there are new features or improvements made to Google's Mobile Platform to attract premium users, many of these will benefit non-premium users where the changes are automatically applied universally across the Mobile Platform. However, we consider that non-premium users may value these improvements differently to premium users. For example, evidence from our consumer survey shows that non-premium users are unlikely to value the same factors that premium users do, with many Android smartphone users being particularly focused on the price of their mobile device.[240]

6.45 For these reasons and considering the evidence in the round, particularly relating to price segmentation, we consider that the evidence does not support Google's claim that there is intense competition for premium users nor that it has a particularly strong incentive to compete for premium mobile end-users.

[237] CMA analysis of IDC data indicates that: (i) in 2021, 52% of all smartphones were sold for more than £600; and (ii) in 2024, 49% of all smartphones were sold for more than £700 (£600 in 2021 is equivalent to approximately £720 in 2024, and we use £700 as IDC data is only available in £50 brackets).
[238] CMA analysis of IDC data indicates that: (i) in 2021, Android accounted for 14% of smartphones sold for more than £600 and iOS accounted for 86%; and (ii) in 2024, Android accounted for 14% of smartphones sold for more than £700 and iOS accounted for 86% (£600 in 2021 is equivalent to approximately £720 in 2024, and we use £700 as IDC data is only available in £50 brackets).
[239] Google's response to section 69 notice [✂].
[240] Accent Mobile Consumer Survey, Figure 9, Figure 13, Figure 12.

Consumer related drivers of the level of switching

6.46 We have also considered the factors driving these behaviours to better understand why end-users are often 'sticky' and disinclined to switch away from their current Mobile Ecosystem.

6.47 Evidence from our consumer survey, internal documents (from both Google and Apple) and third-party responses suggest the following factors may contribute to the lack of switching from Google's to Apple's Mobile Ecosystem.

(a) **Consumer disengagement**. Only 11% of users who had not switched considered switching Mobile Ecosystem during their most recent smartphone purchase, suggesting high levels of consumer disengagement.[241] In terms of reasoning for not switching, our consumer survey found that, of the users that did not switch, 33% of the iOS users and 38% of the Android smartphone users could not see significant benefits from switching, while 40% of those same iOS users and 23% of those Android smartphone users selected 'I just wanted a newer version of my previous phone'.[242] We consider that these responses are consistent with consumer disengagement.

(b) **User satisfaction**. Google submitted that switching rates should be seen in the context of the high levels of satisfaction that is reported in the consumer survey commissioned by the CMA in MEMS and that this is consistent with a competitive, well-functioning market.[243] Our consumer survey conducted for this investigation found that 47% of users that did not switch selected 'I was happy with/preferred my existing smartphone brand' as a reason for not switching.[244] However, while high satisfaction levels are one indicator of consumer experiences, they do not necessarily imply strong competition between mobile devices using Google's Mobile Platform and Apple's mobile devices. For example, a consumer that has never experienced the alternative Mobile Platform may not be fully informed on the options available. Additionally, while users may consider themselves satisfied based on current experience, that does not preclude that they could experience higher levels of satisfaction if there was greater competition between the Mobile Ecosystems (eg due to more innovations tailored to their preferences).

(c) **Brand loyalty**. Our consumer survey evidence suggests that brand is one of the main reasons why users decide not to change their Mobile Ecosystem. For example, our consumer survey found that 44% of Android smartphone users that did not switch and 50% of iOS users that did not switch were happy with their existing brand. Further, 35% of those Android smartphone

[241] Accent Mobile Consumer Survey, Figure 34.
[242] Accent Mobile Consumer Survey, Figure 35 and Figure 36
[243] Google's position paper [✂].
[244] Accent Mobile Consumer Survey, Table 13

users identified more closely with Android than iOS, and the reverse was true also for 36% of iOS users that did not switch.[245]

(d) **Barriers to switching**. Barriers to switching are factors that may cause users to perceive switching to be difficult or costly (eg because they would pose a 'hassle'), discouraging potential switchers, and/or impose actual costs on users that do switch (eg financial, time or learning costs). Our findings on barriers to switching are as follows:

(i) We have found substantial evidence from our consumer survey, internal documents (from both Google and Apple) and third-party responses of material perceived barriers to switching related to: (i) learning costs associated with switching;[246] (ii) transferring data and apps across mobile devices;[247] and (iii) losing access to other devices (including connected devices) and having a worse experience of interacting with friends' and family's devices.[248,249]

(ii) Our consumer survey results indicate that material perceived barriers apply to switching both to iOS and to Android. Barriers appear to be more significant for iOS users that did not consider switching than for the equivalent Android smartphone users, but 54% of Android smartphone users that did not consider switching mentioned at least one barrier.[250]

(iii) We also consider the fact that Apple does not supply smartphones under £300 is, in and of itself, a significant barrier to switching for lower-end Android users. We note that 51% of Android smartphone users that did not switch operating system when purchasing a new smartphone mentioned iPhones being too expensive as a reason for not switching. We consider that this implies that iOS imposes limited constraint on Android for a large proportion of Android users.

(iv) As well as perceived barriers to switching, our consumer survey found that 35% of all users that switched to iOS or Android experienced some difficulty with at least one aspect of the switching journey, implying barriers to switching impose at least some actual costs on users that do

[245] Accent Mobile Consumer Survey, Figure 35 and Figure 36
[246] For example: (i) a Google internal document from October 2022 stated: [✂] (Google's internal document [✂] and (ii) an Apple internal document from September 2023 [✂].Apple's internal document, [✂].
[247] For example: (i) an internal document submitted by Google from May 2022 stated [✂]. Google's internal document, [✂] and (ii) the Apple internal document cited in footnote 244 also found [✂] Apple's internal document, [✂].
[248] A number of Google internal documents recognised the importance of connected devices and the broader ecosystem for user retention. For example: (i) an undated internal document submitted by Google stated that [✂]. Google's internal document, [✂] ; and (ii) another Google internal document [✂]. Google's internal document [✂].
[249] Accent Mobile Consumer Survey, Table 13, Figure 35 and Figure 36.
[250] For iOS users that did not consider switching, 72% mentioned at least one barrier. Accent Mobile Consumer Survey, page 43.

switch.[251] We also found that actual barriers faced by those switching were similar to the perceived barriers among users that did not switch.[252]

(v) Finally, we received little evidence to suggest that these barriers are likely to weaken over the next five years. Apple and Google told us they are jointly working on a new data migration tool that will provide a means for users to transfer data between Apple's and Google's Mobile Ecosystems when switching their mobile device. However, [✂] there is still much uncertainty around the new tool (including what data it will transfer and the timeline for its development).[253]

Competition from Apple for end-users: Outcomes of competition in terms of price and quality

6.48 So far, we consider the evidence has shown that Google's and Apple's Mobile Platforms have acted as a stable duopoly for a significant period of time, pricing data demonstrates that their offerings are differentiated and therefore they only compete head-on to a limited extent. We have also considered user switching behaviour and found it demonstrates that users are 'sticky' and rarely consider switching between Mobile Ecosystems. We now consider the evidence on competitive outcomes in terms of price and quality.

Competition on price

6.49 Our overall assessment of the extent to which Google competes with Apple on price is set out above in in the 'Competition from Apple for end-users: Level of differentiation' section.

6.50 We have also considered whether there was evidence of price competition with Apple in Google's internal documents. However, we found no evidence of Google adjusting its prices in response to competition from Apple in its internal documents.

6.51 We also note that Google does not directly control the price of most Android mobile devices. Google's own Pixel devices make up only a small proportion of

[251] Accent Mobile Consumer Survey, page 64.
[252] In particular, the percentage of users that did not switch who were concerned with specific barriers to switching was similar to the percentage of users that did switch who experienced difficulties with those barriers. For example: (i) 18% of users that did not switch were concerned about losing data and 19% of users that did switch had experienced some difficulty in transferring data; and (ii) 8% of users that did not switch were concerned about accessing apps they used and 10% of users that did switch had experienced difficulty accessing their apps. The exception to this pattern was in reconnecting to other devices, where concerns of users that did not switch were notably greater than the experiences of those who did switch (25% of users who did not switch selected 'I had other devices linked to my current phone/operating system' as a reason for not switching; by comparison, just 6% of users who did switch experienced difficulty with 'reconnecting to other devices (eg smartwatch, smart home devices, wireless headphones)'.) Accent Mobile Consumer Survey, Table 13, Figure 50.
[253] Google's response to section 69 notice [✂]; and Apple's response to section 69 notice [✂].

devices in the Android Mobile Ecosystem and the majority of Android mobile devices are supplied through third-party OEMs who set the price for their Android devices.[254]

Competition on quality

6.52 As set out in the 'parameters of competition' section above, users will also focus on the quality of the Mobile Ecosystem both in terms of the quality of the mobile device, the Mobile Platform and features of the wider Mobile Ecosystem. We have focused our analysis mainly on the quality of the Mobile Platform given Google only directly controls mobile device quality with respect to its Pixel devices. We have considered in our assessment: (i) whether there is evidence of material improvements in the quality of Google's Mobile Platform over time; and (ii) what is driving any such improvements and whether they are being driven by Google responding to competitive pressure.

6.53 Google submitted that it is under constant pressure to innovate Android to compete with Apple.[255] It stated that the releases of iOS and Android generally closely track each other, and that competition on innovation, features, and quality between Android and iOS has been described variously by industry commentators as an 'eternal cycle' and 'one of the most hotly-contested battles in the entire mobile tech space'.[256] Google also submitted that the Play Store is important for competition between the Android and iOS Mobile Platforms because the presence of an attractive app store (including one that is pre-installed)[257] is an important factor in a user's choice of mobile operating system platform. Google submitted several examples to indicate that it has responded to competition from the iOS App Store.[258]

6.54 The evidence demonstrates that both Google and Apple have made improvements to the quality of their Mobile Platforms over time.[259] These include: (i) new Android and iOS or iPadOS releases; (ii) introducing AI functionality (ie Google's Gemini and Apple's Apple Intelligence); (iii) improvements to the quality and quantity of content, services and features offered through app stores and browsers; and (iv) greater focus on security and privacy.

6.55 We consider there are factors other than competition which are likely driving some or all of Google's improvements to its Mobile Platform. Google is incentivised to

[254] Google's Pixel devices accounted for [0 – 5%] [✂] of active Android devices in the UK in 2024. CMA analysis based on Google's response to section 69 notice [✂]. Annex B.
[255] Google's response to section 69 notice [✂].
[256] Google's response to section 69 notice [✂].
[257] Google's response to section 69 notice [✂].
[258] Google's response to section 69 notice [✂].
[259] Google's response to section 69 notice [✂]; and Apple's response to section 69 notice [✂].

generate more money from the existing user-base of its Mobile Platform.[260] [261] Mobile Platform suppliers have an incentive to innovate in ways that increase the usage of mobile devices by end-users (eg in terms of engagement or time spent) or increase the offerings available through apps (if innovations allow app developers to offer additional services or features that are charged for). This is particularly true for Google who makes a substantial proportion of its revenue and profits in mobile from search advertising services, as set out in Annex B. This means Google has a strong incentive to innovate to increase usage of the mobile platform to maximise revenues from general search services and we note that some of the main AI features Google has introduced to its platform so far are innovations linked to search.[262]

6.56 We also consider that competition is unlikely to be the main factor driving improvements because:

(a) As discussed in the 'Competition from Apple for end-users: End-user switching' section, we consider that user switching between Google's and Apple's Mobile Ecosystems imposes only a limited competitive constraint on Google. In particular, we found that both Mobile Ecosystems have 'sticky' customer bases, with the vast majority of customers not even considering the alternatives available to them when they last replaced their smartphone.

(b) While Google's internal documents show that it monitors the offerings on Apple mobile devices, we have found limited evidence that Google changes its commercial strategy in response to competitive threats to Android from Apple, including with respect to content distribution on its Mobile Ecosystem.[263]

(c) From the point of view of app store innovation and improvements, the evidence suggests this is not a significant factor in driving user switching. Evidence from our consumer survey indicates that only 14% of users who switched selected 'I thought iOS/Android had access to a wider range of mobile app/the apps I wanted to use' as a reason for switching (8th most popular reason cited) and an even smaller proportion of users (2%) cited this as the most important factor.[264]

[260] We note that improvements driven by these other incentives are less likely to be beneficial for customers over time as it is competition and the process of rivalry to win customers over time that delivers quality improvements and innovations that are aligned with customer preferences and maximise consumer welfare.
[261] MEMS, paragraph 3.73.
[262] For example, Google stated that its new Gemini model customised for Google Search 'brings together Gemini's advanced capabilities — including multi-step reasoning, planning and multimodality — with our best-in-class Search systems'. Google I/O 2024: New generative AI experiences in Search
[263] There is some evidence from Google's internal documents of it [✂] and [✂].
Some internal documents also contain references to the [✂]. However, in the context of more direct references to [✂], numerous Google's internal documents highlight [✂].
[264] Accent Mobile Consumer Survey, Technical Use and Behaviour Data Tables, Q24.

(d) The CMA's previous work has identified a range of areas where innovations have been held back in Mobile Ecosystems due to a lack of competition. For example, the MBCG MI found that the limited competition faced by Chrome on Android meant that Google has less incentive to compete vigorously for users by offering features such as browser extensions.[265] We consider that this evidence is not compatible with strong competition driving incentives to improve the quality of Apple's and Google's Mobile Platforms.

6.57 We consider that quality improvements do not necessarily indicate that Google's Mobile Platform is facing material competitive constraints. Indeed, weak competition does not necessarily mean these kinds of improvements and innovations will stop entirely and, as explained above, they are also driven by factors other than competition. The most damaging impact of sustained weak competition in key digital markets is the brake that this applies to the pace of innovation and progress over time, especially where potentially disruptive new technology and business models are held back. This can be hard to measure, and where innovation is being held back in some way, it may well not be apparent to consumers that they are missing out and reports from consumers of being satisfied are not necessarily evidence that markets are delivering the best possible outcomes.[266,267]

6.58 We therefore consider that, although Google has made improvements to its Mobile Platform over time, the evidence in the round suggests that this is unlikely to be strongly driven by Google responding to competition. If Google were to face stronger competition from Apple, or a more plausible threat of facing effective competition from another rival or new entrant, it would likely have stronger incentives to invest, innovate and further improve its Mobile Platform.

Competition from Apple for end-users: Impact of Google's agreements with Apple

6.59 The evidence above of limited competition between Google and Apple is further reinforced by revenue sharing agreements between Apple and Google which significantly limit their incentive to compete for users.

6.60 Google has an agreement with Apple known as the Information Services Agreement ('ISA') which was first agreed between Apple and Google in 2002. Under the ISA:

[265] See MBCG MI, section 6, paragraph 6.24.
[266] The CMA made similar points in MEMS. See MEMS, paragraph 7.14 and 7.22.
[267] See 'Competition from Apple for end-users: End-user switching' section for a discussion of user satisfaction.

(a) Apple sets Google Search as the default search engine on the Safari, Siri and Spotlight search access points on all Apple devices (including Apple mobile devices) in several territories including the UK, EEA and US.[268]

(b) In return, Google pays Apple a significant proportion of its search advertising revenue for searches conducted via Google Search on Apple devices (including Apple mobile devices) in several territories including the UK, EEA and US, using Apple's Safari, Siri and Spotlight and Google's Chrome browser.[269]

6.61 Being the preset default general search engine is valuable because end-users rarely change the preset default.[270]

6.62 The level of revenue share paid to Apple - and hence the revenue retained by Google - does not differ significantly depending on whether Apple's Safari or Google's Chrome browser is used.[271]

6.63 The Final Report in the CMA's MBCG MI concluded that the terms and interplay of this significant revenue sharing between the two main browser vendors in Apple's Mobile Platform limit Apple's and Google's financial incentives to compete in mobile browsers on Apple's Mobile Platform. They alter the normal process of rivalry between Apple and Google as they significantly reduce the financial benefit of successfully winning a customer from their key rival.[272]

6.64 While the Mobile Browsers and Cloud Gaming market investigation focussed on the impact of the ISA on competition in relation to mobile browsers, we consider it likely that the revenue sharing provisions of the ISA affect the competitive dynamics between Apple and Google more broadly. This is because the revenue that can be made from mobile end-users through mobile search advertising is an important income stream for a supplier of a Mobile Ecosystem more generally. As discussed in Annex B, revenue from mobile search (including through the ISA)

[268] MBCG MI, paragraph 9.1and 9.48; SMS Proposed Decision in respect of Google's general search services, paragraph 5.74 and 5.143; [✂].
[269] MBCG MI, paragraph 9.1 and 9.48; Google's response to section 69 notice [✂]; and Apple's response to section 174 [✂]. Under the ISA, Google pays Apple a significant percentage of its net advertising revenue from traffic that takes place via Safari and Chrome. In 2022, this amounted to USD 20 billion globally (MBCG MI, paragraph 9.4). In 2024, Google paid Apple approximately [✂] [£1-3 billion] under the ISA in relation to search access points on Safari, Chrome [✂] across all Apple mobile devices in the UK. CMA analysis [✂].
[270] For more detail see SMS Proposed Decision in respect of Google's general search services, User access and default positions section (paragraph 5.134 to 5.154).
[271] It receives: (i) 36% of Google's advertising revenue derived from Safari search traffic; and (ii) a lower but similarly significant proportion of Google's search advertising revenue derived from Chrome. (MBCG MI, paragraph 9.5).
[272] MBCG MI Chapter 9 summarises Apple's and Google's submission on their rationale for the ISA as well as their views on its impact on competition among mobile browsers on Apple mobile devices specifically. As set out in MBCG MI, paragraph 9.90, we consider that the extent of the revenue-sharing between Apple and Google is so significant that the incremental revenue derived from winning a customer from each other is significantly limited. This is because, while the percentage revenue shares are not identical, they are similarly significant, in that a greater difference between the two would translate into greater financial incentives for Apple and Google to compete. [✂].

accounts for, the majority [✂], of Google's mobile revenues[273] in the UK and the scale of Google's payments to Apple under the ISA makes Google one of Apple's largest sources of revenue and profits.[274] The ISA covers various products and services provided by Apple and Google (including their respective mobile browsers and Apple's virtual assistant) which are in competition via their respective Mobile Ecosystems.

6.65 The terms of the ISA whereby Google is set as the default on a number of access points on Apple devices mean that, if an Android end-user using Google Search switches to an Apple mobile device, Google is likely to retain that user as a user of Google Search. Therefore, the financial consequence on Google of losing a user from its Mobile Ecosystem are diminished compared to a situation in which the revenue sharing provisions are not in place.

6.66 In addition to the reduced incentive to compete for users with Apple at the margin, we consider that Google has a wider incentive not to disrupt its relationship with Apple by competing with it head-on. The ISA allows Google to be the default search provider for users of Apple's Mobile Ecosystem, where Safari accounts for c.43% of mobile browser users in the UK. In combination with the extensive use of Chrome on Android mobile devices using Google's Mobile Platform (see Chapter 8), Google Search is used on the large majority of mobile devices in the UK. The result is that Google Search has a very high share of mobile users. Safari has a c.43% share of browser usage on mobile devices in the UK, and Chrome has a c.46% share; therefore together they account for over 89% of the browser usage on mobile devices in the UK.[275] This plays an important role in entrenching its highly profitable position in general search and makes it more difficult for general search rivals to compete.[276] In this context, it is unlikely to be in Google's interest to disrupt its financially and strategically important relationship with Apple.

6.67 Accordingly, our provisional view is that, in addition to the stable duopoly market structure, Google's and Apple's financial incentives to compete in the provision of their Mobile Platforms are significantly reduced by the revenue sharing provisions within the ISA. This limits the competitive constraint imposed on Google by Apple.

[273] CMA estimate of revenue related to Google's Mobile Ecosystem includes the following revenue categories: mobile Search, Play Store (including Play Store Advertising), other mobile advertising, Pixel devices [✂]. Google's response to section 69 notice [✂]
[274] See SMS Proposed decision in respect of Apple's Mobile Platform, Annex B.
[275] See Annex A.
[276] The importance of default positions and the impact of these on competition in general search is discussed in SMS Proposed Decision in respect of Google's general search services, User access and default positions section (in particular see paragraph 5.146 to 5.154)

Competition from non-Apple Mobile Platforms for end-users

6.68 In this section, we assess the extent to which Google's Mobile Platform faces competitive constraints from non-Apple Mobile Platforms for end-users, such as those operated by Amazon and Huawei.

6.69 Google submitted that it competes with other mobile operating systems in addition to iOS, including HarmonyOS, AphyOS, CalyxOS, OnePlus' OxygenOS, /e/OS, Apostrophy OS, Ubuntu Touch, and Sailfish OS.[277]

6.70 We also received some submissions from third parties who considered that potential entry of new mobile operating systems from firms such as Huawei, Samsung, Xiaomi, Microsoft and Oppo may weaken Google's position – including in relation to the Android operating system and the Play Store.[278]

6.71 Amazon's Mobile Platform holds a material share of supply in the UK. Amazon's Fire OS has been the third largest provider in terms of active tablets, with the proportion of active tablets running on Fire OS ranging between [✂] [10 – 20%] and [✂] [20 – 30%] in the period 2017 to 2024.[279] However, we consider that Amazon's Mobile Platform presents a limited constraint on Google's Mobile Platform for the following reasons:

(a) Amazon's Mobile Platform is only available on tablet devices and not smartphones. Tablet devices represented only 21% of all active mobile devices in 2024.[280]

(b) While Fire OS is an Android fork, it does not include the GMS suite of apps. Evidence also suggests that the proprietary app store of Amazon's Fire OS tablets had around a third as many apps as Google's Play Store in 2024.[281]

(c) We have also seen only limited mention of Fire OS in Google's internal documents.[282,283]

6.72 With respect to Huawei's operating system, we note that historically the company did have a larger presence in the UK and supplied mobile devices with its own version of Android. Huawei supplied devices using 'Huawei Mobile Services' from May 2019 following US legislation being passed which meant that Huawei could

[277] Google's response to section 69 notice [✂].
[278] 6 responses to section 69 notices: [✂].
[279] This is set out in the shares of supply analysis in Annex A.
[280] CMA analysis of market participant data based on Apple's response to section 69 notice [✂] Google's response to section 69 notice [✂].
[281] CMA analysis of market participant data based on Amazon's response to section 69 notice [✂] and Google's response to section 69 notice [✂]. See Annex A for further information.
[282] Only three Google internal documents refer to Fire OS: (i) One document [✂] Google's internal document, [✂]; (ii) One document summarised [✂] Google's internal document, [✂]; and (iii) One document [✂] Google's internal document, [✂].
[283] Please see Chapter 2 for the number of internal documents received.

no longer access Google's apps and services, including GMS.[284] The last Huawei smartphone device model was sold in early 2023, and subsequently no new Huawei smartphone models have been available in the UK market.[285]

6.73 There is evidence that Huawei is putting significant effort and resources into its own operating system, HarmonyOS, and this alternative Mobile Platform does appear to have gained some traction in China.[286] We discuss this in the 'Barriers to entry and expansion in Mobile Platforms' section below. However, Huawei told us that it remains subject to restraints on its ability to compete which have had a major impact on its smartphone business in the UK.[287] Huawei explained that [✂].[288] Huawei therefore provides very little constraint on Google's Mobile Platform in the UK and there are no expected or foreseeable developments which are likely to change that position in the next five years.

6.74 With respect to the other operating system entrants mentioned by Google, we consider that none of these pose a material constraint to Google's Mobile Platform, noting that:

(a) Our shares of supply analysis shows that these alternative Mobile Platform providers have achieved negligible shares of supply in the UK (collectively less than 1%).[289]

(b) Where the alternatives mentioned do relate to mobile devices, they appear to target niche segments which typically make them poor alternatives for end-users of Google's mobile devices. For example, CalyxOS appears to be very privacy focused.[290]

(c) We have also seen no mention of these other non-Apple Mobile Platform providers in Google's internal documents.[291]

6.75 Furthermore, in the later section titled 'Competition to Google's Mobile Platform arising from wider technological and market developments' we note that third parties generally do not consider that the overall position of Google's Mobile Platform will significantly change over the next five years, which further supports the view that operating system entrants are unlikely to impose a significant competitive constraint in this period.

[284] MEMS, paragraph 3.
[285] Huawei's response to section 69 notice [✂].
[286] Huawei's response to section 69 notice [✂].
[287] Following US legislation from May 2019, Huawei can no longer access Google's apps and services, including GMS (MEMS, paragraph 3.6)
[288] Huawei's response to section 69 notice [✂].
[289] Please see Annex A for further details.
[290] CalyxOS
[291] Please see Chapter 2 for the number of internal documents received.

Provisional conclusion on competition for end-users

6.76 Overall, our provisional conclusion is that Google's Mobile Platform faces limited constraint from other Mobile Platforms when competing for mobile end-users. In particular:

(a) Google's Mobile Platform has held a stable share of supply over the past ten years for smartphones and past seven years for tablets, operating in a stable duopoly with Apple.

(b) Google's Mobile Ecosystem faces limited competitive constraint from Apple for end-users. This is based on our provisional findings that:

(i) Google's and Apple's Mobile Ecosystems focus predominantly on different price segments, with Google's holding a higher share of the sale of lower-priced mobile devices, and Apple's holding a higher share of higher-priced mobile devices.

(ii) User switching between Google's and Apple's Mobile Ecosystems poses a limited competitive constraint on Google, even taking into account the fact that Google faces some competition to retain premium users. In particular, we found that both Mobile Ecosystems have large sticky customer bases, with the vast majority of customers not even considering the alternatives available when they last replaced their smartphone, and that there are material barriers to switching. Further, evidence suggests that, when switching does happen, it often appears to be driven by users upgrading or downgrading into a different price segment, rather than switching between similarly priced mobile devices, consistent with the differentiated focus of Google's and Apple's Mobile Ecosystems.

(iii) While we observe that Google has made improvements to its Mobile Platform over time, the evidence considered in the round suggests that this is driven by a range of factors and is unlikely to be strongly driven by Google responding to competition. There is some evidence that innovations could have been greater if there was more competition. Indeed, as discussed in the 'Competition on quality' section, the CMA's previous work has identified a range of areas where innovations have been held back in Mobile Platforms due to a lack of competition.

(iv) Google's and Apple's financial incentives to compete in the provision of their Mobile Platforms are significantly reduced compared to a situation absent the revenue sharing provisions of the ISA agreement and this limits the competitive constraint imposed on Google by Apple.

(v) Other Mobile Platforms pose only a limited competitive constraint. Amazon's Mobile Platform in tablets offers limited competition to Google's Mobile Platform and there is even less constraint from other non-Apple Mobile Platforms which have negligible shares of supply (collectively less than 1%).

(c) Finally, the above provisional findings take account of expected or foreseeable market developments over the next five years. They are consistent with our provisional findings elsewhere in this report that there are no expected or foreseeable market or technological developments that are likely to significantly change the position of Google's Mobile Platform in terms of competition for end-users over the next five years (see sections titled 'Competition to Google's Mobile Platform arising from wider technological and market developments' and 'Regulatory developments' in Chapter 8).

Competition to attract content providers

In this section we consider the extent of competition that Google's Mobile Platform faces from other Mobile Ecosystems to attract content providers.

We provisionally conclude that Google's Mobile Platform faces limited competitive constraint from other Mobile Ecosystems to attract content providers. As set out above, Apple and Google have a duopoly and we provisionally find that content providers typically distribute their content on both Apple's and Google's Mobile Ecosystems in order to reach all mobile users. This means there is a limited constraint from content providers switching between them. We also consider that other non-Apple Mobile Ecosystems provide limited competition for content providers. We have not seen evidence of expected or foreseeable developments suggesting competition for content providers is likely to change over the next five years.

6.77 As set out above in the 'Background on Google and its Mobile Ecosystem' section in Chapter 2, content providers include both app developers which distribute their content predominantly through app stores (eg Google's Play Store), as well as web developers which distribute their content through web browsers.

6.78 We expect a Mobile Platform to be more valuable to a content provider the more users it can access through it. This means that Mobile Platforms can compete for content providers both directly (eg in terms of the services they offer) and indirectly, by attracting users to their Mobile Platforms. Therefore, we also consider how the competitive constraint that Google's Mobile Platform faces for content providers is impacted by the competition between Mobile Platforms for users. For example, where relevant, below we consider the extent to which limited constraint from end-user switching might also limit the constraint from content providers switching between Google's Mobile Platform and other Mobile Platforms.

6.79 In this section, we consider:

(a) Competition from **Apple's Mobile Ecosystem**, and in particular:

(i) The extent to which Google's Play Store faces competitive constraints from Apple's App Store in competing to attract **app developers**; and

(ii) The extent to which Google's Mobile Platform faces competitive constraints from Apple's Mobile Ecosystem in competing for **web content**.

(b) The extent of competitive constraints from **other, non-Apple Mobile Ecosystems.**

(c) **Provisional conclusions** on the competition from Apple's Mobile Ecosystem to attract content providers.

6.80 This section focuses on the extent to which Google competes for content providers against other Mobile Ecosystems – for example the extent to which the Play Store competes with the App Store. This is different to the extent to which Google's Mobile Platform faces competition from alternative forms of content distribution within its Mobile Ecosystem, for example from alternative app stores, sideloading, OEMs preinstalling third-party native apps, cloud-based gaming, super apps, and web-based content distribution. This is covered in the next chapter on alternatives to Google's mobile content distribution.

Competition from Apple's Mobile ecosystem

Competition from Apple's App Store to attract app developers

6.81 We understand that app developers consider a range of factors when deciding to develop and distribute their content on a Mobile Platform. These include the size of a user base, user experience, costs and time required to develop apps, and functionality available.[292] Many of these factors will be determined by the quality of services provided by an app store provider, for example, the tools and support it provides to app developers which may reduce the costs related to app development, the access to functionality to enable app developers to innovate on new app features, means to increase apps' discoverability and user reach. We consider that app developers' choice will also be influenced by the fees (ie commission rates) charged by an app store provider.

6.82 In this section, we consider the following interrelated elements of competition from the App Store for app developers:

[292]Size of a user base was the most frequently cited factor. See for example, 12 parties responses to section 69 notices; [✂].

(a) We first consider the extent to which the Play Store might be constrained by (the threat of) **app developers switching** to the App Store.

(b) We then consider the extent to which the Play Store faces competition from the App Store on **quality of services**.

(c) We also consider the extent to which there is **competition on price** between the Play Store and the App Store.

(d) We finally consider the extent to which the Play Store's **shares of net revenue[293] from customer billings[294]** can be informative of the competitive constraint it faces in app distribution.

Constraint from app developers' switching

6.83 In general, the competitive constraint placed on the Play Store by Apple's App Store ultimately depends on whether app developers would switch away from the Play Store in response to, for example, an increase in price. They could do this either by delisting from the Play Store entirely or by prioritising the App Store, for example, making new innovative content or features available first in the App Store rather than the Play Store.

6.84 The evidence we have received from third parties suggests that app developers consider both the Play Store and the App Store as 'must-have' and distinct distribution channels. Therefore, they are unlikely to delist or deprioritise their listings on the Play Store:

(a) Currently the Play Store provides app developers access to [✂] of active mobile device users in the UK. While we note Google's submission that app developers generate less revenue from user spend in apps distributed via the Play Store compared to the App Store,[295] we nevertheless consider the Play Store represents a significant source of revenue for app developers in the UK. Therefore, if an app developer delisted from or deprioritised the Play Store, it is likely that this would have a significant negative impact on the app developer's user base and revenue opportunities overall, given that its decision to switch to the App Store or not support the Play Store with the latest features is unlikely to trigger significant switching on the user side to Apple's Mobile Ecosystem. This is in particular because as discussed above in the section on 'Competition from Apple for end users: outcomes of competition in terms of price and quality', users do not tend to consider

[293] Net revenue refers to the total value of revenue earned by app stores through commission fees applied on customer billings through the proprietary payment system.
[294] Customer billings refers to the total billings processed through app stores' proprietary payment systems.
[295] In 2024 in the UK on Mobile Devices, app developers earned revenues from customer billings of approximately [✂] [0 – 5] billion for apps distributed via the Play Store and approximately [✂] [0 – 5] billion for apps distributed via the App Store. CMA analysis of data provided by Google and Apple respectively. Google's response to section 69 notice [✂]. Apple's response to section 69 notice [✂].

availability and/or quality of content as an important factor when switching between Google's and Apple's Mobile Ecosystems.

(b) The above is consistent with evidence we gathered from third parties. Over a quarter [15 out of 55] of native app developers submitted that distributing via the Play Store and App Store is the only way to access a large and distinct set of users, indicating both are 'must-have' distribution channels (the remaining native app developers did not give a view).[296] In addition, we asked 29 native app developers what the likely impact would be if they stopped distributing via the Play Store (and the App Store). In response, all but one submitted it would have a significant impact on their ability to serve their customers on mobile devices.[297] For example, one large native app developer stated that losing access to the Play Store would mean losing access to roughly half the UK market.[298] Further, there is a range of evidence which indicates that app developers, particularly large app developers with the most popular apps, typically distribute apps on both the Play Store and the App Store.[299]

(c) Google submitted that app developers often prioritise Apple's App Store over the Play Store because Apple has 'competed successfully' to attract users which are [✂][300] [✂].[301] However we have seen limited evidence that app developers do this.[302]

6.85 We consider that, even to the extent there are a small proportion of app developers who currently distribute only on Google's Mobile Platform, these app developers are unlikely to see Apple's Mobile Platform as a substitute since, as set out above, it offers access to a distinct set of users. In addition, there are material costs to redeveloping apps for use on the App Store which affects app developers' distribution choices.[303]

6.86 The evidence suggests that it is unlikely that app developers' switching to the App Store could materially constrain the Play Store over the next five years. Indeed, out of the native app developers who commented on their future expectations for how they distribute apps on mobile, most did not expect any substantial change by

[296] 16 parties total. 14 parties responses to section 69 notices: [✂]. 2 notes of meetings: [✂].
[297] Some responses did not distinguish between the impact of leaving just the Play Store, while most noted impact of leaving both the Play Store and the App Store. 28 parties total. 26 parties responses to section 69 notices: [✂]. 2 notes of meetings: [✂].
[298] [✂] response to section 69 notice [✂].
[299] According to a survey commissioned by Google of 500 app developers across the UK and EU, [✂] [80 – 90]% of app developers distribute via two or more app stores, including Apple's App Store and Google's Play Store. Google's response to section 69 notice [✂]). All but one of the 55 native app developers we gathered evidence from (including 35 large and 20 small native app developers) confirmed that they distributed their apps via both the App Store and the Play Store. 55 parties total. 47 parties responses to section 69 notices; [✂]. 8 notes of meetings; [✂].
[300] We consider the extent of competition for higher-spending users in the section above 'Competition for premium users'
[301] Google's response to section 69 notice [✂].
[302] Only one small app developer noted the App Store is the primary app store (ie it prioritises the App Store over other app stores) as users of Apple mobile devices spend more money in apps. Note of meeting with [✂].
[303] A number of app developers submitted that cost and time required to develop content is an important parameter affecting their content distribution choices. 7 parties responses to section 69 notices: [✂].

2030 (as set out in Chapter 7), nor did any party suggest any plans to stop multi-homing across both the Play Store and the App Store.[304]

6.87 On the basis of the above evidence, we provisionally conclude that the competitive constraint on the Play Store from app developers' switching to the App Store is limited and this does not look likely to change in the next five years.

Competition on quality

6.88 This section considers the extent to which Google's Play Store competes with Apple's App Store on the quality of services and features offered to app developers. We have considered in our assessment: (i) whether there is evidence of material improvements in the quality of Google's Mobile Platform over time; and (ii) what is driving any such improvements and whether they are being driven by Google responding to competitive pressure.

6.89 Google submitted that app stores and other distribution channels compete across a range of quality parameters such as opportunities for app developers to increase sales and distribution, safety of environment, trustworthiness of payments, and ease of use for consumers and app developers.[305] Furthermore, improvements to the Play Store for end-users may also improve the quality of the app store as a distribution tool for content providers, if it means end-users are more likely to find or download their apps.

6.90 The evidence demonstrates that Google has implemented certain quality improvements to its Mobile Platform and particularly to the Play Store over time. Google submitted that the Play Store faces intense competition from Apple's App Store[306] and that its investments in innovations confirm the existence of strong competitive pressures.[307] Google submitted that its investments and innovations have led to increased value to users and app developers over time and provided examples of such innovations.[308] Google also submitted that [✂] is an example of the Play Store directly responding to competition from the App Store.[309]

6.91 However, similarly to our view above in relation to improvements to quality for end-users (see section 'Competition from Apple for end-users: Outcomes of competition in terms of price and quality'), the evidence suggests other factors are likely to have an impact on Google's incentives to make product improvements for app developers. For example, as discussed below, Google's internal documents

[304] 30 parties responses to section 69 notices: [✂]. 2 notes of meeting: [✂].
[305] Google's response to section 69 notice [✂].
[306] Google's position paper [✂].
[307] Google's position paper, [✂].
[308] Google submitted that globally it has launched more than [✂] products since January 2023 which are worth a combined [✂] in app developers' annual recurring revenue, including: advanced AI technologies to improve system's ability to proactively identify malware; AI-generated app review summaries; and a new pre-registration campaign to match higher value users with app developers. Google's position paper, [✂]. Google's response to section 69 notice [✂].
[309] Google's response to section 69 notice [✂].

suggest that some of their improvements sought to increase user engagement (eg by driving deeper engagement from users already within Google's Mobile Platform) or revenue opportunities (eg by enabling app developers to offer additional services or features that are charged for), as opposed to winning app developers and/or end-users from Apple's Mobile Platform.

6.92 Furthermore, those improvements do not appear to be driven by strong competition from the App Store:

(a) In our assessment of Google's internal documents covering the past three years, we identified some evidence of Google monitoring competition from the App Store in relation to quality of services and features offered to app developers. Specifically, a few documents compare the Play Store's position with the App Store in terms of monetisation for app developers[310] as well as user reach on mobile devices[311], [✂]. Some of these and several other documents discuss ways of improving the Play Store's position on these parameters, including [✂].[312]

(b) However, some of those documents discuss improvements which seek to [✂]. We have seen no evidence in Google's internal documents that it is under pressure from the App Store to innovate and improve its offerings for the benefit of app developers overall.

(c) In addition, whilst some third-party evidence indicates that there is some competition on quality between Google's Play Store and Apple's App Store,[313] and that the Play Store does bring benefits to app developers, for example in terms of discoverability[314] and user trust,[315] evidence from third parties also indicates that there are material concerns regarding the quality of services on the Play Store. Specifically, 24 out of 55 native app developers[316] submitted to us that they have concerns in relation to how Google operates the Play Store, and these concerns relate to several key aspects of app distribution, such as app discoverability, listing or updating apps, and Google's use of app developers' data. We do not consider this is indicative of

[310] A document from 2024 which [✂]. Google's internal document responsive to the CMA's request for information [✂]. Another document from 2024 records that [✂]. Google's internal document responsive to the CMA's request for information [✂].
[311] The internal document states '[✂]' and that Play Store app developers '[✂]'. Google's internal document responsive to section 69 notice [✂].
[312] A document from 2023 contains suggestions to '[✂]' and '[✂]'. Google's internal document responsive to the CMA's information request [✂]. An undated document from 2025 discusses [✂]. Google's internal document responsive to the CMA's information request [✂].
[313] Apple provided several examples which it submitted show that Google has responded to improvements introduced on the App Store, for example, by launching the Android Excellence program in 2017 which allows showcasing high quality apps and games and introducing a new feature to weight app ratings to favour more recent app releases in 2019. Apple's response to section 69 notice [✂]. Two other third parties (industry associations) submitted views that the Play Store faces strong competition on quality from the App Store. Parties responses to invitation to comment dated 23 January 2025; Chamber of Progress (pages 1,2 & 4); Communications Industry Association (page 3).
[314] 6 parties responses to section 69 notices [✂].
[315] For example see 3 parties responses to section 69 notices [✂].
[316] 22 parties responses to section 69 notices: [✂]. 2 notes of meetings; [✂].

strong competition between Google and Apple on quality to attract app developers.

6.93 We therefore provisionally conclude that while we observe that Google has made improvements to its Mobile Platform over time, in terms of services and features offered to app developers, the evidence considered in the round suggests that this is driven by a range of factors and is unlikely to be strongly driven by Google responding to competition from the App Store. This is consistent with our finding that app developers have very limited ability to switch between these two largest app stores that are both must-have routes to distribution.

Competition on commission fees for app developers

6.94 This section considers the extent to which Google's Play Store competes with Apple's App Store on price (in the form of commission fees[317]) for app developers. Again we consider (i) whether there is evidence of material reductions in the price of distributing content via Google's Mobile Platform over time; and (ii) what is driving any such reductions and whether they are being driven by Google responding to competitive pressure.

6.95 Google currently charges a headline commission of 30% for payments for digital content made via Google Play Billing system.[318] It also charges a lower commission rate in certain circumstances; for example, a rate of 15% is applied for the first $1 million that app developers earn or revenue from certain subscriptions, as discussed below. The evidence shows that over time Google has made changes to its headline commission rates for app developers:

(a) Google submitted that it has competed with the App Store on price; for instance, as noted above, in 2021 it reduced its effective fee rate to 15% for the first $1 million that app developers earn, in response to similar announcements by Apple. Google also submitted that it reduced its rates to 15% applicable on certain subscriptions in response to similar changes announced by Apple.[319] Additionally, Google submitted that since it launched the Play Store in 2008, its commission fees have only ever declined, noting that today 99% of app developers that pay the service fee pay 15% or less.[320]

(b) We note that our analysis set out in Annex A shows that the Play Store's annual average commission rate on Mobile Devices per transaction

[317] Google refer to commission fees as 'service' fees.
[318] Google's response to section 69 notice [✂].
[319] Google's response to section 69 notice [✂].
[320] Google's position paper, [✂]. See also, Service fees - Play Console Help, which states that 'Of those developers that are subject to a service fee, 99% are *eligible* for a fee of 15% or less by participating in different programs offered by Google Play.'

decreased from [✂] [20 – 30]% to [✂] [20 – 30]% in the period between 2018-2024.[321]

(c) Further data analysis Annex A also shows that over the period from 2020 to 2024, the proportion of app developers which pay reduced rates has increased[322] whereas the proportion of app developers which primarily pay headline rates has decreased, albeit not to the same extent.[323] However, that analysis also suggests that the increase in the proportion of app developers that pay reduced rates could in part be driven by more app developers offering paid apps and in-app purchases to their users through Google Play Billing.[324]

(d) Finally, our analysis Annex A shows that of the app developers that were paying Google Play commission fees, [✂] [50 - 60]% had an average rate of 15% or less. This contrasts with Google's submission that, globally, 99% of app developers using Google Play Billing pay the service fee of 15% or less.[325]

6.96 However, we do not interpret the reductions in the Google Play Billing commission rates to be reflective of strong competition on price because:

(a) The Play Store's annual average commission rate of [✂] [20 – 30]% remains relatively close to the headline rate of 30%. This implies that the reduced rates apply only to a small proportion of the total value of transactions and the vast majority of revenue earned by app developers is charged at the headline rate of 30% - which has not been reduced since Google launched the Play Store in 2008.[326] As set out in Annex A, [✂] [60 – 70]% of customer billings were paid to app developers with average commission rates in the highest price bracket (rate of 25% or higher) in 2024.[327] No major changes to the Play Store's commission rates have been announced in the last four years, ie since 2021.

(b) In addition, we did not find evidence in Google's internal documents from 2022 to 2024 of Google monitoring Apple's fees or responding to competition from Apple in setting its own fees on Google Play Billing in the UK.

[321] Google's response to section 69 notice [✂].
[322] From 2020 to 2024, the proportion of app developers which are subject to an average rate of 10-19.99% has increased by [✂] [0 – 10] percentage points. See Annex A.
[323] From 2020 to 2024, the proportion of app developers subject to an average rate of 25% or higher has decreased by [✂] [0 – 10] percentage points. See Annex A.
[324] From 2020 to 2024, the proportion of app developers who pay fees to Google has increased by [✂] [0 – 10] percentage points, from [✂] [0 - 10]% to [✂] [0 – 10]%.
[325] We understand that the basis for Google's submission is that of those app developers that are subject to commission rates, 99% are *eligible* for a fee of 15% or less. Service fees - Play Console Help. We understand 99% to include app developers who pay rates of 15% or less on some transactions (eg the first $1 million of their turnover) as well as the rates above 15% on other transactions.
[326] Google's position paper, [✂].
[327] Google's response to section 69 notice [✂].

(c) This is consistent with our provisional finding that app developers have very limited ability to switch between these two largest app stores, including switching to benefit from lower commission rates. Indeed, 20 out of 55[328] app developers submitted that existing commission rates are too high, while only three[329] indicated that they felt the rates were fair. The remaining 32 app developers did not explicitly comment on the level of commission rates.[330]

(d) This is also consistent with our profitability analysis showing that Google was and is expected to continue to make high profits and that Google is not being forced to erode those profits by responding to competition, eg through reductions in commission rates.

6.97 Google submitted that the competitive pressures the Play Store faces from other distribution channels is reflected in the commission rates charged by Google Play Billing.[331] Further, Google submitted that its commission fees are in line with, or below, relevant benchmarks including: (i) fees charged by other app stores (eg the App Store and Android app stores); (ii) fees [✂]; (iii) fees [✂]; and (iv) fees [✂].[332]

6.98 We have considered Google's submission that the Play Store's fees are in line with or below the relevant benchmarks. We note that in principle benchmarks can be useful to assess whether the fees charged by the Play Store are reflective of competitive prices, provided the benchmarks reflect analogous or similar markets that are determined by well-functioning competition. Google did not explain why the benchmarks they referred to were appropriate comparators and there is evidence to suggest that such benchmarks might not be appropriate to determine competitive levels of commission rates on the Play Store because:

(a) Some benchmarks refer to prices that are not themselves the product of effective competition. For example, as explained above, app developers typically distribute their apps on both the Play Store and the App Store as 'must-have' and distinct distribution channels, suggesting that the App Store does not face a strong constraint to attract app developers, including by offering them competitive commission rates. As part of this investigation, we have not assessed whether the fees charged by other app stores in the UK are set at competitive levels such that they could act as appropriate comparators. However, we note that there are material barriers to entry and expansion (discussed below in the sections 'Barriers to entry and expansion in Mobile Platforms' as well as 'Barriers to entry and expansion for alternative

[328] 20 parties total. Parties responses to section 69 notices: [✂]. Note of meeting; [✂].
[329] 3 parties total. 2 responses to section 69 notices; [✂]. Note of meeting with [✂].
[330] Of the remaining 32 responses, 11 indicated that the commission rates impacted their business, but did not explicitly indicate that they felt the rates were too high, and three indicated that the commission rates were relevant but not impactful. 18 app developers either did not provide a comment (9) or indicated that commission rates were not relevant to their business (9).
[331] Google's response to section 69 notice [✂].
[332] Google's position paper, [✂].

app stores within Google's Mobile Ecosystem') which may limit competition on commission fees.

(b) Other benchmarks refer to digital platforms (such as non-mobile game consoles, other platforms offering digital content, such as TV, audio books and music streaming services) which are materially different from Mobile Platforms.

6.99 Overall, in light of the above evidence, we provisionally conclude that competition between the App Store and the Play Store on commission rates is limited. This is consistent with our finding that app developers have very limited ability to switch between these two largest app stores that are viewed as must-have routes to distribution.

Play Store's share of revenue across UK mobile devices

6.100 Google submitted that the Play Store's revenue share across all UK mobile devices is falling and that this is reflective of the competitive pressure on the Play Store.[333]

6.101 Our analysis shows that when considering all mobile devices in the UK, Google's Play Store's share of net revenue from customer billings decreased from [✂] [30 – 40]% in 2020 to [✂] [20 – 30]% in 2024; and that the share for Apple's App Store increased from [✂] [60-70]% to [✂] [70 – 80]% in the same period.[334]

6.102 However, we note that the Play Store's net revenue from customer billings has been steadily increasing in absolute terms and [✂] since 2018 (see Annex A). Therefore, the above changes in the shares are likely to be driven by the Play Store revenue growing but at a slower rate compared to Apple's App Store revenue. In addition, some internal documents from Google suggest that it has been [✂] its revenue on Play Store since 2018,[335] [✂] where the Play Store has [✂] enabling app developers to [✂].[336] This could at least in part explain why the Play Store's net revenue from customer billings grew at a slower rate compared to the App Store and hence why the respective share for the Play Store decreased whilst that for the App Store increased.[337] Furthermore, one of the documents

[333] Google's response to CMA Mobile Ecosystems SMS Investigation Second Subcommittee Meeting Questions, [✂].
[334] Analysis of data from market participants based on Google's response to section 69 notice [✂]; Apple's response to section 69 notice [✂]; Samsung's response to section 69 notice [✂]. Amazon's response to section 69 notice [✂], and Huawei's response to section 69 notice [✂]. See Annex A.
[335] Google internal document [✂].
[336] Google internal document [✂].
[337] For example, over the period from 2023 to 2024 on mobile devices in the UK, the Play Store's net revenue from customer billings grew by [✂] [10 - 20]% whereas its revenue from customer billings and advertising on the Play Store grew by [✂] [10 - 20]%. In comparison, the App Store's net revenue from customer billings grew by [✂]% over the same period (from £[✂] [0 - 2] billion in 2023 to [✂] [0 - 2] billion in 2024) and its revenue from customer billings and advertising on the App Store grew by [✂]% (from £[✂] [0 - 2] billion in 2023 to £[✂] [0 - 2] billion in 2024).

notes that the growth rate of the Play Store's net revenue from customer billings, particularly in 2020 to 2022, could have been affected [✂][338] [✂][339]

6.103 In this context, it is also important to note that Google's Play Store revenue and its revenue shares will depend on app developers' choice over where to distribute paid-for content and users' decisions over which platform to use to pay for this content. As set out above, the evidence in the round does not suggest that the Play Store is facing a constraint from app developers switching to the App Store. Further, to the extent that the decline in the Play Store's revenue shares could be explained by users' switching, and in particular, switching between Google's Mobile Ecosystem and Apple's Mobile Ecosystem by users in the premium segment, such switching does not appear to be driven by factors such as range and quality of apps.[340] Therefore, even if such switching does happen, it is unlikely to put pressure on the Play Store to compete on these parameters.

Competition from Apple's Mobile Ecosystem to attract web developers

6.104 In this section we consider the extent to which Google's Mobile Platform faces competition from Apple's Mobile Ecosystem to attract web developers.

6.105 In relation to web content, content providers or web developers write content once for distribution across different platforms (eg the Apple and Android mobile operating systems), devices (eg mobile, desktop, or console), and browsers (eg Chrome, Safari, Firefox etc).[341] Content providers therefore do not choose whether to distribute on one platform or another, as by its nature web content is broadly available. As a result, web content providers cannot 'switch away' from either platform, and Apple and Google therefore do not compete for web content to be made available on their Mobile Platforms.

6.106 In limited circumstances, compatibility issues mean that web content may not work as intended with certain browsers or browser engines.[342] This could impact the quality of web content available on a platform. For example, if Blink encountered significant web compatibility issues, this would reduce the quality of web content accessible on Google's Mobile Platform. Mobile Platforms may therefore compete to be prioritised by web developers for compatibility testing, which would reduce the risk of compatibility issues arising on the platform.

[338] For example that document notes '[✂].'
[339] The document notes, '[✂].'
[340] Our consumer survey found that: (i) 12% of users who switched to a smartphone priced £601-900 cited 'I thought [iOS/Android] had access to a wider range of mobile apps/the apps I wanted to use' as a reason for switching (8th most popular reason cited); and (ii) 14% of users who switched to a smartphone priced £900+ cited 'I thought [iOS/Android] had access to a wider range of mobile apps/the apps I wanted to use' as a reason for switching (10th most popular reason cited). Accent Mobile Consumer Survey, Technical Use and Behaviour Data Tables, Q23.
[341] Jigsaw Research (2024), Qualitative Research with Developers on Mobile Browsers and Mobile Browser Engines, page 5. [link]
[342] See Apple's response to section 69 notice [✂] and Google's response provided in the context of the CMA's MBCG MI to section 174 [✂].

6.107 Evidence from web developers indicates that they tend to test for compatibility against the browsers with the most users. This means that they mainly test against Chrome and Safari, and to a lesser extent smaller less popular browsers such as Firefox, Edge, and Brave.[343] Evidence also indicates that compatibility issues with browsers are less frequent than in the past, and any issues tend to be minor.[344]

6.108 Any competition to be prioritised for compatibility testing is therefore in the form of having more users of the browsers and browser engines on a platform. Given the significant number of users of Safari and WebKit, and Chrome and Blink, both tend to be prioritised by web developers for compatibility testing, although there is some evidence of Safari and WebKit having greater issues with compatibility.[345]

6.109 Consequently, our provisional view is that the extent of any competition between Apple and Google to ensure that web content providers make their content available on Apple's and Google's Mobile Platforms respectively is limited, as web content is generally made available cross-platform. To the extent that there is competition, this is in the form of having more users and therefore being prioritised by web developers in compatibility testing. Additionally, we have not seen evidence to suggest this is likely to change significantly over the next five years.

Competition from non-Apple Mobile Ecosystems to attract content providers

6.110 In this section we consider the extent to which Google's Mobile Platform competes to attract content providers with other, non-Apple Mobile Ecosystems, such as those operated by Amazon and Huawei.

6.111 With regard to native app content, we consider Google's Play Store faces limited constraint from non-Apple Mobile Ecosystems, including from Amazon's Appstore (on Fire OS) and Huawei's AppGallery:

(a) As set out above, app developers consider both the Play Store and the App Store as 'must-have' and distinct distribution channels and as such are unlikely to impose a constraint on the Play Store by switching or threatening to switch to rival app stores on non-Apple Mobile Ecosystems.

(b) No app developer we gathered evidence from suggested they would prioritise their native app distribution on non-Apple Mobile Ecosystems and only a small number of app developers identified app stores on these platforms as options they actively use – eg 7 out of 55 of app developers who we received evidence from submitted they distribute their native apps on Amazon's

[343] Jigsaw Research (2024), Qualitative Research with Developers on Mobile Browsers and Mobile Browser Engines, page 7; [link] See Annex A for more detail on shares of supply in mobile browsers.
[344] Jigsaw Research (2024), Qualitative Research with Developers on Mobile Browsers and Mobile Browser Engines, pages 8 and 25. [link]
[345] MBCG MI Appendix A, paragraph 4. [link]

Appstore[346] and 2 submitted they distribute on Huawei's AppGallery.[347] Of the app developers who submitted that they distribute their apps on these app stores, most (5 out of 8) consider them as complements to the Play Store.[348]

(c) Both Amazon's Appstore and Huawei's AppGallery have significantly smaller user bases and generate significantly less net revenue from customer billings,[349] indicating that for app developers, these app stores act as inferior substitutes to the Play Store.

(d) We have seen no mention of Amazon's Appstore (on Fire OS)[350] or Huawei's AppGallery in Google's internal documents from the last three years.

(e) Finally, the above is consistent with our provisional conclusion that Google does not face a strong constraint to improve on outcomes for app developers through reductions in commission rates and/or improvements to quality (discussed in the section 'Competition from Apple's App Store to attract app developers'), neither from Apple's Mobile Platform nor from non-Apple Mobile Ecosystems.

6.112 With regard to web content, as described above, this is made broadly available by content providers and as a result, Google does not compete with non-Apple Mobile Ecosystems for this content to be made available on its Mobile Platform.

Provisional conclusions on competition to attract content providers

6.113 Overall, our provisional view is that any competitive constraint on Google's Mobile Platform from other Mobile Ecosystems in relation to attracting content providers is limited:

(a) App developers generally distribute on both Google's and Apple's Mobile Platforms, as must-have and distinct distribution options because each of these platforms provides access to a very significant proportion of users in the UK and because there is limited user switching between those platforms. As such, there is a limited constraint on the Play Store from app developers switching to the App Store.

[346] 7 total parties. 5 parties responses to section 69 notices: [✂]. 2 notes of meetings: [✂].
[347] 2 parties responses to section 69 notices: [✂].
[348] 5 total parties.3 parties responses to section 69 notices: [✂].2 notes of meetings: [✂].
[349] Amazon's Appstore on Mobile Devices had an average monthly number of [✂] [0 – 1] million active users and generated approximately £ [✂] [0 - 50] million in net revenue from customer billings in 2024. [✂] response to section 69 notice [✂]. Huawei's AppGallery on Mobile devices had an average monthly number of [✂] [0 - 1] million active users and generated approximately £ [✂] [0 - 50] million in net revenue from customer billings in 2024. [✂] response to section 69 notice [✂]. This compares against [✂] [20 - 30] million monthly active users on the App Store which generates £ [✂] [0 - 2] billion of net revenue from customer billings on Mobile Devices in 2024. Apple's response to section 69 notice [✂].
[350] We discuss evidence related to Amazon's Appstore on Android separately, in the following chapter.

(b) Consistent with the above, Google's Play Store is unlikely to be constrained by app developers switching to smaller rival app stores on non-Apple Mobile Ecosystems.

(c) Whilst there have been some reductions in Google Play Billing commission rates, this has been relatively limited and does not appear to reflect strong price competition. This is consistent with our profitability analysis that suggests that Google is not being forced to erode its profits by responding to competition, eg through reductions in commission rates.

(d) Likewise, although there is some evidence of quality improvements, evidence in the round suggests these are unlikely to be driven by Google responding to strong competition.

(e) With regard to web content, this is made broadly available by content providers and as a result, Google does not compete for content to be made available on its Mobile Platform.

(f) Finally, we have seen no evidence to suggest the above findings are likely to change significantly over the next five years. This is consistent with our findings elsewhere in this report that there are no expected or foreseeable market or technological developments that are likely to significantly change Google's position in terms of competition for content providers over the next five years (see the section titled 'Competition to Google's Mobile Platform arising from wider technological and market developments').

Barriers to entry and expansion in Mobile Platforms

In this section, we consider the extent to which Google is constrained by the threat of entry and expansion of competing Mobile Platforms. We provisionally conclude that there are significant barriers to entry and expansion in providing a competing Mobile Platform and therefore that Google faces limited constraint from the threat of such entry or expansion occurring.

6.114 Google submitted that it competes with several alternative mobile operating systems and [✂].[351]

6.115 However, we have provisionally found that there are significant barriers to entry and expansion in providing a competing Mobile Platform. This is illustrated by the exit or unsuccessful entry of well-resourced companies in smartphones such as Microsoft and Amazon and the difficulties faced by those using versions of Android

[351] Google's response to section 69 notice [✂].

without GMS – for example, Huawei's share of new sales declined materially after it could no longer access Google's apps and services, including GMS.[352]

6.116 In the analysis which follows, we consider, in turn, four main categories of barriers to entry and expansion that a rival supplier of Mobile Platforms may face:[353]

(a) **Indirect network effects:** which result from the fact that a Mobile Platform is two-sided, connecting users with content providers.

(b) **Barriers to providing individual components of a Mobile Platform:** as noted above, Google's Mobile Platform comprises interconnected components, namely: (a) a mobile operating system; (b) native app distribution; and (c) a mobile browser and browser engine. Therefore, in order to compete effectively with Google's Mobile Platform, a rival would need to be able to provide (either itself or by outsourcing to a third party) a version of each of these components, in which they are configured to work together.

(c) **Barriers relating to mobile devices:** a rival will also need mobile devices for its Mobile Platform to be installed upon. In other words, it would need to either produce its own mobile devices, or license its Mobile Platform to third-party mobile device OEMs.

(d) **Ecosystem-wide barriers:** in addition to the barriers inherent in producing individual components of a Mobile Platform and the mobile device, there are additional barriers which apply at the Mobile Ecosystem level.

Indirect network effects

6.117 Mobile Platforms exhibit strong indirect network effects which act as a barrier to entry and expansion. This is because, as set out in Chapter 4, a Mobile Platform is two-sided, connecting end-users with mobile content providers. The more end-users can access mobile content through the Mobile Platform, the more they value the Mobile Platform. In turn, content providers value a Mobile Platform more the greater the number of end-users using that Mobile Platform.

6.118 The presence of indirect network effects therefore creates a 'chicken and egg' problem where a Mobile Platform needs a critical mass of end-users to attract content providers, but it equally needs to offer a critical mass of mobile content to attract end-users. This means it is difficult for a new entrant to gain traction as it cannot attract one set of customers without the other.

[352] MEMS, paragraph 3.126.
[353] We here assess the likelihood that a rival can enter or expand with a Mobile Platform like those of Apple and Google. The possibility of disruptive entry by a rival with a different offering or business model, potentially linked to technological developments such as AI, is covered in the section 'Competition to Google's Mobile Platform arising from wider technological and market developments' below.

6.119 A range of stakeholders confirmed the importance of indirect network effects as a barrier to entry and expansion in Mobile Platforms:

(a) Google submitted that a mobile operating system's success depends on its ability to attract sufficient support from app developers, device manufacturers, and users.[354] [✂].[355]

(b) Microsoft, Samsung and Mozilla all submitted that their attempts to enter failed because they were unable to attract enough developers to create apps for their Mobile Platforms.[356] In addition, one of the reported reasons for the lack of success of Amazon's Fire Phone, which used Amazon's Fire OS and launched in the UK in September 2014 but exited a year later, was its narrow selection of apps, including its inability to offer the GMS suite of apps.[357]

(c) Third parties confirmed that indirect network effects constitute a very significant barrier to entry. Most (9 out of 13)[358] third-party OEMs and app store providers that responded to our information requests confirmed that network effects were an important feature of Mobile Platforms. Many app developers (28 out of 55)[359] also confirmed this or submitted that the number of users they can reach influences where they choose to distribute their apps. Most browser vendors submitted web compatibility can limit the ability of smaller browsers to grow.[360] Web compatibility generates an indirect network effect as web developers maintain compatibility with browsers with enough users, which limits smaller browsers' ability to grow.

6.120 We note that the strength of these indirect network effects depends to some extent on the type of mobile content. In particular, a distinction can be made between:

(a) Content that is consumed through native apps where many content providers develop their application specifically for use on a given operating system. As set out in 'Competition from alternatives to Google's Native App Distribution' section in Chapter 7, to distribute its app via a new Mobile Platform, each individual app developer would need to substantially recreate its native app(s) for the operating system of the alternative Mobile Platform and incur significant development costs; and

(b) Mobile content that is consumed through a mobile browser or web-based applications where web developers need to create their content only once using web programming languages (ie common standards of the open web)

[354] Google's response to section 69 notice [✂].
[355] Google's internal document, [✂].
[356] 3 responses to section 69 notices: [✂] from Microsoft [✂] from Samsung [✂] from Mozilla [✂].
[357] MEMS, paragraph 3.56, footnote 109.
[358] Some OEMs are also app store providers. The count for number of app store providers therefore overlaps with the OEM count. 9 responses to section 69 notices: [✂]; [✂].
[359] 23 parties responses to section 69 notices: [✂]; One party's submission [✂]; 4 notes of meetings: [✂].
[360] 5 responses to section 69 notices; [✂]; 1 response provided in the context of the CMA's MBCG MI; [✂].

and have it work across all consumer devices that can access the web through a web browser.[361,362]

6.121 In light of the foregoing, our provisional view is that there are strong indirect network effects, especially for native apps, which act as a barrier to entry and expansion for rival Mobile Platform providers. We take this into account below in our assessment of the barriers to entry and expansion for each component and the Mobile Platform as a whole.

Barriers to providing individual components of a Mobile Platform

6.122 A new Mobile Platform would need to be able to offer each component of the platform, whether through developing its own software or accessing existing alternatives. Therefore, we consider in this section the barriers to providing a mobile operating system, native app distribution services, and a mobile browser and browser engine. Broader possibilities for entry and expansion by alternatives to these components (for example from AI) are considered in latter sections.

Mobile operating system

6.123 A rival Mobile Platform would broadly have two options for supplying a mobile operating system: (a) licensing an existing operating system; or (b) developing a new operating system.

6.124 Our provisional view is that there are high barriers to supplying a mobile operating system as part of a new Mobile Platform because:

(a) **Options for licensing are limited:** Apple's iOS and iPadOS and Amazon's Fire OS are currently used exclusively as part of their own Mobile Platforms[363] and while Google does license its Android operating system to third-party OEMs, it only does so conditional on those mobile devices meeting Google's compatibility criteria (ie entering into the Android Compatibility Commitment (ACC) and complying with the definition of the Android operating system set out in the Compatibility Definition Document (CDD)).[364] As such, mobile devices using a version of the Android operating system would be limited in their ability to differentiate their offering and thereby compete with existing providers of Mobile Platforms.

[361] Although compatibility issues may result in some web content not functioning correctly with all browsers, we understand the vast majority of web content works with all browsers.
[362] Mobile browsers are themselves a type of native app which need to be written for each specific operating system, but a Mobile Ecosystem supplier could self-supply a mobile browser or would need only one third-party provider to make its mobile browser available on its mobile operating system, to allow end-users to access web-based content.
[363] Apple's response to section 69 notice [✂]; and Amazon's response to section 69 notice [✂].
[364] See Brand guidelines | Google Play | Android Developers and Android Compatibility program overview | Android Open Source Project.

(b) **Developing and maintaining a new operating system requires significant time and financial resources:** a significant portion of these costs are fixed and do not vary with the number of users of the operating system, making it more difficult for a new entrant to compete against established operating systems with large numbers of users and therefore lower costs per user.[365] We note that new entrants do not necessarily need to develop a mobile operating system from scratch due to the availability of open-source solutions - including Android where the source code is publicly available. For example, Amazon entered the UK market with its own operating system (Fire OS) which was forked from Android. Using one of these existing open-source solutions may facilitate time and cost savings. However, Amazon noted that its Android fork operating system has required substantial investments.[366]

(c) Mobile operating systems are subject to strong indirect network effects (see 'Indirect network effects' section above) given their function as an intermediary between hardware and software on a mobile device. A successful mobile operating system therefore needs both a critical mass of end-users and content providers.

Native app distribution

6.125 Native apps are the primary way that end-users consume content on their mobile devices and therefore being able to offer a wide range of native apps is important for a Mobile Platform to be attractive to users.[367] Native apps are most commonly accessed by users via an app store[368] and so as part of their offering, Mobile Platform providers will typically need to provide an equivalent app marketplace.[369,370]

6.126 We have considered the ease with which a new Mobile Platform provider could supply native app content, either by using an existing app store or developing its own app store. Our provisional view is that there are high barriers to supplying native app content as part of a new Mobile Platform because:

[365] Apple submitted that it has invested billions of dollars in its mobile operating systems and that a portion of the costs are fixed (i.e. do not depend on the size of the user base). Apple's response to section 69 notice [✂]; Google submitted that Android is the product of effort and investment. Google's response to section 69 notice [✂].
[366] Amazon submitted that it had considered [✂]. It submitted that the total cost of developing and maintaining its Android fork FireOS, the devices that run it, and its native apps [✂].
[367] For example, in March 2023 users in the UK spent on mobile apps over five times the hours they spent on mobile web browsers. See UK time spent on browsers and apps 2023| Statista
[368] We note that an app store is required as it would be very difficult for one firm to develop a wide range of native apps themselves.
[369] In 2024 on Android mobile devices, there were approximately [✂] [1.5-2] billion first time downloads of native apps via an app store. This compares with approximately [✂] [200-250] million downloads via sideloading. We do not have data on usage of native apps that are pre-installed on mobile devices. Figures based on data from app store providers on Android. See Annex A for further details. Google's response to section 69 notice [✂].
[370] For example, Apple's 'App Store', Google's 'Play Store' and the 'Amazon Appstore'.

(a) **Native apps are written to run on a specific operating system:** so a new Mobile Platform provider with its own operating system could not use an app store (or the associated catalogue of apps) from an existing Mobile Platform.[371] This might be less of an issue if the rival Mobile Platform provider were able to use one of the existing established operating systems. However, as set out above, options for this are limited.

(b) **There are very strong indirect network effects related to native app distribution (as set out in 'Indirect network effects' section above):** it is likely to be difficult for a new entrant to convince third parties to develop their apps for its nascent Mobile Platform which only has a small number of end-users.

(c) **Apple and Google own a number of the most popular mobile apps and are able to restrict access to these apps:** Google's first party apps, in particular, are among the most used mobile apps – for example in the UK in 2024, Google provided the top app on Apple mobile devices (by first time downloads) in the categories of [✂], and featured in the top 10 apps in other categories such as [✂].[372] A new entrant's competitive offering will be materially weakened if it is unable to offer these apps that are important for end-users.[373,374]

(d) **A new entrant will incur material costs related to the development and ongoing operation of an app store:** a significant portion of these costs are fixed and do not vary with the number of users of the app store, making it more difficult for a new app store to compete against established app stores, with large numbers of users and therefore lower costs per user, and who have already sunk these costs.

(e) As set out in Chapter 7, we do not consider that any of the alternatives to native app distribution via an app store (eg web apps) provide a viable substitute at present and this is unlikely to change over the next five years.

Mobile browsers

6.127 Mobile browsers are, alongside native apps, the main avenue through which end-users consume mobile content on their devices. A rival Mobile Platform would therefore need to include a mobile browser to allow users to access web content,

[371] We understand that an operating system that has been forked from Android may retain some compatibility with Android apps but apps will typically not work or will only work with reduced functionality if they utilise Google APIs. This is the case for the majority of the most popular apps on the Play Store. [✂] [Third party's] response to section 69 notice [✂].
[372] Apple's response to section 69 notice [✂].
[373] We note that Apple typically does not allow its first party apps to be used outside of its Mobile Ecosystem (with some exceptions including Apple TV, Apple Music and Move to iOS).
[374] For example, as set out in the 'Competition from non-Apple Mobile Platforms for end-users' section, Amazon's Fire OS does not have access to Google's suite of apps (available to Android compatible versions of its operating system through the GMS suite of apps) which materially weakens the strength of its tablet offering.

either by gaining access to an existing browser or developing its own mobile browser.

6.128 While there are some challenges and costs[375] associated with doing so, our provisional view is that these challenges are unlikely to pose a significant barrier to a rival Mobile Platform provider because:

(a) **The strength of the indirect network effects is more limited for web content:** only one mobile browser needs to be developed as a native app to allow end-users to access all web-based mobile content. A rival Mobile Platform would therefore only need to persuade one or a small number of third-party browser providers to develop for its mobile operating system, or it could self-supply the browser. As set out in the 'Competition from alternatives to Google's Mobile Browser and Browser Engine' section of Chapter 7, there are various browser vendors that are active in the UK which a rival Mobile Platform may be able to partner with to provide a mobile browser eg through an upfront payment to cover the cost of porting the browser to a new operating system.[376]

(b) **The costs related to developing a browser for use on the new Mobile Platform are likely to be relatively modest** given the existence of open-source browsers and browser engines, and existing mobile browsers on other Mobile Platforms which could be adapted for the new operating system. Using an existing open-source browser engine eg Blink, WebKit, or Gecko, provides a relatively low-cost entry route for new mobile browser entrants.[377] The main cost for a new Mobile Platform entrant or rival (or, indeed, for a browser vendor operating on other platforms) would therefore be the cost of porting an existing open-source browser engine to the new operating system. Google submitted that it would need around [✂] [<20] FTE engineers for a year to develop a competitive Blink-based version of Chrome for iOS, which it described as a [✂] investment.[378] This indicates that the cost of porting an existing browser and browser engine to a new operating system is relatively limited. We note that Amazon supplies its own mobile browser 'Amazon Silk' on its Amazon Fire tablets.

[375] The browser developer will incur both initial one-off costs (for example, costs of software developers and engineers with the necessary technical expertise) to develop and operate the mobile browser, and future recurring costs to maintain and update the browser code
[376] (Porting) refers to the process of taking software developed for one operating system, and adapting it to work on another operating system.
[377] Apple's submission [✂], Google response provided in the context of the CMA's MBCG MI to section 174 notice [✂]; Google response to section 69 notice [✂]; [link] Google response to the CMA's MBCG MI Working Paper 1, 3 September 2024, paragraph 39. [link]
[378] Google's response provided in the context of the CMA's MBCG MI to section 174 notice [✂].

Barriers relating to mobile devices

6.129 A Mobile Platform needs to be installed on a mobile device. We have therefore considered the ease with which a rival Mobile Platform could secure this by licensing its platform to an existing OEM or developing its own mobile devices.

6.130 Our provisional view is that there are high barriers to supplying mobile devices as part of a new Mobile Platform for the following reasons:

(a) **Options for licensing to existing OEMs are limited:** Apple, Google and [✂] [Third Party] manufacture mobile devices to be used exclusively with their own Mobile Platform.[379] Other third-party OEMs (such as Samsung and Oppo) are unlikely to switch away from using Google's Android Mobile Platform because:

(i) OEMs will only want their devices to use a new Mobile Platform if it offers their end-user customers what they want across the parameters of competition set out in the 'Parameters of competition' section above. The various barriers to entry and expansion set out in this section means that this is unlikely to be the case;

(ii) OEMs told us that they would face significant financial[380] and resource/time costs[381] if they switched away from Google's Android operating system; and

(iii) Many OEMs receive substantial payments from Google under the revenue sharing agreements which are detailed in Annex C.[382] We consider that a rival Mobile Platform would be unlikely to be able to replicate Google's payments because of the importance of scale in the search market.[383] As set out in our SMS investigation into Google in relation to its provision of general Search services, Google is by far the largest provider of services in general search and search advertising.[384] Its leading position in search advertising means that Google is able to extract more value per mobile end-user than a rival who is able to access the same data.[385]

(b) **Manufacturing a mobile device requires significant resources and expertise:** modern mobile devices are relatively high-tech pieces of hardware, requiring the sourcing and assembly of many components including the touchscreen, camera, processor, memory, speaker, and

[379] Apple's response to section 69 notice [✂];[✂]; and Google's response to section 69 notice [✂].
[380] 3 responses to section 69 notices: [✂]; [✂]; and [✂].
[381] 3 responses to section 69 notices: [✂]; [✂]; and [✂].
[382] Google's internal document [✂].
[383] See SMS Proposed Decision in respect of Google's general search services, paragraph 5.153 for more detail.
[384] SMS Proposed Decision in respect of Google's general search services, Figures 5.1 and 5.4.
[385] See SMS Proposed Decision in respect of Google's general search services, paragraph 5.128 for more detail.

microphone. Producing mobile devices efficiently requires the establishment of a well-organised production process. [386,387]

Mobile Ecosystem level barriers

6.131 We note that the barriers identified for each component above have a cumulative effect in the sense that a rival Mobile Platform would need to provide all of these components. Furthermore, there are additional barriers which apply at the combined Mobile Ecosystem level as follows:

(a) **The component parts need to be integrated effectively so that they work well together as a Mobile Ecosystem**: our consumer survey results indicate that when purchasing a smartphone, end-users look for a product that combines what they want across the hardware and software components we have considered above.[388]

(b) **Getting end-users to switch from their existing Mobile Ecosystem is likely to be challenging**: this is because, as set out above in 'Competition from Google for end-users: End-user switching', end-users are often 'sticky' and disinclined to switch Mobile Ecosystem due to a combination of (i) barriers to switching, (ii) consumer disengagement, (iii) reported user satisfaction and (iv) brand loyalty.

(c) **Some mobile end-users value being part of a wider ecosystem which includes products and services beyond the Mobile Platform:**[389] for example, we note that Google's Mobile Ecosystem extends well beyond the core components of its Mobile Platform; it includes devices like the Pixel Watch, Pixel Buds, Google Nest devices, Fitbit devices and services such as Google Search, Gmail, Google Drive and Google Photos. A new entrant is likely to be at a competitive disadvantage if it is not able to offer a Mobile Platform that enjoys these broader connections. These products and services are also costly to develop.

(d) **The absence of a wider Mobile Ecosystem may also limit the ability of the entrant to monetise or support its Mobile Platform**: as set out in more detail in our SMS investigation into Google in relation to its provision of

[386] Financial Times, 'Why Trump can't build iPhones in the US', dated 28 April 2025, accessed by the CMA on 4 June 2025 [https://ig.ft.com/us-iphone/] and Apple's response to section 69 notice [✂].
[387] For example, see The Best Supply Chain in the World — Apple Inc | by armachat | Medium.
[388] In particular, both iOS and Android users mentioned hardware and software features as being important in their smartphone purchase decision. For example: (i) in relation to hardware features, camera was mentioned by 50% of iOS users and 53% of Android smartphone users, and battery life was mentioned by 46% of iOS users and 56% of Android smartphone users; and (ii) in relation to software features, the operating system was mentioned by 35% of iOS users and 37% of Android smartphone users. Accent Mobile Consumer Survey, Figure 9.
[389] For example, our consumer survey found that: (i) 39% of iOS users and 20% of Android smartphone users selected compatibility with other devices as an important factor in their smartphone choice; and (ii) 80% of iOS users had at least one other Apple device and 53% of Android smartphone users had a least one other Google device. Accent Mobile Consumer Survey, (i) Figure 9, (ii) page 77.

general Search services, we note that Google, in particular, is able to use its market power in general search services[390] to support its Mobile Platform. Google is able to monetise the consumption of content on its Mobile Platform directly through its search advertising businesses in a way that would not be possible for a rival Mobile Platform.[391]

6.132 Additionally, in the section below entitled 'Competition to Google's Mobile Platform arising from wider technological and market developments', we present evidence that ecosystem-level barriers to entry and expansion in mobile may strengthen over the next five years due to technological developments such as the integration of AI in Mobile Platforms and growth in connected and AR/VR devices.

Provisional conclusion on barriers to entry and expansion

6.133 While a rival Mobile Platform provider is unlikely to face significant barriers associated with gaining access to an existing browser or developing its own mobile browser, the foregoing analysis demonstrates that a rival provider would face significant overall barriers to entry and expansion in providing a competing Mobile Platform, with the indirect network effects related to attracting native app developers to a new operating system forming a particularly strong barrier. Therefore, we provisionally consider that Google faces limited constraints by the threat of entry and expansion of competing suppliers of Mobile Platforms.

6.134 We consider below whether there are market or technological developments that are likely to impact Google's position over the next five years despite these barriers to entry and expansion.

Competition to Google's Mobile Platform arising from wider technological and market developments

We have also considered the extent to which wider technological and market developments may exert a competitive constraint on Google's Mobile Platform, both now and in the future. We provisionally conclude that there are no expected or foreseeable developments that are likely (whether individually or in combination) to be sufficient in scope, timeliness and impact to eliminate Google's substantial market power in relation to its Mobile Platform over the next five years.

[390] As set out in SMS Proposed Decision in respect of Google's general search services, Annex B: Market outcomes (paragraph B.15 and Figure B.5) Google's share of supply in general search on mobile devices had been between [90 – 100%] and [90 – 100%] throughout the last seven years; and as set out in SMS Proposed Decision in respect of Google's general search services (paragraph 5.94 and Figure 5.4), Google's share of UK search advertising by providers of general search all devices has exceeded [90 – 100%] in every year since 2020.
[391] See Barriers to Monetisation (paragraph 5.179 to 5.183) of SMS Proposed Decision in respect of Google's general search services.

6.135 In this section we consider wider technological and market developments that could potentially impact competition in Mobile Platforms. These were identified from previous CMA horizon scanning[392,393] and the evidence on these was informed by Google and third parties.

6.136 Google submitted that its position in respect of its Mobile Platform is not entrenched due to technological developments (including AI, wearable devices and AR/VR devices), competition from new and emerging OSs, intensifying competition for game distribution on Android (eg cloud gaming platforms and handheld gaming devices) and the growth of Apple's mobile devices in lower price tiers.[394]

6.137 We asked Google for its internal documents that relate to the competitive trends affecting its Mobile Ecosystem over the next five years, as well as to any potential disruptions to its competitive position in this period. Google submitted documents that referred to developments such as the increasing use of connected devices, an increase in premiumisation of mobile devices, the integration of AI in mobile, the expansion of cross-platform gaming, and advancements in satellite connectivity.[395]

6.138 We also asked third parties what they considered to be the key technological and market developments in Mobile Platforms over the next five years. As a result, we received evidence relating to the potential impact on Google's position from certain key developments in Mobile Ecosystems. These developments include AI, connected devices such as smartwatches and AR/VR devices, edge computing, advances in network connectivity, and cross-platform gaming (eg handheld gaming devices).

6.139 We discuss these key developments in turn, in particular, setting out the evidence relating to whether these developments are likely to significantly change Google's position in respect of its Mobile Platform over the next five years.

Artificial Intelligence (AI)

6.140 AI features, such as foundation model (FM) services (ie services that rely on large machine learning models trained on vast amounts of data) are increasingly being integrated into mobile devices, enhancing applications as well as web-based content and OS-level features.

6.141 Evidence suggests that AI is the technological trend with the greatest potential impact in the supply of Mobile Platforms over the next five years.[396] This is

[392] Top 10 technologies – a CMA horizon scanning perspective – Competition and Markets Authority
[393] Trends in Digital Markets: a CMA horizon scanning report - GOV.UK
[394] Google's position paper, [✂]; Google's response to section 69 notice [✂].
[395] Google's internal documents submitted to the CMA: [✂].
[396] Parties including Apple and Google rated the expected impact of technological developments such as AI on competition in Mobile Ecosystems over the next five years. 16 parties expected AI will have a 'very substantial' impact

because AI has a wide range of potential use cases in mobile and it could alter how users interact with their mobile devices (eg instead of performing tasks from within native apps, users might rely increasingly on agentic AI voice assistants to perform these tasks on their behalf).[397] AI may therefore have an impact on competition in the supply of Mobile Platforms as well as for different components within Mobile Platforms.

6.142 The evidence in the round does not suggest that AI-related developments are likely to disrupt Google's position in respect of its Mobile Platform over the next five years:

(a) Google submitted that AI may become a key differentiator between competing mobile operating systems and create a 'dynamic and profoundly novel environment where AI capabilities might have a more direct impact on mobile OSs in numerous ways, including from the OS integration of AI-powered apps and services'.[398] Google also submitted that AI is intensifying competition in mobile browsers, which we address in more detail in the section titled 'Competition from alternatives to Google's Mobile Browser and Browser Engine' in the following chapter.[399]

(b) Some third parties submitted that AI could enhance competition in operating systems – for example, by creating scope for operating systems to incorporate new AI-based features and functionality.[400] Some third parties also submitted that AI could weaken Google's position in mobile browsers or native app distribution[401] which we discuss in the following Chapter.

(c) However, many third-party views were that AI is not likely to substantially disrupt Google's position in respect of its Mobile Platform over the next five years.[402] This is consistent with our analysis of Google's internal documents, which suggested Google does not consider AI as a significant threat to its position. Google's internal documents [✂][403] [✂].[404]

6.143 Furthermore, evidence suggests that Google may be able to use AI to strengthen its position in respect of its Mobile Platform and wider Mobile Ecosystem:

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with a further 4 parties expecting it to have a 'substantial impact'. Only 2 parties expected that AI will have a less-than-substantial impact. We also asked parties about the potential impact of other technological trends, but overall parties did not rate the potential impact of any other trend as highly as AI. Apple's response to section 69 notice [✂]. Google's response to section 69 notice [✂] 20 parties responses to section 69 notices: [✂].

[397] 20 parties responses to section 69 notices: [✂].

[398] Google's response to section 69 notice [✂].

[399] Google's submission [✂].

[400] Parties responses to section 69 notices: [✂].

[401] Parties who referred to AI's impacts on NAD and Browsers. Parties responses to section 69 notices: [✂].

[402] 16 Parties total. 11 parties responses to section 69 notices: [✂].3 parties responses to the CMA's invitation to comment: DMG Media (paragraph 2); Coalition for App Fairness (page 3); [✂] Financial services firm B (page 8). 2 parties notes of meetings: [✂].

[403] Google internal document: [✂].

[404] Google's internal documents: [✂].

(a) The trend towards increased integration of AI into mobile devices is likely to reinforce the barriers to entry and expansion in Mobile Platforms (discussed above in the section 'Barriers to entry and expansion in Mobile Platforms'). Creating a highly integrated platform that facilitates smooth interactions between different products and services across the operating system to compete with Google's Mobile Platform offering[405] can be costly.[406]

(b) Many third parties submitted that Google may be able to use AI to strengthen its position in respect of its Mobile Platform and wider Mobile Ecosystem.[407] For example, Google's position as the operating system provider may enable it to gain a competitive advantage relative to third-party providers of FM services and wider content,[408] particularly if Google can use AI to disintermediate between end-users and third-party content and service providers.[409]

Connected devices and AR/VR products

6.144 The evidence does not suggest that the developments related to connected devices and AR/VR products are likely to significantly change Google's position in respect of its Mobile Platform:

(a) Google submitted that wearables have increased in popularity over the last decade [✂].[410] Specifically, it submitted that innovation in wearable technology incentivises mobile operating systems to maintain high levels of compatibility with wearables[411] in order to gain a competitive advantage.

(b) Whilst some third parties (two connected devices providers and five app developers)[412] submitted that connected devices and AR/VR will have an increasing role in competition in Mobile Platforms over the next five years, most respondents[413] considered that connected devices and AR/VR will have a limited impact on Mobile Platforms over the next five years. This was because of AR/VR devices not having a significant commercial impact,[414] or

[405] For example, see AI on Android: AI-enabled features for your phone | Android, for examples of use cases of AI on Android mobile devices, accessed by the CMA on 27 June 2025.
[406] [✂] response to section 69 notice [✂] and see also public articles which suggest Apple and Google are spending a significant amount to develop and integrate AI for their Mobile Ecosystems. For example: Apple will spend more than $500 billion in the U.S. over the next four years - Apple, accessed by the CMA on 11 June 2025; and Google plans $75B investment to build out cloud AI capacity | CIO Dive, accessed by the CMA on 11 June 2025.
[407] 13 parties total. 7 parties responses to section 69 notices: [✂]. 3 parties responses to the CMA's invitation to comment: Coalition for App Fairness (page 3); [✂] Financial services firm B (page 8); BBC (page 5). 1 party note of meeting [✂].
[408] 2 parties responses to section 69 notices: [✂].
[409] 6 parties total. 5 parties responses to section 69 notices: [✂].1 party's response to the CMA's invitation to comment: BBC (paragraph 25).
[410] Google's response to section 69 notice [✂].
[411] This is because AR apps rely on certain APIs provided by the OS provider in order to function effectively.
[412] 7 parties total. 6 parties' responses to section 69 notice: [✂]. 1 party's response to the CMA's invitation to comment: [✂] Financial services firm B (paragraph 28-29).
[413] 14 parties responses to section 69 notices: [✂].
[414] 4 parties total. 3 parties responses to section 69 notices: [✂]. 1 party's note of meeting: [✂].

because of limited scope for future market disruption given this trend is largely a continuation of AR/VR trends in the past.[415]

(c) Additionally, our analysis of Google's internal documents did not suggest that AR/VR technology is a substantial threat to Google's position. [✂].[416, 417] Indeed, internal documents indicate that [✂] and we understand that Google has announced Android XR, an operating system for extended reality devices in 2024.[418, 419]

6.145 Moreover, two third parties submitted that the trend towards increasing usage of connected devices and AR/VR products may further entrench Google's position in its wider Mobile Ecosystems.[420] A few parties submitted that connected devices are likely to remain dependent on smartphone connections over the next five years,[421] such that Google's control over this connection could enable it to raise barriers to competition in the supply of Mobile Platforms (for example due to the user lock-in effects of connected devices as discussed above in the section titled 'Competition from Apple for end-users: End-user switching').[422]

Other market and technological developments

6.146 Third parties mentioned other developments that may have an impact on Mobile Platforms over the next five years, including advances in network connectivity, edge computing, cross-platform gaming (ie via portable handheld gaming devices) and emerging modes of accessing digital content (eg web apps and 'super apps'). The impact of the latter two trends is specifically considered in the following Chapter.

6.147 However, evidence does not suggest that these developments, particularly those related to edge compute and network connectivity, are likely to significantly change Google's position in respect of its Mobile Platform over the next five years:

(a) Third parties generally considered the developments in edge compute as part of the trends related to AI on mobile, which as discussed above, are unlikely to significantly weaken Google's position in respect of its Mobile Platform.[423] This is because parties referred to how advancements in edge compute will facilitate processing for AI products and services (eg via on-device AI chips),

[415] [✂] response to section 69 notice [✂].
[416] Google internal documents [✂].
[417] Google internal document [✂].
[418] Google internal document [✂].
[419] See Android XR: A new platform built for headsets and glasses, accessed by the CMA on 8 July 2025.
[420] [✂] response to section 69 notice [✂]. Note of meeting with [✂].
[421] Google's response to section 69 notice [✂]; [✂] response to section 69 notice [✂]. Note of meeting with [✂].
[422] [✂] response to section 69 notice [✂]; [✂] response to section 69 notice [✂]. Note of meeting with [✂].
[423] 7 parties responses to section 69 notices: [✂].

such that integrating AI into mobile depends in part on a firm's ability to harness advances in edge compute.[424]

(b) Some third parties[425] mentioned advances in network connectivity (eg network slicing) but one party[426] noted that it is unclear whether when these trends will take place, such that it is unclear whether they will take effect soon enough to have a substantial impact over the next five years. In any case, no third party submitted that this trend is likely to diminish Google's position in respect of its Mobile Platform or wider Mobile Ecosystem.[427] Further, a couple of third parties submitted that as the operating system provider Google will remain in control of this development because Google can control how third-party connectivity providers interact with end-users on Android mobile devices and potentially influence how those providers offer their services.[428]

Impact on overall position of Google's Mobile Platform over the next five years

6.148 The evidence overall does not suggest that there are expected or foreseeable developments that are likely (whether individually or in combination) to be sufficient in scope, timeliness and impact to eliminate Google's substantial market power in relation to its Mobile Platform over the next five years:

(a) Many respondents[429] who provided a view on the future of Mobile Platforms overall did not expect substantial change to Google's position over the next five years.[430] Only two respondents (industry bodies) submitted explicitly that Google does not have substantial market power and competition in Mobile Platforms is dynamic.[431]

(b) In addition, submissions from many [16][432] third parties suggest that Google's ability to leverage between different parts of its Mobile Platform and to

[424] 2 parties responses to section 69 notices: [✂].
[425] 3 parties responses to section 69 notices: [✂]. Parties responses to the CMA's invitation to comment: BT (paragraphs 5 and 7); Mobile UK (paragraphs 8-10); Three (pages 2-3).
[426] [✂] call note [✂].
[427] Although, note that one app developer submitted that, in relation to the impact of connectivity advances, Apple and Google are likely to leverage their resources to stay competitive but a failure to innovate could erode their position by 2030. [✂] response to section 69 notice [✂].
[428] Parties' responses to the CMA's invitation to comment: Mobile UK (paragraphs 8-10) BT (paragraphs 5-8).
[429] 10 parties' responses to section 69 notices: [✂]; 3 notes of meetings: [✂]; 3 parties responses to the CMA's invitation to comment: DMG Media (paragraph 2); Coalition for App Fairness (page 3); [✂] Financial Service Firm B (paragraphs 25).
[430] As well as asking stakeholders about specific market and technological developments, we asked third parties more generally how they expect Google's position in Mobile Ecosystems will evolve over the next five years.
[431] Parties responses to the CMA's invitation to comment: CCIA (page 3); Chambers of Progress (page 2).
[432] 15 parties' responses to section 69 notices: [✂]; 2 party's note of meeting: [✂]; 3 parties responses to the CMA's invitation to comment: DMG Media (paragraph 2); Coalition for App Fairness (page 3); [✂] Financial Service Firm B (paragraphs 26-29);

adjacent markets is likely to increase over the next five years due to technological developments.[433]

(c) Our analysis of the internal documents submitted by Google did not suggest that any future trends are likely to substantially disrupt the overall position of Google's Mobile Platform over the next five years. Google's internal documents do not appear to identify any substantial threats to Google's position but instead see the trends as an opportunity to increase monetisation across its Mobile Platform.[434]

Provisional conclusion on competition from other Mobile Platforms

6.149 We provisionally conclude that Google's Mobile Platform faces limited competitive constraint from rival Mobile Platforms and we have seen no evidence of expected or foreseeable developments suggesting this is likely to change over the next five years. This is for the following reasons:

(a) Google is the only licensable Mobile Platform available and it faces extremely limited constraint from the threat of OEMs switching to license a different Mobile Platform. This allows Google to control the use of its Mobile Platform and the placement and promotion of its broader services on Android mobile devices.

(b) Although there is evidence of competition between Google's and Apple's Mobile Platforms, the overall constraint imposed by Apple is limited because Google's and Apple's Mobile Ecosystems have a different focus across the market, end-users are often "'sticky'" and disinclined to switch and revenue sharing agreements between Apple and Google limit their incentive to compete for users.

(c) Content providers typically distribute their content on both Google's and Apple's Mobile Ecosystems in order to reach all mobile users. This means there is a limited constraint from content providers switching between them.

(d) Amazon is the only other Mobile Platform provider with a material share of supply in the UK. It provides a weak constraint on Google as it only supplies tablets and Amazon's tablets do not have access to the suite of Google's popular apps through GMS.

(e) There are significant barriers to entry and expansion in providing a competing Mobile Platform and therefore Google faces limited constraint from the threat

[433] We asked third-party stakeholders whether they expected technological developments will affect Google's ability to use its position in relation to various components of its Mobile Platform (ie Android, Chrome and the Play Store) to reinforce or improve its position in Mobile Platforms and related markets over the next five years.
[434] Google's internal documents: [✂].

of such entry or expansion occurring. The indirect network effects related to attracting native app developers to a new operating system are a particularly strong barrier.

(f) Although certain expected or foreseeable market and technological developments such as AI, connected devices and AR/VR products may affect Google's conduct in relation to its Mobile Platform, they are unlikely to significantly change Google's position in respect of its Mobile Platform in the next five years.

7. SEMP: COMPETITION FROM ALTERNATIVES TO GOOGLE'S MOBILE CONTENT DISTRIBUTION

In this chapter we consider the competitive constraints on Google's mobile content distribution within Google's Mobile Ecosystem, and from non-mobile devices. Alternative methods of accessing content are available to users within Google's Mobile Ecosystem, including alternatives to native apps and rival mobile browsers, and these may provide a competitive constraint on Google's Play Store and Chrome mobile browser respectively. Similarly, non-mobile devices provide an alternative means for users to access content, and for content providers to distribute content, and therefore may provide a competitive constraint on Google's content distribution within its Mobile Ecosystem.

7.1 This chapter is structured as follows:

(a) We first consider the **competitive constraint from alternatives to Google's Native App Distribution** both within Google's Mobile Ecosystem and from non-mobile alternatives.

(b) We then consider the **competitive constraint from alternatives to Google's Mobile Browser and Browser Engine** both within Google's Mobile Ecosystem and from non-mobile alternatives.

(c) Finally, we set out our overall **provisional conclusion** on the competitive constraint from alternatives to Google's mobile content distribution.

Competition from alternatives to Google's Native App Distribution

This section considers the competitive constraints that Google's Play Store may face from alternative app stores within its Mobile Ecosystem. We also consider competitive constraints from alternative ways of distributing content on mobile devices within its Mobile Ecosystem, such as sideloading, web-based content, emerging forms of distribution as well as from non-mobile platforms like gaming consoles.

We provisionally find that all of the above alternatives within Google's Mobile Ecosystem as well as alternatives on non-mobile devices impose a limited constraint on Google's Play Store and we have seen no evidence of expected or foreseeable developments suggesting that this is likely to change over the next five years.

These provisional findings are consistent with our assessment in the previous chapter that Google does not face strong competitive constraints to improve on outcomes for users and app developers through reductions in commission rates and / or improvements to quality. Furthermore, these provisional conclusions are consistent with our profitability analysis showing that Google was and is expected to continue to make high profits and we have

not seen evidence that Google is eroding those profits by responding to competition, eg through price reductions and/or investment in product and service improvements.

7.2 As set out in Chapter 2, most services accessed as apps on mobile devices are developed as dedicated native apps and downloaded using an app store controlled by the operating system provider such as the Play Store on Google's Mobile Platform. However, there are other ways for users to access and for app developers to distributive native apps, including alternative app stores[435] but also sideloading[436] and preinstallation of native apps by OEMs.[437]

7.3 In this section we consider the competitive constraints that Google's Play Store may face from such alternatives, both now and in the future. Specifically, we consider:

(a) The competitive constraints from **alternative app stores** within Google's Mobile Ecosystem, including:

(i) **Shares of supply** of app stores within Google's Mobile Ecosystem;

(ii) **the extent of competitive constraint** from alternative app stores within Google's Mobile Ecosystem; and

(iii) the extent to which competition from these rival app stores within Google's Mobile Ecosystem might be constrained by **barriers to entry and expansion**.

(b) The competitive constraint from **alternatives in native app distribution**, including users **sideloading** native apps and OEMs **preinstalling native apps** on the Android mobile devices.

(c) The extent of competitive constraints on the Play Store from **web-based content distribution, such as web-apps and PWAs**.

(d) The extent of competitive constraint on the Play Store from emerging forms of content distribution such as **cloud-based gaming platforms** and **super apps** as well as **AI-based content distribution** within Google's Mobile Ecosystem.

(e) The extent of competitive constraints from **non-mobile alternatives** such as game consoles.

[435] Where users can use more than one app store without switching their mobile device.
[436] Where an app developer's native app is downloaded by the user directly from the app developer's web page or via peer-to-peer transfer.
[437] Where device manufacturers can pre-install their own apps or apps from third-party app developers on their mobile devices which means those apps are available to users at the device set up.

(f) Finally, we draw overall **provisional conclusions** on the extent of competition faced by Google's Play Store within its Mobile Ecosystem.

7.4 Our assessment draws on analysis of usage data, evidence from Google, evidence from third parties and our consumer survey.

Competition from alternative app stores within Google's Mobile Ecosystem

7.5 This section sets out our assessment on the extent to which Google's Play Store faces a competitive constraint from alternative app stores within Google's Mobile Ecosystem.

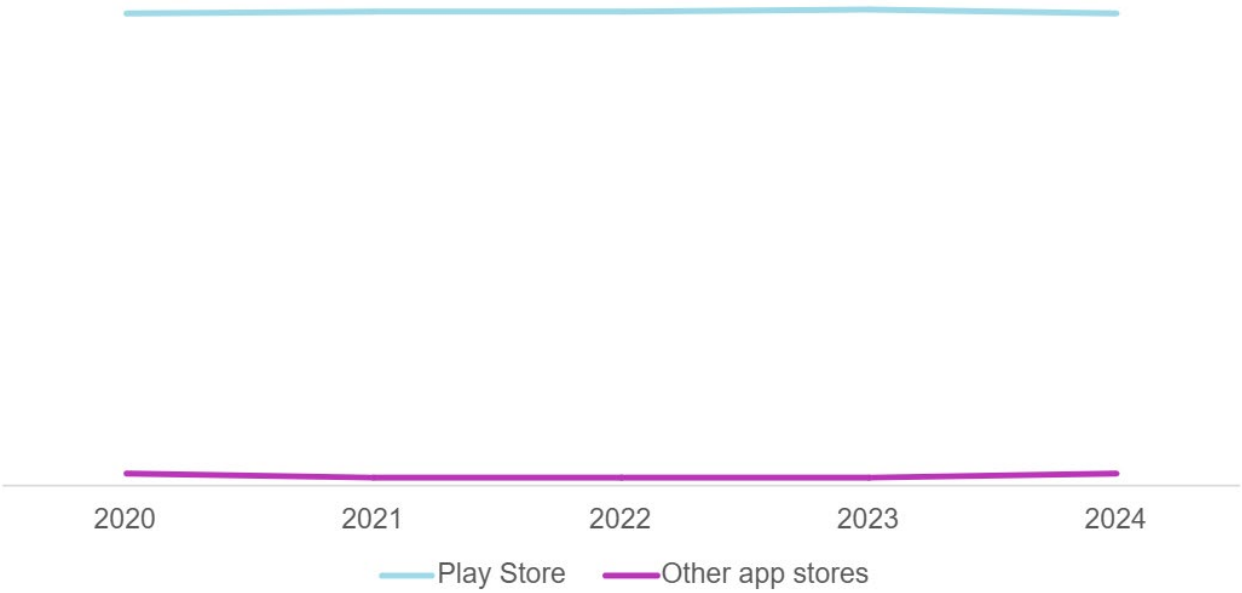
7.6 Examples of alternative app stores available within Google's Mobile Ecosystem include: Samsung's Galaxy Store, Amazon's Appstore,[438] Xiaomi's GetApps,[439] Oppo's App Market,[440] Huawei's AppGallery,[441] Aptoide's app store named Aptoide,[442] and Epic's Epic Games Store.[443] In the UK, Samsung's Galaxy Store is the most widely available alternative app store within the Google's Mobile Platform as a result of being pre-installed on all Samsung smartphones.

Shares of supply

7.7 As set out in Annex A, the Play Store is the largest app store within Google's Mobile Ecosystem, with [✂] [1.5 – 2] billion first time native app downloads in 2024,[444] compared to [✂] [0 – 100] million downloads across all other app stores.[445] The Play Store held a consistently high share of first-time native app downloads over the period of 2020–2024, with a range of [✂]% [90–100]%; whereas the combined number of first time native app downloads through alternative app stores accounted for [✂]% [0–10]% over that period.

[438] Amazon's Appstore will no longer be supported on Android from August 2025. Upcoming changes to Amazon Appstore for Android devices and other programs
[439] GetApps is pre-installed on Xiaomi, Redmi and POCO smartphones in the UK. It is not available on tablets. Xiaomi's response to section 69 notice [✂]
[440] App Market is pre-installed on Oppo mobile devices in the UK. Oppo's response section 69 notice [✂]
[441] AppGallery is available to install in the UK on Android mobile devices via sideloading. It is otherwise pre-installed on Huawei mobile devices which use a non-Android operating system. Huawei's response to section 69 notice [✂]
[442] Aptoide is available to install in the UK via sideloading. Aptoide's response to section 69 notice [✂]
[443] EGS is available via sideloading and is also pre-installed on mobile devices via the carrier Telefonica. Epic's response to section 69 notice [✂]
[444] Google's response to section 69 notice [✂]
[445] Samsung's response to section 69 notice [✂] Xiaomi's response to section 69 notice [✂] Oppo's response to section 69 notice [✂] Aptoide's response to section 69 notice [✂]

Figure 7.1: The proportion of native app downloads by app store within Google's Mobile Ecosystem in the UK (2020-2024)



Source: CMA analysis of data from Google, Samsung, Xiaomi, Oppo and Aptoide.

7.8 We consider that very high and sustained shares of supply indicate that the Play Store faces limited competitive constraints from alternative app stores within Google's Mobile Ecosystem.

The extent of competitive constraints from the alternative app stores within Google's Mobile Ecosystem

7.9 Google submitted that within its Mobile Ecosystem it faces competitive constraints from alternative distribution methods such as third-party app stores.[446]

7.10 First, evidence demonstrates that at present alternative app stores within Google's Mobile Ecosystem act as a limited constraint on the Play Store.

(a) This is in particular because of the presence of indirect network effects (as discussed above in the section 'Barriers to entry and expansion in Mobile Platforms') which imply that alternative app stores within Google's Mobile Ecosystem, which host materially smaller numbers of users, app developers

[446] Google noted that globally, [✂] [60 – 70]% of Android devices have at least two app stores installed and that [✂] [40 – 50]% of app developers distribute their apps through multiple Android app stores. Google's submission [✂] Google's response to section 69 notice [✂]

and/or apps, [447] are less attractive to app developers[448] and users,[449] compared to the Play Store. This is consistent with our assessment above that alternative app stores have very low usage and shares of supply, compared to the Play Store.

(b) This is also consistent with third-party evidence suggesting that app developers generally view Google's Play Store as an essential distribution channel for reaching users at scale and alternative app stores on Google's Mobile Ecosystem are generally considered to be inferior substitutes.[450] Also, around a quarter (16 of 55)[451] of the native app developers whom we heard from use alternative app stores within Google's Mobile Ecosystem and half of these app developers[452] noted that alternative app stores are inferior to the Play Store in terms of user reach, selection of apps and users' access, indicating that they generally consider alternative app stores as complements to the Play Store.[453] This is consistent with further submissions from several third parties that alternative app stores in the UK struggle to attract users and app developers,[454] and are at a disadvantage in terms of reach across Android OEMs, compared to the Play Store.[455]

(c) Our analysis of Google's internal documents from the past three years provides some evidence of Google monitoring alternative app stores within its Mobile Ecosystem. Several internal documents include broad mentions that the competition from alternative app stores is increasing.[456] However, only a few documents discuss competition from specific competitors such as Samsung's Galaxy Store[457] and Amazon Appstore[458] or specific examples of entry and expansion.[459]

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[447] As set out in Annex A, in 2024, an average of [✂] [2 – 3] million users downloaded a native app from the Play Store *in a day*. Whilst the data is not directly comparable, in 2024, an average [✂] [0 – 1] million users downloaded a native app from the Galaxy Store *in a month.* Further, in any month in 2024, the Play Store hosted [✂] [2 - 3] million native apps from approximately [✂] [600,000 - 700,000] app developers on average, compared to [✂] [0 – 1] million native apps from [✂] [0 – 50,000] app developers on Samsung's Galaxy Store. Google's response to section 69 notice [✂] Samsung's response to section 69 notice [✂]

[448] As noted above in Chapter 6, a size of a user base was the most frequently cited factor for app developers' choice of a distribution strategy.

[449] Based on our consumer survey, users with an Android smartphone when asked about the main reasons for using app distribution methods that they use, most frequently cited 'this is most convenient', 'this gives me the choice of apps I need' and 'this was on my phone when I got it'. Accent Mobile Consumer Survey, Table 18.

[450] View supported by just under half of large [15/36] native app developers and over a quarter [5/19] of small app developers. The remainder did not submit specific views on this point. 20 parties total including 17 RFI responses and 3 call notes. 17 responses to section 69 notices: [✂] 3 parties notes of meetings: [✂]

[451] 16 responses total. 13 parties responses to section 69 notices [✂] 3 parties notes of meetings[✂]

[452] 7 responses total. 4 parties responses to section 69 notices [✂] 3 parties notes of meetings [✂]

[453] One app developer submitted that it distributes via more than one app store in order to maximise the options available for users to install its apps. [✂] response to section 69 notice [✂]

[454] 7 parties total. 6 parties responses to section 69 notices; [✂] submission to the CMA [✂]

[455] [✂] submission to the CMA [✂]

[456] Google's internal documents: [✂]

[457] Several internal documents from 2023 contained references to the Samsung Galaxy Store, noting [✂]. We understand this to refer to competition in [✂]. Google's internal documents; [✂]

[458]One internal document from 2023 also notes [✂]

[459] One of the internal documents from 2023 also considers [✂] One additional document from January 2024 notes [✂]. Google's internal document [✂].

7.11 Secondly, the evidence we have received on potential entry and expansion from Meta, Microsoft, Epic Games, Samsung and other potential alternative app store providers, in relation to gaming segment and more broadly, suggests that alternative app stores are unlikely to significantly disrupt the Play Store's position:

(a) A large app developer [✂],[460] Microsoft[461] and Epic Games[462] submitted that their ability to launch and/or expand alternative app distribution channels is materially limited by a range of policies from Google which we explain in more detail below in the section 'Barriers to entry and expansion for alternative app stores within Google's Mobile Ecosystem' below.

(b) Amazon submitted that it will no longer be supporting its Appstore for Android mobile devices from August 2025 due to [✂] (discussed in more detail in section 'Barriers to entry and expansion for alternative app stores within Google's Mobile Ecosystem' below). Another app developer referred to Amazon's plans to close its Android Appstore, submitting that given a firm of such significance and size could not successfully operate an alternative app store, this casts doubt on the potential for future competition in app stores within Google's Mobile Ecosystem.[463]

(c) The number of active users and app developers on Samsung's Galaxy Store has fallen over the period from 2021 to 2024.[464] This is consistent with the evidence we received from four native app developers who submitted that they withdrew[465] their apps from the Samsung Galaxy Store or that they plan to do so in the near future.[466] Three of these app developers explained this is because they did not achieve sufficient user engagement (eg insufficient numbers of downloads) via this distribution channel.[467]

(d) Consistent with the above, nine third parties stated that they did not expect that alternative app stores will become popular in the near future within Google's Mobile Ecosystem in the UK.[468]

(e) Finally, whilst one third party submitted that Google's position may be weakened to some degree by market developments such as the entry of new app stores,[469] many third parties did not expect substantial change to

[460] Note of meeting with [✂].
[461] Microsoft's response to section 69 notice [✂]
[462] Epic's response to section 69 notice [✂].
[463] [✂] response to section 69 notice, [✂].
[464] As noted above, in 2024, Samsung's Galaxy Store hosted an average [✂] [0 – 50,000] app in any month, compared to that average in 2021 of [✂] [0-50,000]. Further, in 2024, an average [✂] [0 – 1] million users downloaded a native app from the Galaxy Store in a month, compared to an average of just under [✂] [[0 – 1] million] in 2021. Samsung's response to section 69 notice, [✂]
[465] 3 responses total. 2 parties responses to section 69 notices; [✂] Note of meeting with [✂]
[466] [✂] response to section 69 notice [✂]
[467] 2 parties responses to section 69 notices [✂] Note of meeting with [✂]
[468] 9 parties responses to section 69 notices; [✂]
[469] [✂] response to section 69 notice [✂]

Google's position. Specifically, sixteen[470] parties submitted that they did not expect Google's position in native app distribution to substantially diminish over the next five years, some of them noting this is due to entrenched user behaviour and network effects,[471] Google's policies hampering users' uptake of alternative methods of app distribution,[472] and Google's incumbency advantage, more generally.[473]

Barriers to entry and expansion for alternative app stores within Google's Mobile Ecosystem

7.12 This section considers barriers to entry and expansion which limit competitive constraint from alternative app stores.

7.13 We first note that entry and expansion of alternative app stores within Google's Mobile Ecosystem will be limited by barriers to producing an alternative app store in general, which are discussed in detail in the section 'Barriers to entry and expansion in Mobile Platforms'. Specifically, entry and expansion of alternative app store will be limited by barriers related to very strong indirect network effects and material costs associated with the development and ongoing operation of an app store.

7.14 However, alongside these barriers, the evidence we have received demonstrates that entry and expansion of alternative app stores within Google's Mobile Ecosystem will be impacted by a range of additional barriers, relating to Google's policies and agreements. Below we consider the evidence we received on the following potential barriers:

(a) Google's policies in relation to the discoverability and ease of distributing alternative app stores within Google's Mobile Ecosystem.

(b) Google's agreements with OEMs, specifically in relation to the pre-installation and placement of the Play Store.

(c) Google's policies in relation to the ability of alternative app stores to access functionality within Google's Mobile Ecosystem.

7.15 We have received submissions from a third-party app store provider that Google's past agreements with the largest app developers have limited entry and expansion from alternative app stores within Google's Mobile Ecosystem by preventing those app developers from launching their apps exclusively via competing app stores.[474] We understand that this submission refers to the agreements between Google and

[470] 16 parties responses to section 69 notices; [✂]
[471] [✂] response to section 69 notice [✂]
[472] [✂] response to section 69 notice [✂]
[473] [✂] response to section 69 notice [✂]
[474] [✂] response to section 69 notice [✂]

app developers (such as 'Project Hug') which have been discontinued.[475] We have not seen evidence to suggest that Google is pursuing agreements with app developers [✂].

Discoverability and ease of distribution

7.16 App developers who wish to distribute their apps via the Play Store have to agree to Google's Developer Distribution Agreement (**DDA**). Google submitted that it has a clause in its DDA that prohibits in-app links to download off-Play content. Our understanding of this clause is that it prohibits alternative app stores from being listed in the Play Store or promoting their app stores via apps downloaded from the Play Store.

7.17 Evidence suggests that the above clause acts as a material barrier to competition from alternative app stores, by making it more difficult for users to discover and install these app stores within Google's Mobile Ecosystem and therefore by limiting the ability of alternative app stores to attract users and app developers:

(a) One app store provider submitted that before 2013 it was able to distribute via the Play Store and it achieved a 'significant' user base in doing so. When Google banned alternative app stores from distributing via the Play Store, this limited the store's growth and substantially reduced its user numbers.[476]

(b) Another app store provider submitted that it has faced difficulties with advertising its app store within Google's Mobile Ecosystem. It received feedback from social media app developers that they would not carry adverts for its store due to concerns that this would breach Google's DDA.[477]

(c) One app developer submitted that it would like to launch a competing app distribution solution within Google's Mobile Ecosystem, but it is prevented from doing so because the DDA stops it from making users aware of, or linking to, its app distribution solution from within its apps. The app developer submitted that it is also effectively prevented from launching this app distribution solution because Google's agreements with OEMs mean that OEMs would need to request Google's permission to pre-install some necessary software for the app distribution solution to function.[478]

(d) Another app store provider submitted that it will withdraw its app store for Android in August 2025 because [✂].[479]

[475] Google's response to section 69 notice [✂]
[476] [✂] response to section 69 notice, [✂]
[477] [✂] response to section 69 notice [✂]
[478] Note of meeting with [✂]
[479] Note of meeting with [✂]

(e) Additionally, a third party wanting to provide a web-based store for distributing mobile games submitted that Google's policies prohibit linking out from apps in the Play Store to the web (ie pursuant to the DDA), meaning that users would have to discover and navigate to the store on their own from outside of the game and that this limits its ability to offer such a store.[480]

7.18 Further, evidence indicates that sideloading of alternative app stores within Google's Mobile Ecosystem is subject to a number of frictions[481] which result in inferior user experience compared to the Play Store and therefore limit the constraint from alternative app stores. In particular:

(a) One alternative app store provider submitted that frictions to the user journey for sideloading its app store create high user drop-off rates (ie more than 50% of attempts to install its app store are unsuccessful due to warning screens).[482]

(b) Another alternative app store provider submitted that one reason why its app store struggled to gain a sustainable user adoption rate within Google's Mobile Ecosystem as users are less likely to be knowledgeable about the technical steps involved with the sideloading process[483] and this makes it difficult to [✂].[484]

(c) Another alternative app store provider submitted that frictions to the user installation process for its app store reduces the number of installs and raises the costs of user acquisition campaigns as any installations cannot be implemented by the user seamlessly through its app store in a single click, whereas this is possible on the Play Store – which is pre-installed.[485]

OEM agreements on pre-installation and placement of the Play Store

7.19 Google submitted that OEMs can choose to pre-install the Google Play Store on a device-by-device basis under the EMADA but they are also free to pre-install alternative app stores.[486] It also submitted that all approved Android phones and tablets that were activated for the first time in 2024 in the UK had the Google Play Store pre-installed at device set-up.[487] Google submitted that globally [✂] [60 – 70]% of Android mobile devices have at least two app stores installed, and in the

[480] [✂] response to section 69 notice [✂] submission to the CMA [✂]
[481] User frictions to sideloading more generally is discussed below in the section 'Competition from sideloading within Google's Mobile Ecosystem'.
[482] [✂] response to section 69 notice [✂]
[483] Note of meeting with [✂]
[484] Call with [✂]
[485] [✂] response to section 69 notice, [✂]
[486] Google's response to section 69 notice [✂]
[487] Google's response to section 69 notice [✂]

UK, [✂] [50 – 60]% have at least one third-party app store on their Android device.[488]

7.20 We consider that Google's agreements with OEMs create strong incentives for OEMs to pre-install and prominently place the Play Store on the device home screen of Android mobile devices. Indeed, we understand from Google's submission above that [✂] [40 – 50]% of Android mobile devices in the UK have only the Play Store pre-installed. The impact of these agreements cannot be easily replicated by third-party app stores and therefore limits the constraint they can impose within Google's Mobile Ecosystem. Specifically:

(a) First, OEMs must pre-install and prominently place the Play Store in order to distribute a device with Google Mobile Services (**GMS**). This is a requirement of the EMADA, as explained in Annex C. OEMs are highly incentivised to distribute a device with GMS – and hence pre-install and prominently place the Play Store on their mobile devices – as this allows them to distribute a device with popular Google apps such as Google Maps, YouTube and Gmail. Likewise, this gives an OEM access to Google Play Services. Google Play Services act as an important software layer, housing Google APIs which work in the background of the device to ensure device functionality and enables developers to use a continually updated set of APIs.[489]

(b) Second, OEMs have strong financial incentives to pre-install and prominently place the Play Store in order to benefit from the Placement Agreement and Revenue Share Agreements, as detailed in Annex C.

7.21 Several third-party submissions were consistent with the view that the pre-installation and prominent placement of the Play Store as well as the relevant policies from Google limit the competitive constraint from alternative app stores.

(a) One app store provider submitted that these policies limited its ability to pre-install and prominently place its own app store on Android mobile devices because it was rejected by OEMs in the past for potential pre-installation deals. It further submitted that it considers that this has disincentivised potential competitors from attempting to impose a greater constraint on the Play Store in the past.[490] Similarly, two app developers submitted that OEMs are generally reluctant to pre-install third-party app distribution solutions within Google's Mobile Ecosystem because of the impact this might have on

[488] Google's response to section 69 notice [✂]
[489] Google's response to section 69 notice [✂].
[490] [✂] response to the section 69 notice [✂]. Similar concerns have been raised in the past. See for example a complaint filed by a coalition of 39 attorneys general in the United States District Court, Northern District of California (**the Utah complaint**), considered that 'Google intended to pay its most threatening competitor [Samsung] to stop competing' in app distribution (see paragraph 146, State of Utah et al v. Google LLC et al, 3:21-cv-05227, First amended complaint filed 1 November 2021). In addition, a second complaint filed by Epic Games against Google in the same court (**the Epic complaint**), considered that 'Google attempted to negotiate a deal with Samsung that would prevent the Galaxy Store from becoming a competitive threat' (see paragraph 119, Epic Games, Inc. v. Google LLC et al, Case Number 3:2020cv05671, updated complaint filed 19 August 2021).

their revenue sharing agreements with Google,[491] or the impact on their overall relationship with Google.[492]

(b) An app developer submitted that Google 'maintains a de facto monopoly' over app distribution within Google's Mobile Ecosystem and that Google's bundling of Google Play Services with the Play Store and financial agreements with OEMs further distort competition.[493]

(c) Two other app developers submitted that Google has used OEM agreements to impose restrictions in native app distribution,[494] with one of those parties submitting that Google do so by influencing the pre-installation of the Play Store.[495]

(d) An OEM submitted that Google's Android Compatibility Commitment agreement[496] may potentially impact the availability of alternative app stores within Google's Mobile Ecosystem because the OEM believes it prevents OEMs of Android mobile devices from pre-installing third-party app stores.[497]

7.22 We consider it is likely that this barrier to competition will remain in place. In part, this is because Google submitted that [✂].[498] This is also because our analysis of Google's internal documents suggests that Google is considering [✂][499] [✂],[500] and is also considering [✂].[501]

Ability to access functionality within Google's Mobile Ecosystem

7.23 Evidence we gathered shows that Google is using its control of the operating system to restrict access to certain functionality for alternative app stores or apps distributed via third-party solutions, impacting their ability to compete by innovating and adding features to their services. In particular:

(a) One app store provider submitted that Google's operating system-level permissions prevent alternative app stores from offering certain features such as 'anti-cheat' technology similar to Google's Play Integrity feature or implementing 'patching', a functionality that enables a developer to update

[491] Note of meeting with [✂].
[492] [✂] response to the section 69 notice [✂]
[493] Proton's ITC response, page 2 [Proton_AG.pdf]
[494] 2 parties responses to section 69 notices [✂].
[495] [✂] response section 69 notice [✂].
[496] As set out in Annex C, OEMs that have entered into the ACC and comply with the definition of Android set out in the Compatibility Definition Document can then enter into the EMADA which includes terms relating to the pre-installation and placement of the Play Store and other Google apps.
[497] [✂] response to section 69 notice [✂]
[498] Google's response to section 69 notice [✂].
[499] We understand that Google is pursuing a strategy called [✂], in order to increase user engagement with Play Store apps. Google's response to section 69 notice [✂]; Google's documents: [✂] Google's internal documents [✂].
[500] Google's internal document [✂].
[501] See for example Google's internal document [✂]. Although Google also submitted that [✂], Google's response to section 69 notice [✂].

only a portion of an application without requiring a user to re-download the app. [502]

(b) Another app developer submitted that many native apps within Google's Mobile Ecosystem depend on access to the Play Store to update APIs linked to the GMS and that Google would be able to withhold this access where apps are downloaded via third-party app stores. This would reduce its ability and incentives to further develop and potentially launch a competing app distribution solution within Google's Mobile Ecosystem.[503] Another app developer submitted that this would also make it more costly for app developers to achieve comparable functionality when distributing via alternative app stores (as they must remove and replace Google's APIs with their own versions) and reduce the attractiveness of those rival app stores to app developers.[504]

The competitive constraint from alternatives in native app distribution

Competition from sideloading within Google's Mobile Ecosystem

7.24 This section considers the competitive constraint on the Play Store from sideloading within Google's Mobile Ecosystem.

7.25 Google submitted that the Play Store is constrained by alternative methods of native app distribution such as sideloading.[505] However, Google also submitted that a user may sideload an app that is not available on the Play Store but continue using the Play Store for downloading other apps.[506] This suggests that sideloading can act as a complement to the Play Store rather than a direct substitute.

Usage of sideloading within Google's Mobile Ecosystem

7.26 The evidence set out below demonstrates materially lower usage of sideloading to download apps, compared to the Play Store.

7.27 As set out in Annex A, data from Google show that [✂] [20-30] million Android users sideloaded a native app on Android mobile devices in the UK in 2024. Whilst this data may overstate the number of unique users sideloading apps (as set out in

[502] [✂] response to section 69 notice [✂]
[503] [✂] submission [✂]
[504] [✂] response to section 69 notice [✂]. In more detail, app developers must now use an AAB package format for the Play Store, but they still generally use an APK format for other app stores.
[505] Google also noted that more than half of Android users sideload apps. Google's submission [✂]
[506] Google's response to section 69 notice [✂]

Annex A), it appears consistent with Google's submission that more than half of Android users sideload apps.[507]

7.28 However, the number of app downloads is significantly smaller than app downloads from the Play Store. For example, in any month in 2024, on average, an estimated [✂] [20 - 30] million native apps were sideloaded on Android mobile devices (this includes downloads from alternative app stores that were not preloaded), in comparison to [✂] [100 – 200] million native apps downloaded through the Play Store.[508] We note that the usage of sideloading for downloads has increased from 2023 to 2024, as set out in Annex A; however it is unclear if this data reflects a sustained trend.

7.29 The evidence from our consumer survey shows that the proportion of users who had access content through sideloading as being lower than Google's data. 92% of users with an Android smartphone had used the Play Store and 26% had used sideloading to get apps onto their current smartphone at any point in the past.[509] The percentage of respondents who had used sideloading increased since a similar survey was done in 2022, as part of MEMS. That survey reported that 12% of users with an Android smartphone had used sideloading before.[510]

7.30 Furthermore, the consumer survey data shows that even where users with an Android smartphone do access content through sideloading, their main way of accessing content remains through the Play Store. In respect of the most used method, 92% of users that used any method(s) stated the Play Store was their primary method and only 2% identified sideloading as their primary method.[511] This is consistent with the MEMS survey results from 2022, which reported that 90% of users with an Android smartphone stated the Play Store was the main way they got apps onto their smartphone while only 1% identified sideloading as their main method.[512]

[507] There were [✂] [40 – 50] million active Android devices in 2024 in the UK. Google's response to section 69 notice [✂].
[508] Google's response to section 69 notice [✂].
[509] Accent Mobile Consumer Survey, Figure 55
[510] Consumer purchasing behaviour in the UK smartphone market – CMA research report, published 17 June 2022, Figure 44 [CMA consumer research into purchasing behaviour in the UK smartphone market - GOV.UK]. Please note, there was a slight difference between the sideloading response options in the two consumer surveys. In the earlier survey conducted as part of MEMS, the response option was: 'Download an app directly from a website (also known as "sideloading"') without using an app store'. In the 2025 survey, the response option was: 'Download a mobile app (including another mobile app store) directly from a website (also known as "sideloading"), without using an app store to do so'. It is possible the addition of '(including another mobile app store)' in the 2025 survey prompted more users to select this.
[511] Reported percentages for primary method includes: users that only used one method; and those using 2 or more methods who were asked the follow up question 'Thinking about the different ways that you get apps, which of these ways have you used most often?'. A very small minority of users did not use any method. These users are excluded from the base of this estimate. Accent Mobile Consumer Survey, Figure 56.
[512] Consumer purchasing behaviour in the UK smartphone market for the CMA's Mobile Ecosystems Market Study, June 2022, Figure 43.

The extent of competitive constraints from sideloading within Google's Mobile Ecosystem

7.31 Evidence shows that sideloading is generally viewed by users and app developers as an inferior substitute to downloading native apps via the Play Store, due to a number of factors discussed below.

7.32 First, evidence shows that sideloading is an inferior alternative to the Play Store due to low usage, consistent with our assessment of usage data above:

(a) 7 of 8 app store providers submitted that sideloading does not present a competitive constraint on app stores in part due to low take-up – with one app store provider not giving a view.[513]

(b) the majority of (49 of 54) native app developers that responded to our request for information did not identify sideloading as a distribution channel they use within Google's Mobile Ecosystem.[514]

7.33 Second, evidence shows that sideloading is an inferior option to the Play Store in terms of the user experience:

(a) When sideloading an app, a user will encounter a series of warning screens (eg unknown source warnings), some of which Google requires OEMs to show to their users.[515] Some of these warning screens contain language such as 'harmful', 'vulnerable' and 'at risk' which may put a user off sideloading. Our assessment shows that installing an app from the Play Store takes around six steps, whereas sideloading an app on an Android device can take between eight and twenty steps depending on the number of prompts displayed and the way the user chooses to sideload an app. In addition, some of the Android device settings (eg the setting to prevent or allow the source to install unknown apps or the Auto Blocker setting on Samsung mobile devices[516]) are defaulted to prevent sideloading. Overall, we consider that the combination of these warning screens and the user journey to enable sideloading can add significant friction to the user experience.

(b) Consistent with the above, a number of third parties submitted that warning screens significantly undermine user experience when sideloading and

[513] 7 parties total.6 parties responses to section 69 notices [✂]. Note of meeting with [✂]
[514] 49 parties total. 42 parties responses to section 69 notices; [✂]. 7 notes of meetings; [✂].
[515] Google submitted that it requires OEMs to show users just one warning when sideloading to Android devices. If the browser (or other relevant app) does not have the permission to install other apps, the warning appears only once when the user grants permission for the unknown source to install apps. It explained this warning is in place because the sideloaded apps have not been vetted by Play's security review, so the apps may expose users to malware. It noted that Google does not require any further warnings, although OEMs and app developers may choose to add these warnings themselves. Google's response to section 69 notice, [✂].
[516] Samsung devices include an Auto Blocker setting, which prevents apps from being installed other than through authorised stores, such as the Play Store or the Galaxy Store. The setting also restricts updates over USB and some related functionalities.

therefore limit the constraints it can place on the Play Store.[517] One of those parties further submitted that Google has 'partnered with Samsung to make direct downloading even more difficult on Samsung mobile devices'.[518]

(c) One app developer also submitted that sideloading has lower discoverability and thus is inferior to the Play Store from a user journey perspective.[519]

7.34 Third, evidence also shows that sideloading apps is an inferior substitute to the Play Store in terms of providing security:

(a) Google submitted that sideloaded apps are 50 times more likely to contain malware than apps distributed through the Play Store.[520]

(b) Submissions from third parties were consistent with the view that sideloaded apps are more prone to security risks. For example, two OEMs, an app store provider and four large app developers submitted that sideloading is inherently risky – due to higher potential risks of malware and phishing[521] and therefore may lower user propensity to use sideloading.

7.35 Finally, we have seen some evidence to suggest that sideloaded apps also cannot achieve comparable functionality to the apps downloaded via the Play Store:

(a) Several third parties noted that fewer features are available to sideloaded apps or the user experience is inferior, compared to the Play Store[522] and that sideloaded apps may not be optimised for the mobile device and/or operating system, leading to performance or compatibility issues,[523] and issues related to updating sideloaded apps.[524]

(b) We further note that versions of the Android operating system (ie Android 13[525] and Android 15[526]) appear to limit the functionality of native apps that have been sideloaded, such as accessibility services or notification listener.

7.36 Considering the above evidence, we provisionally conclude that sideloading currently acts as a weak constraint on the Play Store. This is consistent with our assessment of Google's internal documents from the last three years, which

[517] 6 parties responses to section 69 notices [✂].
[518] 2 parties responses to section 69 notices [✂].
[519] [✂] response to section 69 notice, [✂];
[520] Google's submission [✂]. Android Developers Blog, 'Strengthening our app ecosystem: Enhanced tools for secure & efficient development', dated 25 March 2025, accessed by the CMA on 08 July 2025. [Android Developers Blog: Strengthening our app ecosystem: Enhanced tools for secure & efficient development]
[521] 7 parties responses to section 69 notices [✂].
[522] 2 parties responses to section 69 notices; [✂].
[523] [✂] response to section 69 notice, [✂].
[524] [✂] response to section 69 notice [✂]; Note of meeting with [✂].
[525] Esper, 'Android 13's New Sideloading Restriction Makes it Harder for Malware to Abuse Accessibility APIs', dated 03 May 2022, accessed by the CMA on 13 June 2025. [Android 13's Sideloading Restriction Makes it Harder for Malware to Abuse Accessibility APIs.pdf]
[526] Android, 'Android 15 Compatibility Definition', not dated, see section titled 'Start of new requirements for Android 15', accessed by the CMA on 13 June 2025. [Android 15 Compatibility Definition Android Open Source Project.pdf]

provides very little evidence that Google monitors competition from sideloading. Specifically, we have seen only one internal document from 2023 which [✂].[527]

7.37 As noted above, the usage of sideloading may have increased over time. However, the evidence overall does not suggest that developments in sideloading over the next five years are likely to significantly change the current position of Google's Play Store:

(a) Out of the 17 third parties that commented on how sideloading is likely to develop over the next five years, five app developers and one OEM submitted that the use of sideloading may grow by the end of 2030.[528] However, three of those parties expected the growth of sideloading to be limited, for example, to specific industries and interest groups such as gaming.[529]

(b) Furthermore, eight large app developers and two alternative app store providers submitted that they do not expect the prevalence or use of sideloading to materially increase,[530] or become a material competitive constraint on the Play Store[531] in the UK by 2030.

(c) This is consistent with the broader evidence suggesting that third parties do not consider future developments are likely to significantly change the current position of Google's Play Store in the section 'Competition from alternative app stores within Google's Mobile Ecosystem'.

Competition from pre-installations within Google's Mobile Ecosystem

7.38 Google submitted that nearly all Android OEM mobile devices have third-party apps such as Microsoft, Meta, Netflix, Twitter, Amazon, TikTok, Spotify, Booking.com and WPS Office pre-installed.[532] Google further submitted that it is constrained by pre-installation because this alternative takes users of, and user spending on, prominent, popular and heavily monetising apps outside of the Play Store.[533]

7.39 Evidence suggests that pre-installation imposes a weak constraint on the Play Store because only a very small number of popular app developers have agreements to pre-install their apps on Android mobile devices and because these app developers tend to consider pre-installation as a complementary distribution method to the Play Store:

[527] Google's internal document [✂].
[528] 6 parties response to section 69 notices; [✂].
[529] 3 parties response to section 69 notices; [✂].
[530] 5 parties responses to section 69 notices; [✂].
[531] 5 parties responses to section 69 notices; [✂].
[532] Google's response to section 69 notice [✂]
[533] Google's submission to the CMA [✂]

(a) All five Android OEMs we gathered information from submitted they only pre-install native apps which meet certain criteria.[534] Our analysis of data shows that the number of third-party apps pre-installed does not appear to exceed approximately [✂] [0 – 30] apps on any given Android device,[535] compared to an average of [✂] [2 - 3] million native apps hosted on the Play Store in 2024.[536]

(b) Of the native app developers we have gathered evidence from, around a fifth (10 of 54) indicated that pre-installations are a distribution method they actively use.[537] Of those, several indicated that pre-installation largely acts as a complement to the use of the Play Store because pre-installed apps still depend on the Play Store for a part of pre-installation process,[538] or to deliver updates to Android apps,[539] and a majority of them indicated that Google's Play Store is the only practical distribution channel to distribute apps to users within Google's Mobile Ecosystem at scale.[540]

7.40 Further, only one app developer submitted that it expected that pre-installation agreements between OEMs and app developers might grow as channels for distributing content over the next five years.[541] This is consistent with the broader evidence suggesting that third parties do not consider future developments to be likely to significantly change the current position of Google's Play Store in the section 'Competition from alternative app stores within Google's Mobile Ecosystem'.

The extent of competitive constraints on the Play Store from web-based content distribution, such as web-apps and PWAs.

Competition from web apps within Google's Mobile Ecosystem

7.41 Web content can be made available to users through traditional websites, web apps or PWAs, all of which are typically enabled through a mobile browser.[542] In this section we focus mainly on web apps and PWAs rather than other web-based content (ie traditional websites) because we understand that web apps and PWAs

[534] For example, apps with strong brand reputation, fulfilling a functional gap and market performance – such as high Play Store rankings, ratings and/or download volumes. 5 parties responses to section 69 notices; [✂].
[535] Data from: 5 parties responses to section 69 notices; [✂].
[536] Google's response to section 69 notice [✂]
[537] 9 app developers indicated they used pre installation, one OEM submitted a list of apps preinstalled on its devices, from this the CMA understands Microsoft uses preinstallation. 10 parties responses [✂].
[538] A large app developer noted its app is available for pre-installation on certain Android mobile devices but in the form of a 'stub APK', which is still downloaded via one of the pre-existing app stores. [✂] response to section 69 notice [✂]
[539] [✂] response to section 69 notice [✂]
[540] 6 parties responses to section 69 notices; [✂]
[541] [✂] response to section 69 notice [✂]
[542] Note that web-based content can range from being very simple (eg static, non-interactive websites such as blogs) to very complex and interactive PWAs (eg sophisticated software products such as games). As explained in the section 'Competition from alternatives to Google's Mobile Browser and Browser Engine', the users can interact with web content through in-app browsing, too.

have added functionality compared to traditional websites, making them more likely to be substitutable for native apps.

7.42 Google submitted that browser-based services such as web apps and PWAs are competitor distribution channels to the Play Store[543] and that it expects the sophistication and uptake of web apps to increase over the next five years.[544]

7.43 The evidence shows that within Google's Mobile Ecosystem, web apps are used far less frequently than native apps. This is supported by data from Google, Samsung and Mozilla, and from our consumer survey:

(a) Data from several browser providers in relation to the usage of PWAs within Google's Mobile Ecosystem[545] shows that in 2024, PWAs were installed by users on the home screens of their Android mobile devices via Chrome a total of [✂] [10 – 11] million times, via Samsung's Internet [✂] [0-50,000] times, and via Mozilla's Firefox [✂] [150,000-200,000] times. However, the usage of native apps remains substantively higher at [✂] [1.5 – 2] billion first time downloads of native apps from the Play Store on mobile devices in 2024.[546]

(b) The above data is broadly consistent with the evidence from our consumer survey which shows that while a proportion of users on an Android smartphone do access content through web apps, their main way of accessing content remains through the Play Store. Specifically, 92% of users with an Android smartphone had used the Play Store and 27% had used web apps on their current smartphone at any point in the past.[547] However, of the Android smartphone users that used multiple methods of getting apps on their smartphone, 92% stated the Play Store was their primary method and only 1% identified web apps as their primary method.[548]

7.44 The evidence suggests that for content providers, at present, web apps are not a viable substitute for native apps downloaded from the Play Store. This is despite web apps in principle being an attractive option for content providers because they involve lower development and maintenance costs compared to native apps.[549] Specifically, 58 of 108 content providers we gathered evidence from indicated that

[543] Google's response to section 69 notice [✂]
[544] Google's response to section 69 notice [✂]
[545] 3 parties responses to section 69 notices: [✂]. As set out in Annex A, these browsers account for 97% of shares of supply within Google's Mobile Ecosystem, in March 2025, according to Cloudflare Radar data.
[546] Google's response to section 69 notice [✂].
[547] Accent Mobile Consumer Survey, Figure 55.
[548] Accent Mobile Consumer Survey, Figure 56.
[549] The content provider (in this case, a web developer) can develop one web app which can be used across browsers on any operating system due to the common standards of the open web whereas native apps need to be developed for each operating system separately.

web apps are not viable substitutes to the native apps,[550] and a number of these content providers indicated that substitutability is particularly limited in terms of functionality[551] and discoverability,[552] which are important factors for providers' distribution choices.[553] Several content providers further submitted that functionality issues with web apps are due to restrictions that Apple has imposed on web browsers within its Mobile Ecosystem,[554] which carry over to Google's Mobile Ecosystem due to the platform-agnostic nature of web apps[555] (ie because web developers build their web apps using functionalities available across all major browsers).

7.45 As set out in Annex A, the use of web apps has increased over time. However, the evidence overall does not suggest that developments in web apps over the next five years are likely to significantly change the current position of Google's Play Store:

(a) Two OEMs and ten app developers submitted that web apps may advance technologically or increase in use and that this could reduce users' dependency on Google's Play Store;[556] and a few app developers[557] submitted they may invest more in web apps if their performance improves sufficiently.

(b) However, five large app developers, one app store provider and one OEM submitted that they doubt web apps will become viable substitutes for native apps or be widely adopted by 2030.[558] Furthermore, the majority (32 of 54) of app developers indicated they will continue to use the Play Store as the primary distribution channel within Google's Mobile Ecosystem over the next five years[559] and only a small number of app developers (8 of 54) expected to increase their use of web apps and/or alternative app stores, but only as a

[550] Of the remaining 50 content providers, 13 believed web apps were good substitutes and 37 gave no clear view. 58 parties total, split across CMA investigations. 21 responses in the context of the CMA's mobile ecosystem investigations including: 18 responses to requests for information; [✂]. Epic's response to invitation to comment, dated 23 January 2025, page 2. [Epic.pdf]. 31 responses to requests for information provided in the context of CMA's MEMS; [✂]. 6 responses provided in the context of CMA's MBCG MI; [✂].

[551] Three app store providers and 21 native app developers submitted that web apps within Google's Mobile Ecosystem have reduced functionality relative to native apps in terms of performance and access to the capabilities of the device they are running on. 18 responses to section 69 notices: [✂]; 2 responses to the CMA's Invitation to Comment from Epic (page 2); Juul Labs. 4 notes of meetings with parties: [✂].

[552] Five large app developers submitted that web apps suffer from reduced discoverability. 5 responses to section 69 notices; [✂].

[553] For example, several app developers have indicated that functionality and discoverability is an important factor shaping their choices how to distribute their apps. 4 responses to section 69 notices; [✂].

[554] 5 parties responses total. Including 2 parties responses to section 69 notices [✂] and 3 parties call notes [✂].

[555] Epic's response to ITC, page 2 [link]

[556] 12 responses to section 69 notices; [✂].

[557] 3 responses to section 69 notices; [✂];

[558] 7 responses to section 69 notices; [✂].

[559] 32 total including: 23 responses to section 69 notices; [✂] 2 parties call notes [✂]; Note several further third parties specified that this was dependent on there being no significant change to the options available to them due to regulatory intervention: 7 responses to section 69 notices; [✂]

complementary distribution channel to the Play Store.[560] [561] More generally, only a small proportion of content providers considered emerging modes of distributing digital content, including web apps, would have a substantial impact on competitive dynamics in Mobile Platforms over the next five years[562] and many [16] third parties indicated that they do not expect Google's (or Apple's) position in app distribution to significantly diminish over the next five years.[563]

(c) Google's internal documents from the last three years show very limited evidence of Google monitoring of web apps[564] and indeed one internal document suggests Google appears to consider web apps as [✂].[565] We did not find evidence in Google's internal documents suggesting that Google expects web apps to materially disrupt its position in native app distribution in the future.

Competition from cloud-based gaming platforms and super apps within Google's Mobile Ecosystem

7.46 Both cloud-based gaming platforms[566] and super apps are apps that can facilitate distribution of other apps and digital content within them. Therefore, at least in principle, both of these distribution methods replicate some of the functions of an app store, such as acting as a point of distribution for app developers within a given Mobile Ecosystem, allowing users to access content from more than one app developer and performing diverse tasks through a single app. However, cloud-based gaming platforms and super apps could only partially constrain the Play Store insofar as they are used for distributing gaming apps or another subset of apps – ie cloud-based gaming cannot act as a substitute for the distribution of non-gaming apps on the Play Store.

[560] 8 parties total. 7 parties responses to section 69 notice; [✂]. Note of meeting with [✂].
[561] The remaining 14 out of 54 app developers gave no view.
[562] 5 parties responses to section 69 notices [✂]. For third parties who did not consider emerging modes of digital content to have a 'substantial' impact, see: 15 third-party responses to section 69 notices [✂];
[563] 13 parties responses to section 69 notices; [✂]. 2 notes of meetings with; [✂]. 2 responses to the invitation to comment from Epic (page 9); Coalition for App Fairness (page 3).
[564] We found only one internal document from 2023, in which Google states [✂], later stating [✂] However, that document also highlights [✂]'. Google's internal documents: [✂]
[565]An internal document from 2023, Google appears to consider web apps as [✂], noting that [✂] Google's internal document responsive to section 69 notice [✂]
[566] Cloud-based apps are apps which do not include the majority of their functionality in the app files downloaded onto the device, but stream their content from the cloud. An example of this is cloud gaming apps, which run video games using storage and computing power hosted in the cloud, streaming only the video and audio output of the game to the device. This allows users to play technologically complex games on less powerful devices that may otherwise lack the computing power or storage to support them – such as mobile devices. See for example, CMA's Microsoft / Activision Blizzard merger inquiry (Microsoft/Activision) final report paragraph 4.32.

Competition from cloud-based gaming platforms

7.47 The evidence in the round indicates that currently cloud-based gaming platforms impose a limited competitive constraint on the Play Store.

(a) Google's submissions were generally optimistic about the development of cloud-based gaming. It submitted that it expects [✂].[567] Google further submitted that the emergence of cloud-based gaming platforms will provide a way for users to play games on Android mobile devices without obtaining the game from the Play Store.[568]

(b) However, only two native app developers we spoke to identified cloud-based apps as a distribution channel that they use for reaching users within Google's Mobile Ecosystem in the UK.[569] One of these app developers submitted that this distribution method does not help reach a 'commercially significant number of users' and that [✂]% nearly all of its mobile app revenue globally comes from the Play Store and Apple's App Store.[570]

(c) In addition, the major cloud-based gaming platforms, such as Amazon Luna and Microsoft's Xbox Cloud Gaming are only available within Google's Mobile Ecosystem as a web app. Evidence indicates that as a web app, a cloud-based gaming platform is affected by a range of limitations relative to native apps,[571] in addition to those discussed above in the section 'Competition from web apps within Google's Mobile Ecosystem'.

(d) It is also consistent with our analysis of Google's internal documents from the last three years in which we found only very limited evidence of Google monitoring of cloud gaming as a competitive constraint to its app distribution in the UK.[572]

7.48 Further, the evidence does not indicate that the developments in cloud-based gaming platforms are likely to significantly change the Play Store's position in the next five years:

(a) A number of third parties submitted that cloud gaming is likely to grow over the next five years,[573] and this is broadly consistent with the findings in the CMA's Mobile Browsers and Cloud Gaming Market Investigation.[574] Further,

[567] Google's response to section 69 notice [✂]
[568] Google's submission to the CMA [✂].
[569] 2 parties responses to section 69 notices; [✂]
[570] 2 parties responses to section 69 notices; [✂]
[571] [✂] submitted that Google's restrictions on alternative distribution and alternative billing systems have prevented it from offering a fully functioning cloud game streaming service to users. [✂] response section 69 notice [✂]. [✂] submitted evidence that cloud gaming web apps have many limitations in terms of functionality relative to native apps. [✂] response to the CMA's MBCG MI request for information notice [✂].
[572] We have found one Google internal document from 2023 that states [✂].
[573] 6 parties responses to section 69 notices: [✂]; 2 notes of meetings; [✂].
[574] CMA, Mobile Browsers and Cloud Gaming Market Investigation, Final decision report, paragraphs 12.21 and 12.26 to 12.32.

some third parties considered that the growth in cloud gaming will impact or has the potential to impact the Play Store's position.[575]

(b) However, no third party we spoke to indicated that cloud-based gaming platforms are likely to become a substantially stronger competitive constraint on the Play Store. As noted above, only a small proportion of content providers considered that emerging modes of distributing digital content such as cloud-based gaming platforms would have a substantial impact on competitive dynamics in Mobile Platforms over the next five years.[576] Additionally, one party's submission indicated that Google is able to restrict the emergence of cloud-based app distribution within its Mobile Ecosystem.[577]

(c) Finally, as we explain above in the section 'Competition from alternative app stores within Google's Mobile Ecosystem', a large number of third parties expect that the Play Store will remain the key distribution channel they will continue to use within Google's Mobile Ecosystem and that Google's position in app distribution will not significantly diminish over the next five years.

Competition from super apps

7.49 For the purpose of this investigation, we have referred to a super app as 'a mobile application that combines multiple services into one platform, allowing users to perform diverse tasks within a single application'.

7.50 Overall, super apps are significantly less prevalent in the UK compared to areas such as East and Southeast Asia where super apps offer a much wider and more complete range of services such as WeChat and Grab and are widely used. There are generally only a few examples of native apps which could potentially be considered as a super app in the UK. Some market players, like Uber, TikTok and Facebook, have expanded their in-app offerings beyond one distinct service in the UK and therefore could be said to be moving towards a 'super app' model.

7.51 The evidence demonstrates that super apps do not act as a competitive constraint on the Play Store:

(a) Google did not explicitly state that super apps act as a competitive constraint on the Play Store. Consistent with that, in our analysis of the internal

[575] 4 responses to section 69 notices; [✂]. Note of meeting with [✂].
[576] 5 parties responses to section 69 notices [✂]. For third parties who did not consider emerging modes of digital content to have a 'substantial' impact, see: 15 third-party responses to section 69 notices for [✂].
[577] [✂] response to section 69 notice [✂].

documents from Google we found very little evidence that Google monitors the competitive constraint from super apps.[578]

(b) No app developer identified super apps as a distribution channel that they use for reaching users within Google's Mobile Ecosystem in the UK or a competitive constraint on Google's Play Store. One third party submitted that Google has restricted the development of super apps in the past,[579] and another large app developer submitted that the structure of Google's in-app purchase commission rates can deter app 'consolidators' like super apps.[580,581]

(c) Finally, we note that super apps are largely distributed through the Play Store within Google's Mobile Platform, which limits the extent to which they can act as a substitute and a competitive constraint to the Play Store (eg in relation to commission rates offered to app developers).

7.52 While some app developers might be shifting towards a super app model, there is no indication that the developments related to super apps are likely to significantly change Google's position in native app distribution over the next five years:

(a) Submissions from 13 third parties[582] generally indicate that the future growth of super apps will be modest or uncertain. Only one smaller browser provider, an OEM and two app developers, submitted that they expect usage of super apps to increase by 2030.[583]

(b) Furthermore, as noted above in the section 'Competition from web apps within Google's Mobile Ecosystem', only a small proportion of content providers considered emerging modes of distributing digital content, including super apps, would have a substantial impact on competitive dynamics in Mobile Platforms over the next five years[584] and most app developers expected the Play Store to remain the key distribution channel within Google's Mobile Ecosystem.

[578] Google provided a document from 2023 which states that [✂]. In that context it lists several platforms, such as [✂], some of which have apps that could be considered as super apps. However we note that this document discussed global competitive trends and the apps such as [✂] are generally more popular outside of the UK. [✂]
[579] [✂] note of call [✂] and response to section 69 notice [✂].
[580] [✂] submission [✂].
[581] This is because super apps are more likely to be subject to the headline commission rate of 30% and less likely to benefit from the reduced rates of 15% which is charged on revenue up to $1 million per annum.
[582] 13 responses to section 69 notices; [✂].
[583] This is explored in greater detail in the 'Competition on Android' section of 'Competition from alternatives to Google's Mobile Browser and Browser Engine'. 4 responses to section 69 notices; [✂]
[584] 5 parties responses to section 69 notices [✂]. For third parties who did not consider emerging modes of digital content to have a 'substantial' impact, see: 15 responses to section 69 notices [✂].

Competition from AI-based content distribution within Google's Mobile Ecosystem

7.53 The evidence in the round does not indicate that AI-related developments are likely to significantly disrupt the Play Store's position over the next five years:

(a) Only some parties submitted that AI may lead to alternative distribution methods emerging for digital content on mobile or that AI agents may reduce users' reliance on native apps[585] which at least in principle could weaken the position of the Play Store.

(b) However, one large app developer submitted that AI assistants are unlikely to replace the roles of apps or disrupt the standard model of Mobile Platforms (ie an operating system with native apps) in a widespread or commercialised manner in this period.[586] Additionally, an OEM submitted that integrating AI tools in the Play Store may provide Google with greater control over how apps are presented to users,[587] thus reinforcing its current position.

(c) Google noted that AI can enhance how apps that run on top of an OS can be developed [✂].[588] In our assessment of Google's internal documents from the last two years, we found only limited mention of AI developments in the context of competition facing the Play Store. They refer to [✂].[589] However, our analysis of Google's internal documents did not suggest that Google considers AI to be a substantial threat to its market position. Overall, these documents suggest that Google views AI as [✂],[590] [✂][591] [✂].

(d) We also understand that as native apps, any third-party AI-based content distribution models will remain reliant on Google's Play Store for distribution within Google's Mobile Ecosystem and their access to inputs such as on-device AI compute will likely be controlled by Google as the operating system provider. This is consistent with our provisional view set out in section titled 'Competition to Google's Mobile Platform arising from wider technological and market developments' suggesting that Google's Mobile Platform and its wider Mobile Ecosystem, may ultimately benefit from AI-related developments rather than experience a weakening of its position.

Competition from non-mobile alternatives

7.54 Users access content across both mobile and non-mobile devices, including gaming consoles, televisions and desktop computers. We have therefore

[585] 5 parties responses to section 69 notices; [✂].
[586] [✂] response to section 69 notice [✂].
[587] [✂] response to section 69 notice [✂].
[588] Google's response to section 69 notice [✂].
[589] Google's internal document [✂]; Google's internal document [✂].
[590] Google's internal documents [✂]. Google's internal document [✂].
[591] Google's response to section 69 notice [✂].

considered the extent to which non-mobile alternatives provide a competitive constraint to Google's Play Store.

7.55 Google submitted that the Play Store faces competition from PCs and consoles where users can and do divert their attention,[592] particularly in relation to gaming apps, given that ~50% of engagement with these apps takes place outside Mobile Platforms[593] and this might further grow.[594] It also submitted that the Play Store does not earn a fee where users purchase in-game content outside of Google Play Billing which they can also access within their Play-distributed app.[595]

7.56 Consistent with Google's submissions, several third parties submitted that they distribute digital content for both mobile devices and other devices such as AR/VR devices and gaming consoles,[596] and some third parties submitted that users are increasingly accessing and consuming similar content across platforms, including both off- and on-mobile devices.[597] However, third-party evidence overall shows that non-mobile gaming and content distribution is viewed as a complementary, separate category of content distribution, rather than a viable substitute to the Play Store:

(a) First, some app and games developers submitted that mobile devices are generally used on the go, but other devices are typically used in a static location and have key differences in functionality such as screen sizes and keyboards.[598] Therefore, they generally have different – albeit often complementary – use cases (eg in a maps app designed for hiking, users might plan their route in greater detail on desktop devices before navigating the route 'on the go' with the mobile app). This is broadly consistent with user research indicating that mobile and desktop browsing fulfil different use cases, as discussed below in the section 'Competition from alternatives to Google's Mobile Browser and Browser Engine'.

(b) Second, a few gaming developers also submitted that certain games work best for mobile devices or may not function properly on other devices such as PCs or on portable gaming consoles. For example, certain games are embedded in social media apps and rely on mobile devices' call functionality, and certain games require access to functionality such as GPS and the device's camera.[599]

[592] Google's submission [✂]
[593] Google's submission [✂]
[594] Google's submission [✂]
[595] Google's submission [✂]
[596] 4 parties responses to section 69 notices: [✂]2 parties submissions; [✂]; 2 notes of meetings; [✂].
[597] [✂] note of meeting [✂]; [✂] submission [✂]; [✂] submission [✂].
[598] [✂] response to section 69 notice [✂]. 3 notes of meetings; [✂]
[599] 2 notes of meetings: [✂]

(c) Third, a few games developers told us that there are differences in the user bases and reach of distribution methods on and off mobile devices.[600] One games developer explained there is likely to be more overlap between the user bases for mobile portable gaming devices (eg Nintendo Switch) and PC games than there is for either of these two user groups and mobile device gaming users. This is consistent with evidence from our consumer survey, which found that only 25% of respondents who had an Android smartphone also had a gaming console.[601]

(d) Fourth, one gaming distribution platform provider submitted that mobile devices are currently siloed from gaming on non-mobile devices because Google imposes various restrictions that makes its Mobile Ecosystem less accessible to third parties. This includes restrictions on alternative methods of app distribution and preventing app developers from steering users to external websites for app discovery and purchases.[602] We received further submissions on Google's steering restrictions from other app developers, which suggests these may be acting as a barrier to cross-platform integration for other content providers (including outside of gaming).[603]

(e) Finally, some content will not be available across native apps on mobile devices and other platforms. For example, low-end games for mobile devices may not be suitable for game consoles which usually offer high-end games that require considerable investment.

7.57 Whilst some third parties submitted that cross platform integration might further increase in the future,[604] we have seen no third-party evidence to suggest that this development is likely to significantly change Google's position in native app distribution over the next five years.

7.58 In addition, our analysis of Google's internal documents shows that Google does consider there is an increase in gaming on non-mobile devices and an increase in cross-platform gaming; however, this trend is often portrayed as a [✂] as opposed to a potential source of competition. Specifically, a few internal documents from Google contain references to [✂].[605] However, these and further internal documents[606] also indicate that Google is [✂]. [607] Indeed, Google has plans [✂].[608] Some internal documents suggest that Google expects [✂].[609] This

[600] 2 notes of meetings; [✂]. [✂] submission [✂].
[601] Accent Mobile Consumer Survey, Figure 61 Note that the proportion might be higher for users using gaming content – for example, the MEMS survey found that, in 2022, 44% of Android users used a mobile app for gaming on their smartphone (Figure 45); Of this 44%, 38% also accessed gaming apps using a games console (Figure 45). link to MEMS report
[602] [✂] submission [✂].
[603] Parties' responses to section 69 notices; [✂]; [✂] submission [✂].
[604] Note of meeting [✂]; [✂] submission [✂].
[605] Google's internal documents [✂].
[606] Google's internal document [✂]; Google's internal document [✂]; Google's internal document [✂].
[607] Google's internal document [✂].
[608] Google's internal document [✂].
[609] Google's internal document [✂].

supports the view that on-mobile and off-mobile content distribution are complements rather than substitutes to each other.

Provisional conclusion on competition from alternatives to Google's Native App Distribution

7.59 Overall, our provisional view is that the alternatives available within Google's Mobile Ecosystem, such as alternative app stores, sideloading, OEMs pre-installing third-party native apps, cloud-based gaming and super apps impose only a weak competitive constraint on the Play Store and we have seen no evidence of expected or foreseeable developments suggesting that this is likely to change significantly over the next five years.

7.60 The Play Store faces a limited constraint from alternative app stores within Google's Mobile Ecosystem. This is consistent with low shares of supply and usage of these rival app stores and the presence of material barriers to their entry and expansion. Those barriers relate to very strong indirect network effects and material costs associated with the development and ongoing operation of an app store but also Google's policies which: (i) limit the ability of alternative app stores to attain similar levels of discoverability and ease of use for users; (ii) create strong incentives for OEMs to pre-install and prominently place the Play Store on the device home screen of Android mobile devices which cannot be replicated by alternative app stores and limits their ability to compete; and (iii) restrict access to certain functionality for alternative app stores or apps distributed via third-party solutions.

7.61 The Play Store also faces limited constraint from other alternatives, such as sideloading, pre-installations and web apps and this is consistent with the evidence that shows very limited usage of these methods and that these methods are viewed as an inferior substitute to the Play Store. Further, whilst the usage of some of these methods such as sideloading or web apps may have exhibited some growth, the evidence overall does not suggest that these developments, the growth of cloud-based gaming or the emergence of super-apps or AI-based content distribution methods are likely to significantly change the Play Store's position over the next five years.

7.62 Similarly, we provisionally conclude that the Play Store faces limited competitive constraint from non-mobile content distribution alternatives. The evidence in the round suggests that on-mobile and off-mobile content distribution are generally considered to be complements rather than substitutes, even though these two channels (particularly in relation to gaming content), due to their complementarity, have become more integrated over time.

Competition from alternatives to Google's Mobile Browser and Browser Engine

In the previous Chapter, we provisionally found that Google's Mobile Platform faced only limited competition from rival Mobile Platforms. As part of this assessment, we considered the extent to which Google competes with other Mobile Platforms to attract web developers and found that, as web content is made broadly available by content providers, Google does not compete for web content to be made available on its Mobile Platform.

In this Chapter we are considering the extent to which Google faces competition within its Mobile Ecosystem from alternatives to its mobile browser, Chrome, and its mobile browser engine, Blink. We also consider the extent of competition Chrome and Blink face from non-mobile alternatives.

We find that Chrome faces limited competitive constraints and this is unlikely to change over the next five years. Although other mobile browsers are available within Google's Mobile Ecosystem, these are limited by several barriers to entry and expansion, and Chrome's consistently high share of supply indicates that these are a weak constraint. Google faces even less competition to its browser engine Blink, and its provision of in-app browsing. Alternatives to mobile browsers, namely native apps, AI tools, and desktop browsing, only provide a limited competitive constraint for a limited set of use cases.

7.63 Our assessment of the competitive constraint Google faces from alternatives to Chrome and Blink – both now and over the next five years - considers the following topics in turn:

(a) **Competitive dynamics** in mobile browsing.

(b) **Shares of supply** in mobile browsing within Google's Mobile Ecosystem.

(c) The **competitive constraints** on Google's mobile browser, browser engine, and in-app browsing implementations.

(d) **Barriers to entry or expansion** faced by rivals.

(e) **Alternatives to mobile browsing**, both within Google's Mobile Ecosystem and from non-mobile devices.

(f) **Provisional conclusions** on the competition Google faces from alternatives to its mobile browser Chrome, and its mobile browser engine Blink.

7.64 We assess the competitive constraints on Google's mobile browser, browser engine, and in-app browsing implementations separately. We focus primarily on competition at the mobile browser level, since this is where competition for users, and monetisation of mobile browsing, primarily takes place. However, we note that there are interlinkages between competition between mobile browsers, and

competition in browser engines and in-app browsing. For example, greater use of a provider's browser engine or in-app browsing implementations will increase its share of web traffic, thereby providing advantages in terms of web compatibility which will benefit its browser.

7.65 Our assessment draws on analysis of usage data, evidence from Google, evidence from third parties, internal document evidence, and consumer research.

Competitive dynamics in mobile browsing

7.66 Before discussing the evidence on competition from alternative browsers and browser engines, we provide context on the competitive dynamics in mobile browsing. Mobile browsers are generally offered free of charge to users. They are monetised in various ways, including through agreements with search engine providers (whereby search advertising revenue is shared by a search engine provider with the browser developer), advertising or premium services such as built-in VPNs. Some browser developers offer browsers to support other products or services they offer, such as mobile devices (eg Apple and Samsung) or search engines (eg Google, Microsoft, and DuckDuckGo). Mobile browser developers compete for users to increase their share of web traffic and therefore generate greater revenue (or for alternative motivations such as promoting their other products eg search engines).

7.67 Evidence from browser developers indicates that the key parameters of competition between browsers include security, privacy, speed, compatibility with web content and innovative features.[610] The quantitative research carried out by Verian asked respondents for the reasons for using their preferred browsers. The most commonly selected answers were familiarity, ease of use, brand, using the same browser as on other devices and access to saved information such as passwords and bookmarks.[611]

7.68 Competition for users takes place at the browser level. Browser engines compete to be chosen by browser developers as the browser engine on which to base their browser. The parameters of competition for browser engines are therefore similar, as the features that are important to users in a browser, will also be important to a browser developer in a browser engine. In addition, if a browser engine is used by more browser developers, it will increase its share of web traffic, which brings benefits as it will lead to more web developers making their content compatible with that browser engine.

[610] 5 responses to information requests issued in the context of CMA's MEMS; [✂].
[611] Verian Group UK (2024), Mobile Browsers Quantitative Consumer Research, Figure 6.5. Link to Verian Final Report. Other available options were speed, stability, compatibility, design, security features, privacy features, fewer adverts, and availability of extensions.

7.69 Both mobile browsers and browser engines seek to attract the largest possible range of web developers and online content providers. Although in theory web content is accessible through any browser or browser engine, issues may exist where web content is not fully compatible with a given browser. By having a large number of users or share of web traffic, browsers and browser engines are more likely to be prioritised for compatibility by web developers. Browsers and browser engines can also seek to attract web developers by offering new, innovative features.

Shares of supply

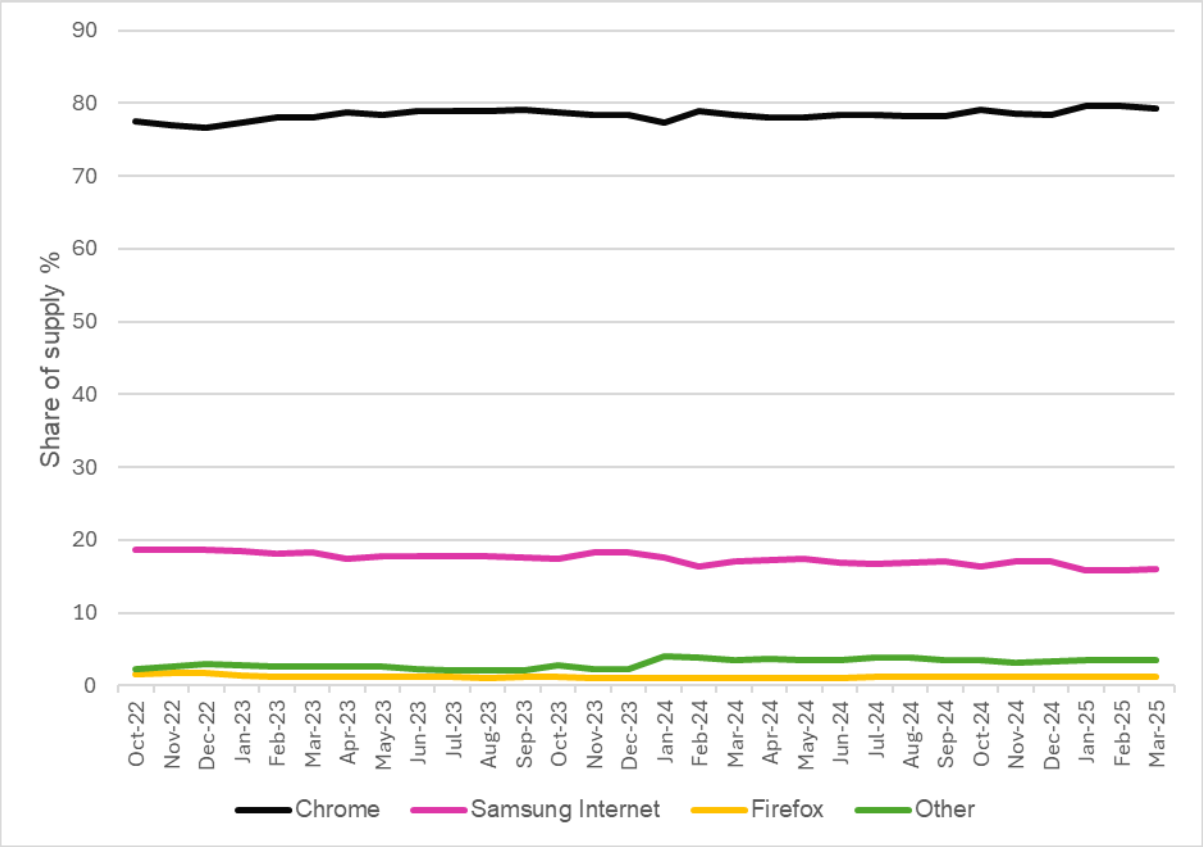
7.70 In this section, we analyse data on shares of supply for Mobile Browsers and Mobile Browsers Engines. We find that Chrome and Blink have held extremely high and stable shares of supply over a substantial period which suggests they are subject to limited competition within Google's Mobile Ecosystem.

7.71 Many mobile browsers are available to users within Google's Mobile Ecosystem. These include Google's Chrome, Microsoft's Edge and Mozilla's Firefox.

7.72 Annex A describes shares of supply in mobile browsers within Google's Mobile Ecosystem in more detail. In March 2025, Chrome had a web traffic share of supply of 79% on Android mobile devices in the UK. Samsung Internet had a share of supply of 16%. Each of Firefox, DuckDuckGo, Edge, and Brave had a share of supply of 1%, with other smaller browsers combined making up around a further 1%.[612] These shares of supply have remained similar over the period for which data is available (October 2022 to March 2025, see figure 7.2).

[612] Figures may not sum to 100% due to rounding.

Figure 7.2: UK mobile browser shares of supply on Android from October 2022 to March 2025 using Cloudflare Radar data on web traffic



Source: Cloudflare Radar

7.73 While alternative browser engines are also available within Google's Mobile Ecosystem, the vast majority of browsers use Google's Blink, which had a share of supply in browser engines on Android of around 98% in March 2025. Firefox and some smaller browsers use Mozilla's Gecko browser engine, which had a share of supply of around 1%. These shares of supply have remained similar over the period for which data is available (October 2022 to March 2025, see Annex A).

7.74 In-app browsers within Google's Mobile Ecosystem can also use alternative browser engines. Shares of supply data for browsing, including in-app browsing, on Android shows that in March 2025, Chrome had a 70% share of supply, Samsung Internet had a 14% share of supply, and Meta had an 11% share of supply.[613] As Meta's apps use an alternative browser engine (a fork of Google's Blink), this indicates that Blink has an around 87% share of supply if in-app browsing is included.[614]

[613] Based on combining the reported shares of supply for Facebook and Instagram.
[614] Blink has 87% (consisting of Chrome, Samsung, and several smaller Blink-based browsers), Meta's browser engine has 11%, Mozilla's Gecko has 1%, and the remaining share (<1%) is made up of browsers or apps for which the browser engine is unknown.

Competitive constraints on Google's mobile browser, browser engine, and in-app browsing

7.75 We have found that Chrome and Blink have held a high and stable share of supply within Google's Mobile Ecosystem over a significant period of time and that this may indicate Google faces limited constraint from alternative mobile browsers and browser engines. In this section we consider the evidence on competition from competing mobile browsers, browser engines and in-app browsing implementations. We find that Chrome and Blink face only limited competitive constraints.

Competition from rival mobile browsers

7.76 In this section we consider competition from alternative mobile browsers within Google's Mobile Ecosystem and find that Chrome faces limited constraints. Whilst there is uncertainty about how competition will develop, particularly with regard to AI, the evidence does not indicate that these developments are likely to significantly change Google's position in relation to its Mobile Platform in the next five years.

7.77 Google submitted that Chrome faces strong competition within Google's Mobile Ecosystem:

(a) It submitted that 'there are ample alternative browsers for Android users to choose if Chrome was not meeting their expectations', and that Android users regularly use 23 different browsers.[615] It also stated that third-party mobile browsers are able to 'compete on all competitive parameters' and have several different options to distribute and promote their browsers.[616]

(b) Its investment and innovation in Chrome is consistent with Chrome facing strong competition. It submitted that it has invested over $[✂] in Chrome over the last five years, and that Chrome 'launched [✂] new features between January 2020 and July 2024.'[617]

7.78 We provisionally consider that there are limits to the extent to which alternative mobile browsers provide a competitive constraint on Chrome:

(a) As described above, Chrome has had a consistently high share of supply for many years. This is consistent with Chrome facing limited competitive constraints.

[615] Google's submission [✂].
[616] Google's response to section 69 notice [✂].
[617] Google's submission [✂].

(b) Although Samsung Internet is the second largest mobile browser on Google's Mobile Ecosystem in terms of its share of supply, evidence indicates that it imposes only a limited competitive constraint on Chrome. This is because:

(i) It is only available on Android, which is likely to limit its appeal to users, given the importance of cross-platform usage.[618]

(ii) Samsung submitted that its mobile browser is [✂], and it does not view Samsung Internet as a major rival to Chrome.[619]

(iii) Whilst Samsung Internet benefits from pre-installation and default status on Samsung devices, it is not a significant competitor on other Android mobile devices, with [✂]% of its users being on Samsung devices.[620]

(c) As described in more detail in the 'Barriers to entry and expansion for rival browsers and browser engines within Google's Mobile Ecosystem' section below, evidence shows that rival mobile browsers face several barriers to entry and expansion within Google's Mobile Ecosystem, which limit the competitive constraint they impose on Chrome.

(d) If in-app browsing is included, Meta is the third largest mobile browser on Google's Mobile Ecosystem in terms of its share of supply. However, as described in more detail in the 'Competition from native apps' section below, the extent to which in-app browsing on native apps provides a competitive constraint on standalone mobile browsers, is likely to be limited.

7.79 We also considered evidence from Google's internal documents on the competitive constraints faced by Chrome within Google's Mobile Ecosystem. Overall, whilst Google's internal documents sometimes mention competitors, and in some cases provide evidence of Google [✂], particularly with respect to [✂], there is nothing to suggest that these competitors are imposing a significant constraint on Chrome within Google's Mobile Ecosystem.[621]

7.80 Further, evidence from Google, along with many third parties, does not indicate that AI and other developments will be likely to significantly change Chrome's position on Google's Mobile Ecosystem over the next five years:[622]

(a) Google submitted that there are 'several foreseeable trends in the coming years that could plausibly weaken Chrome's market position'. Google highlighted five trends: increasing use of native apps, increasing importance

[618] 4 responses to information requests issued in the context of CMA's MEMS; [✂]; Verian Group UK (2024), Mobile Browsers Quantitative Consumer Research, Figure 6.5.
[619] Samsung's response provided in the context of the CMA's MEMS to request for information [✂].
[620] Samsung's response provided in the context of the CMA's MEMS to request for information [✂].
[621] [✂].
[622] The competitive constraint from AI-based alternatives to browsers eg chat-bots, is considered below.

of security and privacy due to developments in quantum computing, integration of blockchain technology, advancements in AI, and augmented or virtual reality products.[623]

(b) Google submitted that mobile browsers 'will need to keep up the rapid pace of innovation brought about by advancements in AI.' It stated that OpenAI and Perplexity have announced browsers which may fundamentally change how mobile browsers are used.[624]

(c) OpenAI submitted that its 'Operator' product is 'an agent that can go to the web to perform tasks for the user.'[625] It described Operator as [✂]. It stated that Operator [✂]. It stated that [✂].[626]

(d) Several third parties submitted that AI could impact competition in mobile browsers by 2030. These third parties submitted that AI could significantly change how users interact with the web and therefore disrupt current competitive positions; however, they indicated that this was uncertain.[627]

(e) Most third parties submitted that they did not expect significant changes in competition in mobile browsers by 2030 (whether due to AI or other technological developments).[628]

(f) Internal documents from Apple and Google show that whilst the use of AI by competitors is monitored, it is [✂].[629]

7.81 Our provisional view of the above evidence on AI is that it is mixed: whilst a few third parties state that AI could potentially have an impact on competition in mobile browsers, more third parties did not mention it as a potential significant development, and the extent of any impact within the next five years is presently highly uncertain. In addition, through its current position with Chrome, and its control of its Mobile Ecosystem, Google will continue to benefit from advantages such as pre-installation and default status, which are likely to limit the ability of new entrants to compete.

7.82 Regarding other trends highlighted by Google, we have not seen evidence to indicate that any of these will significantly impact competition in mobile browsers within Google's Mobile Ecosystem within the next five years. As described below, evidence shows that neither native apps nor browsing on smart glasses are expected to provide a credible substitute for browsing on Google's Mobile

[623] Google's submission [✂].
[624] Google's submission [✂].
[625] OpenAI's response to section 69 notice [✂].
[626] OpenAI's response to section 69 notice [✂].
[627] 9 responses to section 69 notices [✂]
[628] 22 responses to section 69 notices; [✂].
[629] Apple monitors AI developments in relation to browsers, however AI is identified as a competitive threat only in limited ways. [✂]; Google monitors AI developments holistically focusing on [✂] as competitors. [✂] browsers are referenced, but AI is mostly considered [✂].

Ecosystem devices within the next five years. Further, only a small number of third parties mentioned quantum computing or blockchain technology as being likely to impact mobile platforms within the next five years, and none of these mentioned that either was likely to impact competition in mobile browsers.[630]

Competition from rival mobile browser engines

7.83 In this section, we consider the competitive constraint on Blink from alternative browser engines within Google's Mobile Ecosystem and find that Blink faces limited constraints. The only significant competitor is Gecko, which accounts for a very small share of supply, and is limited by barriers to entry and expansion. Meta's browser engine accounts for a greater share of supply if in-app browsing is included; however, the extent to which in-app browsing on native apps provides a competitive constraint on standalone mobile browsers, is likely to be limited

7.84 On Google's Mobile Ecosystem, browser developers are able to use any browser engine of their choosing. This can include using the Android WebView based on Blink (used by DuckDuckGo), a version or light-fork of Blink (used by Brave and Microsoft Edge), or an alternative browser engine such as Mozilla's Gecko (used by Firefox).[631]

7.85 Google submitted that there are no restrictions on browser developers using a browser engine of their choice. It stated that browser developers 'can use a third-party alternative, such as Gecko (as Firefox and Tor do), or they can modify an existing browser engine (as Samsung Internet and Edge do).'[632]

7.86 Google submitted that competition takes place at the browser level, and it 'is not, therefore, meaningful to discuss competition among browser engines.' However, Google stated that the main alternatives to Blink are WebKit, Gecko, and 'alternative Blink implementations' ie light-forks. Google stated that it 'develops Chromium (ie Blink) as an input that enables Chrome to offer the best possible user experience, including in competition with browsers that use other browser engines, such as Safari and Mozilla.' It stated that it 'continuously introduces new innovations and features'.[633]

7.87 However, we provisionally consider that there are limits to the extent to which alternative mobile browser engines provide a competitive constraint on Blink:

[630] 3 responses to section 69 notices; [✂].
[631] A fork is another version/copy of an open-source browser engine that has separated from the main branch of code. Light forks may retain most of the original code. Light forks may also be referred to as 'soft forks'.
[632] Google's response to section 69 notice [✂].
[633] Google's response provided in the context of CMA's MEMS to section 174 notice [✂].

(a) As described above, Blink has had a consistently high share of supply for many years. This is consistent with Blink facing limited competitive constraints.

(b) Light-forks of Blink are limited in the extent to which they differentiate from Blink and therefore provide a weaker competitive constraint than a true alternative browser engine.

(c) As described below, barriers to entry and expansion, namely the high development costs for browser engines, and indirect network effects created by web compatibility, also limit the constraint from existing competitors or new entrants.

Competition from rival in-app browsing implementations

7.88 Finally, we consider the competitive constraint on Google from alternative in-app browsing implementations within Google's Mobile Ecosystem and find that Google faces limited constraints. Although browser developers are free to provide their own web view and remote tab implementations, evidence indicates that Google's implementations account for a high share of in-app browsing on Google's Mobile Ecosystem.

7.89 Within Google's Mobile Ecosystem, app developers have several options for implementing in-app browsing, including from alternative providers to Google.[634]

7.90 Google submitted that on its Mobile Ecosystem there are no restrictions on the mobile browsers or browser engines that app developers use for in-app browsing, and that this promotes competition in mobile browsers and browser engines.[635] Google submitted that its policies on its Mobile Ecosystem facilitate user choice with respect to in-app browsing.[636]

7.91 However, we provisionally consider that there are limits to the extent to which alternative in-app browsing implementations provide a competitive constraint on Google:

(a) Usage of alternatives to Google's Android WebView is very limited.[637]

(b) Remote tab in-app browsing generally utilises the user's default mobile browser, implying that shares of supply will be in line with shares of supply for browsers within Google's Mobile Ecosystem (see 'Shares of supply'

[634] App developers may use web-view in-app browsing, remote tab in-app browsing, or an embedded browser engine. For more details see MBCG MI Final Report - Section 7, paragraph 7.8. [link]
[635] Google response to the CMA's MBCG MI Working Paper 4, paragraph 4. [link]
[636] Google response to the CMA's MBCG MI Working Paper 4, section 3. [link]
[637] The only alternative to Google's Android WebView, is Mozilla's GeckoView, which we understand has had very limited uptake. See Mozilla response [✂] to information request issued in the context of the MBCG MI, [✂], Note of a call with [✂], Note of Call with [✂].

section above), and Google[638] will therefore likely have a high share of supply.

7.92 Meta uses its own embedded browser engine for in-app browsing in its apps on Google's Mobile Ecosystem.[639] As described above, in-app browsing in Meta's apps accounts for 11% of all browsing on Google's Mobile Ecosystem (ie including via browsers and in-app browsing). Meta may provide the strongest competitive constraint on Google's in-app browsing implementations, because if Meta's apps offer an improved in-app browsing experience, users may perform more browsing tasks within Meta's apps, which may therefore draw more web traffic from other native apps or from standalone browsers. We note that this constraint is currently limited as Meta's browser engine is not available to third-party app developers and therefore does not compete with Google for app developers. However, Meta submitted that it [✂],[640] [✂]

Barriers to entry and expansion for rival browsers and browser engines within Google's Mobile Ecosystem

7.93 We have found that Chrome and Blink have held a high and stable share of supply within Google's Mobile Ecosystem over a significant period of time and that Google faces limited constraints from alternative mobile browsers, browser engines and in-app browsing implementations. This section considers to what extent barriers to entry and expansion for rival browsers and browser engines within Google's Mobile Ecosystem may limit the competitive constraint on Google, focusing on the following:[641]

(a) Development costs and economies of scale

(b) Indirect network effects linked to web compatibility

(c) Low user awareness and engagement

(d) Choice architecture

7.94 We find that the evidence shows that there are significant barriers to entry and expansion for rival mobile browsers and browser engines within Google's Mobile Ecosystem. Choice architecture practices, as well as indirect network effects and high development costs, particularly for rival browser engines, limit the ability of rivals to compete effectively with Chrome and Blink.

[638] Google's remote tab in-app browsing implementation is known as ChromeCustomTabs.
[639] This browser engine is a fork of Chromium, and Meta submitted that it offers an improved user experience for browsing in its apps, as compared to other in-app browsing options. See [✂], response to an information request issued in the context to the CMA's MBCG MI [✂].
[640] Note of a call with [✂].
[641] Barriers to entry that could impact a new entrant in Mobile Ecosystems looking to provide access to web content, by either gaining access to an existing browser or developing its own mobile browser are considered in the 'Barriers to entry and expansion in Mobile Platforms' section of Chapter 6.

Development costs and economies of scale

7.95 In this section, we consider development costs and economies of scale and find that these are high and represent a barrier to entry and expansion for mobile browsers and browser engines within Google's Mobile Ecosystem. Although initial entry costs can be low, browser developers that want to compete by offering a more differentiated product (eg by modifying a browser engine, or developing their own) will incur higher costs. In the case of browser engines, development costs are very high and this makes new entry unlikely.

7.96 A new mobile browser entrant on Google's Mobile Ecosystem will incur initial one-off costs (for example, costs of software developers and engineers with the necessary technical expertise) to develop and operate a mobile browser, and future recurring costs to maintain and update the browser code.

7.97 Google submitted that it supports browser development with its open-source browser and browser engine, Chromium and Blink. It stated that this lowers barriers to entry and that 'several browser developers (eg, Edge, Brave, Arc, Opera, Samsung Internet) have used Chromium/Blink to launch browsers with little upfront capital investment or considerably reduced cost.'[642]

7.98 Our evidence indicates that:

(a) The ability to use an existing open-source browser engine provides a relatively low-cost option for browser developers.[643] However, making more changes or improvements on top of the browser engine requires greater investment.[644]

(b) Mobile browser development is characterised by economies of scale. Browser developers will incur high fixed costs to develop a browser but low marginal costs to support an additional user on a browser.[645]

(c) Developing and maintaining a browser engine involves much higher development costs.[646] Several browser developers (including some who previously developed their own browser engine) submitted that such high development costs were a reason for not using their own browser engine.[647]

[642] Google's response to section 69 notice [✂].
[643] Apple's submission [✂]. Google response provided in the context of CMA's MEMS [✂]; Google response to section 69 notice [✂]. Google response to the CMA's MBCG MI Working Paper 1, paragraph 39. [link]
[644] Google response to information request issued in the context of CMA's MEMS [✂] [✂] response to information request issued in the context of CMA's MEMS to [✂]
[645] 3 responses provided to information requests issued in the context of the CMA's MBCG MI; [✂]
1 call note with; [✂].
[646] [✂] response to information request issued the context of the CMA's MBCG MI [✂]; Google response provided in the context of the CMA's MBCG MI [✂].
[647] 2 responses provided in the context of the CMA's MEMS; [✂] 2 responses provided in the context of the CMA's MBCG MI [✂]

Indirect network effects linked to web compatibility

7.99 In this section, we consider indirect network effects created by web compatibility and find that these represent a barrier to entry and expansion for mobile browsers within Google's Mobile Ecosystem. Although browser developers can avoid compatibility issues by using a major browser engine such as Blink (as most do), they are then limited in their ability to differentiate their overall offering. In the case of browser engines, web compatibility issues therefore make new entry unlikely.[648]

7.100 As described above, evidence from web developers shows that they tend to test for compatibility against the browsers with the most users.[649] Browsers are therefore characterised by indirect network effects, whereby a browser needs a sufficient number of users in order to incentivise web developers to prioritise it for compatibility testing.

7.101 Google submitted that it is committed to and encourages web standards to ensure compatibility between browsers and browser engines. It stated that this commitment to strong compatibility across the web ecosystem results in low barriers to entry and competition within its Mobile Ecosystem, including for smaller browser vendors.[650]

7.102 However, there is evidence from browser developers that web compatibility requirements limit the ability of smaller browsers to differentiate significantly from the major browsers, namely Chrome and Safari, as changes may create compatibility issues, and browser vendors therefore often test to ensure that changes do not impact web content functionality.[651] Mozilla submitted that larger browsers implementing new features that are standards non-compliant can also create web compatibility issues for smaller browser developers.[652]

7.103 Several browser developers (including some who previously developed their own browser engine) submitted that web compatibility issues were a key reason for using one of the major open source browser engines such as Blink, rather than developing their own.[653]

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[648] As noted in the 'Competition from Apple's Mobile Ecosystem to attract web developers' section of Chapter 6, the widespread use of Blink, and limitations in the ability of smaller browsers to differentiate significantly, mean that from a web developer perspective, compatibility issues are relatively limited.
[649] 59 respondents to CMA information requests; 21 responses to section 69 notices; [✂]. 31 responses provided in the context of CMA's MEMS; [✂]. 7 responses provided in the context of CMA's MBCG MI; [✂].
[650] Google's response to section 69 notice [✂].
[651] 3 responses provided in the context of the CMA's MBCG MI; [✂]; 1 response provided in the context of the CMA's MEMS; [✂]; 1 response to section 69 notice; [✂]
[652] [✂] response to section 174 notice issued in the context of the CMA's MEMS [✂]; Mozilla response to the CMA's MBCG MI Working Paper 1, section titled 'Indirect network effects and web compatibility'. [link]
[653] 4 responses provided in the context of the CMA's MEMS [✂]; 1 responses to section 69 notice; [✂]

Low user awareness and engagement

7.104 In this section, we consider whether low user awareness of alternative mobile browsers (and the unique functionalities or features that each of them has) may act as a barrier to entry and expansion for rival mobile browsers within Google's Mobile Ecosystem. We find that the evidence indicates that users generally lack awareness and engagement with the topic of mobile browsers and this is a significant barrier to entry as it may limit the likelihood of a consumer downloading a new mobile browser or changing their default mobile browser. This creates a barrier to smaller or lesser-known browsers competing effectively with Chrome, particularly in light of choice architecture practices on Google's Mobile Ecosystem described below. It therefore limits the competitive constraint on Chrome.

7.105 Google submitted that research by Verian shows that eight out of ten users knew what their current default browser was and that this proves that there is no lack of awareness.[654] Google stated that users' switching decisions are driven primarily by users' own preferences.[655]

7.106 We consider that the quantitative research carried out by Verian indicates that user engagement with mobile browsers is generally low, with most users (70%) having rarely or never engaged with the topic of mobile browsers previously,[656] most users relying on pre-installed browsers,[657] and most users having not changed their default smartphone browser.[658]

7.107 Similarly, the qualitative research carried out by Verian found that there is low engagement with mobile browsers,[659] awareness of alternative browsers is low,[660] and respondents had difficulties working out how to change their default browser.[661]

Choice architecture

7.108 In this section, we consider whether choice architecture for new Android mobile devices creates a barrier to entry and expansion for rival mobile browsers. Choice architecture describes the environment in which users act and make decisions, including the presentation and placement of choices and the design of interfaces. Although it is possible for users to switch to an alternative mobile browser than Chrome, there are barriers to doing so, given Chrome's position as the pre-

[654] Google response to the CMA's MBCG MI PDR response, paragraph 51. [link]
[655] Google response to the CMA's MBCG MI PDR response, paragraph 31. [link]
[656] Verian Group UK (2024), Mobile Browsers Quantitative Consumer Research, Figure 3.6. Verian_Mobile_Browsers_Research_Final_Report.pdf
[657] Verian Group UK (2024), Mobile Browsers Quantitative Consumer Research, Figure 6.3. Verian_Mobile_Browsers_Research_Final_Report.pdf
[658] Verian Group UK (2024), Mobile Browsers Quantitative Consumer Research, Figure 9.2. Verian_Mobile_Browsers_Research_Final_Report.pdf]
[659] Verian Group UK (2024), Qualitative Research, slide 10. [link]
[660] Verian Group UK (2024), Qualitative Research, slide 10. [link]
[661] Verian Group UK (2024), Qualitative Research, slide 10. [link]

installed and default mobile browser on many new mobile devices. We find that this, combined with behavioural biases, and general low user awareness and engagement with mobile browsers (see above), provides Chrome with a competitive advantage and therefore limits the competitive constraints on it within Google's Mobile Ecosystem.

7.109 Research shows that the use of choice architecture is an important factor in user behaviour. Pre-installation, prominent placement, and default settings can all influence user behaviour in light of behavioural biases such as status quo bias.[662]

7.110 Google submitted that Chrome is pre-set as default on a minority of new Android devices (around 40%), and that 70% of devices come with two or more mobile browsers pre-installed.[663] It stated that OEMs and MNOs 'retain control over pre-installation and default settings for browsers and other apps on their Android devices.' Google stated that it has to compete for Chrome to be pre-installed or prominently promoted by OEMs and MNOs, and in addition, Google has been showing users a 'dual choice screen' on Android device since 2019, which is shown when a user first opens the Play Store.[664]

7.111 Our evidence shows that, as a result of Google's agreements with OEMs and MNOs (see Annex C) Chrome is pre-installed and placed prominently in the hotseat and/or default home screen on 90–100% of new Android devices in the UK,[665] and is pre-set as the default browser on approximately 40%.[666]

7.112 Several third-party browser vendors submitted that Google's use of choice architecture was an important part of competition in mobile browsers, and this provides Google with a competitive advantage on Google's Mobile Ecosystem.[667]

7.113 Regarding the ability of third-party browser developers to reach agreements for pre-installation or pre-set default status with Android OEMs or MNOs:

(a) Evidence from several browser developers indicates that such agreements are difficult to reach.[668]

(b) One browser developer, Opera, submitted that, unlike on iOS, pre-installation opportunities are available to third-party mobile browsers on Google's Mobile Ecosystem, and it has in the past been able to reach agreements for pre-installation with Android OEMS.[669]

[662] For more details see Section 8 of the MBCG MI final report. [link]
[663] Google's submission [✂].
[664] Google's response to section 69 notice [✂].
[665] Google's response to section 174 notice issued in the context of MBCG MI [✂]; Google's response to section 174 notice issued in the context of MBCG MI [✂].
[666] Google response to the CMA's MBCG MI PDR, paragraph 40. [link]
[667] 4 responses to section 69 notices; [✂]
[668] 4 responses to section 69 notices; [✂]
[669] [✂] response to section 69 notice [✂]

(c) In practice, besides OEM mobile browsers such as Samsung Internet, third-party mobile browsers have rarely been pre-installed or pre-set as default on new Android mobile devices. As described above, OEM mobile browsers likely impose less of a constraint on Chrome as they are not available cross-platform and are not strategic priorities for the OEMs.

7.114 Regarding the effectiveness of the mobile browser choice screen (known as the 'dual choice screen' as it provides users with the option to install additional mobile browsers and search apps) shown to users on Google's Mobile Ecosystem, we note that this displays pre-installed browsers first, and only prompts users to download additional browsers, not to change their default browser. The CMA's analysis for the MEMS report revealed that a very low proportion of users who are shown the choice screen download an additional mobile browser.[670]

Competition from alternatives to mobile browsing

7.115 We have found that Chrome and Blink have held a high and stable share of supply within Google's Mobile Ecosystem over a significant period of time, that Google faces limited constraints from alternative mobile browsers, browser engines and in-app browsing implementations, and that barriers to entry and expansion for alternative browser and browser engines are high. This section considers the extent of competition from certain alternatives to mobile browsing within Google's Mobile Ecosystem, namely native apps and AI tools, and from non-mobile alternatives. We find that Google's Mobile Browser and Mobile Browser Engine face only limited competition from these alternatives.

Competition from native apps

7.116 Native apps provide an alternative way for users to access content, and for content providers to reach users. With in-app browsing, native apps can also provide an alternative way for users to view and browse web content.[671] We have therefore considered the extent to which native apps provide a competitive constraint to Google's Mobile Browser and Browser Engine. We find that native apps impose only a limited competitive constraint on Chrome on Google's Mobile Ecosystem:

(a) For users, they may provide a substitute in some circumstances, but do not replicate the full functionality of a mobile browser such as browsing the open web and accessing content without the need for downloads like Chrome.

[670] MEMS, Appendix G - Pre-installation default settings and choice architecture for mobile browsers, paragraph 69. [link] See MBCG MI final report paragraph 8.211 for more detail. [link]
[671] The extent of competition from AI tools, which are often provided as native apps, is considered below.

(b) For content providers, although native apps provide an alternative distribution method, the vast majority continue to distribute via the web (and therefore through mobile browsers) in order to reach as many users as possible.

(c) Whilst in-app browsing also substitutes for use of dedicated mobile browsers, this is only in limited circumstances, and in-app browsing offers only limited functionality relative to dedicated mobile browsers.

(d) Evidence does not suggest that the constraint imposed by native apps on Chrome is likely to change significantly over the next five years.

7.117 Evidence suggests that mobile browsers do compete with native apps for end-users to some extent; however, native apps do not substitute for the full functionality of mobile browsers:

(a) Google submitted that Chrome competes with native apps for users, as mobile browsers represent just one channel for accessing online content. For a wide range of services, users can choose between access via mobile browsers or native apps.[672] However, Google also submitted that Chrome does not compete directly with native apps. Although Chrome may be used to complete certain tasks that could be accomplished in native apps and vice-versa, it serves a different purpose to a native app. Specifically, it aims to provide users with the best web browsing experience possible.[673]

(b) Evidence from other browser vendors indicates that native apps do substitute for mobile browsers in certain circumstances. Certain apps such as search apps may substitute for more of the use cases of mobile browsers. However, they do not substitute for the full functionality of mobile browsers in browsing the open web and accessing content without the need for downloads.[674]

7.118 Evidence suggests that the extent to which mobile browsers compete with native apps for content providers is more limited, with content in native apps and browsers more likely to be complements than substitutes:

(a) Google submitted that mobile browsers also compete with native apps for content providers. Content providers can choose between distributing their content through native apps, basic websites, web apps, PWAs, or some combination of these. A core consideration for providers is the range and quality of APIs available, and therefore a degradation in this for mobile browsers would lead providers to switch attention to native apps, and vice-versa.[675]

[672] Google's response to section 174 notice issued in the context of the CMA's MEMS [✂].
[673] Google's response to section 174 notice issued in the context of the CMA's MBCG MI [✂].
[674] 6 responses to section 69 notices; [✂].
[675] Google's response to section 174 notice issued in the context of the CMA's MEMS [✂].

(b) Evidence from content providers indicates that offering content through native apps is not seen as a substitute to offering content through browsers. Instead, they are seen as complements fulfilling different purposes. Reasons given included web content being easier to access for new users, and native content being better for increasing engagement with existing users.[676]

7.119 The evidence indicates that in-app browsers are generally not considered an alternative to mobile browsers:

(a) Google submitted that in-app browsing within native apps is not a substitute for dedicated browser apps. Users use dedicated browser apps for more complex browser journeys leveraging features such as web search and bookmarks which are generally not available in in-app browsers.[677]

(b) Evidence from browser vendors indicates that whilst in-app browsing is widely used, and this takes web traffic away from dedicated mobile browsers, in-app browsing is only a substitute in limited circumstances and lacks the functionality available in dedicated browsers. [678]

Competition from AI tools

7.120 AI tools such as chatbots or agents also provide an alternative for users to some functions currently performed by mobile browsers.[679] We have therefore considered the extent to which such AI tools provide a competitive constraint on Google's Mobile Browser and Browser Engine. We find that AI tools provide a limited competitive constraint on Chrome within Google's Mobile Ecosystem currently. It is possible that this could increase as the functionality of AI increases; however this is uncertain (see also the 'Competition from rival mobile browsers' section above). We therefore consider on balance that the evidence does not suggest it is likely that AI tools will significantly change Chrome's position within Google's Mobile Ecosystem over the next five years.

7.121 The evidence indicates that AI powered tools or chatbots do not compete with mobile browsers and are currently only a limited substitute for mobile browsers, but that this could change in the future:

(a) Google submitted that Chrome does not compete directly with AI powered chatbots. Although both provide users with access to web-based information, chatbots' primary purpose is very narrow, and browsers satisfy a much wider spectrum of user needs.[680] Google also submitted that AI personal assistants

[676] 47 respondents to CMA information requests, comprised of 14 responses to section 69 notices; [✂] 28 responses provided in the context of CMA's MEMS; [✂] 5 responses provided in the context of CMA's MBCG MI; [✂]
[677] Google's response to section 69 notice [✂].
[678] 6 responses to section 69 notices; [✂]
[679] The impact on competition from AI integrated in browsers, or 'agentic browsers', is considered in the 'Competition from rival mobile browsers' section above.
[680] Google's response to section 174 notice provided in the context of CMA's MBCG MI [✂].

are [✂] for mobile browsers. However, [✂], as there is the potential for some use cases that have so far been addressed by [✂] to be addressed by [✂] the future.[681]

(b) Most other browser vendors submitted that AI personal assistants are a limited substitute for mobile browsers currently, and several indicated that they do not replicate the full use case of mobile browsers. [682] Substitutability was generally expected to increase over the next five years, but with differing views and some uncertainty about the extent of this. [683] For example, Ecosia submitted that AI could 'significantly reduce the need for manual browsing'.[684] However other browser vendors stated that it was difficult to predict the extent to which AI could replace browsers.[685]

(c) Evidence from our consumer survey shows that 40% of respondents used an AI assistant for any purpose. A relatively low proportion of respondents reported using AI frequently for tasks such as searching for information and searching for products, which might otherwise be performed in a mobile browser.[686]

Competition from non-mobile alternatives

7.122 Browsing on desktop (or laptop) computers provides an alternative means for users to access web content.[687] We have therefore considered the extent to which non-mobile alternatives provide a competitive constraint on Google's Mobile Browser and Browser Engine. We find that desktop browsing may impose some constraint on mobile browsers, as the feature sets are similar and users can switch between the two. However, most evidence shows that the use cases for mobile and desktop are different, and that they are generally considered as complements rather than substitutes. We have not seen evidence to suggest desktop browsing is likely to become a materially stronger constraint on Chrome over the next five years.

7.123 The evidence generally suggests that browsing on desktop and laptop computers fulfils different use cases for the end-user to browsing on mobile devices:

(a) Google submitted that desktop browsing is [✂] for mobile browsing and does not compete closely with browsing on mobile. Users generally use desktop

[681] Google's response to section 69 notice [✂].
[682] 9 responses to section 69 notices; [✂].
[683] 10 responses to section 69 notices; [✂]
[684] Ecosia's response to section 69 notice [✂].
[685] 3 responses to section 69 notices [✂].
[686] The proportion of respondents using AI most-often or frequently was; 17% for searches for less simple information (DV43r1), 9% for searches for simple information (DV43r2), 5% for searches for products they want to buy (DV43r3), and 7% for searches for a specific website (DV43r4).
[687] We also asked stakeholders about other alternatives to mobile browsing such as browsing on smart glasses and smart watches. However, no respondent considered these as credible substitutes to mobile browsing.

browsers in circumstances where browsing on mobile devices would be inconvenient eg due to screen size. Desktop browsing is [✂] for browsing on mobile devices when users are on the go.[688]

(b) Other browser vendors submitted that, although for some use cases mobile and desktop are substitutable, they are often used for different purposes and are therefore generally seen as complements.[689]

(c) Several pieces of user research also indicate that mobile and desktop browsing fulfil different use cases:

(i) The qualitative research carried out by Verian found that respondents typically had preferences for completing certain tasks on their smartphone versus desktop. In particular, 'anything fiddly', or anything that required high security tended to be on desktop only.[690]

(ii) Research conducted by Microsoft shows that mobile browsers are used differently to desktop browsers.[691]

(iii) Research conducted by a browser vendor [✂] shows that users use its browser [✂] on mobile differently to on desktop.[692]

7.124 For content providers, web content available on mobile will be equally available on desktop browsers, with adjustments to account for differences such as screen size or input mode.[693] In limited cases some web content may not fully function on mobile due to slight differences in functionality. Web content is therefore by its nature available cross-platform, and content providers do not choose between platforms such as mobile and desktop, although they may optimise their content for either.

7.125 Internal documents from Google show that desktop is often considered separately from mobile devices, and Google [✂]. In the documents that do refer to non-mobile devices, there is no evidence these devices are imposing a significant competitive constraint on Chrome on Google's Mobile Ecosystem.[694]

[688] Google's response to section 69 notice [✂].
[689] 10 responses to section 69 notices; [✂]
[690] Verian Group UK (2024), Mobile Browsers Qualitative Consumer Research, slide 12. [link]
[691] Microsoft's response to request for information issued in the context of the MBCG MI [✂].
[692] Google's response to section 174 notice issued in the context of MEMS [✂].
[693] Jigsaw Research (2024), Qualitative Research with Developers on Mobile Browsers and Mobile Browser Engines, pages 22, 23, and 53. [link]
[694] Google internal documents; [✂].

Provisional view on competition from alternatives to Chrome and Blink

7.126 In our provisional view, Google's Chrome faces limited competitive constraints within Google's Mobile Ecosystem, and the evidence does not indicate that this is likely to change significantly over the next five years.

7.127 Although other mobile browsers are available, these are limited by several barriers to entry and expansion, and Chrome's consistently high share of supply indicates that these are a weak competitive constraint. Alternatives to mobile browsers, namely native apps and AI tools, only provide a competitive constraint for a limited set of use cases. Technological developments are not expected to change this in the next five years.

7.128 In browser engines, Google's Blink also faces limited competitive constraints within Google's Mobile Ecosystem. The only significant alternatives are Mozilla's Gecko, which is considerably smaller, and Meta's in-app browsing engine which is only used by Meta for in-app browsing. High development costs, and indirect network effects linked to web compatibility, create significant barriers to entry. The large number of mobile browsers which use Blink gives Google significant ability to set the direction of web development, as changes it implements in Blink will likely be adopted more broadly. The widespread use of Blink also reinforces the position of Chrome as, combined with indirect network effects linked to web compatibility, it limits the scope for rival browsers to differentiate significantly from Chrome and potentially provide a greater competitive constraint.

7.129 Google also faces limited competitive constraints in the provision of in-app browsing within its Mobile Ecosystem. This reinforces the positions of Chrome and Blink because by having a large share of supply in in-app browsing, Google's products increase their share of overall web traffic, and therefore benefit from indirect network effects linked to web compatibility.

7.130 Whilst non-mobile devices provide an alternative for users and content providers, on the user side they generally serve a different use case to mobile, and on the content provider side are seen as a complement rather than a substitute.

Provisional conclusion on competition from alternatives to Google's mobile content distribution

7.131 Our provisional conclusion is that Google faces limited competitive constraints in relation to content distribution within its Mobile Ecosystem.

7.132 Within Google's Mobile Ecosystem, there are a range of alternatives to the Play Store such as alternative app stores, sideloading, OEMs pre-installing third-party native apps, cloud-based gaming, super apps, and web-based content distribution. However, overall, we consider that these alternatives impose only a limited

competitive constraint on the Play Store given that the evidence shows that these methods have very limited usage and that they are generally not viewed as a comparable substitute (rather, in some cases they are viewed as complements) to native apps on the Play Store.

7.133 Google's Chrome mobile browser also faces limited competitive constraints within Google's Mobile Ecosystem. Although alternative mobile browsers are available, these are limited by several barriers to entry and expansion, and Chrome's consistently high share of supply indicates that these are a weak constraint. In addition, Google faces even less competition to its browser engine Blink, and in its provision of in-app browsing. Alternatives to mobile browsers, namely native apps and AI tools, only provide a limited competitive constraint for a limited set of use cases.

7.134 Whilst non-mobile devices provide an alternative for users and content providers, in the case of both native app and web content, on the user side they generally serve a different use case to mobile, and on the content provider side are seen as a complement rather than a substitute.

7.135 Further, we have not seen evidence to suggest that any expected or foreseeable market or technological developments in content distribution are likely to significantly change Google's position in content distribution on its Mobile Ecosystem over the next five years.

8. CONCLUDING ON SEMP AND POSS

8.1 In this chapter we:

(a) Present the final elements of our SEMP assessment, namely:

(i) Regulatory and other developments;

(ii) Profitability assessment.

(b) Present our assessment in relation to whether Google has a position of strategic significance in respect of its Mobile Platform.

(c) We then provisionally conclude on whether Google meets both SMS conditions in respect of its Mobile Platform.

Regulatory and other developments

In this section, we consider the scope for other developments – in particular, legislation, regulatory action and litigation – to affect Google's market power in respect of its Mobile Platform over the next five years.[695] We provisionally find that whilst regulatory developments may in principle affect Google's conduct in carrying out the digital activity, they are not likely (whether individually or in combination) to be sufficient in scope, timeliness and impact to eliminate Google's market power in at least the next five years.

8.2 Google has significant global operations and it is not possible to anticipate every such development; however, we have set out below the regulatory and other developments (both within the UK and internationally) that we consider have the most potential relevance to our assessment of whether Google has substantial and entrenched market power in respect of its Mobile Platform.

Developments in the UK

8.3 The following developments are taking place within the UK:

(a) the CMA has recently published a proposed decision to designate Google as having SMS under Part 1 of the Act in relation to the provision of general search services (the **Search SMS Investigation**);[696]

(b) Google is also currently the subject of an ongoing CMA investigation under the Competition Act 1998 into whether it has abused a dominant position through its conduct in ad tech (the **CA98 Investigation**);[697]

[695] CMA194, paragraph 2.59.
[696] See the CMA's Proposed decision, dated 24 June 2025.
[697] Investigation into suspected anti-competitive conduct by Google in ad tech - GOV.UK.

(c) proceedings have been brought against Google in the Competition Appeal Tribunal (the **CAT**) alleging abuses of dominance in relation to native app distribution;[698]

(d) proceedings have been brought against Google in the CAT alleging abuses of dominance in relation to search, among other things;[699] and

(e) *Apple* is currently the subject of another investigation under Part 1 of the Act in relation to the provision of its Mobile Platform (the **Apple Mobile SMS Investigation**).[700]

8.4 We do not consider that these developments (whether individually or in combination) are likely to be sufficient in scope, timeliness and impact to eliminate Google's market power in respect of its Mobile Platform in at least the next five years. In particular:

(a) the Search SMS Investigation, the CA98 Investigation and the CAT proceedings relating to search, concern activities that, although related (eg Mobile Platforms are an important access point for Google's general search services), are separate from Google's provision of its Mobile Platform; and

(b) moreover, the outcome of each of these developments is uncertain, since:

(i) the CMA has not yet reached a final decision on whether to designate Google as having SMS in the Search SMS Investigation (and such a designation would be necessary for any interventions to be imposed on Google). If Google is designated as having SMS in October 2025 (the current statutory deadline for the Search SMS Investigation), the precise nature and scope of any interventions imposed on Google during any five-year designation period will need to be defined and consulted on. Any potential impact on Google's market power in respect of its Mobile Platform on a forward-looking basis therefore remains uncertain;

[698] Including 1408/7/7/21 Elizabeth Helen Coll v Alphabet Inc. and Others | Competition Appeal Tribunal; 1378/5/7/20 Epic Games, Inc. and Others v Alphabet Inc., Google LLC and Others | Competition Appeal Tribunal; 1673/7/7/24 Professor Barry Rodger v (1) Alphabet Inc; (2) Google LLC; (3) Google Ireland Limited; (4) Google Asia Pacific Pte Limited; (5) Google Commerce Limited; (6) Google Payment Limited; and (7) Google UK Limited | Competition Appeal Tribunal.

[699] Including 1606/7/7/23 Nikki Stopford v (1) Alphabet Inc.; (2) Google LLC; (3) Google Ireland Limited; and (4) Google UK Limited | Competition Appeal Tribunal; 1720/7/7/25 Or Brook Class Representative Limited v Google Inc & Others | Competition Appeal Tribunal

[700] https://www.gov.uk/cma-cases/sms-investigation-into-apples-mobile-ecosystem. Apple's Mobile Platform is described in the CMA's proposed decision as including Apple's iOS, iPadOS, the App Store, Safari and the Webkit browser engine.

(ii) the CA98 Investigation is ongoing and no decision has been made as to whether Google has committed an infringement and, if so, what action the CMA should take; [701]

(iii) at the time of this proposed decision there can be no certainty as to the outcome of the collective proceedings claims (both in terms of whether the claims will succeed and what, if any, remedies may be ordered);

(iv) the CMA has not yet reached a final decision on whether to designate Apple as having SMS in the Apple Mobile SMS Investigation (and such a designation would be necessary for any interventions to be imposed on Apple). If Apple is designated as having SMS in October 2025 (the current statutory deadline for the investigation), the precise nature and scope of any interventions imposed on Apple during any five-year designation period will need to be defined and consulted on. Any potential impact on Google's market power in respect of its Mobile Platform on a forward-looking basis therefore remains uncertain.

International developments

8.5 In addition to the developments within the UK, the following are taking place internationally:

(a) Alphabet Inc., together with its subsidiaries, has been designated as a 'gatekeeper' under the EU's Digital Markets Act[702] (the **DMA**) in respect of certain 'core platform services', including its operating system (Android), its online intermediation service (Google Play) and its web browser (Chrome),[703] and is therefore subject to certain obligations;[704]

(b) In the US, remedies have been, or may be, imposed in the following cases:

(i) A case brought by Epic Games, in which Google has been found to have violated US antitrust laws in relation to app distribution;[705]

[701] In September 2024, the CMA issued a statement of objections provisionally finding that Google had abused its dominance by 'self-preferencing' its own ad exchange (CMA objects to Google's ad tech practices in bid to help UK advertisers and publishers - GOV.UK).The CMA is considering Google's representations on the statement of objections.
[702] Regulation (EU) 2022/1925 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) [2022] L 265/1.
[703] European Commission decision of 5 September 2023 addressed to Alphabet Inc.
[704] The prohibitions and obligations for gatekeepers are set out in Articles 5, 6 and 7 of the DMA. Google's obligations include: (i) allowing third parties to interoperate with Google's services; (ii) allowing business users to communicate offers and conclude contracts with their customers outside of Google's ecosystem; (iii) not requiring users to use Google's own payment system for in-app purchases; (iv) not using non-public data in competition with business users; (v) enabling users to uninstall any pre-installed software or app and change default settings; (vi) enabling the installation of third-party app stores; (vii) not treating Google's products and services more favourably in ranking than similar third-party services or products; (viii) providing portability of end-user data; and (ix) applying fair, reasonable and non-discriminatory conditions of access for app developers to the Play Store.
[705] *Epic Games, Inc. v. Google LLC*.

(ii) Two separate cases brought by the US Department of Justice, in which Google has been found to have violated antitrust law in relation to the markets for 'general search services' and 'general search text advertising', among others;[706]

(c) Google has been designated by the Japan Fair Trade Commission as a specified software operator under the Mobile Software Competition Act[707] and will therefore be subject to certain prohibitions and obligations in relation to the provision of smartphone software;[708] and

(d) On 3 December 2024, the Brazilian Competition Authority (CADE) initiated an investigation following complaints alleging that Google forces app developers to use Google's payment platform, discourages users from sideloading apps, and restricts alternative app stores.[709]

8.6 We do not consider that these developments (whether individually or in combination) are likely to be sufficient in scope, timeliness and impact to eliminate Google's market power in respect of its Mobile Platform in the UK in at least the next five years.

8.7 In relation to the DMA:

(a) the effect of Google's obligations under the DMA on the provision of its Mobile Platform in the UK are, and will remain, unclear, since the territorial reach of the DMA does not extend to the UK.[710] One possible outcome is that Google may carve out the UK market (and other territories outside the EEA) from any response to the DMA requirements, resulting in differences in how Google carries out and offers its Mobile Platform in the UK and the EEA. This has indeed been the case in relation to several DMA obligations; for example, Google only allows app developers to offer an alternative billing system without the choice of Google Play's billing system for users in EEA countries;[711]

(b) even if Google were to extend its responses to the DMA to the UK voluntarily, they could be withdrawn at any time, and it does not necessarily follow that

[706] *United States and State of Colorado vs Google LLC* Cases 20-cv-3010 (APM) and 20-cv-3715 (APM). DoJ Proposed Final Judgment, 20 November 2024. [Plaintiffs' Initial Proposed Final Judgment: U.S. and Plaintiff States v. Google LLC [2020]]
[707] Act on Promotion of Competition for Specified Smartphone Software (Act No. 58 of 2024).
[708] Google's designation specifically relates to its basic operation software, app store, browser and search engine: Designation of Specified Software Operators under the Act on Promotion of Competition for Specified Smartphone Software | Japan Fair Trade Commission.
[709] Brazil to investigate Google for anti-competitive practices | Business | valorinternational, accessed by the CMA on 8 July 2025.
[710] The DMA applies to core platform services 'provided or offered by gatekeepers to business users established in the [European] Union or end-users established or located in the [European Union]' (Article 1(2)).
[711] Google's DMA Compliance Report, Non-confidential summary, 7 March 2025, NCV of Compliance Report 2025, p153.

these changes would mean that Google would not have market power in respect of its Mobile Platform in the UK on a forward-looking basis;

(c) the European Commission has made preliminary findings that Alphabet Inc. has failed to comply with the DMA in certain respects, in particular regarding DMA Article 5(4) pursuant to which app developers distributing their apps via Google's Play Store should be able to inform customers, free of charge, of alternative offers outside the Play Store, steer them to those offers and allow them to make purchases.[712] The European Commission has not yet reached a final decision on Google's compliance and any decision could be subject to an appeal. Accordingly, the steps that Google will need to take to comply and any potential impact in the UK remains to be seen.

8.8 In relation to the US antitrust cases:

(a) in the Epic Games case, an injunction imposing remedies has been partially stayed pending Google's appeal, the outcome of which remains to be seen;[713]

(b) the cases relating to search concern activities that are distinct from Google's provision of a Mobile Platform and, at the time of this proposed decision, there can be no certainty as to the outcome of these cases, or the nature, scope or impact of any remedies that may be imposed.

8.9 In relation to Japan's Mobile Software Competition Act, the effect of Google's obligations on the provision of its Mobile Platform in the UK is unclear. One possible outcome is that Google may carve out the UK market from any response to the requirements under Japanese legislation, resulting in differences in how Google carries out and offers its Mobile Platform in the UK and Japan.

8.10 In relation to the CADE investigation, proceedings are still at an early stage and no decision has yet been reached. Moreover, since any decision would only relate to Google's services in Brazil, there would be no guarantee that Google would extend its response to the UK.

Provisional conclusion on regulatory and other developments

8.11 On the basis of the available evidence, we consider that although regulatory developments may in principle affect Google's conduct in carrying out its Mobile Platform digital activity, they are not likely (whether individually or in combination)

[712] European Commission's Press Release, Commission sends preliminary findings to Alphabet under the Digital Markets Act, 19 March 2025. Press corner | European Commission.
[713] Epic judge lets Google keep its Android app store closed to competitors — for now | The Verge accessed 11 June 2025.

to be sufficient in scope, timeliness and impact to eliminate Google's market power in at least the next five years.

Profitability analysis

Google has been highly profitable for at least the last ten years, making high profits and a high return on capital globally, and the forecasts we have seen indicate that these high levels of profits are expected to continue. We estimate Google's Mobile Platform activities in the UK have similarly generated a high return on capital relative to our estimate of Google's WACC over this period. More detailed analysis is contained in Annex B.

8.12 This section summarises our analysis of profitability of Google's Mobile Platform. Profitability can be an indicator of market power. This is based on the premise that under effective competition a firm would generally earn no more than a 'normal' rate of profit over the long run. Where firms persistently earn in excess of a normal return, this signals that there may be limitations in the competitive process.

8.13 Since our SMS assessment relates to Google's market position in the UK, we are interested in the profitability of Google's UK Mobile Platform.[714] In this regard, we note that:

(a) To inform our assessment of Google's position in the UK for its Mobile Platform, we have assessed financial information on Google's Mobile Ecosystem. Those figures include Google's revenue for activities which indirectly contribute to Google's Mobile Platform revenue, including from mobile search and the sale of its mobile devices.

(b) We have started with global figures, recognising that the digital activities we are assessing are global in nature, and because Google did not provide information on the profitability of its Mobile Platform activities at a UK level.[715]

(c) Our analysis is therefore based on global data from Google supplemented by information we obtained from Google to enable more detailed analysis of mobile products and services and UK specific analysis where appropriate.

8.14 Our analysis focuses on the following topics:

(a) overall size and financial position for the Alphabet Group;

(b) global profitability of Google's Mobile Platform; and

(c) UK profitability of Google's Mobile Platform.

[714] See CMA194, paragraph 2.55(e)
[715] Google's response to section 69 notice [✂]

8.15 We have focused on standard reporting metrics to inform our analysis of Google's revenues, costs, and profits. In particular:

(a) We have assessed the amount of profit Google has earned in absolute terms, and as a percentage 'return on capital employed' (**ROCE**), comparing accounting profit with the size of investment made by Google to achieve those profits;[716]

(b) We have compared our findings against its weighted average cost of capital (**WACC**), which is a widely used benchmark for returns on an investment. The WACC is essentially the minimum return required on an investment or asset to satisfy the owners and creditors; and

(c) We have considered revenue and operating profit metrics relating to Google's Mobile Platform activities.

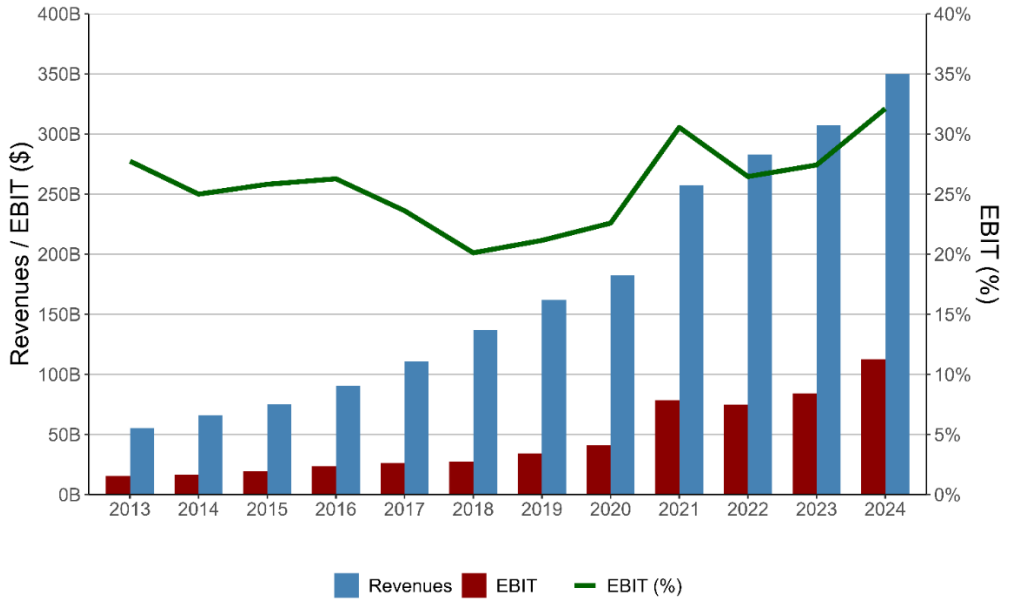
8.16 We summarise the main findings of this analysis below, while a more detailed explanation can be found in Annex B.

Profitability of the Alphabet Group

8.17 Our profitability analysis shows that, at the group level, Google generates substantial profits and operating cashflows in absolute terms. As shown in Figure 8.1 below, Alphabet Group's earnings before income and tax (**EBIT**) have remained consistently high and the profit margin has been above 25% for each of the last four years.[717,718]

[716] Our approach is set out in more detail in the Profitability Appendix
[717] CMA analysis of Form 10-K for Alphabet INC filed 02/05/2025.
[718] EBIT is based on Google's Income from Operations as reported in its Consolidated Statements of Income in published accounts. Form 10-K for Alphabet INC filed 02/05/2025, page 53

Figure 8.1: Alphabet Group Revenue and EBIT between 2015 and 2024



Source: CMA analysis of Alphabet Group 10k data[719]

8.18 As set out in Annex B, Google's[720] profitability, when measured as a percentage ROCE, is around 40%,[721] compared with our estimate of Google's WACC of [✂]% [10-15%], based on Google's own estimation of WACC for the Alphabet Group.[722] This profitability estimate remains high even when adopting a conservative sensitivity analysis, for example in relation to intangible assets.[723]

Profitability of Google's Mobile Platform

8.19 The profitability figures set out above relate to Google's overall profitability. However, for the purposes of our SMS assessment we are concerned with the profitability of Google's UK Mobile Platform activities.

8.20 Ideally, we would assess the profitability of Google's mobile activities specifically, taking into account all relevant costs and an appropriate capital base. However, Google does not report on the profitability of its Mobile Platform activities in its published accounts.[724] We also note that Google does not directly monetise its Chrome browser, browser engine, or its operating system (Android).

[719] Form 10-K for Alphabet INC filed 02/05/2025.
[720] We have considered the profitability both of the Alphabet Group and the Google Services segment, which is the reporting segment that Google's general search services are part of.
[721] We estimate that Google has been able to generate an average ROCE of 38% over the last ten years, and that this has been trending higher in the last few years Our analysis is set out in more detail in Appendix C
[722] Google's response to section 69 in relation to SMS investigation into Google's general search and search advertising services [✂]; and Alphabet Inc.'s consolidated financial statements, which can be found on pages 48-91 of Form 10-K for Alphabet INC filed 02/05/2025.
[723] For example, we have conducted a sensitivity analysis to our ROCE based profitability analysis to test the sensitivity of our profitability findings to changes in intangible assets relating to Google's R&D expenditure
[724] Form 10-K for Alphabet INC filed 02/05/2025.

8.21 We have therefore based our analysis on revenue and profitability information received from Google relating to the main products and services through which Google directly and indirectly monetises its Mobile Platform's activities, including through its broader Mobile Ecosystem - namely advertising revenues, App Store revenues, other mobile services and the sale of Pixel devices.

8.22 We recognise that the profits earned on one product or service should not necessarily be considered in isolation from the other products and services within the same Mobile Ecosystem. Nevertheless, it is helpful to understand the extent to which distinct business activities are able to generate revenues over and above their directly attributable costs and we set out our analysis on an individual product/service basis below.

Mobile Search

8.23 The majority of Google's mobile revenues come from Google Search,[725] including revenues relating to its ISA with Apple and its revenue sharing agreements with other OEMs.[726] We estimate that Google's operating margin from Mobile Search Advertising averaged [✂]% over the period 2022 to 2024 on a global basis,[727] and is higher than for Google Services and its overall business.[728]

8.24 Mobile search advertising revenues accounted for the majority, [✂]%, of UK mobile revenues, and [✂]% globally.[729] Google generated £[✂] [£5-10] billion of Mobile Search Advertising revenues in the UK,[730] including in relation to its agreements with OEMs.

Play Store

8.25 Google also generates revenues through its Play Store, including from Play Store Advertising,[731] which together accounted for approximately [✂]% [0-20%] of UK mobile revenues and approximately [✂]% [5-20%] globally.[732] In the UK in 2024, Google generated revenues of £[✂] [£0-2] billion from the Play Store (including from Play Store advertising),[733] plus a further £[✂] [£0-2] billion from in-app

[725] Google's response to section 69 notice [✂]
[726] Google's response to section 69 notice [✂] Google's response to section 69 notice [✂].
[727] As [✂], our operating profit estimate is based on Google's estimates of global operating profit margins including non-mobile as well as mobile activities.
[728] Google's response to section 69 notice [✂]
[729] Google's response to section 69 notice [✂]
[730] Google's response to section 69 notice [✂] Calculated as percentage of mobile revenues excluding revenues from Pixel devices, which were not available for the UK. Converted from USD to GBP at an average exchange rate of 1.2783 (Source: Office for National Statistics).
[731] Play Store Advertising refers to advertising activities reported within the Advertising revenue reporting segment in the Alphabet Group consolidated financial statements but which relate to the Play Store platform.
[732] Google's response to section 69 notice [✂] Calculated as percentage of mobile revenues excluding revenues from Pixel devices, which were not available for the UK.
[733] App Store revenues may include revenues from sources other than mobile devices. Google's response section 69 notice [✂]

advertising.[734] We estimate that the Play Store's operating profit margins averaged [✂]% over the period 2022 to 2024 on a global basis,[735] and were higher than the operating margins for the Google Services reporting segment and Google overall.[736]

Devices

8.26 When considering the profitability of Google's Mobile Platform activities we have considered the devices within Google's Mobile Ecosystem as well as services, recognising that an end-user does not buy a Pixel mobile device in isolation.

8.27 Pixel mobile devices account for only a small proportion of mobile revenue, [✂].[737] Google did not provide UK level revenues for Pixel mobile devices, but globally they account for [✂]% [0-5%] of total mobile revenues in 2024.[738]

Chrome and Android

8.28 We note that Google does not directly monetise its Chrome browser and browser engine, or its operating system (Android). However, even where the costs of providing these are taken into account, the global profits earned by Google from its mobile activities are still notably high.

8.29 We have assessed the consequences for global operating profit margins if these costs are allocated to the total Play Store (including advertising) and/or to Mobile Search Advertising,[739] and found that:

(a) the Mobile Search Advertising operating margin for 2024 decreases by [✂] percentage points on a global basis, from [✂]%, if we include Chrome and Android costs;[740] and

(b) Play Store operating margins (including Play Store advertising) for 2024 reduce materially on a global basis, from [✂]%, if we include Android costs, but remain strong.[741]

[734] Google's response to section 69 notice [✂] Converted from USD to GBP at an average exchange rate of 1.2783 (Source: Office for National Statistics).
[735] [✂], our operating profit estimate is based on Google's estimates of global operating profit margins including non-mobile as well as mobile activities.
[736] Google's response to section 69 notice [✂]
[737] Google's response to section 69 notice [✂]
[738] Google's response to section 69 notice [✂]
[739]Google's response to section 69 notice [✂]. Mobile Search Advertising revenues are the search and search advertising product area revenues identified by Google as relating to mobile.
[740] Google's response to section 69 notice [✂]
[741] CMA analysis based on Google's response to section 69 notice [✂]

Other services

8.30 Google also generates revenues and operating profits relating to its Mobile Platform from other services within its Mobile Ecosystem, including from other mobile advertising and first party apps. In the UK, Google generated revenues of over £[✂] [£0-2] billion from these services. [742]

Profitability of Google's Mobile Platform in the UK

8.31 We estimate that Google generated UK revenues from its Mobile Platform in the region of £[✂] [£10-20] billion[743] in 2024 including:

(a) £[✂] [£0-2] billion from the Play Store, including Play Store advertising, and a further £[✂] [£0-2] billion from in-app advertising;[744]

(b) £[✂] [£0-2] billion from other non-advertising mobile revenues.[745] [746]

(c) £[✂] [£5-10] billion from Mobile Search Advertising; and

(d) £[✂] [£0-2] billion from other mobile advertising.[747]

8.32 Taking into consideration that Google's overall operating profit margin for its Mobile Platform,[748] including in relation to profits generated indirectly through its broader Mobile Ecosystem, is higher than for its business as a whole, we consider Google's Mobile Platform activities are at least as profitable as the Alphabet Group.

8.33 Given the global nature of Google's cost reporting structures, and having seen no evidence that Google's mobile activities have materially higher operating costs in the UK, [✂], we estimate that Google's UK Mobile Platform activities are generating similar profit margins in the UK.

8.34 We estimate that these high returns mean that Google generated profits in 2024 from its Mobile Platform, both directly from Play Store, and indirectly through Android and Chrome, over and above a return based on its weighted average cost of capital.

[742] Google's response to section 69 notice [✂] Converted from USD to GBP at an average exchange rate of 1.2783 (Source: Office for National Statistics).
[743] Google's response to section 69 notice [✂]. Figures exclude revenues from Pixel devices which were not available at the country level. However, Pixel devices accounted for [✂] [0-5%] of global and regional (EMEA) revenues, and are not expected to materially impact our UK profitability findings.
[744] UK App Store revenue figure of £[✂] [£0-2]billion has been calculated on a different basis from the mobile device revenues in Annex A, and may include revenues relating to sources other than mobile devices.
[745] Google's response to section 69 notice [✂]
[746] Comprising revenue from [✂]. CMA analysis of Google's response to section 69 notice [✂]
[747] CMA analysis of Google's response to section 69 notice [✂]
[748] See Annex B for our approach to estimating operating profit margins for Google's Mobile activities.

Forecast information

8.35 Based on our review of Google's own financial projections relating to future revenues, we have seen no evidence that these high levels of profitability would not continue.[749]

Provisional conclusion on profitability analysis

8.36 Google generates profits from its Mobile Platform from the Play Store (including Play Store Advertising), mobile search advertising, and other mobile advertising, and is earning significant profits from its Mobile Platform activities, including in the UK.

8.37 Our analysis indicates that Google was highly profitable for at least the last ten years, making high profits and a high return on capital, and forecasts we have seen indicate that these profits are expected to continue. We estimate that its Mobile Platform activities in the UK have similarly generated a high return on capital relative to our estimate of Google's WACC over this period.

Position of Strategic Significance

This section sets out our provisional assessment as to whether Google has a position of strategic significance in relation to its Mobile Platform. We provisionally consider that Google has a position of strategic significance in respect of its Mobile Platform because at least the first two conditions[750] (significant size or scale in respect of the digital activity and a significant number of other undertakings using the digital activity, either of which would suffice) are satisfied.

8.38 Our provisional findings are based on the evidence described below which shows that:

(a) Google's Mobile Platform is used by a very large number of UK users (eg to access, view and engage with digital content and services on their mobile devices) and businesses in the UK (eg as a means of reaching those users): see paragraphs 8.40 – 8.46 below.

(b) The services provided by Google as part of its Mobile Platform are important to a wide range and large number of other businesses in the UK to provide digital content and services to users of Android devices: see paragraphs 8.47 – 8.54 below.

[749] See Annex B.
[750] Pursuant to sections 6(a) and (b) of the Act.

8.39 While we have received evidence indicating that the third and fourth factors may also be satisfied,[751] given the above provisional finding, and since only one factor is sufficient, we have not considered the third and fourth factors in detail.

Significant size or scale

8.40 Our Guidance notes that there is no quantitative threshold for when size or scale can be considered 'significant'. This condition can be assessed using a range of absolute or relative metrics, which could include the number of users, usage data (eg time spent or frequency of use), the amount of data being gathered or accessed via the digital activity, the number of purchases or transactions made, or the revenue generated from the digital activity.[752]

8.41 The evidence we have obtained indicates that Google's Mobile Platform has a significant number of users, a high share of supply and earns very large revenues. This is the case for Google's Mobile Platform and across the component parts of its Mobile Platform: namely its Mobile Operating System, Native App Distribution and Mobile Browser and Browser Engine, as set out below.

Mobile Operating System

8.42 Google's Android has a significant number of users, has consistently held a large share of supply and has generated significant revenue. In particular:

(a) In 2024, there were [30 – 40] [✂] active Android smartphone mobile devices and [5 – 10] [✂] Android tablet devices in the UK.[753] This is a very significant number of users in the UK particularly when compared against the UK population of 69 million;[754]

(b) Google has consistently been one of the largest suppliers of operating systems for both smartphones and tablets in the UK for almost a decade. In each year from 2015 to 2024, [40-50%] [✂]% of active smartphones were Android devices, with Apple's iOS accounting for almost all the remaining share of supply in the UK over that period.[755] In each year from 2017 to 2024, [20-30]% [✂]% of active tablets were Android tablets;[756]

(c) Google generates significant revenue from the sales of its own Android devices. In 2024 in the EMEA region, Google generated $[0 - 5] [✂] billion

[751] Ie that Google's position in respect of its Mobile Platform (a) would allow it to extend its market power to a range of other activities, and (b) allows it to determine or substantially influence the ways in which other undertakings conduct themselves, in respect of the digital activity or otherwise (sections 6(c) and 6(d) of the Act).
[752] CMA194, paragraphs 2.68-2.70. See also explanatory notes to the Act, paragraph 114.
[753] Google's response to section 69 notice [✂].
[754] According to estimates reported by Worldometer, in 2024, the UK population was around 69 million.
[755] The CMA has measured shares of supply on the basis of active devices. CMA analysis of data from market participants. In particular: [✂]; [✂]; [✂]. More detail on share of supply is set out in Annex A.
[756] The CMA has measured shares of supply on the basis of active devices. CMA analysis of data from market participants. In particular: [✂]; [✂]; [✂]. More detail on share of supply is set out in Annex A.

from sales of its own Android smartphones and $[0 – 20] [✂] million from sales of its own Android tablets.[757]

Native App Distribution

8.43 Google's Play Store has a very high share of supply within its Mobile Ecosystem, a high number of users and transactions and generates significant revenue:

(a) Under the terms of Google's agreements with OEMs, all approved Android smartphones and tablets have the Google Play Store pre-installed and placed prominently at mobile device set-up;[758]

(b) In 2024 Google's Play Store had [✂]% [90 – 100]% share of supply for first-time native app downloads within Google's Mobile Ecosystem in the UK;[759]

(c) The Play Store has a significant number of first-time downloads and active users in the UK. In the UK in 2024, the Play Store had [✂] [1.5 - 2] billion first-time downloads of native apps[760] on smartphones and tablets and an average of [✂] [2 – 3] million daily active users;[761] [762]

(d) The Play Store hosts a significant number of app developers, who conduct their business by providing a wide range of apps to users. For example, the monthly average number of app developers on the Play Store in 2024 in the UK was [✂] [0 – 1 million].[763]

(e) Google generates very significant revenue through sales on its Play Store. In 2024, the value of customer billings and net revenues on the UK Play store were £[✂] [0 – 5 billion] and £[✂] [0 – 2 billion] respectively.[764] [765]

Mobile Browser and Browser Engine

8.44 Google has significant shares of supply in respect of both its Chrome browser and Blink browser engine. In particular:

[757] Google's response of [✂] to section 69 notice [✂].
[758] See Annex C for further detail on Google's agreements with OEMs.
[759] The CMA has measured shares of supply on the basis of first-time native app downloads on Android devices. Analysis of data from market participants based on Google's response to section 69 notice [✂], Samsung's response to section 69 notice [✂], Xiaomi's response to section 69 notice [✂], Oppo's response to section 69 notice [✂] and Aptoide's response to section 69 notice [✂]. See Annex A for further information.
[760] Google's response to section 69 notice [✂]
[761] Daily active users means the number of users that downloaded a native app from the Play Store each day.
[762] Google's response to section 69 notice [✂]. See Annex A for further information.
[763] Google's response to section 69 notice [✂]
[764] Customer billings means the value of user spend in third-party apps on mobile devices processed by Google Play's billing system and net revenue means the value of customer billings retained by Google via its billing system.
[765] Google's response to section 69 notice [✂]. See Annex A for further information.

(a) In March 2025, Chrome had a 79% share of supply of browsers within Google's Mobile Ecosystem in the UK, and in 2024 Chrome had a share of supply of 46% across all mobile devices in the UK;[766]

(b) Chrome has a high number of active monthly users with [✂] [40 - 50 million] active monthly UK users on Android in December 2024;[767]

(c) In March 2025, Blink had a share of supply of at least 98% for browser engines used within Google's Mobile Ecosystem in the UK;[768]

(d) Mobile Browsers are a key gateway for UK mobile device users to access and search the internet. In March 2023, UK mobile device users used Mobile Browsers for around 15 hours per month. This represents around 16% of the time spent on all mobile apps.[769]

8.45 The large number of users on Google's Mobile Platform, as described above, means that Google's actions can have a significant impact on a substantial number of people and businesses in the UK. This is especially so given the importance of mobile devices for most people's daily lives to access a range of content and services.[770]

8.46 We therefore provisionally consider that Google has significant size and scale in respect of the provision of its Mobile Platform.

A significant number of other firms use Google's Mobile Platform in carrying on their business

8.47 Our Guidance explains that this condition can be assessed, for example, by reference to the number of businesses, products and services 'hosted' on the firm's platform, and/or the proportion of other firms' sales it facilitates. As with the assessment of size and scale, there is no quantitative threshold for when the number of other firms using the digital activity to carry on their business can be considered significant and this may be assessed in terms of the firm's absolute position and/or relative to other firms.[771]

[766] CMA analysis of publicly available Cloudflare data. For more detail see Annex A.
[767] Google's response to section 69 notice [✂]. Monthly active users is measured by Google as a snapshot of unique active users over the past 28 days on the first day of each month.
[768] CMA analysis of publicly available Cloudflare data. For more detail see Annex A.
[769] UK users spent 79.3 hours using mobile apps (excluding Mobile Browsers), and 14.7 hours using Mobile Browsers. 'Monthly hours per visitor spent using mobile browsers and apps in the United Kingdom (UK) in March 2023', Statistica, accessed 7 July 2025.
[770] For example, Ofcom's 2022 Online Nation report found that consumers use smartphones for an average of three hours daily, and tablets for just over 30 minutes. Online Nation 2022 Report, Figures 1.4 and 1.6.
[771] CMA194, paragraphs 2.71-2.72. See also explanatory notes to the Act, paragraph 115.

8.48 Google's Mobile Platform is a key gateway through which a significant number of firms across a wide variety of sectors carry on their business by providing content and services to mobile device users in the UK.

8.49 In particular, the Play Store is an important access point or gateway to users for a diverse and large range of firms. The evidence we have gathered indicates that the Play Store is used by a significant number of firms to carry on their business. Specifically:

(a) In 2024 the Play Store had a [✂]% [90 – 100]% share of supply for native app downloads on Google's Mobile Ecosystem in the UK;[772]

(b) The Play Store hosts a significant number of app developers, who conduct their business by providing a wide range of apps to users. For example, the monthly average number of app developers on the Play Store in 2024 in the UK was [✂] [0 – 1 million] and the monthly average number of native apps listed was [✂] [2 – 3 million].[773] In the UK in 2024, the Play Store had [✂] [1.5 – 2 billion] first-time downloads of native apps[774] and an average of [✂] million [2 – 3] million daily active users;[775]

(c) App developers generate substantial revenues via the Play Store. For example, in 2024 in the UK, the value of customer billings on the Play Store was £[✂] [0 – 5] billion.[776]

8.50 Similarly, Chrome is an important access point or gateway to users for a diverse and large range of businesses. This is because:

(a) Mobile browsers provide the primary gateway for users to access the web on their mobile devices, and hence for businesses to reach users with their content and products. This includes both online content providers and search engine providers; and

(b) As noted in paragraph 8.44 above, Chrome had a leading share of supply on Android devices and a significant share of supply across all mobile devices.

8.51 The way Google carries out its Mobile Platform activity can have a significant impact on a range of firms, since it can influence the conditions under which they conduct their business on its platform. Google currently exerts control over its Mobile Platform through contractual agreements that it has in place with Android OEMs via which it can:

[772] The CMA has measured shares of supply on the basis of first-time native app downloads on Android devices. Analysis of data from market participants based on [✂], [✂]. See Annex A for further information.
[773] Google's response to section 69 notice [✂]
[774] Google's response to section 69 notice [✂]
[775] Google's response to section 69 notice [✂]. See Annex A for further information.
[776] Google's response to section 69 notice [✂]. See Annex A for further information.

(a) influence the pre-installation, placement and default settings for its own apps and services on OEM Android mobile devices. This includes the Play Store, Chrome, Search and many other Google apps and services such as Google Maps, YouTube, Gmail and Gemini; and

(b) determine the extent to which OEMs can differentiate their version of Android by requiring those wanting to license any of Google's other apps and services to enter into Google's Android Compatibility Commitment (ACC) under which they agree to maintain compatibility with a baseline version of Android.

8.52 Further, Google can set the terms of access to the Play Store (which is the primary vehicle for app distribution on Android mobile devices) as well as determine how native apps downloaded outside the Play Store can be updated and how the sideloading process works, including the steps needed and the language used.

8.53 We consider that the services provided by Google as part of its Mobile Platform are an important means for businesses from a wide range of sectors to reach consumers. The impact that Google's terms can have on these businesses has the ability to reduce business certainty and affect their incentives to invest.

8.54 We therefore provisionally consider that a significant number of other firms use and rely on Google's Mobile Platform in carrying on their business.

Provisional conclusion on whether Google meets the SMS conditions

Substantial and entrenched market power

8.55 In Chapter 6 we considered the current and potential competitive constraints on Google's Mobile Platform from rival Mobile Ecosystems. On the evidence we have seen to date, **Google's Mobile Platform faces limited competitive constraint from rival Mobile Ecosystems.**

8.56 In assessing whether Google has substantial and entrenched market power with respect to its Mobile Platform, we first considered the current and potential competitive constraints on it from rival Mobile Ecosystems in competing for OEMs as well as on both the end-user and content provider side. We have provisionally found that there is very limited constraint on Google from the risk that OEMs will switch their device manufacturing to support another Mobile Platform, as Android is the only established licensable mobile operating system, and new entry is not expected within the next five years. Any competitive constraint on Google to improve its Mobile Platform will therefore primarily come from the end-user or content provider side.

8.57 In considering competition for end-users we have provisionally found that Google's Mobile Platform faces limited competitive constraint when competing for end-users:

(a) Analysis of shares of supply shows that Google's and Apple's Mobile Ecosystems have held persistently material, stable and relatively equal shares of supply in the UK in each of the last ten years, with Google having a share of supply of 30-40% and Apple with 50-60%. The next largest Mobile Ecosystem in Amazon's Fire accounted for a share of supply of 5-10%. The shares of supply analysis shows that Google's market position has persisted over the past seven years, which supports the view that its position is entrenched.

(b) Google and Apple focus on different price segments, with Apple holding a higher share of higher-priced mobile devices, and Google holding a higher share of the sale of lower-priced mobile devices. For example, smartphones with Apple's Mobile Platform accounted for 71% of new smartphones sold over £300, and smartphones deployed with Google's Mobile Platform accounted for 100% of new smartphones sold under £300.

(c) User switching between Google and Apple's Mobile Ecosystems imposes a limited competitive constraint on Google, even taking into account the fact that Google faces some competition to retain premium users, and we have not seen evidence that this is likely to change over the next 5 years. In particular, we found that both Google and Apple have large sticky customer bases, with the vast majority of customers not even considering the alternatives available to them when they last replaced their smartphone; and that there are material barriers to switching. Further, the evidence suggests that, when switching does happen, it often appears to be driven by users upgrading or downgrading into a different price segment, rather than switching between similarly priced mobile devices, which is consistent with the differentiated focus of Google's and Apple's Mobile Ecosystems.

(d) Google's and Apple's financial incentives to compete in the provision of their Mobile Platforms are significantly reduced compared to a situation absent the revenue sharing provisions of the ISA agreement. This limits the competitive constraint imposed on Google by Apple.

8.58 We then assessed the competitive constraint on Google's Mobile Platform by considering competition for content providers. We have provisionally found that Google's Mobile Platform faces limited competition when competing for content providers. In particular, both Google's Play Store and Apple's App Store are 'must-have' distribution channels for content providers as each store is the only way to access a large and distinct set of users. Consistent with this, the evidence does not indicate that there is strong competition on commission fees and quality for

app developers. There is also limited competition for web content, which is generally made available cross-platform.

8.59 Beyond Apple, Google's Mobile Platform faces limited competitive constraint from other Mobile Ecosystems. There are significant barriers to entry and expansion, which limit the threat of new entry which might otherwise act as a competitive constraint on Google's Mobile Platform. The indirect network effects related to attracting native app developers to a new operating system form a particularly strong barrier. The evidence indicates that, although technological developments such as AI and AR/VR products may affect Google's conduct in relation to its Mobile Platform, they are not expected to significantly change Google's position in the next five years.

8.60 Therefore, although there is some competition with Apple, Google's Mobile Platform faces limited competitive constraints, and we have not seen evidence of expected and/or foreseeable developments suggesting this is likely to change over the next five years.

8.61 In Chapter 7 we considered the competitive constraints on Google's mobile content distribution within the Google Mobile Ecosystem, and from non-mobile devices. This focused on the alternatives to Google's Native App Distribution and alternatives to Google's Mobile Browser and Browser Engine. Our provisional conclusion is that **Google faces limited competitive constraints in relation to its content distribution within its Mobile Ecosystem and from non-mobile alternatives**:

(a) In native app distribution, Google faces potential competition from a range of alternatives such as alternative app stores, sideloading, OEMs pre-installing third-party native apps, cloud-based gaming, super apps, and web-based content distribution. However, overall, we found that these alternatives impose only a weak competitive constraint on the Play Store, supported by evidence showing these methods are not viewed as a comparable substitute (rather, in some cases they are viewed as complements) to native apps on the Play Store. This is reflected in very limited usage of these methods. Non-mobile content distribution alternatives are also generally considered to be complements rather than substitutes. We have not seen evidence of expected or foreseeable developments suggesting that these competitive constraints are likely to disrupt the Play Store's position over the next five years.

(b) Google's Chrome mobile browser also faces limited competitive constraints within Google's Mobile Ecosystem. Although other mobile browsers are available, these are limited by several barriers to entry and expansion, and Chrome's consistently high share of supply indicates that these are a weak constraint. Google faces even less competition to its browser engine Blink,

and its provision of in-app browsing. Alternatives to mobile browsers, namely native apps and AI tools, only provide a limited competitive constraint for a limited set of use cases, and desktop browsing is generally considered a complement rather than a substitute. We have not seen evidence of expected or foreseeable developments suggesting that these competitive constraints are likely to disrupt the Chrome or Blink's position over the next five years.

8.62 Overall, we therefore consider that Google faces limited competitive constraints from content distribution alternatives within its Mobile Ecosystem and from non-mobile alternatives.

8.63 Finally, earlier in this chapter, we considered how regulatory developments in the UK and internationally may affect Google's market power in the next five years. We found that, although developments such as the EU's DMA and other international proceedings may affect Google's conduct, the outcomes remain uncertain, and may not impact the UK. They are therefore not likely (whether individually or in combination) to be sufficient in scope, timeliness and impact to eliminate Google's market power in its Mobile Platform in the next five years.

8.64 We have also considered Google's profitability with respect to its Mobile Platform. We found that Google generates profits from its Mobile Platform primarily from mobile search advertising, the Play Store (including Play Advertising) and other mobile advertising, and is earning significant profits from its Mobile Platform activities, including in the UK. Our analysis indicates that Google was highly profitable for at least the last ten years, making high profits and a high return on capital, and forecasts we have seen indicate that these profits are expected to continue. We estimate that its Mobile Platform activities have generated a high return on capital relative to our estimate of Google's WACC over this period. This is consistent with Google having substantial market power.

8.65 Overall, our assessment shows that Google faces limited current and potential competitive constraints in the provision of its Mobile Platform. We therefore provisionally conclude that Google has **substantial market** power in the provision of its Mobile Platform.

8.66 In order to assess whether an undertaking has substantial and entrenched market power in respect of a digital activity, the CMA must carry out a forward-looking assessment over a period of at least five years – the length of the SMS designation.[777] The forward-looking assessment is part of the CMA's assessment of substantial and entrenched market power, not a separate step. It will have particular relevance for the assessment of whether market power is entrenched.[778]

[777] Section 5 of the Act.
[778] CMA194, paragraph 2.56.

8.67 In the preceding sections, we have considered developments that would be expected or foreseeable if the CMA did not designate Google as having SMS in respect of the provision of its Mobile Platform and which may affect Google's conduct in carrying out the provision of its Mobile Platform. In particular, we considered:

(a) market developments such as entry, expansion and emerging business models;[779]

(b) technological developments such as AI, connected devices, edge computing, advances in network connectivity and cross-platform gaming;[780] and

(c) regulatory and other developments including litigation.[781]

8.68 We also considered the extent to which the competitive constraints on Google's Play Store and on Chrome were likely to change over the next five years.

8.69 The persistence of Google's market position and the scale of the barriers to entry and expansion described above are consistent with Google having entrenched market power in respect of the provision of its Mobile Platform. In this context, significant changes in the competitive dynamics would be required to significantly impact Google's strong and established position and to dissipate Google's substantial market power in respect of its Mobile Platform in the next five years.

8.70 For the reasons set out in this decision, we provisionally conclude that there are no expected or foreseeable developments that are likely (whether individually or in combination) to be sufficient in scope, timeliness and impact to eliminate Google's substantial market power in the provision of its Mobile Platform over the next five years.

8.71 Accordingly, our provisional view is that Google's substantial market power in the provision of its Mobile Platform is **entrenched** as at this stage there is no clear and convincing evidence that Google's current position of substantial market power will likely dissipate over the next five years.[782]

8.72 For these reasons and, on the basis of the above, our provisional decision is that Google has substantial and entrenched market power in respect of the provision of its Mobile Platform.

[779] See 'Competition to Google's Mobile Platform arising from wider technological and market developments' in Chapter 6.
[780] See 'Competition to Google's Mobile Platform arising from wider technological and market developments' in Chapter 6.
[781] See 'Regulatory and other developments' in this chapter.
[782] CMA194, paragraph 2.62.

Position of Strategic Significance

8.73 We then assessed whether Google has a position of strategic significance in relation to its Mobile Platform. We provisionally consider that at least the first two POSS conditions are satisfied:

(a) Google's Mobile Platform is used by a very large number of UK users (eg to access, view and engage with digital content and services on their mobile devices) and businesses in the UK (eg as a means of reaching those users).

(b) The services provided by Google as part of its Mobile Platform are important to a wide range and large number of other businesses in the UK to provide digital content and services to users of Android mobile devices.

8.74 For these reasons and, on the basis of the above, our provisional decision is therefore that Google has a position of strategic significance in respect of its Mobile Platform.

9. NEXT STEPS

9.1 For the reasons set out in this document, we propose to designate Google as having strategic market status in respect of the provision of its Mobile Platform.

9.2 We invite Google and other interested parties to comment on our proposed decision before we make our final decision.[783]

9.3 Anyone wishing to do so should submit their views in writing to mobileSMS@cma.gov.uk by no later than **5pm (UK time) on 20 August 2025.**

9.4 Google, as the subject of this SMS investigation, will have the opportunity to make oral representations on this proposed decision.

9.5 We will consider any responses, evidence and representations we receive before taking the final decision by the statutory deadline of 22 October 2025.

[783] Under section 13(1) of the Act, the CMA has a duty to carry out a public consultation on any decision that it is considering making as a result of an SMS investigation.