Google

Mobile Browsers and Cloud Gaming Market Investigation: Google's Response to the CMA's Issues Statement

January 25, 2023

I. Introduction

1. Google welcomes the opportunity to respond to the CMA's Issues Statement in its market investigation into mobile browsers and cloud gaming in the UK.[1]

2. As we explained in our response to the CMA's consultation on the market investigation reference,[2] a market investigation could positively impact the distribution of mobile browsers and cloud gaming apps where there is reliable evidence of features giving rise to adverse effects on competition ("**AECs**") under the Enterprise Act 2002 and where appropriate remedies are available.

3. However, the issues the CMA has identified with respect to our mobile platform, Android, do not satisfy these criteria.[3] Android offers users and businesses more choice than any other platform. Browser competition on Android is thriving as a result of the ease of developing browsers and myriad opportunities for their distribution that we encourage through our procompetitive model and contributions to open-source initiatives.

4. In this submission, we explain how Android's open and choice-enhancing approach facilitates and promotes browser competition in the UK (**Section II**). We then explain why the concerns outlined in the Issues Statement are not features capable of giving rise to an AEC on Android (**Section III**).

5. As the CMA continues its investigation, we think it should focus on areas where the evidence demonstrates the existence of clear AECs that are addressable with available and appropriate remedies. We look forward to working with the CMA to explore the issues it has identified.

II. Android's Open Model Facilitates and Promotes Browser Competition in the UK

6. Android's open and flexible nature—and the open-source initiatives we contribute to—provide developers with the resources, tools, and flexibility they need to produce, publish, and promote sophisticated and differentiated browsers easily.

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[1] CMA, [Mobile browsers and cloud gaming market investigation, Statement of Issues](#) (December 13, 2022).

[2] Google, [Google's Response to the CMA's Consultation on Its Proposed Market Investigation in Mobile Browsers And Cloud Gaming](#) (July 22, 2022).

[3] Although we do not address concerns the CMA has identified in relation to cloud gaming in this submission, we note that they do not concern Android. They instead relate exclusively to Apple's practices.

This results in a range of choices for users and thriving browser competition on Android. Insofar as users elect to use Chrome as their primary browser in this competitive environment, this reflects competition on the merits rather than any features giving rise to an AEC.

A.   Developing a Browser on Android Is Straightforward

7.   Developing a browser on Android is straightforward—borne out by the over twenty-five browsers available on Android that UK consumers use. Developers have a range of development tools at their disposal provided by Google and others, often for free. Developers can build browsers for any platform using Chromium, the open-source version of Chrome, or other open-source browsers such as Brave (which is in turn based on Chromium), Firefox, Konqueror, Min, NetSurf, Midori, and others. Browser developers can take the source code of these open-source browsers and innovate on top of them without necessarily sharing their innovations back with the open-source community. We also provide Android-specific development tools and software components that facilitate browser development on Android.

8.   The web is replete with free tutorials on how to build browsers based on these resources.[4] Anyone, from the bedroom coder to the experienced corporate developer, has ready—and free—access to the tools they need to build an advanced browser. The widespread availability of development tools and open-source browsers—which we are a major contributor to—has had an unambiguously procompetitive impact on browser competition in the UK.

9.   Browser developers rely on browser engines to turn a website's code into visual elements on the page. And on Android, developers can use any browser engine they want. They can use Google's Blink browser engine or an alternative like Gecko or Apple's WebKit. They can even use a mixture of browser engines: Lunascape, for example, is based on WebKit, Gecko, and Trident. This flexibility enables browser developers on Android to differentiate themselves based on factors like speed and functionality and to introduce new innovations to their browsers. The CMA's concerns about Apple's prohibition of non-WebKit browser engines on iOS do not apply to Android.[5]

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[4]   *See, e.g.*, Sandip Bhattacharya, YouTube, Build a Web Browser in Android Studio (2022); Easy Tuto, YouTube, How to make Web Browser App | Android Studio Tutorial | 2022 (2022); Doctor Code, YouTube, Make a Web Browser in Android Studio (2021); Programmer World, YouTube, How to create your own custom browser Android App? - Android Studio code (2022); Innocent Ileka, Medium, Build a Simple Web Browser in Android Studio (December 27, 2018).

[5]   The CMA is considering a remedy that would require Apple to remove its restrictions on non-WebKit browser engines on iOS (Issues Statement, ¶¶58-59). This would be consistent with the approach in the EEA, where the Digital Markets Act will prohibit gatekeepers from requiring browsers to use gatekeepers' first-party browser engines.

B.   Opportunities for Browser Distribution on Android Are Myriad

10.   Android offers browser developers more opportunities for reaching users than any other platform.   They can reach users through app stores, including Google Play. They can enter into agreements with device manufacturers to promote their browsers (or promote their browsers on their own devices) through preinstallation, placement, and/or default settings.   And they can encourage users to set their browsers as default on their devices.   Evidence demonstrates that browsers successfully promote their apps through these channels, resulting in thriving browser competition on Android.

1.   Browser Developers Can Reach Users Through Preinstallation, Placement, and Default Settings

11.   Third-party device manufacturers, such as Samsung, Motorola, and Xiaomi, decide which browsers to preinstall and set as default on their devices.[6]

12.   Google's Android licensing model leaves these device manufacturers with considerable freedom to customize their devices' out-of-the-box configurations. There is no obligation for Android device manufacturers to preinstall any Google apps, including Chrome.   Even when device manufacturers elect to preinstall Chrome, they can and do preinstall other browsers too, and promote them to users through placement and default settings. Over half of Android devices come with at least two browsers preinstalled.[7]   And, as the CMA has recognized, over half of Android devices in the UK in 2021 came with a non-Chrome browser (Samsung Internet) preinstalled *and* set as default.[8] Chrome, by contrast, was set as default on only 10-20% of Android devices in 2021.[9]

13.   The following screenshots of Android device models from two popular device manufacturers demonstrate the preinstallation and placement of non-Chrome browsers in the devices' out-of-the-box home screen configurations:
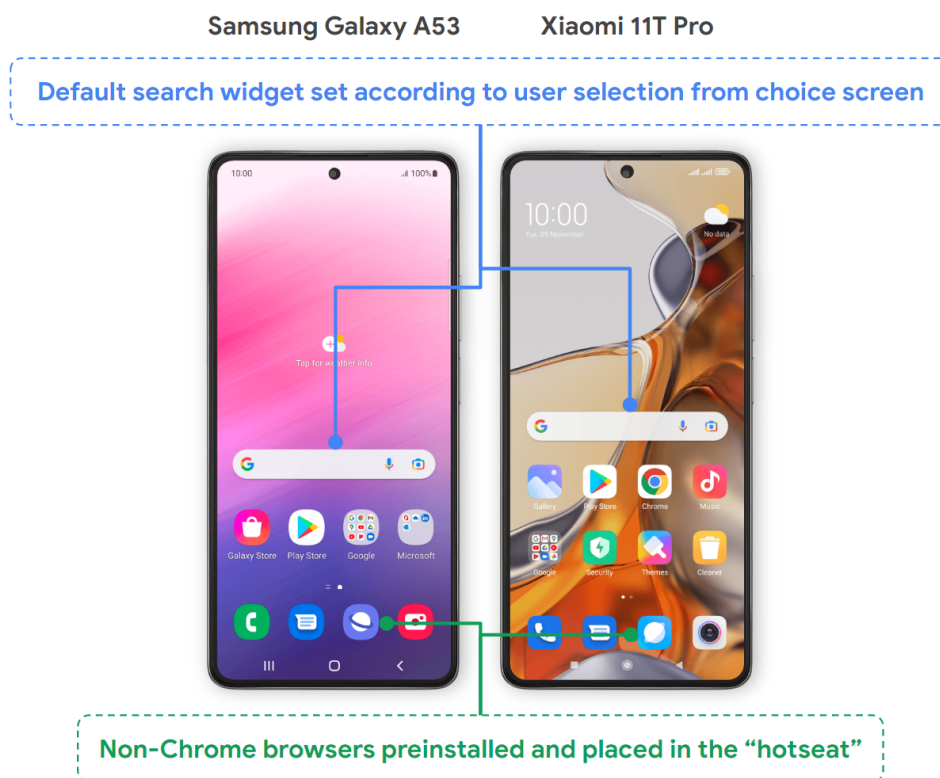
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[6]   Google's own Pixel devices account for a "*very small*" share of smartphones (CMA, Mobile Ecosystems Market Study Final Report (June 10, 2022), ¶3.16 ("**Final Report**")).

[7]   Final Report, ¶5.95.

[8]   Ibid.

[9]   Final Report, ¶5.94.

Third-Party Browsers Are Routinely Preinstalled, Placed Prominently, and Set as Default on Android Devices[10]

Samsung Galaxy A53   Xiaomi 11T Pro

Default search widget set according to user selection from choice screen

Non-Chrome browsers preinstalled and placed in the "hotseat"

2.   Browser Developers Can Reach Users Through Downloading

14.   No matter which apps come preinstalled or set as default on Android devices, users routinely select their preferred apps by downloading them from app stores. Some of the most popular apps that UK Android users download, including WhatsApp, Facebook Messenger, Spotify, Alexa, Telegram, Edge, DuckDuckGo, Teams, Discord, Zoom, and others compete with apps that are frequently preinstalled on Android devices.[11] UK users are reported to have downloaded over 2 billion apps in 2021 alone.[12] And widespread user downloading is no less true for browsers. Popular browsers like Edge, DuckDuckGo's Private Browser, Brave, UC Browser, Opera, Firefox, and Samsung Internet have together been downloaded from Google Play

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[10]   In addition, as the figure explains, the search widget on Android devices' home screens in the UK is set according to the user's selection from the Android choice screen. Some participants in the choice screen also compete on Android with browser apps. The widget can therefore serve as an entry point to browser apps distributed by search providers if they are selected from the choice screen. *See* Android, About the choice screen (August 29, 2022).

[11]   These apps featured in Data.ai's list of the top 150 free apps downloaded from Google Play on January 3, 2023. *See* Data.ai (formerly AppAnnie), Top Apps (registration required; accessed January 23, 2023).

[12]   Mansoor Iqbal, Business of Apps, App Download Data (2023) (January 9, 2023); *see also* Data.ai (formerly AppAnnie), State of Mobile 2022 (registration required).

over 2.5 billion times globally. As this evidence demonstrates, UK users instantly access their preferred apps, including browsers, by downloading them.

3. Browser Developers Can Encourage Users to Switch Default Browsers

15. Users can change their default browser with ease on Android in the settings menu. In addition, as the CMA has recognized, browsers on Android can and do use prompts to encourage users to switch defaults.[13] Brave told the CMA that the ability to prompt users to switch defaults in this way can improve competition.[14] Browser developers on Android like Mozilla, Opera, and Samsung use this feature in their Android apps:

Browser Developers Prompt Users to Switch Defaults on Android
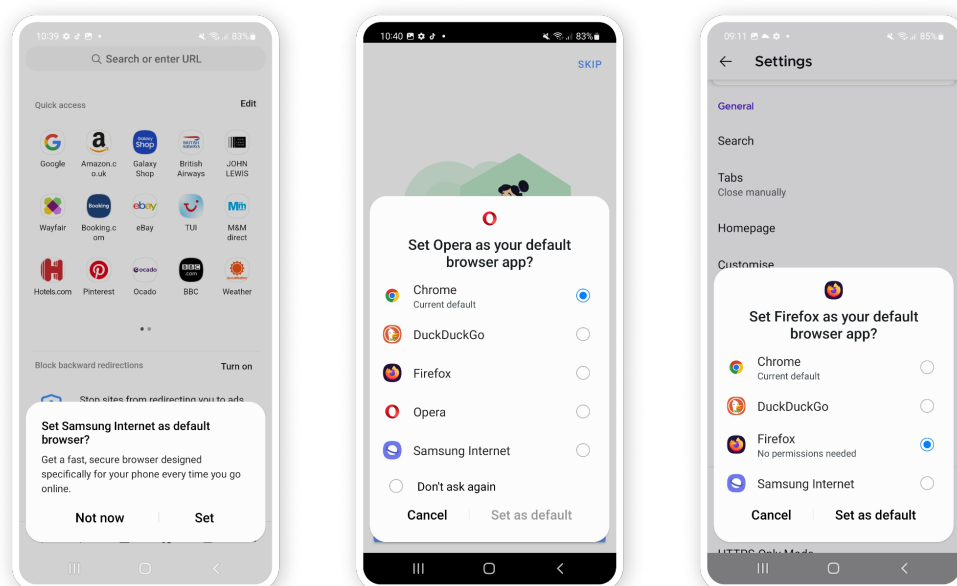
16. Evidence shows that users know how to, and in practice do, engage with defaults on Android. According to the CMA's survey of UK consumers, over 80% of UK Android users are confident with "*changing settings on smartphones (e.g. changing default settings)*".[15] The CMA also acknowledged that Chrome has a share of supply of browsers on Android of 74%, but was set as the initial default on only [10-20]% of Android devices in 2021.[16] This demonstrates that consumers in practice use their preferred browsers even if a different browser is set as the initial default.

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[13]   Final Report, Appendix G, ¶56.

[14]   Final Report, Appendix G, ¶26.

[15]   Accent, Consumer purchasing behaviour in the UK smartphone market for the CMA's Mobile Ecosystems Market Study, Final Report (June 2022).

[16]   Final Report, ¶5.94.

C.   Chrome's Popularity on Android Reflects its Quality

17.   Competition between browsers on Android is thriving as a result of the ease of developing browsers and myriad opportunities for their distribution, as described above. According to the CMA's calculations, the usage of non-Chrome browsers on Android accounts for more than double the usage of non-Safari browsers on iOS.[17]

18.   In these circumstances, to the extent Chrome remains the most popular browser on Android, this reflects users exercising their freedom to select and use their preferred browser irrespective of which browsers come preinstalled or set as default on their devices.[18]

19.   Users seek out browsers that provide superior performance, a secure browsing environment, stability, and feature-rich functionality. A survey commissioned by the Australian Competition and Consumer Commission ("**ACCC**") found that most users who preferred Chrome did so based on factors such as ease of use, speed, and privacy features, rather than the fact that it was preinstalled on their devices.[19] Users' preferences for Chrome tally with the innovative improvements we frequently introduce. For example:

- **Features**. Chrome was one of the first browsers to introduce now ubiquitous features like the omnibox (*i.e.*, the URL bar that doubles as a search bar and feeds back query suggestions or answers) and private browsing. In 2018 we introduced offline browsing, which automatically downloads articles based on the user's browsing history and location when they are connected to Wi-Fi. In 2020, we implemented "Chrome Actions", which enable users to complete tasks quickly by typing shortcuts into the omnibox (*e.g., "view downloads", "translate page"*, or *"manage search engines"*).[20] And in 2021 we introduced an easier way for users to keep track of site permissions.[21]

- **Speed**. We continuously improve Chrome's performance. In 2021, for example, we announced enhancements that made Chrome 23% faster and included those changes in the upstream, open-source Chromium.[22] The

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[17]   Final Report, ¶5.30, Table 5.2.

[18]   As noted above, most UK Android devices come with a non-Chrome browser set as default.

[19]   Roy Morgan, Final Report: Consumer views and use of web browsers and search engines, prepared for the Australian Competition & Consumer Commission Digital Platform Services Inquiry Third Interim Report (September 2021), p. 44 (hereinafter "**ACCC Consumer Study**").

[20]   Google Chrome Help, Use Chrome Actions to quickly complete tasks.

[21]   Audrey An, The Keyword, Privacy and performance, working together in Chrome (July 20, 2021).

[22]   Chromium Blog, Chrome is up to 23% faster in M91 and saves over 17 years of CPU time daily (May 27, 2021).

CMA has recognized that *"many browser vendors ranked Chrome as the fastest browser"*.[23]

- **Security**. We constantly update Chrome to implement the latest security features and fixes. For example, in 2020 we launched "Enhanced Safe Browsing" protection, which enables users to increase protection from dangerous websites and downloads based on a holistic view of threats users face while browsing the web.[24] And in 2021 we implemented enhanced "Site Isolation" (a security feature that protects users from malicious websites) and improved phishing detection, making the process fifty times faster and less battery intensive.[25]

20. Chrome's quality is reflected by its popularity on devices that it is not preinstalled or set as default on. The ACCC's survey found that *"[w]hile Chrome was clearly most likely to be the main browser used on a computer [...] and the most likely to be the main browser on a smartphone [...], it was less likely than the other main browsers to have been pre-installed."*[26] In other words, *"many consumers take proactive measures to use Chrome (i.e. they download and install it onto their device)."*[27]

21. Accordingly, Chrome is the most popular browser on desktop computers in the UK[28] despite the fact that the two major desktop operating systems, Windows and MacOS, preinstall Microsoft's and Apple's own browsers, respectively Edge and Safari, and set them as default. Chrome is also the most frequently downloaded browser on iOS[29] despite our inability to use Blink as Chrome's browser engine on iOS.

22. Chrome's superior quality is responsible for its success with UK users. Meanwhile, Android provides rival browsers with the tools, flexibility, and opportunities to develop, distribute, and thrive.

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[23] *See* Final Report, ¶5.38.

[24] Nathan Parker, Varun Khaneja, Eric Mill, and Kiran C Nair, Chrome Security Blog, [Enhanced Safe Browsing Protection now available in Chrome](#) (May 19, 2020).

[25] Audrey An, The Keyword, [Privacy and performance, working together in Chrome](#) (July 20, 2021); Chromium Blog, [Faster and more efficient phishing detection in M92](#) (July 20, 2021).

[26] ACCC Consumer Study, p. 13.

[27] Ibid.

[28] StatCounter, [Desktop Browser Market Share United Kingdom](#) (Dec 2021 - Dec 2022). *See also* ACCC Consumer Study, p. 39 (*"Google Chrome was the most used browser on computers across all operating systems, with even those on MacOS more likely to mainly use Chrome (45%) than Safari (40%); though Chrome was more likely to be the most used browser on non-Apple computers (65%)."*).

[29] Data.ai (formerly AppAnnie), [Top Apps](#) (registration required; accessed January 23, 2023).

III. The Issues Identified Are Not Features of Android Capable of Giving Rise to an AEC

23. In a market investigation, the CMA must only intervene and consider remedies when it identifies a feature or combination of features of the relevant market(s) that prevents, restricts, or distorts competition and therefore results in an AEC.[30] This is not the case with the issues identified in the Issues Statement.

A. Indirect Network Effects Do Not Act as a Barrier to Expansion for Competing Browser Engines on Android

24. The CMA has identified a potential market feature whereby web developers "*typically ensure that their websites and web apps are compatible with the most popular browsers, but not other browsers.*"[31] The CMA suggests that these indirect network effects benefit the most popular browsers (Chrome and Safari) and browser engines (Blink and WebKit). It proposes to investigate two related concerns resulting from this feature.

25. First, the CMA proposes to investigate whether indirect network effects create barriers to entry and expansion for smaller *browsers*, which "*struggle to differentiate themselves by making new functionality available to web developers as this functionality is less likely to be adopted.*"[32] In the CMA's view, the incentive for a smaller browser to introduce new features and functionalities may be limited if web developers cannot be expected to incorporate them into their websites.

26. This concern is not, however, borne out by the evidence. The browser market is awash with features introduced by browsers that not all major browsers implement. For example, Samsung launched an API in Samsung Internet used to access virtual reality devices before Chrome supported the feature.[33] And a Storage Access API was approved and launched in Blink to enable Microsoft's Edge browser to support this feature, even though Chrome currently does not support it.[34] Conversely, Chromium-based browsers routinely "turn off" certain features by default that other Chromium-based browsers do support. For example, Microsoft turned off a "scroll-to-text" feature in Edge until Microsoft decided it wanted to launch the feature. Brave also flags features to web developers that its Chromium-based browser does not support. In short, web developers are used to developing for multiple browsers that support different features. They have access to extensive online resources explaining which browsers support particular features,[35] can easily

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[30]   Enterprise Act 2002, Section 134.

[31]   Issues Statement, ¶31.

[32]   Ibid.

[33]   *See* Can I Use, WebVR API. This API has been replaced with the WebXR Device API. *See further* Ada Rose Cannon, Samsung Developers, Virtual Reality, WebXR, and Samsung Internet (April 27, 2020).

[34]   *See further* Microsoft, Introducing the Storage Access API (July 8, 2020).

[35]   *See, e.g.*, Can I Use.

test their websites against multiple browsers using tools like BrowserStack,[36] and regularly include features in their websites and display them only on supporting browsers.[37]

27.   Second, the CMA proposes to investigate whether indirect network effects inhibit competition from smaller or new *browser engines* (as browsers have little incentive to fork an existing browser engine, switch to an alternative browser engine, or create their own browser engine). Browser developers are, in the CMA's view, incentivized to use Blink because web developers design and test their websites against it.[38]

28.   The CMA acknowledged our role as a "*committed and responsible steward*" of Blink in its advisory steer to the investigation's Inquiry Group.[39] It has also recognized that we launched Blink to spur innovation and, over time, improve the health of the entire open web ecosystem.[40] We engage with many stakeholders, including rival browsers, other contributors to Blink, and standards bodies like W3C when we introduce new features and functionalities in order to promote their widespread adoption in Blink and other browser engines. In fact, we have made significant contributions towards other browser engines to improve web compatibility. To the extent browser developers choose to use Blink as their browser engine, this reflects competition on the merits and our extensive investments in stewarding Blink. Users and web developers should not be deprived of our improvements to Chrome/Blink as a result of other browsers/browser engines lagging behind. It would harm innovation in browsers and browser engines to interfere with browsers' choices to switch to or continue to use the most innovative and feature-rich browser engine.

29.   Intervention in Google's stewardship of the Blink browser engine is therefore not justified.

B.   Third-Party Browsers Already Have Access to All Necessary Functionalities on Android

30.   The CMA found that "*there are a large variety of functionalities that exist in Safari but that are not available to other browsers on iOS*".[41] At least some of these functionalities are "*significant*", and, according to the CMA, rival browsers' inability to access them impacts their ability to compete with Safari.

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[36]   *See* BrowserStack, Live ("*Millions of QA testers & developers use Live to instantly access 3000+ real browsers & devices and deliver great user experiences.*").

[37]   *See* MDN Web Docs, Implementing feature detection.

[38]   The CMA expresses the same concern in relation to WebKit.

[39]   CMA Board, Advisory Steer, Mobile browsers and cloud gaming market investigation (November 22, 2022), ¶11 (hereinafter "**Advisory Steer**").

[40]   Final Report, ¶5.19.

[41]   Final Report, ¶5.111.

31. The CMA did not repeat these concerns in relation to Google. Nonetheless, the CMA proposes to investigate whether functionality *"which is made available to Safari and/or Chrome, but not other browsers, hinders competition between mobile browsers."*[42]

32. Android is, by its very nature, open and accessible by all Android developers. Following a detailed year-long investigation, the CMA concluded in its Final Report that it has *"not identified examples where there would be material benefits should Google be required provide to [sic] additional functionality to third-party browsers or browser engines."*[43] Samsung and Brave told the CMA that there are *"no major features that are available on Chrome which are not available to their own browsers on Android."*[44] It would not therefore be appropriate or proportionate to investigate this issue further.

C.   Google Balances App Developer Choice and User Choice of In-App Browsers

33. In-app browsing is an important aspect of users' interactions with their mobile devices. Developers incorporate in-app browsing technology into their apps so that users can seamlessly navigate to and explore web pages from within native apps. Developers can customize the look and feel of the in-app browsing experience to suit their users' needs.

34. The CMA is concerned that the way Apple and Google are implementing in-app browsers on their respective platforms reinforces the positions of their own browsers and browser engines.[45] This concern results from two separate issues that the CMA proposes to investigate:

- First, whether app developers on iOS or Android are restricted from using the browser engine of their choice when they incorporate in-app browsing in their native apps. Even though the CMA found that we already support browser engine choice for in-app browsers, it is concerned that *"default settings and preinstallation makes it difficult for developers to implement in-app browsers based on a browser engine other than Blink."*[46]

- Second, whether allowing developers to choose the implementation of in-app browsing may limit consumer choice, as it can mean that hyperlinks opened from a non-browser app are not directed to a consumer's default browser.[47]

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[42]   Issues Statement, ¶37.

[43]   Final Report, ¶8.132.

[44]   Final Report, ¶5.113.

[45]   Issues Statement, ¶43.

[46]   Issues Statement, ¶40.

[47]   Issues Statement, ¶42.

35.   These issues are not, however, features of the Android ecosystem that are capable of giving rise to an AEC.

36.   A critical part of our role as steward of the Android ecosystem is to maintain its attractiveness to developers—big and small—by providing easy access to software development kits, libraries, and APIs that developers can incorporate into their apps. These tools cannot properly be characterized as "defaults" (or, at least, as defaults of the type that can give rise to inertia bias). We enable developers to use alternatives, and developers—which are technically and commercially sophisticated parties—can be expected to make a conscious choice of the tools that best meet their needs.

37.   In any event, the tools that we provide are a necessary feature of a successful app development platform. This is especially true of foundational app features like in-app browsing. Having a consistent set of basic tools for developers to use makes app development easier, encourages less sophisticated developers to create apps, and facilitates cross-platform development tools like Flutter and React Native.

38.   Nonetheless, subject to our policies necessary for system health and anti-abuse, we allow app developers to incorporate a different in-app browsing technology if they choose to. For in-app browsing, developers have the following options:

        ● First, they can call on Android's Custom Tabs API, which effectively embeds a tab from the user's default browser in the developer's app. For example, if the user's default browser is set to Firefox, the tab that opens in apps using the Custom Tabs API will be a Firefox tab (based on the Gecko browser engine) unless the app developer has directed the link to open in a specific browser or app.

        ● Second, developers can create their own in-app browsing experience by using the Android system component for rendering web content or a first-party or third-party alternative (such as GeckoView), subject to policies necessary for system health and anti-abuse.[48]

39.   It is open to developers to decide which technology to use and, as the CMA has recognized, there are "*advantages to allowing developers to choose the in-app browser implementation*".[49] The browser engine choice that Android affords app developers promotes competition and is not a feature capable of giving rise to an AEC that warrants further investigation.

40.   As to the concern that allowing developers to choose the in-app browsing implementation may limit consumer choice, the CMA correctly recognized the trade-off between respecting user default choices and enabling app developers to

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[48]   Building an in-app browser feature based on webviews (as opposed to using webviews to display static web content) comes with certain privacy and security risks for users, as webviews lack basic functionality and security features built into general purpose browsers.

[49]   Final Report, ¶5.85.

customize and differentiate their in-app browsing experiences.[50] In line with our choice-centric approach to developing Android, we have already considered how to strike an appropriate balance between developer and user choice.

41.   In particular, on the one hand, Android gives developers adequate freedom to implement the in-app browsing technology of their choice. On the other hand, if the developer chooses to use the Custom Tabs API, the in-app browsing experience will be powered by the user's default browser if the developer has not directed the link to open in a specific browser or app. Android therefore already satisfies the CMA's proposed remedies that would enable users to "*choose their default in-app browser*"[51] and "*mandate that any in-app links open with the user's default browser as set on the operating system*,"[52] while at the same time enabling developers to choose in-app browsing implementations that suit their users' needs. A requirement to render in-app browsing through the user-selected browser in all apps would, by contrast, restrict developers' choice of how their apps operate. Ultimately, that restriction would impose a burden on developers (including smaller players). There is therefore no case for intervention with respect to this issue on Android.

D.   Preinstallation, Placement, and/or Default Setting of Chrome on Android Devices Cannot Plausibly Give Rise to an AEC

42.   The CMA has recognized that "*[t]he convenience associated with pre-installation and defaults can bring real benefits*" to users, such as an immediate "*out of the box*" experience.[53] This is important to consumers and provides opportunities for device manufacturers to differentiate their smartphones through the apps they preinstall and set as default. It also provides them with an additional revenue stream that they can use to invest in new innovative devices and software.

43.   The CMA is concerned, however, that preinstallation and default settings increase the use of Apple's and Google's own browsers on their respective platforms.[54] It proposes to investigate whether we use "*choice architecture*"—in particular our agreements with device manufacturers and processes to change the default browser on Android—to reinforce Chrome's position.[55]

44.   Through the agreements mentioned in the Issues Statement, Google pays device manufacturers for a promotional opportunity for Chrome on Android devices. The agreements increase the likelihood that a user will see Chrome when they open their device for the first time and try it out. But the agreements do not restrict

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[50]   Issues Statement, ¶42.

[51]   Issues Statement, ¶75.

[52]   Issues Statement, ¶77.

[53]   Final Report, ¶6.74.

[54]   Issues Statement, ¶27.

[55]   Issues Statement, ¶¶44-45.

competition from other browsers. They are optional and device manufacturers that choose to enter into them have considerable freedom to promote other browsers alongside Chrome on their Android devices. Meanwhile, users continue to have instant access to other browsers by downloading them from app stores. And users can—and do—change their default browser on Android devices in just a few simple steps. As noted above, most Android devices shipped in the UK come with at least two browsers preinstalled, and according to the CMA's calculations Chrome is set as default on only 10-20% of them.

45.   For these reasons, and as explained in Section II.B above, Google's promotional agreements are not capable of giving rise to an AEC.

IV.   Conclusion

46.   The choice and openness at the heart of the Android ecosystem has had an undeniable and enduring positive impact on users, developers, device manufacturers, and users in the UK. Browser manufacturers innovate and differentiate according to their competing business models and product offerings, and consumers can and do choose the browser that best suits their needs.

47.   Successful market investigations result in clear remedies targeted at well-defined features of a market with strong evidence of their adverse effect on competition. We look forward to assisting the CMA to explore the issues it has identified and, if the CMA identifies features of the market giving rise to an AEC, to working with the CMA on potential remedies.

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