



Google's Response to the CMA's Provisional Decision Report in the Mobile Browsers and Cloud Gaming Market Investigation

19 December 2024

Introduction

1. Google appreciates the opportunity to respond to the CMA's Provisional Decision Report (**PDR**).
2. In several important respects, the PDR recognises Android's open and pro-competitive approach to browser choice. Specifically, it acknowledges that: (i) feedback from third parties "*do[es] not evidence Google using its position as an operating system and mobile browser engine provider to favour Chrome*";¹ (ii) our practices with respect to access to functionality for third-party browsers on Android do not give rise to adverse effects on competition (**AEC**);² and (iii) "*the available evidence does not suggest that*" Google's policies either in relation to "*remote tab [in-app browsers] on Android*" or "*webview IABs*" are restricting competition.³ Overall, the PDR finds that browser competition is more open on Android compared to iOS.⁴
3. These findings are based on a robust assessment of the facts and evidence and recognise the benefits that Android's openness has brought to browser developers, web developers, and ultimately UK consumers.
4. The PDR provisionally identifies two AECs relating to Google's conduct, specifically certain choice architecture practices on Android and a revenue-sharing arrangement in the Information Service Agreement (**ISA**) between Apple and Google. Google disagrees with the PDR's assessment of the evidence relating to these issues and requests that the CMA reassess its provisional findings.
5. The CMA's stated approach to assessing whether a feature of a market gives rise to an AEC makes clear that it should come to "*a rounded judgment on what may be*

¹ PDR, ¶5.128; all references to the PDR are to relevant paragraphs and page numbers in the version published on the [CMA's website](#).

² PDR, ¶5.128.

³ PDR, ¶¶7.174 and 7.190.

⁴ PDR, ¶23.

causing any [AEC]" after "[h]aving considered evidence of all kinds".⁵ But the PDR's analyses regarding the ISA and Google's choice architecture practices are contradicted by evidence that it has not adequately considered.

6. In relation to the ISA, the PDR's theory of harm is directly contradicted by the available evidence, which shows that Google competes strongly with Apple in mobile browsers on iOS. And in relation to choice architecture, the PDR's analysis mischaracterises the scope of Google's agreements with OEMs, ignores dispositive evidence showing users' confidence in downloading and switching browsers, and mischaracterises Chrome's use of prompts on Android (which, as the CMA's evidence shows, users value). Google therefore strongly disagrees that there is evidence to support an AEC finding on either of these issues.
7. If, despite this, the CMA maintains these provisional AEC findings in its Final Report, we agree with the PDR's proposal to assess them through a "*targeted and iterative approach*" under the incoming UK digital regime.⁶ Any remaining issues applicable to Google's practices would touch on multiple, interrelated aspects of competition in mobile ecosystems. Accordingly, any proposed remedies would be too complex for a market investigation, and would be better considered holistically under the new regime designed specifically for digital markets.
8. The remainder of this response follows the PDR's structure:
 - **Section I** explains why the ISA does not give rise to an AEC in respect of the supply of mobile browsers on iOS.
 - **Section II** explains why Google's choice architecture practices do not give rise to an AEC in relation to the supply of mobile browsers on Android.
 - **Section III** provides our views on the PDR's proposed remedies.
9. We do not in this response comment further on AEC1 or AEC2, which concern Apple's WebKit requirement and access to functionality on iOS, or AEC3, which concerns Apple's restrictions on in-app browsers (**IABs**). Our responses to Working Papers 1-4 set out our specific views on these points.
 - I. **The ISA Does Not Contribute to AEC2 (Supply of Mobile Browsers on iOS)**
10. The PDR provisionally considers that the Chrome revenue-sharing arrangement in Amendment Eight of the ISA reduces "*Apple's and Google's financial incentives to compete,*" and "*this in turn is likely to reduce competition among mobile browsers*

⁵ Competition Commission, Guidelines for market investigations: Their role, procedures, assessment and remedies, CC3 (April 2013), ¶319.

⁶ PDR, ¶11.2.

on iOS.”⁷ This is not correct. The PDR wrongly dismisses the ISA’s pro-competitive benefits in the form of important rivalry-enhancing efficiencies. The PDR also adopts a flawed theory which is at odds with the evidence for three main reasons:

- First, it is premised on a flawed theoretical assessment of Apple’s and Google’s incentives. The PDR erroneously discounts the numerous and strong incentives for Chrome to win users from Safari.
- Second, it does not take sufficient account of the evidence showing that Chrome in fact competes strongly with Safari on iOS. The ISA has had no adverse impact on this competition.
- Third, the PDR does not show that the ISA specifically—as opposed to the other features identified by the CMA⁸—has contributed to a reduction in competition on iOS. In the absence of any causal link between the ISA and the outcomes identified, the PDR’s assessment does not satisfy the “balance of probabilities” legal standard to show that the ISA is a feature of the market that contributes to an AEC.

11. We set out further details on each of these points below.

A. The PDR’s Finding Is Premised on a Flawed Theoretical Assessment of Apple’s and Google’s Incentives

12. **The ISA does not negatively impact Chrome’s incentives to win iOS users.** The PDR’s theory of harm is that the revenue-sharing arrangements in the ISA reduce Chrome’s incentives to compete with Safari. Not only does this overlook the significant financial incentive Google has for Chrome to win users from Safari, it also takes insufficient account of various other strong incentives Google has to improve Chrome and win users from Safari.

13. **Google has significant financial incentives to win users from Safari.** The PDR states that the Chrome revenue share is “*lower but similarly significant*” to the Safari revenue share in the ISA.⁹ This wrongly discounts that Google has a meaningful financial incentive for Chrome to win iOS users from Safari because the Chrome revenue share is lower.

14. **The PDR does not take sufficient account of the other incentives Google has to invest in Chrome.** The PDR assumes incorrectly that the specific financial incentives flowing from the revenue-sharing arrangements in the ISA are the determining factor in how Chrome competes on iOS. This is not correct: Chrome

⁷ PDR, ¶¶9.131.

⁸ PDR, ¶¶10.7.

⁹ PDR, ¶¶9.73.

has a plethora of other important incentives that drive it to compete vigorously on iOS notwithstanding the level of any revenue-sharing arrangement.

15. **Offering a high-quality experience on Chrome on iOS is important for Google to win and retain users and web developers across platforms, not just on iOS.** Chrome is one of Google's flagship products, and an important element of Google's overall brand. Users access Chrome across a range of platforms and expect a consistent, high-quality browsing experience, regardless of operating system or form factor.
16. Mobile devices are increasingly users' primary way to browse the web and access web content. Accordingly, users' experience with a mobile browser significantly impacts their decision on which browser to use on other devices and platforms (e.g., desktop). And the fact that Chrome provides a high-quality, consistent experience across devices is highly valued by users.
17. This is supported by the CMA's consumer survey, carried out by Verian, which found that of all users who mostly use Chrome on mobile, 75% also mostly use Chrome on desktop.¹⁰ This is evidence that using a preferred browser on one platform strongly impacts users' decision as to which browser to use on other devices.
18. In addition, Google also invests in Chrome for web developers and the advancement of an open web at large. Web developers create content for the web, not just a particular platform. Accordingly, Google needs to ensure that Chrome offers a high-quality option that is attractive to developers across all platforms, including, but not limited to, iOS. This aligns with Google's core business model, which is to encourage users to use and search the web. Providing users with access to a high-quality, competitive browser experience via Chrome, regardless of platform, is fundamental to this goal.
19. The PDR recognises that Google's incentives to invest in Chrome "*could to some extent come from outside the relevant market [i.e., outside mobile browsers on iOS]*".¹¹ But it dismisses these constraints as "*limited*" and not "*capable of fully offsetting the negative impact on competition resulting from the ISA.*"¹² These conclusions follow from the PDR's observation that "*native apps, including mobile browsers, are largely OS-specific and need to be developed separately for iOS and Android.*"¹³ This is inconsistent with the facts:

¹⁰ Verian Mobile Browsers Consumer Research Final Report, p. 77.

¹¹ PDR, ¶9.115.

¹² PDR, ¶9.115.

¹³ PDR, ¶9.113.

- There is significant commonality between the iOS version of Chrome and other versions of Chrome.
- While the Chrome development team maintains iOS-specific capabilities due to the WebKit requirement, Google’s goal is to develop Chrome as a cross-platform product.
- It is rare for Chrome to make investment decisions on iOS-specific features.

B. The PDR’s Theory Is Contradicted by the Available Evidence

20. In concluding the AEC test, the CMA is required to take a “*rounded judgement*” “[h]aving considered evidence of all kinds”.¹⁴ The CMA needs to decide whether any feature or combination of features prevents, restricts, or distorts competition. A mere theory of harm that a feature could potentially restrict competition is not, in itself, sufficient to conclude that it contributes to an AEC—rather, it is a hypothesis to be tested through examination of the evidence.¹⁵
21. But the PDR does not identify evidence to suggest that the ISA has resulted in Chrome competing less vigorously with Safari. To the contrary, it acknowledges that the evidence shows competition between Safari and Chrome.¹⁶ In discounting all of this evidence, the PDR seems to suggest that Chrome would compete even more strongly on iOS in the absence of the ISA. It is, however, hard to think of what more Chrome could in fact do to compete on iOS.
22. **Google has made significant investments and continues to invest heavily in Chrome on iOS.** Google has invested significantly in Chrome R&D over the past five years, and a large number of Google’s employees work on the product across all platforms.
23. **Google has deployed, and continues to deploy, significant marketing efforts to win iOS users.** Google has invested in numerous campaigns promoting Chrome in recent years. From 2022-2024, Google invested significantly in marketing to promote Chrome to iOS users. These marketing efforts include the “No Place Like Chrome” promotional campaign – see the figure below, which shows Chrome on the home screen on an iPhone. If the PDR’s theory of harm was correct, Google would not have an incentive to make these investments each year encouraging iOS users to switch from Safari to Chrome.

¹⁴ CC3, ¶¶319.

¹⁵ CC3, ¶¶133-164.

¹⁶ PDR, ¶9.92.

Example of Google “No Place Like Chrome” Marketing



24. **Google has continued to innovate in Chrome and roll out additional features on iOS, as far as it is able.** As explained above, Chrome is a cross-platform product, and where possible Google seeks to roll out innovations and new features in all versions of Chrome. Although Chrome’s ability to roll out its innovations on iOS is limited by Apple’s WebKit requirement and the limited access to functionality on iOS, Google has sought to roll out new Chrome features on iOS where possible.

C. The PDR Does Not Show That the ISA Contributes to an AEC in Browsers on iOS

25. Under s.134 of the Enterprise Act 2002 (**EA02**), the CMA is required to decide whether any feature, or combination of features, of each relevant market prevents, restricts, or distorts competition. This requires the CMA to demonstrate through evidence that each identified feature of the market contributes to the AEC. The PDR states that the ISA contributes to AEC2 by dampening “*the incentives of the two main browser vendors on iOS to compete with one another for users on iOS*”.¹⁷ As demonstrated above, however, the PDR does not contain evidence to support that conclusion. Indeed, it acknowledges that “*the ISA operates in the context of various other restrictions (eg the WebKit restriction) [...] which make it unfeasible to assess its specific effects in isolation [and] it is not possible to quantify the actual reduction of competition resulting from [the ISA]*.”¹⁸
26. The PDR identifies evidence that the provisional AEC2 in relation to browsers on iOS is attributable to other market features, such as the WebKit requirement, Apple’s choice architecture practices, or Apple’s in-app browsing policies.¹⁹ For example the PDR provisionally finds that:
- As a result of the WebKit requirement “*there is no competition in the market for browser engines on iOS*.”²⁰ This reduces the ability of rival browser vendors to innovate and improve their mobile browsers on iOS, and reduces

¹⁷ PDR, ¶10.8.

¹⁸ PDR, ¶9.130.

¹⁹ PDR, ¶¶10.7-10.9.

²⁰ PDR, ¶4.258.

competitive pressure which, in turn, is “likely to reduce Apple’s incentives to improve WebKit” and therefore Safari.²¹

- Safari has “wider and more immediate access to functionalities on iOS than other mobile browsers,” making it “more difficult for competing mobile browsers to attract users.”²²
- Browser vendors’ inability to offer remote tab in-app browsers (**IABs**) on iOS “harms their ability to compete in the market for mobile browsers on iOS.”²³

27. Having established that these features of the market harm competition in browsers on iOS and contribute to AEC2, the PDR does not adduce any evidence to show that the ISA also contributes to AEC2.

28. Google has set out strong evidence to show that the ISA in no way dampens Chrome’s incentives to compete on iOS. In these circumstances the PDR’s theory cannot and does not meet the required ‘balance of probabilities’ threshold for establishing that the ISA contributes to an AEC through dampening Chrome’s and Safari’s incentives to compete with each other for users on iOS.

II. There Is No AEC in the Supply of Mobile Browsers on Android (AEC4)

29. The PDR provisionally concludes that features of the market for the supply of mobile browsers on Android, individually or in combination, prevent, restrict, or distort competition in connection with the supply of mobile browsers on Android.²⁴ It does so based on:

- Three “intrinsic” features that may be present in a well-functioning market: (i) concentration in the supply of mobile browsers on Android; (ii) web compatibility resulting in indirect network effects; and (iii) users’ low awareness of and engagement with mobile browsers.²⁵
- Two features relating to Google’s conduct: (i) Google’s control of choice architecture in the factory settings for Android devices on users’ first use of browsers; and (ii) Google’s choice architecture practices after device set up.²⁶

²¹ PDR, ¶¶4.258.

²² PDR, ¶¶5.99-5.102.

²³ PDR, ¶¶7.138.

²⁴ PDR, ¶¶10.11.

²⁵ PDR, ¶¶¶10.11(a)-(c); 10.12.

²⁶ PDR, ¶¶¶10.11(d)-(e); 10.13.

30. The PDR provisionally finds that the latter two features “mean that consumers are less aware of different browsing options and less able to switch mobile browsers.”²⁷ This “reinforces existing low consumer awareness and engagement [...] and in turn means that there are weaker incentives for firms to compete vigorously, as they may be less likely to lose users even if they offer a weaker product.”²⁸ Accordingly, UK consumers may “receive lower quality and less innovative products than would be the case absent the practices.”²⁹

31. The PDR’s analysis of this AEC is flawed in four main respects:

- First, the PDR does not use an appropriate or well-evidenced benchmark for a “well-functioning market”.
- Second, the PDR’s analysis of the role of preinstallation, placement, and default settings in Android device set up: (i) takes insufficient account of OEMs’ control over their out-of-the-box experiences, which they are incentivised to curate in line with their users’ preferences; and (ii) ignores crucial evidence that users’ switching decisions are driven primarily by their own preferences, rather than any purported lack of awareness or engagement attributable to Google’s agreements with OEMs.
- Third, the PDR’s analysis of Google’s choice architecture practices post-device set up is based on a factual misunderstanding of the default prompts promoting Chrome that Google shows on Android, and ignores evidence (including from the CMA’s own research) that prompts enhance—rather than restrict—competition.
- Fourth, the PDR errs by finding that indirect network effects arise from web compatibility on Android.

32. We expand on each of these points below.

A. The Benchmark Used in the PDR for A “Well-Functioning Market” for Browsers on Android Is Not Appropriate or Well-Evidenced

33. As explained above, the CMA generally measures any AEC against the benchmark of a “well-functioning market”. For AEC4, the CMA defines a well-functioning market

²⁷ PDR, ¶10.19.

²⁸ PDR, ¶10.19.

²⁹ PDR, ¶10.19.

that in effect incorporates a choice screen (i.e., the remedy the PDR considers).³⁰ Consequently, any factual scenario that does *not* include a choice screen would, according to the PDR's analysis, be found to cause an AEC. This hypothetical well-functioning market is not based on any evidence. It simply assumes that the PDR's choice screen remedy is part of the well-functioning market, rendering the CMA's analysis circular.

34. There is, however, evidence to suggest that the relevant "well-functioning market" would *not* necessarily involve presenting users with an upfront choice of browser:

- First, the PDR does not consider that a well-functioning market may include OEMs, spurred by strong competition, making efficient choices of the browser(s) they preinstall, prominently place, and set as default. As Samsung told the CMA, it has the *"incentive to ensure that its devices offer end-users the choice and quality of digital services they expect, allowing those end-users to access those services quickly and intuitively."*³¹ The apps Samsung offers to users *"upon device set-up [are] a key component to the 'out-of box experience' (OOBE) and, ultimately, how attractive our devices are to end-users – including as regards web browsing, usually regarded as a key element of a smart device's functionality."*³²

OEMs are likely to preinstall browsers that they consider the majority of their users will prefer to improve the out-of-the-box experience. In many cases, the preinstalled browser(s) will match with the user's preferred choice,³³ providing a clear explanation for why a significant proportion of users do not choose to switch away from preinstalled browsers.

- Second, the PDR does not consider that users may not want to make an active default browser choice when they set up their devices, as opposed to using the browser(s) chosen for them by their OEM and changing later (with ease) if they want to. Verian's qualitative research found that respondents wanted to *"[r]educer cognitive load"* and *"[i]n the smartphone environment*

³⁰ PDR, ¶8.236 (*"In a well-functioning market, we would expect users to be able to choose from several mobile browsers when they first use a mobile device. We would expect that choice of browser to be presented to them such that they are able to make an informed decision about which browser to use. This would enable browser vendors to compete to be chosen as a user's default browser on an equal footing with Chrome (or other pre-installed browser(s)) at device set-up."*).

³¹ Samsung WP7 response, p. 1.

³² Ibid.

³³ This was the most frequent reason that users gave in the Verian consumer survey for not switching the default browser. WP5, ¶2.40 (Figure 2.4).

[...] wanted things to be easy, quick and with minimal change.”³⁴ The PDR does not consider whether Android OEMs are already delivering this outcome for consumers.

35. Even assuming the PDR’s proposed “well-functioning market” is well-founded (which it is not), the PDR does not explain how the current situation on Android departs from it, given that UK Android users today are shown a choice screen the first time they open the Google Play Store. This choice screen enables users to “*choose from several mobile browsers when they first use a mobile device*” and “*make an informed decision about which browser to use*”—exactly the “well-functioning market” benchmark proposed in the PDR.³⁵ In other words, the PDR’s proposed benchmark reflects the *status quo* on Android.
36. The CMA should accordingly reconsider its assessment of the “well-functioning market” benchmark in the Final Report to take account of the above points. In light of the evidence in this response, Google considers that the current conditions on Android are consistent with a well-functioning market.

B. Google’s Android Agreements Do Not Result in an AEC on Android

37. The PDR provisionally concludes that Google “*has considerable influence over the choice architecture on Android devices because of various agreements with OEMs.*”³⁶ In return for financial payments from Google, OEMs agree to “*pre-install and prominently place Chrome and in some cases set Chrome as the default browser on Android devices.*”³⁷ The PDR provisionally finds that this limits browser competition.³⁸
38. The PDR does not take sufficient account of evidence showing that there is strong browser competition on Android with respect to both: (i) preinstallation, placement, and default settings when a user sets up a device out-of-the-box; and (ii) post-device setup given users’ freedom to make, and confidence in making, a choice of browsers.
39. Five main reasons confirm this:
 - First, Google’s agreements are non-exclusive and contestable by browser rivals. Non-Chrome browsers can and do achieve preinstallation alongside Chrome on a significant proportion of Android devices.

³⁴ Verian qualitative research, slide 12.

³⁵ PDR, ¶8.236.

³⁶ PDR, ¶8.239.

³⁷ Ibid.

³⁸ PDR, ¶8.243.

- Second, Chrome is prominently placed and set as default out of the box on a minority of Android devices.
- Third, the PDR takes insufficient account of the significant competitive constraint posed by OEM-owned browsers.
- Fourth, the PDR incorrectly attributes low browser switching rates to Google’s choice architecture practices, which are more readily explainable by Chrome’s superior quality and popularity with users.
- Fifth, the PDR takes insufficient account of the browser choice screen we have shown to Android users in the UK since 2019.

40. We expand on these points further below.

41. **Google’s agreements are non-exclusive and contestable by browser rivals.** The PDR places little weight on the fact that Google’s agreements allow OEMs to preinstall third-party browsers on all, some, or none of their devices.³⁹ Even when they choose to preinstall Chrome, they remain free to preinstall alternative browsers alongside it—and approximately 70% of UK Android devices do so (versus 0% of iOS devices and, as far as Google is aware, 0% of Windows PCs where Edge comes exclusively preinstalled).

42. The PDR states that third-party browsers “*find it difficult to enter into [preinstallation] agreements and match [Google’s] payments.*”⁴⁰ It does not, however, substantiate this finding with evidence beyond statements from rival browser vendors (who are incentivised to seek free promotional opportunities on Android devices). In any event, rival browsers do not need to “*match*” Google’s payments to obtain preinstallation on OEMs’ devices. They can:

- Pay OEMs for preinstallation alongside Chrome. For example, Opera has previously told the EU General Court that “*a good number of its users come from pre-installation agreements concluded with OEMs.*”⁴¹ It would be unnecessary for a third-party browser to contest Google’s payments to OEMs (even on a per-device basis), to achieve preinstallation alongside Chrome.
- Pay OEMs an additional amount for exclusive preinstallation. Because Google’s agreements with OEMs operate on a device-by-device basis, rival browsers do not have to compete for distribution on an “all or nothing”

³⁹ PDR, ¶¶8.236-242. See, e.g., ¶8.242 (“*Although Google has stated that [...] its agreements do not preclude the preinstallation of rival browsers instead of or alongside Chrome, we have placed greater weight on third-party evidence*”).

⁴⁰ PDR, ¶8.242.

⁴¹ Judgment of 14 September 2022, *Google v Commission*, T-604/18, EU:T:2022:541, ¶440.

basis—they can pay for distribution on a subset of devices if they wish (including, for example, to target specific segments like enterprise devices). Similarly, OEMs can enter into exclusive preinstallation agreements with rival browsers in respect of a subset of their devices, without losing payments from Google in respect of their remaining devices.

43. Rival browsers do not therefore need to “*match*” the overall payments that Google makes to OEMs under its agreements.
44. The PDR contends that OEMs “*tend to avoid overloading devices with unnecessary applications in the device factory set-up (ie ‘bloatware’)*” and are unlikely to install additional mobile browsers to Chrome (and, where relevant) their own first-party browsers.⁴² This misinterprets the meaning of “bloatware”, which refers to an app that users regard as low quality or unwanted. If an OEM elects not to preinstall an app because it constitutes “bloatware”, this simply indicates that the OEM does not consider that its users want to have the app preinstalled. In a competitive OEM environment, OEMs are incentivised to preinstall the browsers that they think their users would prefer to have preinstalled.
45. As regards Google’s agreements under which OEMs (other than Samsung) agree to set Chrome as default and place it in the hotseat out-of-the-box—which cover a minority of Android devices—again rival browsers do not need to “*match*” Google’s payments to OEMs to achieve prominent placement or default status. While Google’s revenue-sharing agreements provide an option for OEMs to receive higher payments for placing Chrome in the hotseat, OEMs have the freedom to do this on a device-by-device basis. If rival browsers choose to compete for default status or “hotseat” placement on an Android device, they do not need to contest the entire RSA payments made under Google’s RSAs.
46. **The PDR does not give adequate consideration to the fact that Chrome is prominently placed and set as default on only a minority of Android devices out-of-the-box.** The PDR acknowledges that Chrome is set as default on a minority of Android devices (c. 40%) (correcting a misunderstanding in Working Paper 5).⁴³ It does not assess the implications of this important correction for its analysis, however. In particular, it does not assess the effect Chrome’s default status is likely to have on overall user engagement in the UK mobile browser market given it is only set as initial default on a minority of Android devices.
47. This applies equally to prominent placement. Chrome is only placed in the hotseat out-of-the-box on c. 40% of Android devices. On the remaining c. 60%, Samsung Internet is more prominently placed than Chrome, which is placed in a folder on the

⁴² PDR, ¶8.200.

⁴³ PDR, ¶8.241.

home screen (as illustrated below).⁴⁴ Again, this is a point which Working Paper 5 missed and the PDR correctly identifies, but without any assessment of how this important correction affects the original analysis. Placement in a folder in the home screen cannot reasonably be described as “*prominent*”, especially when a rival browser is placed more prominently.⁴⁵ Chrome does not therefore have a placement advantage under any of Google’s agreements sufficient to affect user behaviour.

On the Majority of Android Devices, Chrome is Placed Less Prominently Than Samsung Internet



48. **The PDR takes insufficient account of the competitive constraint posed by OEM-owned browsers.** The PDR does not take into account the competitive constraint imposed by OEMs’ first-party browsers, which are preinstalled on c. 70% of Android devices in the UK alongside Chrome.
49. The PDR dismisses the importance of Samsung as a competitor, for example, because “*it develops its browser primarily for Samsung device users and does not*

⁴⁴ The middle screenshot of Figure 8.19 at PDR, ¶8.211 shows Chrome’s placement on the default home screen (where rival browsers can also be placed) and not in the hotseat as the caption of the Figure suggests. It is also not clear that the screenshots in Figure 8.19 represent out-of-the-box configurations that have not been subsequently reconfigured by the end user. For example, the right-hand screenshot shows a Samsung device without Samsung Internet in the hotseat, which would be expected in the out-of-the-box configuration.

⁴⁵ The PDR does not however provide any evidence that positioning an app in a folder on the home screen is any more prominent than placing an app on the -1 screen (both of which involve two taps/swipes to open an app). This extends also to when additional apps are downloaded and placed either directly on the home screen (more prominently than in a folder) or on the -1 screen.

*promote it or seek engagement from non-Samsung device users.”*⁴⁶ Samsung’s focus on its own devices does not, however, diminish its status as a strong competitor on the c. 60% Android devices in the UK where Samsung Internet is preinstalled and set as default. Evidence shows that OEM browsers generally represent a significant source of current and potential future browser competition. For example, they benefit from low browser development costs due to Chromium being freely available while enjoying free promotional opportunities on their devices. The PDR should have given adequate consideration to this competitive constraint, instead of dismissing the relevance of OEM browsers.

50. **The PDR misattributes low browser download and switching rates to Google’s choice architecture practices.** The PDR identifies low rates of users downloading alternatives browsers and of users switching default browsers, and attributes those low rates to Google’s choice architecture practices.⁴⁷ It does not consider, however, that low switching rates are more likely attributable to users’ conscious preference for the browser(s) that happen to be preinstalled on their devices and/or the browser that is already set as default.

51. This more likely explanation is better supported by the CMA’s own research than the CMA’s explanation in the PDR:

- **First, users are confident in their ability to switch browsers.** Evidence confirms extreme user confidence in downloading additional browsers, reconfiguring the placement of downloaded browsers, and switching defaults. According to the CMA’s Verian quantitative research:
 - Downloading:
 1. 85% of users “*considered that they could definitely (57%) or probably (28%) download a different browser.*”⁴⁸
 2. 58% of Android users had more than one browser installed on their device.⁴⁹
 3. Verian’s qualitative research found that “*among respondents who had not changed their default browser, there was no concern about the practice of having a pre-installed browser as they reasoned that if they cared about the browser they*

⁴⁶ PDR, ¶8.198.

⁴⁷ PDR, ¶8.286.

⁴⁸ Verian Mobile Browsers Consumer Research Final Report, p. 50.

⁴⁹ Verian Mobile Browsers Consumer Research Final Report, p. 43.

*used, they could open a website in whichever browser they preferred.*⁵⁰

- Switching defaults:
 1. 8 in 10 users knew what their current default browser was.⁵¹ (The PDR alleges a lack of awareness of browser choice: this proves beyond doubt that there is no lack of awareness.)
 2. 8 in 10 users could change their default browsers if they wanted to and approximately 90% of those who *had* changed their default browser found the process easy.⁵²
 3. These results are unsurprising given the PDR’s preliminary conclusion that *“OEMs, browser vendors and users are broadly content with the user journey to change the default browser on Android devices.”*⁵³
- Re-arranging placement:
 1. Participants in Verian’s qualitative research *“universally understood that apps could be moved.”*⁵⁴
 2. Just under half of Android participants in the quantitative research actively set the placement of their preferred browser.⁵⁵ Together with Verian’s quantitative findings, this demonstrates that users whose preferred browser is not in a prominent position can and do rearrange the placement to suit their needs, whereas those who do not do so are likely satisfied with the existing placement.
 3. Of those users who reported downloading their main browser, 8 in 10 recalled actively repositioning its placement.⁵⁶ This contradicts the PDR’s suggestion that *“if a third-party browser is downloaded, it may be placed in a less prominent position on Android devices”* which creates *“added friction to access*

⁵⁰ PDR, ¶8.203.

⁵¹ Verian Mobile Browsers Consumer Research Final Report, p. 57.

⁵² Verian Mobile Browsers Consumer Research Final Report, p. 64

⁵³ PDR, ¶8.285.

⁵⁴ Verian Mobile Browsers Consumer Research Final Report, p. 55.

⁵⁵ PDR, ¶8.217.

⁵⁶ Verian Quantitative Consumer Research, slide 48.

third-party browsers negatively impacts usage and retention".⁵⁷

The PDR does not give this evidence proper weight. Moreover, this evidence is confirmed by other studies both by the CMA and other regulators. For example, the CMA's Accent Survey from June 2022 found that over 80% of UK Android users are confident with "*changing settings on smartphones (e.g. changing default settings)*".⁵⁸ The ACCC's Consumer Study found that "*substantial proportions [of respondents] stated they knew how to change their default browsers*" and 84% of those who had changed default in the 2 years before the survey found switching "*easy/very easy*".⁵⁹

- **Second, on Android devices where Chrome is not set as default out-of-the-box, users switch to it.** This is confirmed by the Verian research, which finds that Chrome is the most switched to browser on both iOS and Android. It also finds that the main reason for users switching browsers is their "*preference for a specific web browser*".⁶⁰

The PDR acknowledges that there are "*high levels of switching from Samsung Internet to Chrome on Samsung mobile devices*".⁶¹ It reasons that "*default settings benefit market players with very strong positions*," without explaining why this is the case. The more likely explanation is that users switch defaults when they prefer an alternative browser, and do not when they like the one that is already available to them. The evidence therefore directly contradicts the PDR's preliminary conclusion that "*users are more likely to stick with the pre-set default browser and less likely to make an active choice about which browser to use on their mobile device, limiting competition between browser vendors*".⁶²

⁵⁷ PDR, ¶8.240.

⁵⁸ See Accent, [Consumer purchasing behaviour in the UK smartphone market for the CMA's Mobile Ecosystems Market Study, Final Report](#) (June 2022).

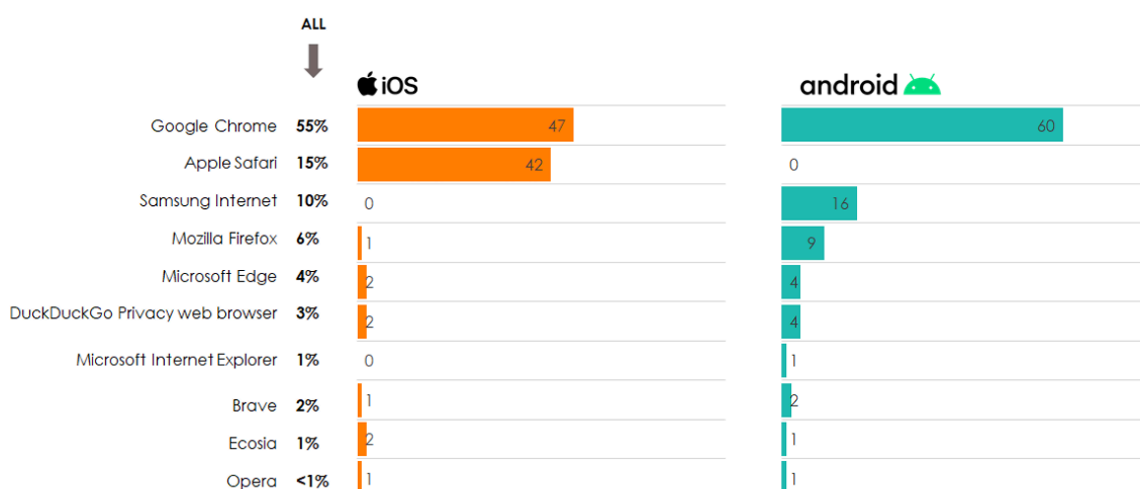
⁵⁹ ACCC Consumer Study, p. 17.

⁶⁰ Verian Mobile Browsers Consumer Research Final Report, p. 68.

⁶¹ PDR, ¶8.241.

⁶² PDR, ¶8.241.

Chrome is The Browser Users Switch Defaults to the Most Across iOS and Android



Source: Verian Mobile Browsers Consumer Research Final Report, p. 65.

The ACCC's Consumer Study also found that “many consumers take proactive measures to use Chrome (i.e. they download and install it onto their device).”⁶³

- Third, on non-Android devices on which Chrome is neither preinstalled nor set as default, users download and switch to it.** Chrome is downloaded in high numbers on devices that do not preinstall it or set it as default. This proves that out-of-the-box configurations do not prevent or inhibit users from switching to their preferred browsers, even on platforms that are alleged to make switching unduly difficult. For example, on iOS, over half of UK users have installed Chrome on their devices.⁶⁴ Users who download Chrome are motivated by Chrome offering a “better user experience,” their familiarity with Chrome, and their use of Chrome on another device.⁶⁵
- Fourth, users routinely download alternatives to apps preinstalled in other categories, including messaging and music streaming.** The PDR takes insufficient account of evidence of users switching to alternatives to preinstalled apps in other categories, which demonstrates there is no “inertia” or “status quo bias” that would prevent users from switching to their preferred browsers. For example:

 - Spotify is used on 30% of UK Android devices compared to YouTube Music used on only 13%, despite YouTube Music being preinstalled on

⁶³ ACCC Consumer Study, p.13.

⁶⁴ Verian Mobile Browsers Quantitative Consumer Research, Slide 40.

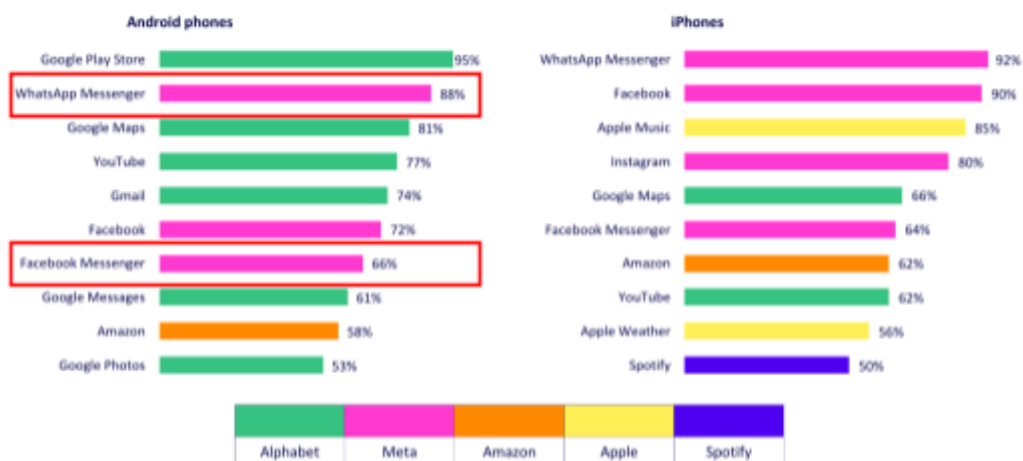
⁶⁵ Verian Mobile Browsers Qualitative Consumer Research, p.27.

all Android GMS devices. The PDR dismisses this example because Spotify was released in 2008, whereas YouTube Music was preinstalled on Android devices as of 2019.⁶⁶ However, prior to 2019 a predecessor to YouTube Music, Google Play Music, was preinstalled on Android devices, and Spotify found similar success.⁶⁷

- WhatsApp Messenger is used on 76% of UK Android devices compared to Google Messages used on 49%, despite Messages being preinstalled on all Android GMS devices. A recent Ofcom study finds that WhatsApp and Facebook Messenger are two of the most used smartphone apps in the UK on Android devices, ahead of Google Messages.⁶⁸

WhatsApp and Facebook Messenger Are More Popular Than Google Messages, Despite The Latter's Preinstallation on Android Devices

Figure 15: Top ten smartphone apps, Android phones vs iPhones, based on reach as a % of the total smartphone app universe: May 2024



Source: Ofcom, *Online Nation 2024*, p. 26

- The Ofcom report also demonstrates that Google Maps is one of the most popular apps on iOS, despite Apple Maps being preinstalled exclusively on iOS devices.

⁶⁶ PDR, ¶18.196.

⁶⁷ To Google's best knowledge, Spotify launched in November 2009, Google Play Music launched in November 2011 (and was deprecated in December 2020), and YouTube Music launched in November 2015.

⁶⁸ Ofcom, *Online Nation 2024*, p. 26. A messaging app has been preinstalled on Android devices since 2008. See The Verge, [A very brief history of every Google messaging app](#) (21 June 2021).

- **Fifth, evidence confirms that when users do not switch browsers, it is most likely because their current browser is the one they prefer, rather than any lack of awareness or engagement.** As explained above, users are aware that they can switch defaults and are confident in their ability to do so. To the extent they do not switch, this is more readily explainable by the fact that users prefer their default browser. This is borne out by the Verian research too, which shows that:
 - 63% of Chrome users on Android devices expressed a preference for Chrome, with only 5% saying they used it because they did not know there were other options.⁶⁹ 72% of Pixel users said they did not change default because the default was their preferred browser.⁷⁰
 - The most commonly selected reason for using Chrome on Android or iOS is because it was the user’s “preferred web browser.”⁷¹
 - The most commonly selected reason for not changing default was “a preference for the default browser,” whereas only 6% of participants did not know how to change default.⁷² Popular reasons for choosing Chrome include familiarity, ease of use, brand trust, cross-device use, syncing features, speed, stability, and compatibility.⁷³

52. The PDR cites “a strong correlation between Chrome being pre-installed on mobile devices and its usage” as evidence for its provisional finding of an AEC in the supply of mobile browsers on Android.⁷⁴ However, the above evidence makes clear that preinstallation, placement, and default status do not determine a browser’s usage. In fact that evidence shows the opposite: that users’ preferences are the main driver of browser usage. Any correlation between preinstallation and usage could reflect that both are related to user preferences; accordingly, any such correlation is not proof of causation and does not indicate an AEC.

53. **The PDR takes insufficient account of the browser choice screen we have shown in the UK since 2019.** The PDR does not take adequate account of the fact that UK Android users today are prompted to download additional browsers as part of the browser choice screen that has been shown on Android phones and tablets

⁶⁹ Verian Group UK (2024) Mobile Browsers Quantitative Research, Slide 51.

⁷⁰ Verian Group UK (2024) Mobile Browsers Quantitative Research, Data tables ‘WHYNOCHANGE’.

⁷¹ Verian Mobile Browsers Consumer Research Final Report, p. 46.

⁷² PDR, ¶8.261.

⁷³ Verian Mobile Browsers Consumer Research Final Report, p. 47.

⁷⁴ PDR, ¶8.194.

since 2019 (as agreed with the European Commission following its *Google Android* decision).

54. This choice screen appears the first time a user opens the Play Store and provides a prompt for users to download additional browsers. The PDR does not explain how Google's choice architecture practices contribute to lower consumer awareness and engagement when the choice architecture presented to Android users in the UK includes a neutral prompt for users to download more browsers.
55. The PDR dismisses this choice screen's relevance because "*a very low proportion of users who are shown the choice screen download an additional browser.*"⁷⁵ This rests on a false and misguided assumption that a "successful" choice screen would lead to more users changing their browser, when in fact the concern as stated in the PDR is that users are not afforded a proper choice of browser and easy route to install their preferred browser. As the PDR states, choice screens should be designed carefully to "*give users autonomy over their choices, rather than guiding their choices to a particular outcome.*"⁷⁶ The choice screen Google shows to users the first time they open the Play Store is directly relevant to this concern. The PDR fails to fully address this, including (as explained above) in relation to its proposed "well-functioning market".
56. Moreover, the fact that Android users are presented with a browser choice moment and that, notwithstanding this, do not download alternative browsers in significant numbers is more likely attributable to the fact that they do not want to download alternatives because they prefer to use a preinstalled browser. In these circumstances, preinstalling Chrome aligns with OEMs' motivation to ensure that apps their users like are on their devices out-of-the-box.
57. Altogether, the PDR's preliminary finding that low switching rates on Android must result from Google's choice architecture practices lacks evidential basis, and in many instances is contradicted by the evidence. The explanation which better fits the facts is that OEMs preinstall, prominently place, and set as default the browsers that users prefer to use. If they do not, users can and do switch. There is therefore no AEC on Android resulting from Google's agreements with OEMs.

C. Google's Use of Prompts are Proportionate, Non-Intrusive, and Do Not Limit Browser Competition on Android

58. The PDR provisionally finds that "*Google surfaces prompts to users when they are in an alternative mobile browser to encourage them to switch their default mobile browser back to Chrome.*"⁷⁷ It alleges that Google uses these prompts "across

⁷⁵ PDR, ¶8.191.

⁷⁶ PDR, ¶11.285.

⁷⁷ PDR, ¶10.11(e).

multiple access points such as Google’s first-party apps (eg Gmail and Google Maps) and the Google search website (when accessed via other browsers)”. These prompts, the PDR argues, “limit[] mobile browser competition by reinforcing Chrome’s very strong position on Android.”⁷⁸

59. As explained below, however, the PDR’s assessment of prompts that Chrome shows on Android is factually flawed. It also takes insufficient account of the proportionate limits Chrome *already* applies to its use of prompts on Android, and does not adequately consider Google’s arguments that default prompts give rise to rivalry-enhancing efficiencies. It also takes insufficient account of evidence that Android users find prompts a useful means of increasing user awareness and engagement with browser choice.
60. We expand on these points further below.
61. **The PDR’s assessment of prompts that Chrome shows on Android is factually flawed.** The PDR’s provisional conclusion that Google shows prompts encouraging users to set Chrome as default in third-party browsers or other Google apps on Android is factually incorrect. While Google shows such prompts on iOS (where it competes in a more restrictive environment and where the PDR rightly does not suggest they contribute to an AEC), it does not show them on *Android*.
62. The PDR describes the prompts Google shows on iOS, including in non-Chrome first-party apps and on certain Google websites in third-party browsers, in its analysis of prompts that browsers show on iOS.⁷⁹ The PDR seems to assume that the same prompts are used on Android, notwithstanding the fact that it quotes Google’s submission that it “*currently does not show prompts on third-party browsers on Android.*”⁸⁰ This is incorrect. On Android, Google only shows default prompts for Chrome *in Chrome* and in certain email marketing campaigns. In particular:
 - **Chrome’s default prompts on Android use an API that any browser can use.** The PDR argues that Google’s use of prompts on Android provides it with an “*advantage over third-party browsers in retaining users.*”⁸¹ This is not the case. On Android, when Chrome is not set as default, it shows prompts using an Android API that offers the user an opportunity to set Chrome as default. This API (for which there is no equivalent on iOS) is available to all browsers on Android and is widely used. It enables them to determine if they are the user’s current default browser, and display the prompt accordingly.

⁷⁸ PDR, ¶10.11(e).

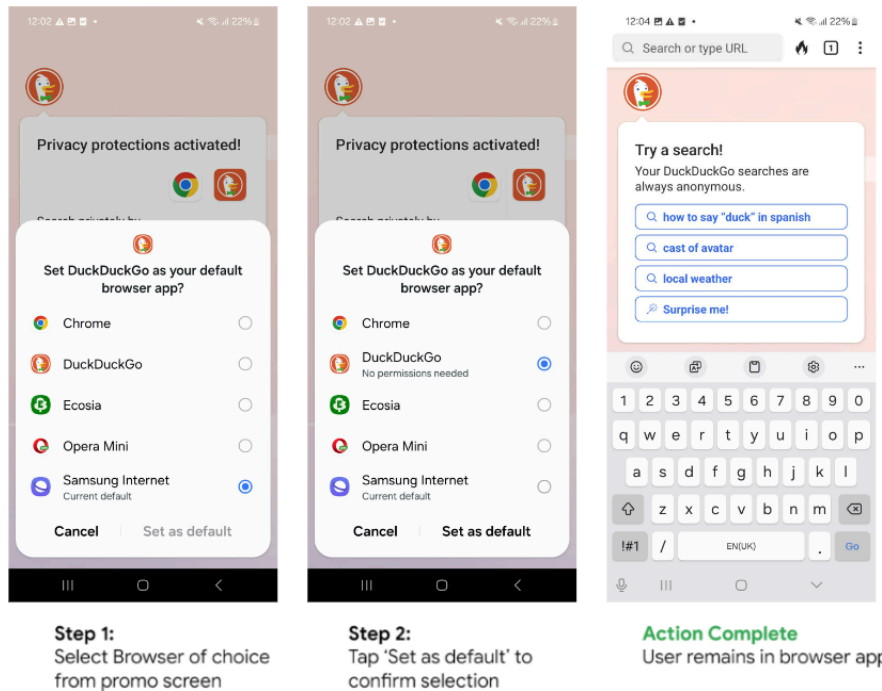
⁷⁹ PDR, ¶8.157.

⁸⁰ PDR, ¶8.264(c).

⁸¹ PDR, ¶8.286.

Mozilla told the CMA that Firefox saw an increase in user engagement when it started showing default prompts.⁸² DuckDuckGo said many users set it as default “*via the prompt, because it's the most intuitive way to do so.*”⁸³ Chrome does not therefore have an advantage over other browsers when it uses this prompt.

Android Allows Browsers to Prompt Users to Easily Switch Defaults - Chrome Does Not Have Unique Access to This API



- **The email marketing promotion email described at PDR ¶8.264(b) is a standard marketing tool that is open to all browsers.** This email simply educates the user on what they can use Google’s apps for. In any case, the email campaign presented in the PDR at Figure 8.25 does not even mention Chrome. It is implausible for this email promotion to reinforce Chrome’s position on Android in these circumstances.

63. Correcting these factual misunderstandings is significant for a few reasons. First, it eradicates any purported concern that Google has some advantage over third-party browsers for its use of prompts on Android. Second, based on this misunderstanding the PDR explicitly disregards the “*conflicting evidence... from Verian’s consumer research*” in favour of its “*internal analysis, which highlights Google’s use of prompts across multiple access points beyond Chrome.*”⁸⁴ This

⁸² PDR, ¶8.271.

⁸³ PDR, ¶8.271.

⁸⁴ PDR, ¶8.286.

error of fact vitiates the PDR's preliminary conclusions on Google's use of prompts on Android. In addition, Google has not been provided with a copy of the CMA's "*internal analysis*" beyond what is set out in the PDR so is unable to comment further on any evidence used to inform the PDR's preliminary conclusions.

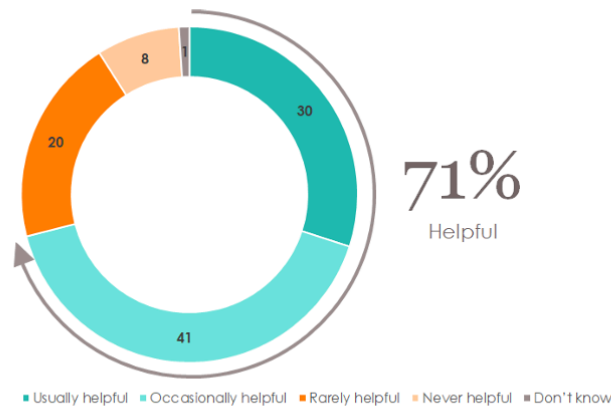
64. **The PDR's analysis ignores that Chrome already applies proportionate limits to its use of prompts on Android.** The PDR's discussion of potential remedies implies that its concerns could be resolved by limiting the "*frequency of default browser prompts and notifications*".⁸⁵ But Google *already* applies proportionate limits to its use of the API-based default prompt on Android, to ensure that it does not frustrate user intent. This is a market-driven outcome that reflects Google's awareness that while prompts can benefit users, excessive prompting can lead to frustration.
65. The Android OS does not limit browsers' use of this API-based prompt. The limits Chrome applies to its use of the prompt described above are based on its own assessment of the most effective means of assisting users to switch defaults without over-prompting them and causing frustration. Other browsers may have different policies based on their own assessments, which Android's flexible approach facilitates.
66. Chrome shows the default prompt in a targeted, understandable, and balanced manner—consistent with the CMA's "*user-centered principles for remedy design*".⁸⁶ The remedy considered in the PDR that would apply to Google's use of prompts therefore already reflects the *status quo*, which takes into account current user preferences. Intervention is unnecessary.
67. **The PDR ignores evidence that Android users find default prompts useful.** The PDR provisionally concludes that the Verian research evidence on browsers' use of prompts "*presents mixed views,*" and discards it in favour of the CMA's "*internal analysis*".⁸⁷ But the Verian research is not "*mixed*" on the value of default prompts to users who choose to switch. Indeed, it finds that 7 in 10 Android users who switched defaults on Android *and* saw a prompt before they did so found these prompts helpful.

⁸⁵ PDR, Table 11.4.

⁸⁶ PDR, ¶11.284.

⁸⁷ PDR, ¶8.286.

7 in 10 Users That Were Shown A Default Switching Prompt Before Switching Found the Prompt Helpful



Source: Verian Mobile Browsers Consumer Research Final Report, p. 76

68. Despite acknowledging “the needs of browser vendors to effectively engage with users”⁸⁸ as being relevant to the remedy assessment, the PDR has not given due consideration to the pro-competitive effect of Google’s use of prompts.⁸⁹ Given the value users attach to default prompts, Google’s use of prompts on Android is procompetitive and rivalry-enhancing. They (i) surface an additional way to switch defaults that would not otherwise exist, (ii) are therefore helpful to users, (iii) are choice-enhancing and aligned with the CMA’s own principles, because they are used in a proportionate and targeted manner that aligns with users’ intent and does not add undue friction to their journeys.

D. Mobile Browsers on Android Are Not Subject to Strong Indirect Network Effects

69. The PDR finds that web compatibility leading to indirect network effects is an intrinsic feature of the market that “contribute[s] to the AEC [the CMA has] provisionally identified” on Android.⁹⁰ We encourage the CMA to reconsider this preliminary conclusion.

70. Web compatibility can create indirect network effects (where developers test against the most popular browsers and potentially ignore features introduced by smaller browsers) only to the extent that browser vendors or browser engine developers introduce incompatibilities between their browsers and the browsers of third parties.

⁸⁸ PDR, ¶11.295.

⁸⁹ PDR, ¶18.286.

⁹⁰ PDR, ¶¶10.11 (b); 10.12.

71. In other words, insofar as there is broad compatibility between browsers or browser engines, indirect network effects are weak and in some cases non-existent.⁹¹ This reflects the position on Android, where (i) there are two major browser engines that browsers use: Blink and Gecko;⁹² (ii) there is broad compatibility between browsers based on Blink and Gecko; and (iii) Blink generally ships new APIs with good specifications, web-platform-test support, and freely available intellectual property rights, such that if new features do not exist in Gecko, Gecko can generally implement changes if needed to ensure compatibility if it chooses. For example, Chrome’s and Firefox’s Web Platform Test compatibility results on Android were both 96%.⁹³ While Apple has not made Web Platform Test results for Safari on iOS available, Safari generally “offers the lowest level of support.”⁹⁴
72. The fact that browser vendors can—and do—modify their browser engines on Android to compete based on developer-facing features does not mean that there are strong network effects.⁹⁵ At best, the broad compatibility between browsers on Android means that indirect network effects are weak and do not give rise to a competition issue.⁹⁶
73. Insofar as web compatibility leads to network effects in the broader web ecosystem, this is not an issue on Android. It instead reflects the PDR’s provisional findings that WebKit lags behind other browser engines in terms of compatibility and feature support, and these shortcomings are imposed across all browsers on iOS. For example, the State of JavaScript’s 2023 feature report ranks Safari second among developer “browser APIs pain points.”⁹⁷ Browser incompatibilities, to which Apple’s WebKit requirement is a major contributor, affect nearly one third of web developers. In “browser support” feedback, Safari is mentioned 61 times while Chrome is mentioned 12 times.⁹⁸

⁹¹ For example, when browsers use the same browser engine and do not make modifications to the browser engine.

⁹² PDR, ¶14.

⁹³ PDR, Appendix A, Table 2.1

⁹⁴ PDR, Appendix A, ¶4.

⁹⁵ For examples of Android browsers competing by modifying the underlying browser engine, see Google’s response to WP1, ¶42.

⁹⁶ This is also supported by the extensive tools and resources web developers have access to so they can support different features on different browsers where incompatibilities exist. See Google’s response to WP1, ¶43.

⁹⁷ State of JavaScript, [2023 Features survey](#).

⁹⁸ Safari is also cited as an issue by developers more than other browsers in the [State of HTML 2023](#) survey.

74. Accordingly, while web incompatibility may be an issue for browsers and developers on iOS, it is not a feature of Android that is capable of contributing to an AEC.

III. Comments on the PDR's Proposed Remedy

75. To remedy the AECs that it identifies, the PDR provisionally decides to make a recommendation to the CMA Board to prioritise commencing investigations into the “strategic market status” (**SMS**) of Apple’s and Google’s mobile ecosystems once its new regulatory powers under the Digital Markets, Competition, and Consumers Act 2024 enter into force, which is expected to occur in January 2025.

76. As we have explained above, we disagree that the ISA, Google’s Android agreements, or Chrome’s default prompts give rise to an AEC, and therefore no remedy is necessary regarding these aspects of the CMA’s investigation. However, if the CMA were ultimately to find an AEC relating to the ISA or Google’s choice architecture practices, we agree that certain issues discussed in the PDR would more appropriately be dealt with by the Digital Markets Unit (**DMU**) using these powers.⁹⁹

77. In these circumstances, if the Final Report contains a recommendation to the CMA Board and an SMS investigation is launched, we set out below various considerations which Google considers the DMU should take into account in the event that it designates Apple and Google with SMS for their respective digital activities in mobile ecosystems, and considers imposing conduct requirements (**CRs**) and/or pro-competitive interventions (**PCIs**) (together, **competition requirements**).

- First, any competition requirements considered should be necessary to address a clearly-articulated and well-evidenced competition concern. We know the DMU has in mind imposing competition requirements where the concerns are most acute and the evidence matches those concerns. We note that several of the PDR’s Provisional Findings are based on factual or analytical errors and so any DMU assessment should not simply assume that these (erroneous) Provisional Findings are correct. For example, any choice architecture interventions should address a well-evidenced competition concern that takes account of evidence showing user confidence in choosing their browser (including the evidence that the PDR currently ignores, as set out in this response).
- Second, the DMU should ensure that any competition requirements it chooses to impose are proportionate and the least onerous means of addressing the issues. This includes considering the sequence in which competition requirements are imposed. The DMU should also take account of the risk of unintended consequences, market distortions, and/or the loss

⁹⁹ See Google’s response to WP7, ¶63.

of consumer benefits that could result from proposed competition requirements. We are conscious the principle of proportionality is central to the legislation itself.

- Third, the appropriate geographic scope of any proposed competition requirements needs careful thought. We are open to discussing this—including any technical constraints involved—with the DMU.
- Fourth, and similarly, the technical ability of Google to implement competition requirements should be taken into account.
- Fifth, the DMU should, where appropriate, take account of compliance measures put in place under the EC Digital Markets Act (**DMA**).¹⁰⁰ We know the DMU is actively following DMA compliance as a general matter.
- Sixth, the DMU should also consider the extent to which any concerns it identifies apply equally to desktop.

78. We expand on these points further below, by reference to the remedies considered—but ultimately not taken forward— in the PDR. Overall, the evaluation of potential remedies in the PDR focuses on their appropriateness within the context of the Market Investigation framework, and does not attempt to assess their suitability under the separate DMU framework. The CMA will need to undertake a separate evaluation of any remedies it proposes under its new powers.

79. **Any competition requirements imposed by the DMU should be necessary to address a clearly-articulated and well-evidenced competition concern.** The CMA has stated that its SMS investigations, during which it will consult on CRs, will be “evidence-based”.¹⁰¹ Likewise, the DMU can only make a PCI when a factor or combination of factors relating to a relevant digital activity is having an AEC.¹⁰² The DMU should therefore consider whether it is necessary to impose competition requirements relating to the issues discussed in this response, in light of the lack of evidence that they restrict competition.

80. Even if the CMA disagrees with our arguments on these issues in this investigation, the DMU should consider any fresh evidence available at the time they are considering potential competition requirements given the fast-moving and evolving nature of the browser market. We would also expect the factual and analytical

¹⁰⁰ Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act).

¹⁰¹ CMA, [CMA sets out approach to new digital markets regime](#) (11 January 2024).

¹⁰² Draft CMA Guidance, ¶4.16.

errors discussed above to be rectified before the DMU considered whether it has a basis for intervention.

81. **Any competition requirements imposed by the DMU should be the least onerous method to address the issues it identifies.** The principle of proportionality underpins the new regulatory regime. For example, the CMA may impose CRs on SMS firms only if it is proportionate to do so to achieve one of the three overarching objectives, and any PCIs must be proportionate to remedy, mitigate, or prevent an AEC. The CMA's draft guidance on its approach to the new regime states that the DMU will take account of potential unintended consequences when it assesses the proportionality of potential CRs.¹⁰³
82. As a general matter, we encourage the DMU to assess the effectiveness of different competition requirements, and abide by the principle of imposing the least intrusive method that is effective to address issues. For example, the DMU should consider addressing any AEC it identifies in browsers on iOS by first remedying Apple's restrictions which the PDR identifies are harming competition. This would be more proportionate than interventions relating to the ISA, where there is no evidence that the ISA gives rise to an AEC, but an intervention carries significant risk of unintended consequences. Addressing issues in a sequential order would enable the DMU to ensure it is striking the right balance. A multi-stage approach to imposing CRs is contemplated expressly by the draft guidance.¹⁰⁴
83. Specifically, certain interventions contemplated in the PDR would be disproportionate because they would carry significant risk of unintended consequences, including the loss of relevant consumer benefits. For example:
- **Any intervention to prohibit the Chrome revenue share in the ISA would be disproportionate.** As the PDR identifies, this remedy could “*risk introducing significant distortions*”.¹⁰⁵
 - **Any intervention that undermines the value of the Android agreements would risk higher prices/lower quality mobile devices and the loss of RCBs.** This is because Google's agreements with Android OEMs provide an important revenue stream to Android OEMs that choose to enter into them. As explained in Google's responses to Working Paper 5 and Working Paper 7,¹⁰⁶ this creates benefits for both OEMs and end consumers:

¹⁰³ Draft CMA Guidance, ¶3.28.

¹⁰⁴ Draft CMA Guidance, ¶3.35-3.36.

¹⁰⁵ PDR, ¶11.263(a).

¹⁰⁶ Response to WP5, ¶61.

- OEMs can use the additional money to invest in device quality and innovation.
- End consumers benefit from this flow of money because it is passed on in the form of lower device prices and/or higher quality devices.

The PDR acknowledges that the payments OEMs receive under Google's agreements "*may allow OEMs to reduce their costs and, therefore, reduce device costs for consumers in the short term.*"¹⁰⁷ It does not however assess the scale of customer benefit. The DMU should undertake such an analysis when considering competition requirements applicable to Google's Android agreements taking account of the fact that the market investigation has not gathered all relevant evidence or analysed RCBs.

- ***Any intervention that undermines the Android agreements would also result in lower quality out-of-the-box experiences and the loss of RCBs.*** Google's Android agreements ensure a high-quality out-of-the-box experience where users' preferred apps are preinstalled and set as default, which helps Android OEMs to compete effectively against iOS devices and with each other. Chrome is preinstalled on Android devices alongside a range of other high-quality apps, including Google's popular apps like Maps, Google Search, YouTube, and Gmail. This benefits OEMs (by facilitating device sales) and users (by saving them time and effort to reach their preferred apps). Any intervention that prevents OEMs from being able to maintain this high-quality out-of-the-box experience would result in the loss of RCBs for consumers and may distort ecosystem competition by adversely affecting the attractiveness of Android devices.
- ***The scope and design of any choice architecture intervention would require careful consideration so as to avoid unintended consequences.*** For example, any competition requirements relating to choice architecture (e.g., choice screens) risk unintended consequences by introducing too many choices or options, unduly complicating the choices users have to make, or prompting users to make choices too frequently. As the PDR states, choice screens should be designed carefully to "*give users autonomy over their choices, rather than guiding their choices to a particular outcome,*" and to "*ensure[] that unjustified friction is minimised where possible, so that user choice is actionable and practicable.*"¹⁰⁸

The DMU would also need to consider which devices a choice screen remedy applies to. The PDR does not discuss whether choice screens would apply to Android devices where Chrome is *not* set as default (which represent over half of UK Android device shipments). This will need to be considered given

¹⁰⁷ PDR, Appendix B, ¶¶1.80-1.81.

¹⁰⁸ PDR, ¶11.285.

that arguably any choice screen requirement under the new regime should apply symmetrically to cover all devices with a default browser (irrespective of whether the default browser is Chrome).

84. **The DMU should carefully consider the appropriate geographic scope of any competition requirements.** There is the potential for DMU remedies to have unintended consequences, including in other jurisdictions. Certain of the remedies considered in the PDR have the potential to have significant knock-on effects, both in the UK and elsewhere. We are open to discussing this—including any technical constraints involved—with the DMU.
85. **The DMU should consider the technical ability of Google and Apple to implement competition requirements.** Certain technical considerations should be taken into account when considering the implementation of competition requirements under the new regime. For example, rolling out choice screens to existing Android OEM devices is complex because Google does not control the updates to these devices (neither technically nor contractually) and relies on OEMs to ship the relevant updates. As Samsung told the CMA, *“the degree to which potential [choice screen remedies] can be readily implemented and enforced [is questionable] given that Google has no authority to implement a browser choice screen or adjust the default home screens of OEMs, unless the Android OEM agrees to do so.”*¹⁰⁹ It is therefore important that the DMU recognises the limitation to Google’s ability to implement measures that ultimately are controlled by OEMs.
86. **The DMU should, where appropriate, take account of DMA compliance measures.** Google’s response to Working Paper 7 explains that certain remedies can be costly to design, test, and roll-out to relevant devices.¹¹⁰ Regulatory alignment (i.e., with the DMA) in the right places can reduce these costs, taking advantage of existing implementation work, so should be a relevant consideration in any potential remedy design, testing, and implementation, should the CMA disagree with us that there is no AEC on Android.
87. **The DMU should also consider the extent to which any concerns it identifies are not limited to mobile but apply equally to desktop.** Desktop remains critical to UK consumers, who use browsers on desktops every day for work, study, and personal use. Of the total time users spend in browsers, 73% takes place on desktop rather than mobile. Browser-based activity is weighted to desktop in long-established web activities, but also in new, fast-growing categories like large language models. To the extent the CMA concludes that choice architecture merits intervention, the impact UK consumers would see would be greater if it is made in respect of mobile devices and desktop devices.

¹⁰⁹ [Samsung’s Response to Working Paper 7](#), p.3.

¹¹⁰ Google response to WP7, ¶66.

Conclusion

88. Google acknowledges the volume of work that sits behind the PDR, and agrees with many of the provisional findings it contains. There are, however, a handful of places where we believe the evidence does not support the CMA's provisional findings and we would encourage the CMA to reconsider its provisional conclusions in light of the evidence before it.
89. If the CMA maintains its provisional decision with respect to the ISA and choice architecture on Android in its Final Report, we agree that these issues should be considered further by the DMU under the new regulatory regime. This will enable the complexities and risks of unintended consequences to be given due consideration. We look forward to continuing our engagement with the DMU in this context, and share the goal of ensuring that any remaining concerns are addressed in a targeted, proportionate, and evidence-based manner.

* * *