Anticipated acquisition by Microsoft of Activision Blizzard, Inc.

Final report

26 April 2023

Competition & Markets Authority

© Crown copyright 2023

You may reuse this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence.

To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/ or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: publicsectorinformation@nationalarchives.gov.uk.

Website: www.gov.uk/cma

Members of the Competition and Markets Authority who conducted this inquiry

Martin Coleman *(Chair of the Group)*

John Thanassoulis

Humphrey Battcock

Ashleye Gunn

Chief Executive of the Competition and Markets Authority

Sarah Cardell

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 Some numbers have been replaced by a range.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

Contents

Page

Anticipated acquisition by Microsoft of Activision Blizzard, Inc. ... 1
Summary ... 4
Findings ... 24
1. The reference ... 24
2. The Parties, the Merger, and the rationale ... 25
The Parties ... 25
Microsoft ... 25
Activision ... 28
The Merger ... 31
Valuation ... 32
The rationale ... 33
Parties' submissions ... 33
3. Relevant merger situation ... 35
Enterprises ceasing to be distinct ... 35
Jurisdiction test ... 36
Conclusion on the relevant merger situation ... 36
4. Industry background ... 37
Introduction ... 37
Overview of the industry ... 37
Game development, publishing, distribution and marketing ... 38
Game Development ... 39
Game Publishing ... 39
Game Distribution ... 40
Game Marketing ... 40
Gaming hardware ... 41
Gaming devices ... 41
Supporting infrastructure ... 42
Game purchasing ... 44
Cloud gaming ... 45
Overview of cloud gaming ... 45
Cloud gaming monetisation models ... 45
Cloud gaming infrastructure and ecosystem ... 46
5. Introduction to competitive assessment ... 48
Treatment of evidence ... 48
Market definition ... 53
Framework ... 53
The supply of gaming hardware (and associated gaming distribution) ... 55
The supply of cloud gaming services ... 66
The supply of game publishing services ... 74
6. Counterfactual ... 84
Framework for assessment of the counterfactual ... 84
The Parties' submissions on the relevant counterfactual ... 85
Our assessment ... 86
7. Theory of harm 1: Vertical effects in console gaming ... 87
Introduction ... 87
Competitive landscape in console gaming services ... 87
Introduction ... 87

Features of the console gaming market 88
Shares of supply in the downstream market 97
Competition among gaming consoles 100
Availability of Activision's content on MGS services 108
Parties' submissions 108
Our assessment 109
Framework for assessment 117
Ability to foreclose 120
Importance of content 121
Importance of CoD to SIE 124
Alternatives to CoD 146
Contractual arrangements and negotiations 157
Partial foreclosure 160
Conclusion on the Merged Entity's ability to foreclose 163
Incentive to foreclose 165
Introduction 165
Parties' views 166
Third parties' views 167
Our assessment 168
Conclusion 190
Effect of foreclosure on competition 191
Conclusion on TOH1 191
8. Theory of harm 2: Vertical effects in cloud gaming services 192
Framework for assessment 192
Future development of cloud gaming 194
Parties' views 195
Our assessment 196
Competitive Landscape in cloud gaming services 206
Features of the cloud gaming market 206
Overview of competitors 211
Microsoft's strengths in cloud gaming 218
Operating systems 219
Cloud infrastructure 228
First and third party content 237
Microsoft's overall strengths in cloud gaming services relative to rivals 240
Availability of Activision's content on cloud gaming services 247
Parties' views 247
Our assessment 249
Ability to foreclose 260
Importance of Activision content 261
Microsoft's agreements with NVIDIA, Boosteroid and Ubitus 281
Conclusion on Ability 283
Incentive to foreclose 285
Parties' views 286
Our assessment 287
Effect of foreclosure 295
Introduction 295
Strength of different cloud gaming services 295
Barriers to entry and expansion 300
Conclusion on effect 303
Conclusion on TOH2 304

9. Countervailing factors 305
Entry and expansion in game publishing 305
Introduction 306
Barriers to entry and expansion 307
Recent entry or expansion and prospects of further entry and expansion ... 318
Conclusion on entry and expansion in game publishing 321
Efficiencies 323
Parties' views 324
Our assessment 325
Conclusion on efficiencies 327
10. Conclusion on SLC 328
11. Remedies 329
Introduction 329
Our remedy consideration process 329
CMA remedies assessment framework 331
Overview of remedy options 333
The Parties' responses to the Remedies Notice and Remedies Working Paper 335
Effectiveness of prohibition 336
Description of remedy 336
Views of Parties and third parties 336
Effectiveness of prohibition 338
Effectiveness of partial divestiture 339
Effectiveness of partial divestiture 339
Effectiveness of behavioural remedies 340
Description of remedy 340
Views of the Parties and third parties 345
Assessment of the effectiveness of a behavioural remedy 357
Conclusions on the effectiveness of the Microsoft Cloud Remedy 371
Conclusions on remedy effectiveness 372
Proportionality 372
Relevant customer benefits 373
Proportionality assessment 404
Remedy Implementation 414
Final decision on remedies 415

Appendices

A: Terms of reference
B: Conduct of the inquiry
C: Shares of supply
D: Our assessment of the evidential value of the CMA Survey
E: Our assessment of the Parties' incentives to foreclose
F: Foreclosure of rival PC operating systems
G: CMA Incentives model
H: Summary of responses from members of the public

Glossary

Summary

What we have found

1. The Competition and Markets Authority (**CMA**) has found that the anticipated acquisition (the **Merger**) of Activision Blizzard, Inc. (**Activision**) by Microsoft Corporation (**Microsoft**) (together, the **Parties**) may not be expected to result in a substantial lessening of competition (**SLC**) in console gaming services in the UK. However, the CMA has found that the Merger may be expected to result in an SLC in cloud gaming services in the UK.

2. In relation to console gaming services, we found that Xbox (Microsoft) and PlayStation (Sony) compete closely with each other, and that Activision's *Call of Duty* (***CoD***) is important to the competitive offering of each. The evidence suggests, however, that Microsoft would not find it financially beneficial to make *CoD* exclusive to Xbox after the Merger. We also found that making *CoD* available on Xbox on better terms than on PlayStation would not materially harm PlayStation's ability to compete. On this basis, we found that the Merger would not substantially reduce competition in console gaming services in the UK.

3. In relation to cloud gaming services, we found that Microsoft already has a strong position. It owns a popular gaming platform (Xbox and a large portfolio of games), the leading PC operating system (Windows), and a global cloud computing infrastructure (Azure and Xbox Cloud Gaming), giving it important advantages in running a cloud gaming service. With an estimated 60-70% market share in global cloud gaming services, it is already much stronger than its rivals.

4. We found that the Merger would make Microsoft even stronger and substantially reduce competition in this market. We found that Activision's titles—including *CoD, World of Warcraft, and Overwatch*—will be important for the competitive offering of cloud gaming services as the market continues to grow and develop. We found that, after the Merger, Microsoft would find it commercially beneficial to make Activision's titles exclusive to its own cloud gaming service. Given its already strong position, even a moderate increment to Microsoft's strength may be expected to substantially reduce competition in this developing market, to the detriment of current and future cloud gaming users.

5. Microsoft offered a behavioural remedy to address our concerns in cloud gaming services (the **Microsoft Cloud Remedy**). The Microsoft Cloud Remedy did not aim to restore competition to the level that would have

prevailed absent the Merger, but rather to impose obligations on Microsoft to support cloud gaming service providers using certain business models (such as by allowing them to stream certain games purchased by users through certain storefronts) for a ten-year period.

6. We found that the Microsoft Cloud Remedy had several shortcomings connected with the growing and fast-moving nature of cloud gaming services. In particular, the scope of the remedy was limited to cloud gaming providers with specific business models. As a result, Microsoft would not have to supply Activision's full range of games to providers that, absent the Merger, may have entered into a different type of commercial relationship with Activision (eg, through exclusive content, joint marketing arrangements, or a multi-game subscription service like Game Pass) or to cloud gaming providers that may decide to operate using a non-Windows PC operating system (eg Linux). It also did not provide for competition through differentiation in content. The complexity of the remedy, in the context of a dynamic market that is evolving, also meant that it had a high risk of circumvention, and that it would have been difficult to monitor effectively. In light of these shortcomings, we could not be sufficiently confident that the Microsoft Cloud Remedy would have addressed our concerns, and we found that the only effective remedy to the SLC is to prohibit the Merger.

7. At a late stage in our process—over a year after the Merger was announced and after competition authorities in the EU, the UK, and the US expressed concerns about the Merger—Microsoft told us that it had entered into agreements with Nintendo and three cloud gaming service providers to allow certain Activision content to be made available on their platforms after the Merger. Microsoft told us that these agreements, along with Microsoft's plan to enter the mobile gaming market and its intention to place Activision's content on Game Pass (Microsoft's multi-game subscription service), were relevant customer benefits (**RCBs**) that would make prohibition disproportionate.

8. We found that most of these did not qualify as RCBs. We found that the Merger itself would not increase—rather, it would decrease—the incentive that Activision would have had absent the merger to enter into these agreements. We also found that the impact of these agreements was highly uncertain, and we could not be confident that they would lead to material benefits for customers. As for Microsoft's plans to enter the mobile gaming market, we found that these plans were far from certain, especially in current circumstances where the largest mobile OS—Google's Android and Apple's iOS—either currently prohibit rival mobile gaming app stores or impose strict limits on their ability to monetise content.

9. We found that Microsoft's intention to place Activision's games on Game Pass on the date of their release amounts to an RCB. However, we found that this benefit would likely be limited. Having Activision's content on Game Pass would represent a new option to pay for content that is already available on a buy-to-play basis on Xbox, and it would only represent better value than the status quo for some consumers (which, in any event, would only start to accrue some time after the Merger completes). Moreover, we expect Microsoft to have the incentive to increase the price of Game Pass commensurate with the value enhancement of adding Activision's valuable content to it, and we found that even a modest price increase would significantly reduce or eliminate any potential RCB.

10. We compared the RCBs that would be foregone from prohibition to the harm that would arise from the SLC. We believe the likely future growth, competitive dynamism and innovation in the cloud gaming market that would be substantially reduced as a result of the Merger would lead to a significantly greater level of harm to UK consumers than any RCBs foregone. We also considered other factors such as the broader international context and extra-territorial impact of prohibition, but we found no effective remedy that would address the SLC in the UK without having an impact outside of the UK. Furthermore, given our SLC finding and the absence of an alternative effective remedy, we consider that prohibition is not disproportionate in order to protect competition and consumers in the UK.

11. On this basis, the CMA has decided to prohibit the Merger.

About the gaming industry

The same three companies have been the only major suppliers in the console gaming market for the past 20 years

12. The gaming industry is the UK's largest revenue-generating form of entertainment. It is bigger than pay TV, home video (including streaming), cinema, music, or books. In 2022, it generated around £5 billion in revenue in the UK.

13. For the past twenty years, the same three companies have been the only significant suppliers of console gaming – Microsoft (Xbox), Sony (PlayStation) and Nintendo (Switch being the current generation console), with little or no entry from new rivals.

14. Part of the difficulty in entering and expanding in the console gaming market is the existence of strong network effects. Console providers such as Microsoft compete to attract users who want to play high-quality games, as well as high-

quality content from game developers. Consoles with a large user base attract more users, especially those who want to play multi-player games with their friends and other users (ie, direct network effects). Consoles with a lot of users attract better content, which in turn attracts more gamers to that console, which in turn attracts better content, and so on (ie, indirect network effects). This self-reinforcing mechanism makes it more difficult for new entrants without a large user base or good pre-existing gaming content to enter and grow in the market.

15. Gaming consoles compete against each other across a wide range of parameters, including price, quality, and game range. Price is determined by the console manufacturer, both for the console itself and for the console provider's own games on its console. Quality reflects mainly a console's technical specifications (eg, CPU, GPU, RAM, storage, video output, audio output, connectivity, networking features, etc). These can affect the range of games that can run on the console and the quality of gameplay. Game range is determined by the titles available from the console manufacturer (first-party titles), together with the titles from other publishers (third-party titles) available on that console. In general, the console provider's first-party titles are less likely to be available on other consoles, whilst third-party titles are more likely to be available across different consoles.

16. The most important games for a console are typically referred to as 'AAA', which is a loosely defined term to denote the most popular, costly and/or graphically intensive games in the industry. Although there are thousands of games available on console and PC, only a handful of AAA games, including *CoD*, account for the majority of gametime and revenues on Xbox and PlayStation.

17. In recent years, gaming consoles have also started to compete on the basis of their multi-game subscription offerings. Unlike the traditional buy-to-play model, where users pay an up-front fee for lifetime access to a game, these services allow gamers to access a catalogue of games for a fixed, often monthly, fee. Although some multi-game subscription services have extensive gaming catalogues, several AAA games (such as *CoD*) are either not currently available on these services or only available in older versions. While most of the revenue in the industry continues to be generated from the purchase of individual games and in-game purchases, multi-game subscription services are expected to grow over the next few years.

18. In addition to consoles, people play games on PCs and mobile devices. Consoles and PCs designed for gaming can usually process more complex and technically demanding games (such as *CoD*). Mobile devices currently lack the technical capabilities to run most console games locally, and people

can use them to play more casual games specifically designed for mobile devices (such as *Candy Crush* or *Call of Duty Mobile*).

Cloud gaming services are growing as a potential alternative to consoles

19. In recent years, cloud gaming has started to emerge as an alternative to gaming consoles and PCs. Unlike consoles and PCs, where gamers typically download and run games locally on their device, cloud gaming services allow complex games to be accessed on remote servers and streamed directly to a range of devices.

20. The evidence we have seen suggests that cloud gaming may be an important disruptive force in the gaming industry. Since games are executed remotely, gamers can play using devices that can be less powerful, and are often cheaper, than consoles or gaming PCs (such as mobile phones, smart TVs, less powerful PCs, or tablets). This widens the pool of potential customers—including to those not willing or able to buy a gaming console or PC—and introduces new ways to compete that could facilitate new entry. Besides Microsoft, recent new entrants into cloud gaming include Amazon Luna, NVIDIA GeForce Now, Boosteroid, Shadow, and Google Stadia (now shut down).

21. Several industry experts predict that cloud gaming will continue to grow significantly in the coming years. While estimates vary, market reports forecast that global cloud gaming revenue will increase to $6.1–11.4 billion by 2025, and $11.9–13.5 billion by 2026. This suggests that the UK market will be worth $0.6–1.1 billion by 2025, and $1.2–1.3 billion by 2026. UK cloud gaming monthly active users more than tripled from the start of 2021 to the end of 2022.

22. The evidence we have seen suggests that, to succeed, cloud gaming providers will need to offer a strong gaming catalogue. For new entrants without an existing gaming console (including its games and operating system), we have found that this catalogue is most likely to come from games that are currently available on PC OS, as these can be streamed from any cloud gaming service that runs that OS (provided that adequate licensing arrangements are in place). As such, these cloud gaming service providers will either need a license for a proprietary PC OS—such as for Windows, the OS for which most PC games are designed—or they will need to operate their service using an open-source PC OS such as Linux. They will also need access to cloud infrastructure.

Who are the businesses and what services do they provide?

Microsoft has a strong gaming ecosystem

23. Microsoft is a global technology company offering a wide range of products and services, with a global turnover of around £150 billion in FY2022. Since 2001, it has released several generations of Xbox gaming consoles. Gamers typically download digital copies of the games they want to play on Xbox from Microsoft's Xbox Store. They can also pay a monthly fee to gain access to a library of downloadable and cloud-based content via Xbox Game Pass, Microsoft's multi-game subscription service.

24. Microsoft is also a game publisher and currently owns 24 game development studios, several of which it acquired in recent years. These studios make games such as *Minecraft*, *Forza*, *Elder Scrolls*, and *Halo* for Xbox and other consoles, PC, and mobile devices. Many of Microsoft's first-party titles are available exclusively on Xbox and PC, and some are licensed to rival console providers.

25. Microsoft has other business areas that are important to gaming. One is Xbox Cloud Gaming, Microsoft's current cloud gaming service, which is powered by custom Xbox Series X hardware. Another is Azure, a leading cloud platform (ie a network of data centres and cloud computing infrastructure) that offers a wide range of services across several industries, including gaming. Another is Windows, the leading PC OS. Many people play games on a PC rather than a console, and most of them use Windows OS. Because of its popularity, game developers generally make PC games that are designed and optimised for Windows OS.

Activision creates some of the most popular gaming content

26. Activision is a game developer and publisher with global turnover of £6.1 billion in FY2022. It develops gaming content for consoles, PC, and mobile. Activision's three most popular franchises—*CoD*, *World of Warcraft* and *Candy Crush*—account for most of its revenue. It publishes these games through three separate business divisions, ie, Activision, Blizzard, and King, respectively.

27. *CoD*, in particular, is widely regarded as one of the most successful gaming franchises of all time. For more than a decade, its releases have ranked in the top games available on console and PC. The latest game in the franchise, *CoD Modern Warfare II*, was released in November 2022 to what Activision described as the #1 top-selling opening weekend ever in the franchise.

Our Assessment

Why did we review this merger?

28. The CMA's primary duty is to seek to promote competition for the benefit of consumers. It has a duty to investigate mergers that could raise competition concerns in the UK, provided it has jurisdiction to do so.

29. Microsoft announced in January 2022 that it had agreed to acquire Activision for a purchase price of USD 68.7 billion. The Merger was conditional on receiving merger control clearance from several global competition agencies, including the CMA.

30. While both Microsoft and Activision are US-based entities, the question for the CMA is whether the Merger may have an impact on competition in the UK. This link to the UK can be established based on the turnover of the business being acquired in the UK (ie whether the UK turnover of that business is more than £70 million). In this case, we concluded that the CMA had jurisdiction to review this Merger because Activision met that threshold in FY2021.

How did we examine this merger?

31. In deciding whether a merger may be expected to result in an SLC, the question we are required to answer is whether there is an expectation—a more than 50% chance—that the merger will result in an SLC within any market or markets in the UK.

32. To determine whether this is the case, we have gathered information from a wide variety of sources, using our statutory powers to ensure that we have as complete a picture as possible under the constraints of the statutory timetable to understand the implications of this Merger on competition.

33. We have focused on two ways, or 'theories of harm', in which the Merger could give rise to an SLC:

    (a) The first considers whether Microsoft would be able to harm gaming console rivals now or in future, to the detriment of consumers, by making *CoD* exclusive to Xbox (or by only making it available to rivals on worse terms), whether it would be commercially beneficial to do so, and what the impact would be on competition in the market for console gaming services in the UK.

    (b) The second considers whether Microsoft would be able to harm cloud gaming rivals now or in future, to the detriment of consumers, by making

CoD and other Activision games, such as *World of Warcraft* and *Overwatch* exclusive to its cloud gaming offering, whether it would be commercially beneficial to do so, and what the impact would be on competition in the market for cloud gaming services in the UK.

34. We concluded that the Merger is not likely to give rise to an SLC in console gaming services in the UK, but it is likely to give rise to an SLC in cloud gaming services in the UK. This is discussed in further detail below.

What evidence have we looked at?

35. In assessing this Merger, we looked at a wide range of evidence that we considered in the round to reach our decision. The evidence we have gathered has been tested rigorously, and the context in which the evidence was produced has been considered when deciding how much weight to give it.

36. We received a significant volume of evidence from the Parties. In response to targeted information requests, we received over 3 million internal business documents from Microsoft and Activision, including key strategy documents and email communications among senior staff. These documents which, for the most part, were created in the ordinary course of business, set out the Parties' views of the console and cloud gaming markets, as well as their future commercial strategy.

37. The Parties also had several opportunities to make submissions and comment on our emerging thinking throughout the investigation. In October 2021, the Parties submitted a response to our phase 1 decision. They subsequently submitted a response to our Issues Statement, where we set out the theories of harm on which we planned to focus our phase 2 investigation. We held a site visit with each of the Parties, where their senior business staff gave us several presentations on the nature of their businesses, the rationale for the Merger, and answered our questions relating to our investigation. We then produced working papers and an annotated Issues Statement with our emerging thinking, and the Parties submitted their views on that material. We held formal hearings with each of the Parties, in which we spoke to the Parties' senior management about topics that we were exploring in our investigation. In February 2023, we published our Provisional Findings and Notice of possible remedies. We held formal hearings with each of the Parties to discuss our Provisional Findings and possible remedies and held a hearing with Sony to discuss possible remedies. In March 2023, in light of the additional and updated evidence that we received from the Parties, we published an Addendum to the Provisional Findings in which we provisionally found that the Merger may not be expected to give rise to an SLC in console gaming in the UK. We continued to discuss possible remedies with the Parties

and third parties, focusing on cloud gaming. We also shared a supplementary evidence paper with the Parties covering further evidence gathered and analysed in the period following the Provisional Findings. In addition, we had several calls and considered a number of other submissions setting out the Parties' views on our theories of harm and possible remedies at different points in our investigation.

38. We gathered evidence from other gaming console providers, game publishers, and cloud gaming service providers. We sent out over 90 requests for information, held several calls and meetings, and gathered hundreds of internal documents from these third parties. In our calls, we spoke to senior staff and business experts across the industry to have a better understanding of the competitive landscape and likely future developments in these markets.

39. We sought views from the public. In response to our Issues Statement of 14 October 2022, we received and reviewed over 2,100 emails containing views on the transaction. We considered those views and published a summary of these responses on 21 December 2022. In response to our Provisional Findings, our Addendum to the Provisional Findings, and Notice of possible remedies, we received and reviewed around 160 emails and submissions from the public. We considered those views and have included a summary of these responses as an appendix to our final report.

40. We engaged an independent market research company to conduct an online survey. The survey polled a random sample of PlayStation *CoD* gamers—defined for the purposes of the survey as those who played at least 10 hours or spent at least $100 on the game between July 2021 and June 2022—to get a sense of how important this game franchise is to them, and what they might do if it became partially or totally exclusive to Xbox after the Merger.

41. While there are no pre-defined measures for assessing whether a merger may be expected to result in an SLC, market shares are a commonly used measure in merger control cases. There is a high degree of product differentiation in some of the markets in which Microsoft and Activision operate, which means that in this case market shares may not be the best indicator of how closely businesses compete with each other. As such, when assessing the impact of the Merger on competition, we have considered the evidence on market shares alongside other evidence on how closely the Parties compete with rivals (either currently or in the future). As well as the Parties' market shares, our assessment has taken account of the type of games that Activision offers, of the technical specifications of different consoles (and the types of games that users play on them), and of Microsoft's potential strengths in cloud gaming arising from its broader multi-product ecosystem. We have also taken account of the strength of competitive

constraints on the Parties, and the extent of past entry and exit from the relevant markets.

42. Finally, as well as looking at how competition works currently (and the Parties' current market positions), we recognise that markets, and in particular markets for digital products and services such as those offered by the Parties, change over time. Our assessment is therefore forward-looking and considers how markets are evolving and the Parties' plans for their businesses in future.

What would have happened absent the merger?

43. To determine the impact that the Merger may have on competition, we have considered what is likely to happen absent the Merger. This is known as the counterfactual.

44. For an anticipated merger such as this, the counterfactual may consist of the prevailing conditions of competition or conditions involving stronger or weaker competition than under the prevailing conditions. In this case, based on the evidence we gathered, our conclusion is that the counterfactual is the prevailing conditions of competition.

45. We recognise that, as part of the prevailing conditions of competition, markets may continue to evolve and develop. In this case, our view is that the market is likely to develop in important ways absent the Merger in the near future (ie, within the next five years): in relation to gaming consoles, we consider the evidence shows that multi-game subscription services would continue to grow but would be unlikely to offer Activision's most valuable games on the date of their release (we note that several AAA games currently make most of their sales in the first 12 months after release). In relation to cloud gaming services, we consider that the evidence shows that the market would continue to grow, but we believe that at least some of these cloud gaming providers—especially those with a buy-to-play or bring-your-own-game offering—would have Activision's most valuable games available on their platforms on the date of their release in the foreseeable future. We explain the relevance of these findings in our assessment below.

What did the evidence tell us?

…about the importance of Activision's gaming catalogue

46. We have gathered substantial evidence from Microsoft, Activision, and third parties to assess the significance of Activision's gaming portfolio. This evidence consistently points towards Activision's content, especially *CoD*, as being important and capable of making a material difference to the

competitiveness of rivals' gaming platforms. Activision invests significant time and capital in creating regular *CoD* releases, which consistently rank as some of the most popular games. These titles require thousands of game developers and several years to complete, and there are very few other games of similar popularity. Moreover, *CoD's* popularity has been consistent over time and is continuing. For example, Activision reported that the release of *CoD Modern Warfare II* on 28 October 2022 was the franchise's best-ever opening weekend, delivering more than $800 million worldwide in the first three days from its release.

47. Activision also offers PC games and mobile games. Through its Blizzard division, its most popular release is *World of Warcraft*, a massively multiplayer online role-playing PC game. Through its King division, it offers *Candy Crush,* a free-to-play casual game available on mobile and PC. Although Activision's mobile games are not relevant to our SLC assessment on console or cloud gaming services, we found that some of Activision's broader catalogue of PC and console games, such as *World of Warcraft* and *Overwatch,* are popular games that may be important for cloud gaming services, thereby adding to Activision's already strong catalogue in this market.

…about the impact of the Merger on gaming consoles

48. Our assessment under this theory of harm has focussed on whether Microsoft would have the ability and incentive to limit access to *CoD*, and whether this 'foreclosure' would impact rivals' ability to compete with Microsoft in gaming consoles. In terms of 'ability', we considered whether limiting access to *CoD* would harm the competitiveness of Xbox's rivals. In terms of 'incentive', we considered whether Microsoft stands to gain from this strategy. And in terms of 'effect', we considered how this would impact overall competition in the market for gaming consoles.

49. *CoD* is currently available on two gaming consoles – Xbox and PlayStation. We found that these consoles compete closely with each other in terms of content, target audience, and console technology. We found that Nintendo's consoles compete less closely with either of Xbox or PlayStation, generally offering consoles with different technical specifications, and with its most popular titles tending to be more family- and child-friendly. Nintendo does not currently offer *CoD,* and we have seen no evidence to suggest that its consoles would be technically capable of running a version of *CoD* that is similar to those in Xbox and PlayStation in terms of quality of gameplay and content.

50. The evidence we gathered shows that the *CoD* franchise is important to PlayStation.

51. First, the evidence shows that *CoD* accounts for a significant proportion of PlayStation's overall gametime, implying that making it exclusive to Xbox would represent an important reduction in range of games offered on PlayStation.

52. Second, the large majority of our survey respondents (ie, *CoD* gamers as described above) indicated that the content available on a console is important to their choice of console, and around 24% of them said they would divert away from PlayStation if *CoD* were no longer available on that platform. The level of switching in this analysis, which indicates that a significant proportion of all PlayStation gamers would switch away from the platform, suggests that PlayStation gamers would be affected by not having access to *CoD,* notwithstanding the availability of other games on PlayStation.

53. Third, even *CoD* gamers who would remain on PlayStation could be harmed by the reduction in choice in that console. They would also likely spend less time and money on PlayStation than they did before, which the evidence suggests would have a material impact on PlayStation's revenue and ability to compete.

54. We also found that Microsoft would not have the ability to foreclose PlayStation solely through partial foreclosure strategies. This is because PlayStation would not lose the full extent of the range that *CoD* represents; rather, that part of its range would suffer a quality deterioration (or price increase) that would likely amount to only a small fraction of the value that gamers derive from *CoD*. As such, and considering PlayStation's broader gaming catalogue, a partial foreclosure strategy would amount to a deterioration in a small fraction of PlayStation's overall range.

55. As to what Microsoft would do with *CoD*, we have found that it would not have an incentive to make it exclusive to Xbox.

56. First, we found that making *CoD* exclusive to Xbox would result in significant financial losses for Microsoft over a five-year time period. Given the magnitude of those losses, we placed considerable weight on this quantitative evidence.

57. Second, we found that Microsoft's past behaviour in relation to acquisitions of other gaming studios was inconclusive. We found that most of these acquisitions were, in effect, acquisitions of talent. The majority of studios that Microsoft has acquired (with some notable exceptions such as Bethesda) did not have regular releases of popular gaming franchises available on different platforms. As such, Microsoft did not have to decide whether to make multiplatform games with a large customer base exclusive to Xbox following

these acquisitions; it acquired those studios with the specific purpose of making exclusive games for its platform. Although the evidence shows that console providers, including Microsoft, place significant value in having exclusive content to differentiate their platform and attract more users, there seem to be exceptions to this rule. For example, when Microsoft acquired Minecraft (a multi-player franchise that was available on different platforms at the time of acquisition, although significantly different from *CoD* in many respects, such as its pricing model), it kept it on PlayStation and Nintendo.

58. Third, we found that there is a range of other potential gains and losses from a foreclosure strategy that are more difficult to quantify on a comparable basis. They include (i) furthering Microsoft's strategy of expanding Game Pass, (ii) any reputational impacts (good or bad), (iii) the strength of the Xbox brand and user loyalty, (iv) the impact of network effects (including for games that allow cross-play), and (v) the potential for entry, expansion, or repositioning by rivals to disincentivise foreclosure. We found that, on balance, these factors tend to contribute to Microsoft's incentive to engage in a foreclosure strategy. In light of the magnitude of the potential losses that Microsoft would incur from a total foreclosure strategy, however, we found that these longer-term strategic incentives, together with all other available evidence, are not sufficient to show that Microsoft would have an incentive to make CoD exclusive to Xbox post-Merger.

59. On this basis, we found that Microsoft would not have an incentive to make *CoD* exclusive to Xbox post-Merger. As such, we believe the Merger may not be expected to result in an SLC in console gaming services in the UK.

…about the future of cloud gaming

60. The evidence we found suggests that cloud gaming could be transformative for the gaming industry in the next few years, helping to reach new customers and improve choice for existing customers (potentially replacing expensive consoles and gaming PCs altogether for some of them).

61. Cloud gaming has historically faced some unique challenges relative to consoles. It requires users to have a fast and stable internet connection capable of streaming graphically complex games. It must overcome latency (ie, the time it takes for data to travel from a gaming device to a cloud server and back), which can introduce delays and affect gameplay. The computing, bandwidth, warehousing, and utilities costs associated with cloud gaming are high, and this has led some in the industry to question whether it can ever be profitable.

62. The evidence we have gathered indicates that cloud gaming service providers already have, or soon will, overcome these challenges. In terms of demand, as set out above the market is already sizeable, and the evidence indicates it is poised to continue growing in the next few years. In terms of latency, some providers noted that they have already successfully streamed graphically complex games, such as *CoD*, with good results in terms of gameplay. As for profitability, although providers have had mixed results and continue to explore different avenues to monetise their service and gaming content, the evidence suggests that costs will continue to fall as demand grows and providers are able to scale their offering. These expectations are backed up by considerable amounts of investment into this market by a range of market participants.

…about Microsoft's position in cloud gaming

63. Microsoft already holds a strong position in the gaming industry through its established Xbox console, which has a large user base, and a strong catalogue of gaming content. It has been steadily strengthening its gaming ecosystem in line with the evolution of the gaming industry, including by acquiring independent gaming studios (such as Bethesda in 2021), expanding Game Pass, and developing its cloud infrastructure to better support its gaming activities.

64. In relation to cloud gaming services, Microsoft has a combination of assets that we consider is difficult for other cloud gaming service providers to match. By owning Windows, the OS for which the vast majority of PC games are designed, Microsoft could stream games from Windows servers without having to pay a Windows licensing fee or adapt games designed for Windows to an alternative OS. By having Xbox Cloud Gaming and Azure, Microsoft has both a short-term and a longer-term solution to host cloud gaming, leveraging its large and well distributed global cloud infrastructure to stream its games without having to pay a fee to third-party cloud platforms. And by having an existing console ecosystem, Microsoft has a range of popular games that it can offer. As such, we consider that Microsoft has a strong position in cloud gaming services and will remain an important competitor as the market expands and evolves.

…about the impact of the Merger on cloud gaming

65. Our assessment under this theory of harm focused on whether Microsoft would have the ability and incentive to limit access to Activision's titles, and whether this 'foreclosure' would impact rivals' ability to compete with Microsoft in cloud gaming services. In terms of 'ability', we considered whether limiting

access to Activision's games would harm the competitiveness of Microsoft's cloud gaming rivals. In terms of 'incentive', we considered whether Microsoft stands to gain from this strategy. And in terms of 'effect', we considered how this would impact overall competition in the market for cloud gaming services.

66. We have found that Activision's games are likely to be important for the growing market for cloud gaming services. Given that cloud gaming services aim to achieve a similar quality of gameplay as consoles and gaming PCs, we would expect customers' preferences in cloud gaming to be similar to their preferences in consoles and gaming PCs. As explained above, *CoD* is already one of the most important games for consoles. We have also seen evidence that *CoD* is a popular game in the PC market, and that it is consistently one of the most requested titles by current cloud gaming users. A range of the evidence that we gathered, including from multiple third parties, suggests that *CoD* could make a material difference to the success of a cloud gaming provider. And we found evidence that Activision has other games, such as *World of Warcraft* (a PC-only game) and *Overwatch* that are currently popular in consoles and/or gaming PCs and, as such, could also be important to cloud gaming. Overall, therefore, we found that Activision's titles are likely to be an important input for the success of cloud gaming services, as they are today for consoles and gaming PCs.

67. As to what Microsoft would do with Activision's titles, we found that it would have an incentive to make them exclusive to its cloud gaming service.

68. Cloud gaming is a relatively new market characterised by some elements of direct and/or indirect network effects. In this type of market, success is highly uncertain, and there's an opportunity (and strong incentive) for incumbents to develop a unique offering in a bid to gain market power (which can itself be reinforcing as a result of network effects and scale advantages). One way for Microsoft to achieve this would be to offer exclusive games on its cloud gaming service. The evidence suggests that this is already part of Microsoft's cloud gaming strategy – except for a few Bethesda titles, most of which were old or already available on rival cloud gaming services before Microsoft acquired Zenimax, Microsoft has not made its games available on rival cloud gaming platforms. We do not consider that the agreements Microsoft has entered into with NVIDIA, Boosteroid and Ubitus change this, as we consider there is material uncertainty around the scope, terms, and enforceability of these agreements. They also apply only to a few existing cloud gaming service providers, rather than to the full spectrum of actual and potential rivals.

69. We are concerned that making Activision's titles exclusive to Microsoft's cloud gaming service would harm competition, particularly since our view is that Microsoft already holds a strong position in this market by virtue of its

unparalleled advantages through its ownership of Windows, its cloud infrastructure, and its existing catalogue of first party titles. There are a few emerging rivals with their own respective strengths, such as Amazon, Sony, and NVIDIA, but none seem to be as well positioned as Microsoft in this market. We consider that Google's recent decision to shut down its own cloud gaming service, Stadia, shows that merely having some strengths relevant to cloud gaming is not enough to guarantee a platform's success. The evidence also indicates that there are significant barriers to entry and expansion, including the cost of cloud infrastructure, the cost of acquiring content, and the need for economies of scale in order to drive down costs. Since Microsoft already appears to face limited competitive constraints from current and potential rivals, we are concerned that withholding Activision's content from rival cloud gaming platforms is particularly likely to harm competition now and in the foreseeable future.

70. On this basis, we found that the Merger may be expected to result in an SLC in cloud gaming services in the UK, as a result of vertical effects in the form of input foreclosure.

…about the overall impact of the Merger on consumers

71. Our statutory duty is to assess whether the Merger may be expected to result in an SLC within any market or markets in the UK for goods or services. Any such reduction in competition can have a potential impact on consumers.

72. In this case, we are concerned that the Merger will ultimately harm current and future gamers. By stifling competition in the growing and dynamic market for cloud gaming services, the Merger could alter the future of gaming. The market for cloud gaming seems poised to grow and become an important conduit for playing games, both for new users who are unable or unwilling to buy an expensive console or gaming PC, and for existing gamers looking for an alternative to these devices. Absent the Merger, strong competition in this market could make cloud gaming better and more affordable for consumers. By contrast, we found that the Merger would make an already strong incumbent in this market even stronger, which could result in Microsoft retaining a big share of the market and facing limited competition from current and potential rivals. This reduction in competition could harm consumers, such as by increasing prices and reducing quality, innovation, and choice over time.

What remedy did Microsoft offer?

73. To address our concerns, Microsoft offered the Microsoft Cloud Remedy. Under this remedy, Microsoft committed to license Activision games, including *CoD* and *World of Warcraft,* royalty-free to certain cloud gaming providers for

a period of 10 years. Microsoft proposed to update the consumer licenses on its website, giving the right to any consumer who acquired an Activision game in one of the online stores designated by Microsoft to stream that game in the cloud gaming services that were covered by the remedy. Microsoft offered to appoint a monitoring trustee to monitor and seek to ensure Microsoft's compliance with the remedy, and a fast-track dispute resolution mechanism carried out under arbitration.

74. The CMA's guidance sets out the established position that behavioural remedies are, due to their overall risk profile, unlikely to deal with an SLC and its adverse effects as comprehensively as structural remedies. Behavioural remedies can operate satisfactorily in limited circumstances, such as where the company operates in a regulated environment, where there are expert monitors, or where the SLC is expected to have a short duration. In this case, the market for cloud gaming is a new and unregulated sector. We have nevertheless engaged in a detailed assessment of the proposed Microsoft Cloud Remedy, including through multiple discussions with the Parties and third parties to establish whether this could constitute an effective remedy in the specific circumstances of this case.

75. We found two significant limitations in scope for the Microsoft Cloud Remedy.

76. First, it was limited to a model whereby gamers had to first acquire the right to play certain games (eg, by purchasing them on certain stores or subscribing to them on certain services) in order to stream those games on certain cloud gaming services. It did not make any provision for a different type of commercial relationship between cloud gaming service providers and the game publisher (ie, Activision). As such, it restricts the ability of cloud gaming service providers to access Activision's games through other strategies and business models (some of which we already see in the cloud gaming market), such as joint marketing arrangements, exclusive or early access to content, or multi-game subscription services. In our view, and consistent with our competitive assessment, this is a dynamic market in which there is a reasonable chance that different providers will compete using a range of different business models, and that these providers would have had access to Activision's content absent the Merger.

77. Second, the Microsoft Cloud Remedy applies to current and future PC and console versions of Activision games. The PC versions are those that are developed to run on a Windows OS, as well as other PC OS versions as may be released by Microsoft during the term of the remedy. We found that, absent the Merger, Activision would seek to maximise the value that it can derive from these games, which would have involved considering making non-Windows PC versions of its games (as it has already done in some cases). However,

after the Merger, Microsoft's incentives to make these games compatible with rival OS would be significantly lower, as this would both increase the attractiveness of rival cloud gaming services and divert demand away from Windows OS. This means that, in effect, cloud gaming services wishing to stream these games would have to use, or be compatible with, the Windows OS version of those games. This could exclude or restrict providers that may wish to provide cloud gaming services using other operating systems (such as Linux), either now or in the future. The Microsoft Cloud Remedy would therefore put non-Windows based cloud gaming services at a disadvantage, and potentially distort the choice of OSs for new entrants.

78. We also found limitations in terms of the duration, monitoring, and enforcement of the proposed remedy. The fact that the remedy is only for 10 years represents a clear weakness in terms of its effectiveness as a comprehensive solution to the SLC, which is not itself time limited. Since the remedy applies only to a defined set of Activision games, which can be streamed only in a defined set of cloud gaming services, provided they are purchased in a defined set of online stores, there are significant risks of disagreement and conflict between Microsoft and cloud gaming service providers. Given the information asymmetry between Microsoft and any monitoring trustee or the CMA, it would be difficult to monitor and enforce this remedy, even with significant information gathering. We found several additional concerns with the practicalities of implementing the remedy, which are detailed in the Final Report.

79. Based on this evidence, we found that the only effective remedy to the SLC and its adverse effects was to prohibit the Merger.

Is it proportionate to prohibit this Merger?

80. The CMA seeks to ensure that no remedy is disproportionate in relation to the SLC and its adverse effects. An effective remedy to an SLC, such as in this case prohibition, could be considered disproportionate if it prevents customers from securing benefits resulting from the Merger where this is disproportionate to the scale of the SLC and its adverse effects. Insofar as these benefits constitute RCBs, we take them into account when we assess whether a remedy is proportionate.

81. Microsoft submitted that the Merger would give rise to a number of RCBs. During our merger investigation, Microsoft entered into agreements with different console and cloud gaming service providers to place its content and/or Activision's content on their respective platforms. These agreements included a 10-year agreement with Nintendo to develop and publish future native console versions of the *CoD* titles for Nintendo platforms post-Merger,

as well as 10-year agreements with NVIDIA, Boosteroid, and Ubitus to make Activision's content available on their service. In addition, Microsoft submitted that the Merger would give rise to RCBs as a result of (i) Microsoft placing Activision content on Game Pass (Xbox and PC) on the date of release, and (ii) Microsoft expanding into mobile gaming.

82. We found that most of these did not amount to RCBs under the Enterprise Act 2002 (the **Act**). In relation to the agreements with Nintendo and cloud gaming services providers, we found that nothing about the Merger—such as any potential changes in the market structure or commercial incentives that arise from Microsoft and Activision ceasing to be distinct—would increase Activision's incentive to enter into these agreements relative to the situation pre-Merger. To the contrary, being part of a corporate group that owns a competing console (Xbox) and cloud gaming service (Xbox Cloud Gaming) would suggest that Activision's incentive to enter into these agreements would be significantly reduced post-Merger. There is also considerable uncertainty in the scope, enforceability, and potential benefits brought about by these agreements. Microsoft itself acknowledged in the context of its agreements with cloud gaming platforms that such a rapidly evolving market could give rise to unanticipated and unforeseeable future events over a ten-year period beyond its control.

83. In relation to Microsoft expanding into mobile gaming, the chances of Microsoft succeeding seemed low in circumstances where the two largest mobile OS—Google's Android and Apple's iOS—either currently prohibit rival mobile gaming app stores or impose strict limits on their ability to monetise content. In any event, there seemed to be other, less anti-competitive ways, through which Microsoft could reasonably attempt to enter this market, such as by licensing mobile gaming content from publishers.

84. We consider that bringing Activision's content to Game Pass would amount to an RCB under the Act. The Merger would bring Game Pass and Activision's content under common ownership, creating an opportunity to exploit synergies and eliminate double marginalisation. And we believe it's unlikely that Activision would have made its most valuable content available on Game Pass on the date of release absent the Merger.

85. We found that the scale of this benefit, however, would be limited. Having Activision's content on Game Pass would represent a different way to pay for the same content, which would not necessarily be cheaper for all consumers. We would also expect Microsoft to have the incentive to increase the price of Game Pass commensurate with the value enhancement of adding Activision's valuable content to it, and we found that even a modest price increase would significantly reduce or eliminate any potential RCB.

86. We recognise that having Activision's content available on Game Pass is an attractive prospect to some customers and something that, based on the comments that we received from the public during this investigation, seems to explain much of the support for this Merger by those in favour of it. But, on balance, we found that having this new option to pay for content that is already available on a buy-to-play basis on Xbox would not outweigh the overall harm to competition (and, ultimately, consumers) arising from this Merger in the sizeable and rapidly expanding market for cloud gaming services.

Conclusions

87. As a result of our investigation and our assessment, we concluded that the anticipated acquisition by Microsoft of Activision would result in the creation of a relevant merger situation.

88. We have also concluded that the Merger may be expected to result in an SLC in the supply of cloud gaming services in the UK due to vertical effects resulting from input foreclosure.

89. We have found that the Microsoft Cloud Remedy proposal would not be effective in addressing the cloud gaming services SLC that we found.

90. We found that the only effective remedy to this SLC and its adverse consequences is to prohibit the Merger. We also found that this remedy is proportionate in relation to the SLC and its adverse effects, including taking into account any RCBs.

Findings

1. The reference

1.1 On 15 September 2022, the Competition and Markets Authority (**CMA**) in exercise of its duty under section 33(1) of the Enterprise Act 2002 (the **Act**), referred the anticipated acquisition by Microsoft Corporation (**Microsoft**) of Activision Blizzard, Inc. (**Activision**) (the **Merger**) for further investigation and report by a group of CMA panel members (the **Inquiry Group**). Microsoft and Activision are referred to collectively as **the Parties** or, for statements referring to the future, the **Merged Entity**.

1.2 In exercise of its duty under section 36(1) of the Act, the CMA must decide:

(a) whether arrangements are in process or contemplation which, if carried into effect, will result in the creation of a relevant merger situation (**RMS**); and

(b) if so, whether the creation of that RMS may be expected to result in a substantial lessening of competition (**SLC**) within any market or markets in the United Kingdom (**UK**) for goods or services.

1.3 In assessing the competitive effects of the Merger, we must decide whether there is an expectation (ie a more than 50% chance) that the Merger will result in an SLC.

1.4 We are required to prepare and publish our final report by 26 April 2023.

1.5 Our terms of reference, along with information on the conduct of the inquiry, are set out in Appendix A and Appendix B respectively.

1.6 This document, together with its appendices, constitutes the CMA's Final Report published and notified to the Parties in line with the CMA's rules of procedure.[1] Further information relevant to this inquiry can be found on the CMA case page.[2]

[1] CMA rules of procedure for merger, market and special reference groups (CMA 17), Rule 13.
[2] Microsoft/Activision Blizzard Case Page.

2. The Parties, the Merger, and the rationale

2.1 This chapter sets out:

(a) an overview of the Parties and their financial information;

(b) the background to the Transaction, including the valuation; and

(c) the Parties' stated rationale for the Merger.

The Parties

Microsoft

Principal activities

2.2 Microsoft is a global technology company founded in 1975 and headquartered in Redmond, Washington, US.[3] Microsoft is publicly listed on Nasdaq. Microsoft's global turnover in the financial year 2021 was close to £125 billion, of which [✂] was generated in the UK.[4]

2.3 Microsoft is organised into three operating segments: (i) Productivity and Business; (ii) Intelligent Cloud; and (iii) More Personalised Computing.[5] Microsoft offers a wide range of products and services including:

(a) Windows OS. Microsoft Windows is a computer OS that can be installed on a personal computer (**PC**) or server to provide a graphics-based interface between the user and the computer's hardware and software. Over the years, Microsoft has released various versions of Windows aimed at improving on features like speed and user interface.[6] Microsoft offers two types of licences for Windows – Windows for desktop PCs (**Windows Client**) and Windows for servers (**Windows Server**) [✂].[7]

(b) Azure. Azure is Microsoft's public cloud platform and associated services. Azure offers over 200 Infrastructure-as-a-Service (**IaaS**) and Platform-as-a-Service (**PaaS**) solutions including computing, storage, networking, databases, operating systems, developer tools, and runtimes, to help enterprises build and run their systems, analytics, and applications in the

[3] Parties Final Merger Notice (**FMN**).
[4] Parties FMN.
[5] Parties FMN.
[6] 'From Windows 1 to Windows 10: 29 years of Windows evolution', dated 2 October 2014, accessed on 4 August 2022.
[7] Parties response to the CMA's request for information (**RFI**).

cloud. Customers pay consumption-based fees for the services they use.[8] Within Azure, Microsoft offers Azure PlayFab, a back-end platform for live games, providing managed game services, real-time analytics, and live operations, which enables game developers to build and operate games, analyse gaming data, and improve overall gaming experiences.[9] Examples of games that run on Azure PlayFab include first-party games such as Minecraft, Forza Horizon 4, Doom Eternal, and Microsoft Flight Simulator, as well as some third-party games including Roblox, Astroneer and Wasteland 3.[10]

(c) Xbox Cloud Gaming. Microsoft currently offers cloud-based game streaming through Xbox Cloud Gaming, which is composed of dedicated Xbox consoles located in Microsoft data centres.[11] This is distinct from Azure. Microsoft has deployed around [✂] Xbox console motherboards worldwide across its data centres to provide Xbox Cloud Gaming. Microsoft initially submitted [✂];[12] however, Microsoft has since noted that it [✂].[13]

(d) Xbox. Xbox is Microsoft's gaming console. It connects to a television or other display and allows users to play games specifically developed for Xbox. Xbox first launched in 2001 and has since remained one of the three main gaming consoles in the market (along with Sony Interactive Entertainment's (**SIE**) and Nintendo's consoles).[14]

(e) Xbox Game Studios. Microsoft is active as a developer, publisher, and distributor of games. Microsoft publishes games for PCs, consoles and mobile devices developed by Xbox Game Studios, a collection of 24 first-party development studios, including the recently acquired ZeniMax studios. Examples include games in the Minecraft, Forza, Elder Scrolls and Halo game titles.[15]

(f) Digital distribution. Microsoft distributes games in digital form.[16] Microsoft operates the Microsoft Store on Windows (the **Microsoft Store**), an app store on Windows PCs, through which it distributes its own first-party games and third-party games for PC, as well as an Xbox-branded

---

[8] Parties FMN.
[9] Parties FMN.
[10] Parties FMN.
[11] Parties FMN.
[12] Parties FMN.
[13] Microsoft site visit.
[14] Parties FMN.
[15] Parties FMN.
[16] Microsoft also distributes games in physical form through third parties, but does not have 'bricks-and-mortar' retail outlets in the UK.

storefront (the **Xbox Store**), which can be accessed via an Xbox console, web-browser, or the Xbox App for Windows.[17]

(g) Gaming Subscription Services. Microsoft offers multi-game subscription (**MGS**) services that include access to first- and third-party games (eg Xbox Live Gold and Xbox Game Pass), online multiplayer capabilities (eg Xbox Live and Xbox Live Gold) and cloud gaming functionality (Xbox Cloud Gaming, which is available as part of the Xbox Game Pass top-tier subscription and on a free-to-play (**F2P**) basis with Fortnite).[18]

2.4 Microsoft publishes PC and console games developed by its 24 first-party game development studios, as well as by second- and third-party developers.[19]

Key financials

2.5 Microsoft generated $198.1 billion USD in revenue in the 2022 financial year, an 18% increase on the $168.1 billion USD earned in 2021.[20]

2.6 As noted above, Microsoft is split into three business segments. Table 2.1 below sets out the revenue and operating income earned by Microsoft by business segment in the years to June 2019, 2020, 2021 and 2022.

Table 2.1: Microsoft's revenue and operating income split by business segment from 2019 to 2022

$m

	2019	*2020*	*2021*	*2022*
Revenue				
Productivity and Business Processes	41,160	46,398	53,915	63,364
Intelligent Cloud	38,985	48,366	60,080	75,251
More Personal Computing	45,698	48,251	54,093	59,655
Total	**125,843**	**143,015**	**168,088**	**198,270**
Operating income				
Productivity and Business Processes	16,219	18,724	24,351	29,687
Intelligent Cloud	13,920	18,324	26,126	32,721
More Personal Computing	12,820	15,911	19,439	20,975
Total	**42,959**	**52,959**	**69,916**	**83,383**

Source: Microsoft, Annual Report 2021 'Summary Results of Operations', accessed 3 November 2022 and Microsoft, Annual Report 2022 'Summary of Results of Operations', accessed 18 January 2023.
Note: Revenue represents the total revenue earned by each of Microsoft's segments, while operating income represents the profits after operational costs.

[17] Parties FMN.
[18] Parties FMN.
[19] Parties FMN.
[20] Microsoft, Annual Report 2022 'Summary of Results of Operations', accessed by the CMA on 18 January 2023.

2.7 Microsoft's gaming activities sit within the More Personal Computing business segment. Microsoft noted that the increase in revenues earned by the More Personal Computing segment was driven by gaming in the year to 30 June 2021.[21]

2.8 In its 2021 Annual Report, Microsoft noted the growth in gaming revenue, explaining that: (i) gaming revenue increased $3.8 billion or 33% in FY21 driven by growth in Xbox content and services and Xbox hardware; (ii) Xbox content and services revenue increased $2.3 billion or 23% driven by growth in third-party titles, Xbox Game Pass subscriptions, and first-party titles; and (iii) Xbox hardware revenue increased 92% driven by higher price of consoles sold due to the Xbox Series X|S launches.[22]

2.9 Growth in gaming continued in the year to 30 June 2022. Microsoft noted that Gaming revenue increased $860 million, or 6%, on a prior year comparable. Microsoft explained that Xbox hardware revenue increased 16% due to continued demand for Xbox Series X|S. Xbox content and services revenue increased 3% driven by growth in Xbox Game Pass subscriptions and first-party content, offset in part by a decline in third-party content.[23]

2.10 Table 2.2 below further breaks down the revenues earned by Microsoft's gaming business unit in the years to June 2019, 2020 and 2021.

Table 2.2: Microsoft Gaming revenues from 2019 to 2021 (year to June)

[✂]
Source: CMA analysis of: [✂]
*[✂]

Activision

Principal activities

2.11 Activision is a game developer and publisher founded in 2008 and headquartered in Santa Monica, California, US.[24] Activision is publicly listed on Nasdaq. Activision's global turnover in the financial year 2021 was over £6 billion, of which approximately £716 million was generated in the UK.[25]

2.12 Activision is active in the following areas:

[21] Microsoft, Annual Report 2021 'Summary Results of Operations', accessed by the CMA on 3 November 2022.
[22] Microsoft, Annual Report 2021 'Summary Results of Operations', accessed by the CMA 3 November 2022.
[23] Microsoft, Annual Report 2022 'Summary Results of Operations', accessed by the CMA 18 January 2023.
[24] Parties FMN.
[25] Parties FMN.

(a) Game development and publishing. Activision develops games for PCs, consoles, and mobile devices, and publishes them in most countries around the world through three business units: (i) Activision Publishing, Inc (the **Activision segment**); (ii) Blizzard Entertainment, Inc (the **Blizzard segment**); and King Digital Entertainment (the **King segment**).[26]

(b) Digital distribution. In Europe, Activision provides warehousing, logistics, and sales distribution services to third-party publishers of interactive entertainment software and interactive entertainment hardware (as well as its own publishing operations). Activision also has an online gaming digital storefront for PC games, Battle.net, which facilitates digital distribution of Blizzard and select Activision content.[27]

(c) Display advertising. Activision operates digital display advertising within some of its game content, particularly within mobile games offered by King.[28]

Key financials

2.13 Activision earned total revenues of $8.8 billion USD in the financial year ended December 2021, a slight increase on the $8.1 billion USD in the year to 2020.[29]

[26] Parties FMN.
[27] Parties FMN.
[28] Parties FMN.
[29] Activision Blizzard, 2021 Annual Report 'Activision Blizzard, Inc. and Subsidiaries Consolidated Statement of Operations', page F-4 (78 of document).

Table 2.3: Activision net revenues and operating income by segment in the years ended 31 December 2019, 2020, and 2021[30]

$m

	2019	*2020*	*2021*
Revenue			
Activision segment	2,219	3,942	3,478
Blizzard segment	1,719	1,905	1,827
King segment	2,031	2,164	2,580
Total	**5,969**	**8,011**	**7,885**
Operating income			
Activision segment	850	1,868	1,667
Blizzard segment	464	693	698
King segment	740	857	1,140
Total	**2,054**	**3,418**	**3,505**

Source: Activision, Annual Report and Accounts for 2019, 2020 and 2021.
Note: Revenue represents the total revenue earned by each of Activision's segments, while operating income represents the profits after operational costs.

2.14 Table 2.3 shows Activision's net revenues and operating income by operating segment in the three years ended 31 December 2019, 2020, 2021. The Activision segment (which produces Call of Duty (**CoD**) consistently generated the most revenue and operating income across the three-year period, followed by King (which produces Candy Crush). Revenue peaked in the year to 31 December 2020 – despite a slight decline in revenue in 2021, the results remained significantly higher than in 2019.

Table 2.4: Activision consolidated net revenues by platform in the years ended 31 December 2019, 2020, and 2021

$m

	2019	*2020*	*2021*
Console	1,920	2,748	2,637
PC	1,718	2,056	2,323
Mobile and ancillary[31]	2,203	2,559	3,182
Other[32]	648	687	661
Total	**6,489**	**8,086**	**8,803**

Source: Activision, Annual Report and Accounts for 2019, 2020 and 2021.

2.15 Table 2.4 demonstrates that console gaming was the largest revenue platform for Activision in 2019 and 2020, but this was overtaken by mobile gaming in

[30] Note that the segment net revenues set out in Table 2.3 differ from the consolidated net revenues in Tables 2.4 and 2.5. Segment revenues set out in Table 2.3 do not include revenues from non-reportable segments (other income and expenses outside of reportable segments, including Activision' Distribution business and unallocated corporate income and expenses), share based compensation expenses, restructuring costs, and other accounting items (eg amortisation of intangible assets and recognition (or deferral) of deferred revenue). Reconciliations between segment net revenues and consolidated net revenues for 2021 and 2020 can be found on page 47 of the 2021 Annual Report and Accounts, and on page 41 of the 2019 Annual Report and Accounts for 2019.
[31] Net revenues from 'mobile and ancillary' include revenues from mobile devices as well as non-platform specific game related revenues, such as standalone sales of toys and accessories.
[32] Net revenues from 'other' primarily includes revenues from the Distribution business, the *Overwatch League*, and the *Call of Duty League*.

2021. Console gaming saw a slight decline in 2021, but the results do not yet point to any continued change in revenue source.

Table 2.5: Activision consolidated statement of operations for the years ended 31 December 2019, 2020, and 2021

$m

	2019	*2020*	*2021*
Net revenues	6,489	8,086	8,803
Costs and expenses	4,882	5,352	5,544
Operating income	1,607	2,734	3,259
Net income	1,503	2,197	2,699

Source: Activision, Annual Report and Accounts for 2019, 2020 and 2021.

2.16 In line with Table 2.3 and Table 2.4, Table 2.5 shows an overall increase in Activision's revenues from 2019 to 2021, which flows through to an overall increase in both operating and net income.

The Merger

2.17 On 18 January 2022, Microsoft entered into an agreement with Activision, via its direct wholly owned subsidiary Anchorage Merger Sub Inc., to acquire sole control of Activision (as defined above, the **Merger**).[33] Under the terms of this agreement, Microsoft agreed to pay USD 95 per share, representing a purchase price of approximately USD 68.7 billion.[34]

2.18 The Parties informed the CMA that the Merger is also the subject of review by competition authorities in a number of other jurisdictions, including Australia, Brazil, [✂], [✂], the EU, Japan, [✂], South Korea, and the US.[35] In August 2022, the Saudi Arabian General Authority for Competition cleared the merger,[36] followed by the Brazilian Administrative Council for Economic Defense (CADE) on 5 October and Chile's Fiscalía Nacional Económica (FNE) on 29 December.[37] In March 2023, the Japan Fair Trade Commission (JFTC) cleared the Merger.[38]

[33] Parties FMN. See here: press release issued by Microsoft.
[34] Parties FMN.
[35] Parties FMN.
[36] Saudi Arabia General Authority for Competition on Twitter, Certificate of No Objection, 22 August 2022, accessed by the CMA on 7 November 2022.
[37] CADE, 'CADE clears Microsoft's acquisition of Activision Blizzard', 7 October 2022, accessed by the CMA on 7 November 2022 and FNE, 'FNE aprueba la adquisición de Activision Blizzard por parte de Microsoft Corporation,' 29 December 2022, accessed by the CMA on 2 February 2023.
[38] JFTC, press release, accessed by the CMA on 28 March 2023.

Valuation

2.19 Microsoft's valuation model of January 2022 estimated Activision's value to Microsoft to be $[✂]. This [✂].[39]

Standalone valuation (ie Activision's current business)

2.20 In determining the 'standalone' value of Activision, Microsoft used [✂].[40]

2.21 In determining the relevant cashflows for its valuation, Microsoft estimated [✂], as set out in Table 2.6 below.

Table 2.6: [✂]

[✂]

Source: Microsoft, Annex to the FMN.

2.22 Microsoft estimates that [✂] Activision operating segment revenue [✂][41][✂][42].

2.23 In 2021, [✂]% of the Blizzard operating segment's revenues were generated by [✂] content with [✂] distributed across its other franchises (eg [✂], [✂] *and* [✂]). The proportion of Blizzard's revenue earned by these games is expected to change by [✂], with [✂] dropping to approximately [✂]% and most of the remaining revenue being generated by [✂].[43]

2.24 The King operating segment revenues are [✂]. Microsoft expects [✂].[44]

Synergies arising from the Merger

2.25 Microsoft identified the following [✂] synergies as being key value drivers for the Merger:

(a) '[✂].[45]

(b) [✂]:

(i) [✂];

[39] Microsoft, Annex to the FMN.
[40] Microsoft, Annex to the FMN.
[41] Note that Table 2.3 sets out [✂]. Source: Microsoft, Annex to the FMN and Microsoft, email to the CMA.
[42] Microsoft, Annex to the FMN.
[43] Microsoft, Annex to the FMN.
[44] Microsoft, Annex to the FMN.
[45] Microsoft, Annex to the FMN.

(ii) [✂]; and

(iii) [✂].[46]

(c) [✂].[47]

The rationale

Parties' submissions

2.26 The Parties told the CMA that Microsoft's rationale for the Merger is to:

(a) provide Microsoft with gaming content (including popular Activision franchises like CoD, World of Warcraft (**WoW**), and Candy Crush Saga) which will help Microsoft to execute a cross-platform strategy (allowing gamers to play games on multiple devices);[48]

(b) improve Microsoft's presence in the mobile segment, where Activision holds an established position (particularly through King);[49]

(c) support Microsoft's investments in its multi-game subscription service, Xbox Game Pass[50] (**XGP**), and improve user engagement/adoption amongst Xbox and PC users;[51]

(d) improve Microsoft's ability to create a 'Universal Store' (extending the Xbox digital storefront across non-Xbox platforms and devices);[52] and

(e) increase the attractiveness of MSAN.[53]

2.27 Microsoft described the acquisition as supporting the opportunity to 'pivot away from the device centric strategy of the past' and 'focus instead on a consumer-centric, cross-platform approach that will allow gamers to play wherever and on whatever device they wish.'[54] Microsoft's internal documents from before and at the time of the Merger broadly support the rationale stated

---

[46] Microsoft, Annex to the FMN.
[47] Microsoft, Annex to the FMN.
[48] Parties FMN.
[49] Parties FMN.
[50] For completeness, the CMA notes that Microsoft offers a number of pricing options for its subscription services, for users on both PC and consoles, as well as a bundled subscription and cloud gaming offering (Xbox Game Pass Ultimate). Throughout this report, references to Xbox Game Pass refer to the various offerings as a collective, unless otherwise specified.
[51] Parties FMN.
[52] Parties FMN.
[53] Parties FMN.
[54] Parties FMN.

above, with a particular focus on acquiring a broad range of differentiated gaming content to help scale XGP.[55]

2.28 Microsoft placed significant emphasis on the importance of mobile gaming to its ongoing growth and presence in the gaming market in its submissions, noting that [✂], and has identified this as a key driver of the transaction.[56] Microsoft's focus on expanding its presence in mobile is reflected in internal documents.[57]

[55] For example, Microsoft Internal Document; and Microsoft Internal Document.
[56] Microsoft site visit.
[57] For example, see Microsoft Internal Document.

3. Relevant merger situation

3.1 In accordance with section 36 of the Act and pursuant to our terms of reference we are required to investigate and report on two statutory questions:

(a) whether arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of an RMS; and

(b) if so, whether the creation of that situation may be expected to result in a SLC within any market or markets in the UK for goods or services.

3.2 We address the first of the statutory questions in this section.

Enterprises ceasing to be distinct

3.3 The first element of the RMS test is whether the arrangements in progress or contemplation will, if carried into effect, lead to enterprises ceasing to be distinct.[58]

3.4 The Act defines an 'enterprise' as 'the activities or part of the activities of a business'. A 'business' is defined as including 'a professional practice and includes any other undertaking which is carried on for gain or reward or which is an undertaking in the course of which goods or services are supplied otherwise than free of charge.'[59]

3.5 We have described the activities of Microsoft and Activision in Chapter 2 above. In light of this, we are satisfied that Microsoft and Activision are 'businesses' and that they each satisfy the definition of 'enterprise' in accordance with the Act.

3.6 Section 26 of the Act provides that any two enterprises cease to be distinct if they are brought under common ownership or common control. The background to the Merger is described in Chapter 2 above. On completion of the Merger, Activision will be under the common ownership and control of Microsoft.

3.7 We are therefore satisfied that the Merger will result in Microsoft and Activision ceasing to be distinct enterprises for the purposes of the Act.

---

[58] Section 23 and section 24 of the Act.
[59] Section 129(1) and (3) of the Act.

Jurisdiction test

3.8 The second element of the RMS establishes whether the Merger has sufficient connection with the UK on a turnover or share of supply basis to give the CMA jurisdiction to investigate.

3.9 The turnover test is satisfied where the value of the turnover in the UK of the enterprise being taken over exceeds £70 million. As noted in Chapter 2, Activision's turnover in the UK exceeded £70 million in FY2021. We are therefore satisfied that the turnover test in section 23(1)(b) of the Act is met. As we have concluded that the turnover test is met, there is no need to consider the share of supply test.

Conclusion on the relevant merger situation

3.10 In the light of the above, we have concluded that the Merger constitutes arrangements in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.

4. Industry background

Introduction

4.1 This chapter sets out background information on the gaming industry relevant to our assessment of how Microsoft and Activision operate in the industry. The chapter is split into the following subsections:

(a) Overview of the industry;

(b) Game development, publishing, distribution and marketing;

(c) Gaming hardware;

(d) Game purchasing; and

(e) Cloud gaming.

Overview of the industry

4.2 The gaming industry is the UK's largest revenue-generating form of entertainment. It is bigger than pay TV, home video (including streaming), cinema, music, or books. In 2022, it generated approximately £5 billion in revenue in the UK.[60]

4.3 Gamers can play games on PCs, gaming consoles or mobile devices.[61] Games played on mobile devices tend to be less demanding games in terms of processing power.

4.4 Games are developed (ie conceived, designed, programmed and tested) by game studios. While game studios and publishers may be different entities, there can be, and often is, common ownership across the two. Once developed, games are licensed, marketed, and released in different regions by publishers. While game studios and publishers may be different entities, there can be, and often is, common ownership across the two. Games are distributed to gamers across various channels and platforms.[62]

4.5 Games can be monetised in different ways. Over the past several years, gamers have typically accessed games by paying an up-front fee and downloading the relevant games from a digital storefront (such as the Xbox

---

[60] BBC, Almost 90% of games sold in UK in 2022 were digital - ERA, 10 January 2023, accessed by the CMA on 30 January 2023.
[61] Parties FMN.
[62] Parties FMN.

Store) to their console or device (such as a PC or mobile). This 'buy-to-play' (**B2P**) model remains the primary mode of delivering games on console. Some console providers also monetise content by offering multi-game subscription services. Unlike the traditional B2P model, these services allow gamers to access a catalogue of games for a fixed, often monthly, fee. In both B2P and multi-game subscription services, there are some games that allow users to make in-game purchases, meaning they can purchase access to additional features in the game. The 'in-game' purchasing model is a key feature of free-to-play games which are free to access but generate revenue from in-game purchases.

4.6 The gaming industry is characterised by strong network effects. Console providers such as Microsoft compete to attract users who want to play high-quality games, often with friends, as well as high-quality content from game developers, who want to make games for consoles with a large user base. Console platforms with a lot of gamers attract better content, which in turn attracts more gamers to that console platform, which in turn attract better content, and so on.

4.7 In recent years, the industry has seen the development of cloud gaming services, a technology that allows complex games to be accessed on remote servers and streamed directly to a device. Since games are executed remotely, gamers can play using a range of devices that can be less powerful, and are often cheaper, than consoles (such as mobile phones or tablets). There have been several recent entrants into the gaming industry using this disruptive technology, including Amazon Luna, Google Stadia,[63] Blacknut, Boosteroid and NVIDIA GeForce Now. These entrants are exploring different ways to monetise their offering, including through 'B2P, 'bring-your-own-game' (**BYOG**) (whereby customers can play games purchased on third-party storefronts on the relevant cloud gaming service), and multi-game subscription models.

Game development, publishing, distribution and marketing

4.8 This section sets out a summary of the lifecycle of a game from development stage through to game publishing, distribution and marketing.

[63] Note that Google Stadia was shut down on 18 January 2023. Source: Google, 'Thank you for playing with us', accessed by the CMA on 31 January 2023.

Game Development

4.9 The first stage in the game lifecycle is game development, which relates to the development and production of the game. This includes the design, art, programming and testing of a game, and is typically done by one or more development studios.

4.10 Game development involves the use of software development tools (including 'game engines' and other tools such as audio and video middleware) which may be created by a studio in-house or licensed from third parties. The core functionality typically provided by a game engine includes a rendering engine for 2D or 3D graphics, a physics engine (including collision detection and collision response), sound, scripting, animation, networking, streaming, memory management, threading, localisation support, scene graph, and sometimes video support for cinematics. These different tools result in different gaming experiences, in particular between PC/console games as compared to native mobile games. Typically, PC and console games offer a more advanced gaming experience and require more advanced game development tools.[64]

4.11 Developers may be first-, second-, or third-party:

(a) First-party developer: a first-party developer refers to development completed internally by the game publisher, a subsidiary, or a fully integrated studio, and then made available to the public by that developer;

(b) Second-party developer: a second-party developer is ordinarily a game studio that enters into development contracts with a publisher, such as SIE, Nintendo or Microsoft, and develops games exclusively for that publisher;

(c) Third-party developer: a third-party developer is an independent developer that develops and owns games that are then published by a game publisher.[65]

Game Publishing

4.12 Following game development, game publishers make video games available to the public for sale or for free. They are responsible for licensing the rights in relation to the game as well as for handling the advertising, marketing and distribution of the game.

---

[64] Parties FMN.
[65] Parties FMN.

Game Distribution

4.13 Game distribution has traditionally occurred through gamers purchasing a hard copy of their games on physical media from a retail store. There has been a significant shift in recent years to games being purchased digitally. In both instances, software is executed locally on the player's gaming device.

4.14 Gamers may also access games via a streaming service. In this case, the gaming software is executed remotely on cloud infrastructure and streamed over the internet to the player's end device. The end device can, in principle, be anything from a mobile phone to a smart TV.

4.15 Some providers offer multi-game subscription services that allow gamers to purchase access to a number of games for a fixed monthly fee (multi-game subscriptions). Depending on the subscription, gamers may download or stream these games.

Game Marketing

4.16 Games are often marketed by reference to their type or their genre:

(a) **Game type**: Definitions of game types are imprecise, but typical categorisations used in the industry are: 'AAA', 'AA', and Indie.

(i) AAA games tend to be considered to be those which are typically developed by large development studios and require significant budget and time (eg a number of years). AAA status is not a well-defined term, but in industry discussions is correlated with its budget, complexity, popularity, or some combination of the three.

(ii) AA games tend to have significantly smaller budgets. While they are still developed by large groups of developer staff that are spread across multiple offices, they tend not to have the scale and reach of AAA games.

(iii) Indie games are those developed by companies that are typically small, self-funded and 'independent' from broader parent companies which dictate the direction of the game developers. Indie studios are often made up of smaller teams and can often depend on crowdfunding and donations to fund their games.

(b) **Genre**: Games may also be classified by reference to their genre, definitions of which can be broad. Some common genres of games include: action; adventure; role-playing games (**RPGs**), shooter, sport, strategy, open world, and resource management. Games are sometimes

recognised as belonging to a genre, but several games have elements of multiple genres, which can make game classification to some extent a subjective exercise. Genres can be broken down into sub-genres; for example, the shooter genre includes: first-person shooters, third-person shooters or battle royale games.

Gaming hardware

Gaming devices

4.17 Gamers have historically used the hardware within one (or more) of the following sub-categories in order to play games:

(a) PCs (eg desktops, laptops and gaming-specific PCs);

(b) Dedicated gaming consoles (eg SIE PlayStation, Nintendo Switch, and Microsoft Xbox); and

(c) Mobile devices.

PCs

4.18 Gaming PCs are personal computers designed for playing video games and are manufactured in such a way as to improve the gaming experience as compared to gaming on a mainstream PC. The specifications and components of a gaming PC make it more suited to delivering a high-quality gaming experience, as compared to a mainstream PC.

Gaming consoles

4.19 The Parties estimate that worldwide revenues from console hardware sales were [✂] in 2021, with [✂] generated in the UK.[66]

4.20 Consoles were initially released by Atari[67] and Nintendo in the 1970s and 1980s, followed by SIE in 1995. Microsoft followed in 2001. Consoles are currently in what is known as the 'ninth generation',[68] with SIE, Nintendo and Microsoft being the leading suppliers.[69]

[66] Parties FMN.
[67] Atari exited the console gaming market in the early 1980s.
[68] Parties FMN.
[69] Parties FMN.

Figure 4.1 Console generations from 1972 – 2022 by developer

Console generation		Console developers		
		Microsoft	Sony	Nintendo
1st	1972 - 1980	n/a	n/a	n/a
2nd	1976 - 1992	n/a	n/a	n/a
3rd	1983 - 2003	n/a	n/a	NES
4th	1987 - 2004	n/a	n/a	Super NES
5th	1993 - 2006	n/a	PlayStation	Nintendo 64
6th	1998 - 2013	Xbox	PlayStation 2	Game Cube
7th	2005 - 2017	Xbox 360	PlayStation 3	Wii
8th	2012 - 2020	Xbox One	PlayStation 4	Wii U / Nintendo Switch
9th	2020 - present	Xbox Series X, Xbox Series S	PlayStation 5	Nintendo Switch[135]

Source: Parties FMN.

4.21 Recent generations of gaming consoles function as independent media hubs with the ability to download and stream content, such as Netflix and Amazon Prime Video. Generally, there is a period of around five to seven years between consoles. [✂].[70] Older consoles tend to be supported for a period of time following the release of a new generation console.[71] Consoles and PCs can usually process larger and more complex games (such as Call of Duty).

Mobile devices

4.22 In addition to consoles and PCs, people play games on mobile devices. Mobile devices currently lack the technical capabilities to run most console games, and most people use them to play more casual games (such as Candy Crush). We note that some console / PC games have developed mobile versions, which are simplified versions of the game with different game modes and functionality to their console/PC counterparts.

Supporting infrastructure

4.23 This section sets out the key supporting infrastructure in the development of video games, including: (i) operating systems; (ii) Graphics Processing Units; and (iii) network infrastructure for cloud gaming.

[70] Microsoft response to the CMA's RFI.
[71] Parties FMN.

Operating systems

4.24 Gaming hardware requires an Operating System (**OS**). An OS provides a graphics-based interface between the user and the device's hardware and software.[72]

4.25 Microsoft owns Windows OS, which is the market leader in the supply of PC OSs. Microsoft's rivals, which are significantly smaller, include MacOS, ChromeOS, and Linux-based OSs.[73] Because of the popularity of Windows OS, game developers most commonly make games that are designed and optimised for Windows OS.[74] Gaming consoles operate with exclusive and proprietary console operating systems.

Graphics Processing Units

4.26 Graphics Processing Units (**GPUs**) are specialised processors designed to accelerate graphics rendering, thereby improving the quality of gaming visuals. In recent years, video games have become more computationally intensive, with some featuring hyper-realistic graphics or vast and sophisticated in-game worlds. With advanced display technologies (such as 4k screens) and the rise of virtual reality gaming, the demands on graphics processing have grown significantly and continue to do so. With better graphics performance, games can be set to a higher resolution, at faster frame rates, or both. The leading suppliers of GPUs are AMD and NVIDIA.

Network infrastructure for cloud gaming

4.27 Cloud infrastructure to deliver cloud-based game streaming enables gamers to access games across a range of different endpoints or devices. It is therefore a critical asset in the provision of cloud gaming. A provider may build their own cloud streaming infrastructure, partner with a cloud computing provider to do so, or use a white-label service provided by a third-party provider. Providers such as Microsoft, Amazon, Google, SIE, NVIDIA and others have built their own infrastructure.[75] We set out further detail on the

[72] Parties response to the CMA's RFI.
[73] Linux is an operating system engine which is free to use and modify resulting in multiple Linux based operating systems. Windows' share of user personal computer OSs is [70-80%] worldwide and [60-70%] in the UK (Source: Parties response to the CMA's RFI). The hypothetical market share of OS software for PCs used for gaming is even higher than this, upwards of 95% ('Steam Hardware & Software Survey: July 2022', July 2022, accessed by the CMA on 15 August 2022).
[74] Note that Valve Software has released 'Proton', a compatibility layer which allows games developed on the Microsoft OS to be run on other Linux-based operating systems.
[75] Parties' response to RFI.

ecosystem of cloud gaming infrastructure within the 'cloud gaming' section below.

Game purchasing

4.28 Gamers have traditionally purchased games under a B2P model in which they pay a one-time upfront fee for each individual game. Increasingly, games which are purchased upfront also offer additional purchasable content (eg expansion packs or in-game purchases). For example, gamers will pay an upfront amount for the core Call of Duty game but may make additional payments as they play the game, eg to purchase in-game currency which they can exchange for additional content, upgraded ammunition etc.[76] In 2021, Activision earned 26% of revenues from product sales and 60% of revenues from in-game purchases (both B2P and F2P games). The remaining 14% of revenues were categorised as relating to subscriptions and other sources.[77]

4.29 Some providers are now offering subscription services, which require ongoing payments to play games. One popular subscription option is multi-game subscription services. These enable gamers to: (i) access a catalogue of games, which gamers can download or stream, effectively renting access to games; and/or (ii) play with each other online in the form of multi-player experiences across multiple games (although multi-player is not unique to multi-game subscriptions).

4.30 Subscription services currently include: Microsoft Xbox (Xbox Game Pass and Xbox Live Gold), Sony PlayStation Plus, Nintendo Switch Online, EA Play, Apple Arcade, Google (Play Pass and Google Stadia[78]), Amazon (Luna[79] and Prime Gaming), Ubisoft Plus, Netflix Gaming, Utomik, and Blacknut.

4.31 However, for the purpose of our assessment we focus on multi-game subscription services that offer a relatively wide range of games (eg Game Pass, PlayStation Plus (**PS+**) Extra and PS+ Premium), rather than services which mainly offer access to online multiplayer and/or only a few monthly games (eg Xbox Live Gold and PS+ Essential).

---

[76] Parties, FMN.
[77] CMA analysis of: Activision 2021 Annual Report, accessed by the CMA on 18 January 2023. Product sales of $2,311 million revenue (page F-4); in-game net revenue of $5,266m (page 45); subscription and other revenue of $1,226 million (calculated as the difference between product sales and in-game net revenue and total revenue, of $8,803 million). Note that this relates to revenues across the entirety of Activision content, including mobile as well as console, meaning that in-game purchase percentages are likely to be higher than in the case of console gaming only. This is due to the majority of revenue on mobile games being generated from in-game purchases rather than upfront purchase costs.
[78] As noted above, on 18 January 2023 Google closed down its Stadia service.
[79] Amazon Luna is not currently available in the UK.

Cloud gaming

Overview of cloud gaming

4.32 Cloud-based game streaming services (**cloud gaming services**) are consumer-facing services which allow games to be streamed over the internet from gaming hardware in a data centre to a gamer's choice of supported device. This differs from traditional gaming on PCs, mobile, and console, where customers are limited to playing games that have been downloaded to that specific piece of hardware. Cloud gaming provides gamers the opportunity to play technologically complex games on less powerful devices—such as mobile devices—that may otherwise lack the computing power or storage to support them.[80] There are several existing cloud gaming services available to the public today. It is, however, a market that has emerged only in recent years, and industry participants expect it to grow and develop considerably. In that sense, cloud gaming is still a nascent market.[81]

4.33 Microsoft offers cloud gaming services through Xbox Cloud Gaming (**xCloud**). This is available to gamers as a bundled offering with its Xbox Game Pass Ultimate (**XGPU**) multi-game subscription service, as well as separately on a free trial basis for one game, Fortnite.[82] Activision does not currently allow its games to be streamed via any cloud gaming service.[83]

4.34 The key benefit to gamers of cloud gaming is the ability to stream games without the need to purchase console (or other) hardware, which results in a cost saving. Cloud gaming also allows a gamer to start gameplay without waiting for a game to download locally to a device.

Cloud gaming monetisation models

4.35 Cloud gaming service providers are testing a range of different business models to monetise their services. They all currently offer a subscription-based model for access to their servers (and some offer a free tier with advertising for this purpose). Different services monetise their gaming content in different ways, including (i) the traditional B2P model, whereby users pay a one-time fee to purchase a game and can only play it on that platform, (ii) the BYOG model, whereby users pay a regular subscription fee for access to cloud gaming servers and can play games bought in third-party storefronts,

---

[80] Parties, FMN.
[81] Further evidence on Microsoft and third-party submissions on the future of cloud gaming is set out in more detail in Chapter 8.
[82] Parties response to the CMA's RFI.
[83] Parties response to the CMA's RFI.

such as Steam and Epic Games Store (eg, NVIDIA GeForceNow), (iii) free-to-play offerings monetised through advertising revenue and in-game purchases, and (iv) multi-game subscription services, whereby users pay a subscription fee for access to gaming servers and a catalogue of games (eg, Amazon Luna and Xbox Game Pass Ultimate). These business models are not fixed, and cloud gaming services can, and often do, explore different ways of monetising their services. For example, Amazon Luna offers both an MGS service and a BYOG feature for Ubisoft games.[84]

Cloud gaming infrastructure and ecosystem

4.36 The 'cloud' refers to a network of servers which are accessed over the internet. Cloud gaming utilises cloud servers, as noted above, to allow gamers to play games without the need for gaming hardware (eg an Xbox or PlayStation).

4.37 In addition to the supporting infrastructure required for game development more broadly (as noted above), the cloud-gaming ecosystem is reliant on:

(a) Data centres: data centres are physical buildings located around the world where servers are placed and connected to the internet.

(b) Servers: servers combine computing components to produce a machine with significant processing power which run games in a central location, which gamers connect to via the internet. Server components include:

(i) Central Processing Units (**CPUs**): The CPU is a processing device which carries out instructions, allowing the computer to perform its tasks.[85]

(ii) GPUs: as set out above, the GPU allows for the processing of graphics to improve the visual gaming experience.

(iii) Storage drives: The storage drive of the server is the core data storage device, holding the OS, applications, data files etc. This can be stored on solid-state drives (**SSDs**) or hard disk drives (**HDDs**). A cloud server can connect to multiple drives hard drives as needed to

[84] Amazon Luna – Cloud Gaming Service, accessed by the CMA on 23 December 2022.
[85] The two main manufacturers of CPUs are Intel and AMD. In December 2020, Bloomberg reported that Microsoft is in the process of designing its own chips and other articles have suggested that Microsoft may be hiring staff to do so.

allow you access to more games than you could store on a personal device.[86]

(iv) OSs: The OS running on the data server requires compatibility with the games being played by end-users. As noted above, the majority of PC games are developed using Microsoft's Windows OS, while console games are developed for proprietary console OS.

4.38 Accessibility to each of these core components is essential for the provision of cloud gaming. The reliance of cloud gaming providers on third parties in order to access each of these core components varies. For example, across its broader offering Netflix uses Amazon's AWS servers to host its content on the cloud. Conversely, Microsoft hosts its Xbox Cloud Gaming internally, on dedicated console hardware residing in Microsoft's own data centres.

[86] Some of the key manufacturers of hard drives include Hewlett-Packard (HP), Kingston Technology, Seagate, Western-Digital and SanDisk.

5. Introduction to competitive assessment

5.1 This chapter sets out some aspects of our treatment of the evidence considered in our assessment of the potential competitive effects of the Merger, including a summary of the evidence base itself. It then sets out our findings with respect to the market definitions relevant for the competitive assessment.

Treatment of evidence

5.2 In the following paragraphs, we briefly set out some of the sources of evidence we have gathered during our investigation. We then set out some aspects of our approach to the assessment of certain types of evidence – in particular, internal documents, views submitted by market participants and by the public, and economic modelling. We discuss the remedy consideration process separately in Chapter 11.

Evidence gathered in this investigation

5.3 In assessing this Merger, we have looked at a wide range of evidence that we considered in the round to reach our decision. The evidence we have gathered has been tested rigorously, and we considered the context in which the evidence was produced when deciding how much weight to give it.

5.4 We received a significant volume of evidence from the Parties. In response to targeted information requests, we received over three million internal business documents from Microsoft and Activision, including key strategy documents and email communications among senior staff. These documents which, for the most part, were created in the ordinary course of business, set out the Parties' views of the console and cloud gaming markets, as well as their future commercial strategy.

5.5 The Parties also had several opportunities to make submissions and comment on our emerging thinking throughout the investigation. In October 2021, the Parties submitted a response to our phase 1 decision. They subsequently submitted a response to our Issues Statement, where we set out the theories of harm on which we planned to focus our phase 2 investigation. We held a site visit with each of the Parties, where their senior business staff gave us several presentations on the nature of their businesses, the rationale for the Merger, and answered our questions relating to our investigation. We subsequently produced working papers and an annotated Issues Statement with our emerging thinking, and the Parties submitted their views, in writing, on those materials. We held formal hearings

with each of the Parties, in which we spoke to the Parties' senior management about topics that we were exploring in our investigation. The Parties made submissions in response to our Provisional Findings, and Microsoft also submitted a response to the Addendum to our Provisional Findings. In accordance with our standard practice, we continued to collect and analyse evidence relevant to the investigation of the Merger after publication of our Provisional Findings and the Addendum to the Provisional Findings.[87] In the interests of transparency and to ensure that we had the Parties' submissions on relevant additional evidence gathered and analysed in the period following the Provisional Findings, we sent a short supplementary paper summarising this additional evidence to the Parties. The Parties submitted a response to this paper, which we have taken into account. In addition, the Parties made a number of other submissions setting out their views on our theories of harm and evidence base at different points in our investigation.

5.6 We gathered evidence from other gaming console providers, game publishers, and cloud gaming service providers. We sent out around 90 requests for information, held a number of calls and meetings, and gathered hundreds of internal documents from these third parties. In our calls, we spoke to senior staff and business experts across the industry to gain a better understanding of the competitive landscape and likely future developments in these markets.

5.7 We engaged an independent market research company to conduct an online survey. The survey polled a random sample of PlayStation CoD gamers—defined for the purposes of the survey as those who played at least 10 hours or spent at least $100 on the game between July 2021 and June 2022—to better understand how important this game franchise is to them, and what they might do if it became partially or totally exclusive to Xbox after the Merger.

5.8 While there are no pre-defined measures for assessing whether a merger may be expected to result in an SLC, market shares are a commonly used measure in merger control cases. There is a high degree of product differentiation in some of the markets in which Microsoft and Activision operate, which means that market shares may not be the best indicator, in this case, of how closely businesses compete with each other. As such, when assessing the impact of the Merger on competition, we have considered the evidence on market shares alongside other evidence on how closely the Parties compete with rivals (either currently or in the future). As well as the Parties' market shares, our assessment has taken account of the type of

[87] See Mergers: Guidance on the CMA's jurisdiction and procedure (CMA2), December 2020, paragraph 10.9.

games that Activision offers, of the technical specifications of different consoles (and the types of games that users play on them), and of Microsoft's potential strengths in cloud gaming arising from its broader multi-product ecosystem. We have also taken account of the strength of competitive constraints on the Parties, and the extent of past entry and exit from the relevant markets.

Internal documents

5.9 Internal documents can be a useful source of information in merger investigations. Documents produced in the ordinary course of business provide evidence on the perspectives of market participants beyond their direct submissions to the CMA, often from before the merger under investigation was in contemplation. In some cases, they speak directly to questions we seek to answer in our investigations, including for example questions on what businesses can do, what businesses may find it in their interest to do, sources of competition that businesses monitor or react to, or industry trends that provide context for our analysis.

5.10 Among the large number of documents that we obtained from the Parties and third parties, we identified a range of documents containing information and discussions relating to a range of themes that are of importance to our investigation. By way of summary, the evidence base we have drawn from internal documents includes evidence on:

(a) commercial discussions relating to consumer behaviour and market mechanics, including drivers of console choice, the presence and extent of network effects, multi-homing, and other aspects of how competition works in the gaming industry;

(b) expectations in relation to industry trends (such as subscriptions and cloud gaming), including quantitative forecasts of revenue growth, reflections of senior staff on the importance of those trends in the wider industry, and details of firms' strategic responses to those trends;

(c) consideration of whether content should be included on subscription and/or cloud services, including senior staff views on the merits of doing so, discussions between publishers and platforms relating to supplying such content, and actual decisions on whether content should be listed on platforms (both in general and specifically in relation to supplying content to platforms that are rivals);

(d) the importance of large game franchises (including but not limited to CoD and WoW), including in relation to console, PC and cloud gaming

services, and the possible ramifications of content exclusivity for commercial success;

(e) the role of operating systems in cloud gaming, including the cost to serve when using Windows or Linux, and the impact of choice of operating system on access to content;

(f) the role of cloud infrastructure in cloud gaming, strategies and plans for such infrastructure, and forward-looking assessments of the expected evolution of firms' cloud infrastructure costs over time; and

(g) internal discussions of the relative strengths of rivals and potential entrants in cloud gaming services, including in relation to advantages from existing scale, access to content, operational capabilities and cloud infrastructure.

5.11 In our review of these internal documents, we took care to interpret them in their context. In deciding what weight to attach to them we considered information such as the identity and role of the staff that prepared, sent or received them. In line with our guidance, where internal documents support claims being made by merger firms or third parties, we considered whether those documents were generated prior to the period in which the Parties were contemplating the Merger, and the period in which third parties were aware of the Merger. We also attached weight to whether documentary evidence was consistent with other evidence.

5.12 Where we received submissions suggesting that our interpretation of documents was incorrect, we assessed those claims. We applied our judgement to the credibility of those claims, accounting for the nature of the statements made in documents, the interests of the relevant party in suggesting an alternative interpretation, and the consistency of any alternative interpretations with other documents and evidence.

Views of market participants

5.13 During our phase 2 investigation, we engaged with a range of market participants, including through written questionnaires, data requests, meetings, as well as having received and considered submissions from some third-party market participants.

5.14 Views of market participants are an important source of evidence in CMA merger investigations. That said, the outcomes of a merger investigation can have a direct financial or strategic impact on market participants, and we therefore—as with internal documents—considered the interests and incentives of the Parties, market participants that oppose the Merger and

other third parties, as well as the extent to which such claims are consistent with other evidence, when assessing what weight to attach to those views.

5.15 In addition to views provided by firms, we also heard from the public directly, both through a consumer survey, and from the large volume of emails received from members of the public during the period for response to the CMA's Issues Statement, as well as further emails received during the period for response to the CMA's Provisional Findings and the Addendum to the Provisional Findings.[88]

5.16 Details of our customer survey are provided in Appendix D. As set out in that Appendix, our customer survey (the **CMA Survey**) was commissioned by an independent specialist agency under controlled conditions, with questions specifically tailored to bring out objective responses, and accounting for comments provided by the Parties and by SIE. We are of the view that the CMA Survey has been designed, conducted and analysed robustly in accordance with survey good practice.

5.17 In relation to views received by email from individual members of the public, it was necessary for us to apply caution in interpreting these. There is no practical way for us to verify that views provided through an open channel are submitted by genuine consumers, or that those submitting views are representative of all relevant consumers (and in particular UK consumers). In relation to representativeness in particular, open calls for comment may attract greater attention from particular cohorts of the market than others, either through random chance, or as a result of varying degrees of awareness across different cohorts (which can be affected by press coverage, internet commentary and social media coverage—including coverage by interested parties). As a result, we were unable to place any particular weight on these email submissions, or to use them to make inferences about 'average views' of consumers. However, we note that many respondents raised issues and concerns that were aligned with those under consideration in the inquiry (both in terms of the impact of the Merger on competition and any potential benefits for consumers arising from the Merger). These issues are considered further in Chapters 7 and 8 below.

[88] The summary of Issues Statement responses received from members of the public is available on the case page: Issues statement: Summary of responses. See Appendix H for a summary of responses received from members of the public to the CMA's Provisional Findings and the Addendum to the Provisional Findings. The summary also includes responses received from members of the public to the CMA's Remedies Notice.

Role of quantitative evidence

5.18 Economic modelling and quantitative evidence—including shares of supply, financial modelling, and analysis of business data—can be helpful in assessing a range of questions relevant to merger investigations, which is how they have been used in this case.

5.19 Quantitative analysis has strengths but can also have limitations. On one hand, attempting to quantify certain variables can help by giving a sense of degree when an aspect of the investigation is not clear cut—for example: the credibility of a substitute, the strength of a firm, the importance of an input, or the profitability of a strategy. On the other hand, quantitative evidence can vary depending on the assumptions applied in the methodology. Quantifications do not capture all relevant considerations. Shares of supply may not capture the extent to which firms may be closer (or less close) alternatives to each other because of product differentiation. Financial data may fail to capture economic gains that are not typically captured in accounting terms but are nevertheless implicitly or explicitly accorded weight by senior management, such as increased future opportunities, greater strategic flexibility, long-run payoffs in terms of scale or network effects, etc.

5.20 In our assessment, we have considered a range of both quantitative and qualitative evidence, and also considered carefully the relative weight to attach to each. Where both types of evidence have been available, we have sought to interpret quantitative evidence alongside qualitative evidence.

Market definition

Framework

5.21 Where the CMA makes an SLC finding, this must be 'within any market or markets in the United Kingdom for goods or services'.[89] An SLC can affect the whole or part of a market or markets.

5.22 Market definition provides a framework for assessing the competitive effects of a merger. The assessment of the relevant market is an analytical tool that forms part of the analysis of the competitive effects of the merger and should not be viewed as a separate exercise.[90] The boundaries of the market do not determine the outcome of the analysis of the competitive effects of the merger, as it is recognised that there can be constraints on merging parties from outside the relevant market, segmentation within the relevant market, or

[89] Section 35(1)(b) of the Act.
[90] Merger Assessment Guidelines (CMA129), March 2021, paragraph 9.1.

other ways in which some constraints are more important than others. We take these factors into account in the competitive assessment.

5.23 In this case, as in other digital markets, the relevant products are complex and have been—and will continue to be—subject to change and development over time. Demand for gaming products can vary considerably between gamers, and there are complexities in how customers make decisions. The choices available to customers depend on whether they already own a gaming device or if they are planning on buying one. In addition, different customer characteristics mean that some customers may consider a broader range of choices than others. For example, some gamers may prefer complex games that require considerable time and skill (and have historically been played on consoles or high-specification gaming PCs). Others may prefer simpler games that can be played casually for short periods of time on a range of devices including mobiles, whilst another group may prefer a mix of both. This choice also extends to the supply side, where some devices support games that require high-powered graphical processing units (eg consoles), while others do not. Where possible, we have accounted for these factors in the discussion of market definition which follows. However, we note that a single market definition may not always capture the true competitive interactions between different providers and, where this is the case, these are discussed in the competitive assessment.[91]

5.24 The potential issues under analysis in this case relate in various ways to how competition between the Parties and their rivals will dynamically evolve over time, in particular in relation to MGS and cloud gaming services, and also in relation to the next generation of consoles. This chapter does not attempt to predict the direction in which these markets, and competition in these markets, will evolve in the future (our views on these issues are set out in the chapters that follow). In these circumstances, we will place more emphasis on the competitive assessment than on static market definition. In the assessment of the impact of the Merger on competition, we will consider evidence on concentration measures alongside evidence of closeness of competition. This involves assessing the strength of the current and likely future constraints between the products of the Parties and their rivals. Evidence on concentration and on closeness of competition can be interpreted and taken into account without the need for a precise definition of the relevant markets.[92]

---

[91] CMA 129, paragraph 9.4.
[92] CMA 129, paragraph 9.3.

5.25 Accordingly, and in particular in relation to those areas involving evolving conditions of competition (including the emergence of MGS and cloud gaming services), our analysis does not seek to conclude on a bright-line definition of the relevant markets, but instead describes the competitive framework within which the Parties and their rivals operate.[93]

5.26 In this case, we consider that gaming platforms are two-sided, with users on one side and content providers on the other. In defining the market, we have assessed each side of the market separately, focusing primarily on the user side of the market, where the potential competitive concerns in this Merger arise. We have considered both sides of the market in the competitive assessment, including the impact of direct and indirect network effects.[94]

5.27 The starting point for our assessment is the relevant services provided by the Parties in:

(a) the supply of gaming hardware, and the associated game distribution (where Microsoft is currently active);

(b) the supply of cloud gaming services (where Microsoft is currently active); and

(c) the supply of game publishing services (where both Microsoft and Activision are currently active).

5.28 We consider each of these in turn below.

The supply of gaming hardware (and associated gaming distribution)

5.29 In this section, we discuss the product and geographic market definition relating to services involved in the supply of gaming hardware. As explained in Chapter 4, the hardware that gamers typically use to consume gaming content includes PCs (including desktops, laptops and gaming-specific PCs), dedicated gaming consoles and mobile devices. As such, our analysis focuses on the supply of PCs, consoles and mobile devices.

5.30 Microsoft manufactures and sells dedicated gaming consoles under its Xbox brand. Microsoft also sells PCs (such as its Surface series of computers) and mobile devices (such the Microsoft Surface Duo), which can also be used to play video games.

---

[93] CMA 129, paragraphs 9.4-9.5.
[94] CMA 129, paragraph 4.22.

5.31 Activision does not manufacture or sell any gaming hardware including PCs, consoles, or mobile devices.[95]

Product market definition: supply of gaming hardware (and associated gaming distribution)

5.32 In this section we consider the product market definition relating to the supply of gaming hardware, ie PCs, consoles and mobile devices. We also consider the extent to which game distribution is integrated with this hardware (in particular, for gaming consoles), and therefore how this also fits with the product market definition.

Substitutability of mobile devices with consoles and PCs

5.33 First, we consider whether mobile devices should be included in the same product market as PCs and consoles.

- *Parties' views*

5.34 The Parties submitted that there are separate markets for the manufacture and supply of (i) PCs and consoles and (ii) mobile devices.[96] In particular, the Parties explained that mobile devices lack the technical capabilities to play most PC and console games, and only a small proportion of PC and console games are also available as native mobile apps.[97]

- *Our assessment*

5.35 From a demand side substitutability perspective, the available evidence indicates that there is limited substitution of a mobile with consoles/PC for gaming. Third party reports indicate that gamers use mobile devices in a complementary manner to PC or console; for example, with one third-party report indicating that a majority of gamers ([✂]) play games on their mobiles and at least one other platform.[98]

5.36 There are also differences in the price and user interface of mobiles as compared to PC and consoles. Mobiles tend to be less expensive than consoles or high-end PCs (though we recognise that mobile devices are available at a wide range of price points). Mobiles may be purchased for a number of different uses as opposed to consoles or gaming PCs. Additionally,

---

[95] Parties FMN.
[96] Parties FMN.
[97] Microsoft estimates that only approximately [✂]% of consoles games and [✂]% of PC games were available on mobile devices in 2020. See Parties FMN.
[98] Microsoft Internal Document.

users tend to interact with mobiles via a touch screen rather than a controller, mouse or keyboard.

5.37 From a supply side substitutability perspective, the evidence indicates that there are significant differences in the technical capabilities of a mobile versus PC/console.

(a) Third party views highlight differences in technical capabilities between mobile devices and other types of hardware. For example, one publisher [✂] stated that some of its games are available across all platforms except mobile due to the level of porting and optimisation required.[99] Another publisher [✂] stated that even if the technology to play console titles on mobile does become available, the mechanics required to play a game on console may not translate well to a mobile screen.[100] A competitor [✂] noted that most third parties publish their content on both PCs and console. Mobile games are more removed from PC and console games.[101]

(b) Microsoft's internal documents also discuss the technical differences between mobiles and consoles. One transcript of a call states that [✂].[102] Another document summarises internal research into mobile gamers. The document states that [✂].[103]

5.38 More generally, we note that mobiles are considered separately to PCs and consoles in Microsoft's internal documents ([✂]).[104] The CMA has also seen third-party reports that consider mobile gaming separately to PC and console gaming.[105]

5.39 Testimony of Microsoft's executives in US court proceedings further substantiates that Xbox does not view mobile devices as their competitors. Speaking in relation to the competitors of Xbox for hardware sales, Microsoft's vice-president of business development for gaming, media, and entertainment in 2021 stated that Microsoft 'certainly don't view iPhone as a competing device'.[106]

5.40 Based on the above evidence, we do not include mobile devices in the same product market as consoles.

---

[99] [✂] call note.
[100] [✂] call note.
[101] [✂] call note.
[102] Microsoft Internal Document.
[103] Microsoft Internal Document.
[104] Microsoft Internal Document; Microsoft Internal Document; and Microsoft Internal Document.
[105] Microsoft Internal Document; and Microsoft Internal Document.
[106] Testimony of [✂], 'Epic Games, Inc., v. Apple, Inc.', 5 May 2021, [✂].

Substitutability of PCs with consoles

5.41 Next, we consider whether PCs and consoles should be included in the same product market.

- *Parties' views*

5.42 In relation to the substitutability between PCs and consoles, the Parties submitted that PCs and consoles should be considered part of the same market because (i) PC graphics technology has caught up; (ii) the gap in prices has narrowed substantially; (iii) performance and characteristics of consoles and PCs have converged.[107]

- *Our assessment*

5.43 From a demand side substitutability perspective, third party evidence suggests a slightly higher degree of multi-homing of gamers between consoles and PC than between different consoles, indicating that PCs are considered less substitutable with a console by gamers. For example, external research from Game Track in Q4 2021 submitted by a third party [✂] showed that a greater percentage of users of one console played on a PC [✂] as opposed to playing on another console ([✂] and [✂] on each other console).[108] However, we note that many games are available on both PCs and consoles, and gamers can play the same game across these devices.

5.44 In terms of price differences, one third party submitted that gaming PCs are more expensive than PlayStation/Xbox, typically costing $800-1,200+ as opposed to $400-500 for consoles at first release.[109] This means that in response to a general increase in the price of consoles, a substantial price difference would persist between gaming PCs and consoles (given they currently cost at least twice as much). We consider this likely to limit the extent of substitution between them.

5.45 From a supply-side substitutability perspective, third party evidence indicates that PCs are still considerably different to consoles in terms of their technical specifications. One third party console supplier [✂] submitted that PCs are general purpose computing devices that are not specifically dedicated to video gaming. The third party stated that while consoles are designed to be used out of the box and require minimal technical knowledge, many gaming

[107] Parties FMN.
[108] [✂] response to the CMA's RFI.
[109] [✂] response to the CMA RFI.

PC users build or customise their device with components from a variety of manufacturers.

5.46 Evidence from Microsoft's internal documents also indicates that there are some technical challenges to porting a PC game to console. For example, [✂]. The document goes on to explain that [✂].[110] Another draft internal document [✂].[111]

5.47 Finally, evidence indicates that the competitive landscape is different on PCs and consoles, though this may evolve in the future.

(a) Third parties noted the differences in the gaming ecosystems and demand of PCs and consoles. One third party publisher [✂] told the CMA that certain device categories (ie PC, console, and mobile) are better suited to certain types of games.[112] Another third party [✂] considered that the PC gaming ecosystem has always been open and generally not as commonly driven by exclusive titles as consoles; which suggests the competitive landscape in game publishing is different for consoles and PC.[113] Additionally, another third party [✂] stated that, unlike consoles, which are updated uniformly and generationally, users of gaming PCs generally determine for themselves when and how upgrades are required.[114]

(b) As in the case of mobiles above, internal documents and third-party reports submitted by the Parties also consider PC and console gaming separately in their discussion of competitive landscapes.[115] However, some third-party reports discuss the increasing similarity between PCs and the latest generation of consoles; for example, one report noted that console manufacturers are moving away from the more static 8-10 year console cycle, and instead adopting behaviour more akin to that of PC, where owners upgrade to a new machine every 3-4 years.[116] On the other hand, another third party report notes differences, arguing that [✂].[117]

5.48 Given the supply-side and demand-side evidence, together with the mixed evidence on the evolving competitive landscape between consoles and PCs, for the purposes of the competitive assessment, we do not include PCs in the

---

[110] Microsoft Internal Document.
[111] Microsoft Internal Document.
[112] [✂] call note.
[113] [✂] call note.
[114] [✂] response to the CMA RFI.
[115] Microsoft Internal Document; Microsoft Internal Document; Microsoft Internal Document; Microsoft Internal Document; Microsoft Internal Document.
[116] Microsoft Internal Document.
[117] Microsoft Internal Document.

product market with consoles; nevertheless, we consider any constraint from PC in the competitive assessment.

Substitutability of different console types

5.49 Finally, we have considered whether the product market should be further segmented by console type. The Parties submitted that static consoles and handheld consoles should be considered part of the same market because there is no longer a marked distinction between these different types of consoles; and handheld consoles also support technologically advanced games (eg Nintendo Switch, Valve's Steam Deck).[118]

5.50 We consider evidence on the similarity between the Xbox and PlayStation (static consoles) and Nintendo Switch (which is both a static and handheld console) in the following chapters. The evidence broadly shows that Xbox, PlayStation and Nintendo all compete in the console market—from a demand-side perspective, they are all used almost exclusively for gaming and enable publishers to offer a variety of games on their hardware. From a supply side, they offer consoles with broadly similar technical specifications and prices that are comparable (particularly Xbox and PlayStation, and to a lesser extent, Nintendo).[119] As such, we do not consider it appropriate to further segment by console type.

5.51 However, whilst we recognise that all gaming consoles exert some competitive constraint on each other, we also consider any differences between consoles that may make them less substitutable with each other. This is particularly true for Nintendo consoles—the latest Switch consoles are handheld with lower technical specifications (eg in terms of RAM, GPU, memory) and offer content that is more family/child friendly. This is discussed further in the competitive assessment.

Conclusion on product market definition for gaming hardware

5.52 Based on this evidence, we consider that there are significant differences between PCs, consoles, and mobile devices as gaming hardware, and that it is appropriate to distinguish between each of them for our analysis of the Merger. We do not consider it appropriate to further segment the console market by console type, but we assess the different closeness of competition

---

[118] Parties FMN.
[119] In relation to the recently released Steam Deck – a portable PC - we note that it allows gamers to play PC games natively (or via a cloud platform, including console games) on a handheld device. While we note that the Steam Deck is more similar to the Nintendo Switch than static-consoles such as Xbox or PlayStation in its technical specifications, we do not assess this further given it is a portable PC and has a relatively insignificant share of the gaming hardware market.

between rivals within the competitive assessment. We cannot rule out that over the longer-term PCs and consoles may become increasingly substitutable, and the distinctions between different hardware types may become less relevant in a world where cloud gaming has become more important. We consider any dynamic elements of competition as they are relevant in our competitive assessment.

Other considerations in the supply of gaming consoles

5.53 In addition to our assessment above that consoles, PC and mobile devices are in separate product markets, we set out below two additional considerations regarding the gaming console market relevant to our competitive assessment.

Console hardware and distribution

5.54 Digital storefronts are integrated with the console hardware and are the primary means by which gamers purchase B2P games and subscription services for that specific console. It is not possible to buy or access console games in digital form other than from the digital storefront associated with the specific console. For example, for Xbox, digital games are purchased via the Xbox Store; Xbox's MGS, Game Pass, is also available through the Xbox Store (and likewise for PlayStation and the PlayStation Store, and Nintendo and the Nintendo Store). While some games (albeit a small and declining proportion) are also still purchased in physical form, which can be via an intermediary as well as direct from the console manufacturer, physical console games are also tied to a particular console.[120] As such, we consider that competition happens at a platform level from both a supply and demand-side (ie the console and associated console game distribution combined). We therefore consider it appropriate to treat console hardware and associated game distribution as part of the same product market, and consider these collectively in the assessment. This includes MGS services as well as B2P console games for the reasons discussed further below.

5.55 For PCs, on the other hand, we note that the storefronts are distinct to hardware, with different firms and competitive dynamics and with no tied/bundled relationship between the hardware and storefronts. For example, there are various storefronts available for purchasing PC games which are not

[120] For example, you would need to purchase an Xbox version of a game to play that game on an Xbox console. Further, many purchases of physical games are made at the time as the console and are sold as part of a bundle.

inherently tied to the particular manufacturer's hardware and offer games for multiple operating systems.

5.56 For the reasons set out above, we do not consider game distribution for either mobile or PC in our competitive assessment and do not assess these further.

Segmentation between MGS and B2P services

5.57 In this section, we discuss evidence related to the product market for MGS services, and whether we should assess it separately to other B2P console games.

- *Parties' views*

5.58 Microsoft submitted that MGS services were a means of payment – not a market. It further submitted that the gaming content that is available on MGS services was also available to purchase on a standalone B2P basis and there is no additional or new content offered via MGS. Microsoft submitted that this evidence was consistent with gamers perceiving subscription and B2P purely as alternative payment methods to access the same content.[121]

5.59 Microsoft also submitted that Xbox telemetry data shows that gamers frequently switch between the two payment options. In particular, Microsoft submitted that based on this data:

(a) Between [✂] of Xbox gamers continue playing games purchased on a B2P basis in the 12 months after unsubscribing from Game Pass. Between [✂] of gamers purchase a game on a B2P basis within a year after unsubscribing from Game Pass.[122]

(b) Gamers that subscribe to Game Pass "mix and match" across games irrespective of how they paid for them. Microsoft submitted figures on the gamers who spent at least [✂]% of their total game-time on Halo Infinite in the month following release. According to Microsoft, these figures show that while these gamers' total game-time increases as a result of their engagement with the new Halo release, both B2P game-time on other games and Game Pass game-time fall. Microsoft submitted similar figures for CoD: Modern Warfare. According to Microsoft, these figures show that gamers who play that game increase their overall game-time, however their Game Pass and B2P game-time on other games declines.[123]

---

[121] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 1.8 (a).
[122] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.18.
[123] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.19.

(c) [✂]% of Game Pass customers who had been subscribed to Game Pass for six months or more had bought games on a B2P basis during that period.[124]

5.60 Microsoft also submitted that its internal analysis shows a [✂]% decline in base game sales twelve months following their addition on Game Pass.[125]

- *Our assessment*

5.61 We consider that Microsoft's telemetry data and internal analysis presented above have some limitations. The time period over which Microsoft appears to infer that a B2P purchase constitutes substitution is quite long (up to one year). Moreover, the observation that Game Pass customers continue to purchase B2P games during the period is more consistent with complementarity than substitutability. Given B2P purchases continue even during the subscription period, it is unclear from Microsoft's submission whether and to what extent the proportion of consumers that make B2P purchases within a year of closing their subscription is different from the proportion of consumers making B2P purchases that never had a subscription in the first place.

5.62 However, notwithstanding these limitations, the telemetry data suggests that, overall and at least at a point in time while MGS is expanding, there is some substitution from B2P to MGS services. It also suggests that there is possibly some diversion from MGS to B2P services, but the data is more unclear in that respect as the magnitude of any substitution effect is lower and more difficult to detect by just looking at the data.

5.63 Microsoft internal documents recognise that adding titles to Game Pass would lead to cannibalisation of B2P sales, [✂]:

(a) One internal email exchange stated that [✂].[126]

(b) One internal document stated that [✂].[127]

(c) One internal document states that [✂].[128]

5.64 We asked third parties (competitors and publishers) to provide their views on the level of substitutability between B2P and MGS services within gaming. Some responses were fairly generic (eg explaining that games are available

---

[124] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.20.
[125] Microsoft response to the phase 1 Issues Letter.
[126] Microsoft Internal Document.
[127] Microsoft Internal Document.
[128] Microsoft Internal Document.

on both MGS and B2P), and were not informative on the relevant question. However, the other responses in the round suggest that MGS services place some constraint on B2P services and vice-versa.[129]

- *Conclusion on segmentation by MGS and B2P*

5.65 In the long-term, as the console gaming market matures, we consider that diversion may be stronger between competing MGS services than between MGS and B2P services.

5.66 This might be, for instance, because MGS and B2P have different characteristics. Under an MGS service, gamers can access a bundle of games during a period of time for a fixed fee. The drivers of demand in that context are the price of the bundle, the range of content, and the quality of individual titles. By contrast, when accessing games through digital storefronts, gamers typically pay a higher up-front price for a single game. Although stores can monetise games using a range of methods (eg in-app purchases), gamers typically have unlimited access to the game after the purchase. The drivers of demand in that context are the price and quality of the individual game.

5.67 However, we have seen no evidence that consumers choose between different MGS in isolation or the rate of switching between different MGS. Rather, we see that Xbox and SIE market their MGS as part of their overall console package, and these are therefore competitive parameters of their offering.[130]

5.68 Therefore, we conclude that console B2P and MGS are within the same product market, but recognise there is some differentiation between the two (which we discuss in more detail in the competitive assessment, as relevant).

5.69 We refer to this product market as 'console gaming services' which, for the reasons explained, incorporates the console hardware and integrated digital storefront, including for both B2P games and MGS.

---

[129] [✂] response to CMA RFI; [✂] response to CMA RFI; [✂] response to CMA RFI; [✂] response to CMA RFI; [✂] response to the CMA's section 109 notice (**s109 notice**).
[130] See for instance Microsoft's webpage advertising/explaining its consoles where it describes the speed and performance of the Xbox Series X/S, the expanding game library, Xbox Game Pass, and Smart delivery. See https://www.xbox.com/en-US/consoles.

Geographic market definition: supply of console gaming services

Parties' views

5.70 The Parties submitted that their products and services are available on a global basis, including in the UK. In relation to PCs and consoles, the Parties submitted that the geographic market is at least wider than the UK (including the EEA) if not worldwide, as consoles supplied across the UK/EEA are technically equivalent and there are no impediments to cross-border sales of PCs/consoles within the UK and EEA.[131]

Our assessment

5.71 We note that Microsoft and its console gaming service rivals (ie SIE and Nintendo) are active across a broader geographic region than the UK and are often active globally.

5.72 However, various third-party internal documents discuss the competitive landscape in consoles at a regional/national level. For example, a third party's [✂] internal document considers pricing, the available game library, awareness and interest of gamers and supply of consoles by country, for this third party's main sales countries.[132] The document also analyses and indicates differences in the breakdown of new console adoption rates by different customer segments at a national level.[133] Another document of the same third party [✂] analyses platform preference and brand momentum at a country level.[134] Various other third party documents also survey users by region and discuss findings and competition by country.[135]

5.73 We found additional evidence suggesting that console gaming services may have a national dimension:

(a) The market shares provided by the Parties show material differences between the UK and global shares, suggesting differences in the competitive landscape by geography. In particular, the Merged Entity generally has higher shares of supply in the UK as compared to worldwide. For example, in 2021, the Parties estimate Microsoft's share of

[131] Parties FMN.
[132] [✂] Internal Document.
[133] [✂] Internal Document.
[134] [✂] Internal Document.
[135] See for example, [✂] Internal Document; and [✂] Internal Document.

supply of console hardware by sales volume to be [10-20]% globally but [20-30]% in the UK.[136]

(b) In addition, the CMA has seen some evidence of differential availability of services in local areas, including of Microsoft's Game Pass offering.[137]

(c) Further, in relation to Xbox Live Gold, for example, Microsoft's website explains that '[t]o ensure that pricing for the Xbox Live Gold subscription service reflects the local market economies, Xbox Live Gold subscription cards are only redeemable in the country purchased and cannot be redeemed in any other country'.[138]

5.74 As such, while recognising that there are multi-national aspects to competition in this market, there is also evidence of regional and national variations in supply and demand. We therefore consider it is appropriate to assess the impact of the Merger in console gaming services in the UK, but taking into account the multi-national context and evidence as relevant and appropriate in the competitive assessment. We consider much of the evidence available which is not limited to the UK is highly relevant to our assessment, and we also do not consider our competitive assessment or conclusions would materially change if we were to consider a wider geographic frame of reference (ie regional or global). For example, foreclosure strategies may be implemented on a multi-national or global level, and we take this into consideration where appropriate.

The supply of cloud gaming services

Product market definition: supply of cloud gaming services

Parties' views

5.75 Microsoft submitted that cloud gaming is a means of accessing games, not a separate market. It described cloud gaming as a feature that provides an alternative way for gamers to access content that is not tied to a specific device and should not be considered separately from other ways of accessing and playing games, at least on console and PC.[139]

---

[136] Parties FMN.
[137] For example, see 'Xbox Supported Countries/Regions', accessed by the CMA on 30 August 2022.
[138] 'Making sure your Xbox digital subscription is valid for your country | Xbox Support', accessed by the CMA on 4 August 2022.
[139] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.7. See also Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.26.

5.76 Microsoft stated that cloud gaming was [✂]. In support of this it stated that the [✂]% of xCloud use in 2022 was on console, and that telemetry data indicates that [✂]% of XPGU usage (in terms of active users) was on xCloud in September 2022.[140]

5.77 Microsoft further submitted that this was particularly clear on console, where cloud gaming could not be divorced from the console itself, and is no more than another parameter on which consoles compete against each other. It submitted in this context that cloud was not even a standalone 'product', let alone a separate market.[141] It also submitted that on Xbox Cloud Gaming, around [✂]% of the usage on console is simply to try a game before downloading it, [✂].[142] Microsoft also submitted that feedback which Microsoft receives from Xbox Cloud Gaming users shows that [✂]% of users have used cloud gaming to try a game before installing it on a console or PC.[143]

5.78 Microsoft submitted that gamers who use cloud gaming features on their console are not the intended customers for cloud gaming service providers (and [✂] of Xbox Cloud Gaming customers access the service on console) given that cloud gaming is primarily aimed at enabling consumers to play high performance games on a range of lower-powered devices, and are as such not relevant to the CMA's theory of harm.[144]

5.79 Microsoft further stated that gamers choose a gaming experience based on whether it provides enjoyment at an attractive price point and are not motivated by the location of the content or the means of delivery. Cloud gaming services therefore need to compete effectively with downloadable game options if they are to grow.[145]

5.80 Microsoft also stated that, whilst it agrees that in the long-term cloud gaming may make hardware distinctions less important, it remains unproven as a customer proposition and the available evidence did not indicate in any manner that this is likely to change anytime soon.[146] We discuss the future of cloud gaming separately in Chapter 8.

5.81 The Parties however acknowledged that cloud gaming services could be attractive to a different pool of customers that does not have access to the

---

[140] Microsoft response to working papers.
[141] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.27.
[142] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.27.
[143] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.27.
[144] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.28, 3.29.
[145] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.8.
[146] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.9.

current hardware required for playing more complicated games and will lower the barriers for certain gamers to access titles.[147]

Our assessment

5.82 On the demand side, cloud gaming allows consumers to play high performance games that were previously only available on consoles or high-end PCs, on a range of lower-powered devices including mobiles, smart TVs, and low-end PCs.[148] This means consumers do not need to pay the substantial upfront cost associated with consoles and high-end PCs, therefore making cloud gaming attractive to a new pool of consumers. An internal document from one competitor [✂] describes how cloud gaming will grow the total addressable number of gamers playing console-quality games.[149] Another competitor [✂] similarly described how cloud gaming could make interactive 3D gaming more accessible to billions of gamers.[150]

5.83 An internal document from Microsoft [✂].[151] The responses show that of consumers who were aware cloud gaming was available on XGPU,[152] most were [✂][153] [✂].[154] In our view this indicates that consumers consider different factors important for cloud gaming as compared to consoles or PCs. This [✂] was at the end of 2020. Over time we may expect behaviour to change as the installed base of devices age and gamers have an alternative to buying a new machine when the time comes.

5.84 The evidence submitted by Microsoft in paragraph 5.77 suggests that currently trying games before downloading them is [✂] with xCloud users. However the [✂] noted in the previous paragraph also showed that only [✂] of consumers who were aware cloud gaming was available on XGPU [✂].[155] We assume respondents mentioning [✂] would include those who value being able to try games before downloading it.[156] We therefore consider this evidence suggests it is unlikely that trying games before downloading is the primary reason people are interested in cloud gaming, despite it being [✂]. Nor do we think that this would be the case as cloud gaming develops. We

---

[147] Submission made during the phase 1 Issues Meeting.
[148] Cloud gaming can also be used for lower performance games, but as described below, this is not the focus of our competitive assessment.
[149] [✂] Internal Document.
[150] [✂] response to the CMA's RFI.
[151] Microsoft Internal Document.
[152] In general, we consider the views of those Game Pass customers who were aware cloud gaming was available to be more informative in terms of why they are interested in cloud gaming.
[153] [✂].
[154] [✂].
[155] This figure [✂], among customers who were *not* aware that cloud gaming was available on XGPU [✂]. Microsoft Internal Document.
[156] Indeed, the relevant Microsoft Internal Document [✂].

further note that a memo from September 2022 describing priorities for Fiscal Year 2023 noted in FY22 [✂],[157] suggesting xCloud [✂], and is not merely a console feature.

5.85 Furthermore, in contrast to Microsoft's submission that cloud is just an additional feature, a note from one of its senior employees ([✂]) in 2020 (with comments from [✂]) discusses their view of cloud gaming and how streaming is not a feature, but rather something that fundamentally changes the way and type of games played.[158]

5.86 In any case, even if some customers continue to use cloud gaming to try a game before downloading it, this would suggest that it is complementary to offline console play, and not a substitute.

5.87 Whilst Microsoft submitted that [✂] xCloud usage is currently on console, and a [✂] of customers try a game before downloading it, in our view this may be influenced by Microsoft tying its own cloud gaming offering to Game Pass Ultimate and using its existing consumer base to grow its cloud gaming service, and therefore not representative of the cloud gaming market more generally.

5.88 We also expect this to change in the future. First, we have received no evidence from Microsoft that it thinks the majority of future cloud gaming will be on console. In contrast, a number of documents discussing Microsoft's expectations for cloud gaming in the future suggest it will become increasingly important relative to playing natively on console. One document from 2019 in particular discusses strategy and sequencing of expanding cloud streaming noting that Microsoft first plans to '[✂]'.[159] In an email exchange with [✂], [✂].[160] Ultimately a view that xCloud usage will remain primarily attached to the latest Microsoft console is inconsistent with evidence on Microsoft's (and competitors') view that an important aspect of cloud gaming is being device agnostic and bringing new customers into gaming.

5.89 Second, evidence from Microsoft's internal documents also suggest it is still serious in pursuing a [✂], as discussed further in Chapter 8 below.

---

[157] Microsoft Internal Document.
[158] [✂]. Microsoft Internal Document.
[159] Microsoft Internal Document. In addition this document states that 'cloud streaming' represents an [✂]'. We note that this document [✂].
[160] Microsoft Internal Document. This is discussed in more detail in Chapter 8.

5.90 Third, we consider evidence that Microsoft [✂][161] is inconsistent with the idea that streaming is merely a way to try a game before you download it to console given, [✂].

5.91 Fourth, we also think a future strategy of cloud being primarily a feature of consoles is inconsistent with Microsoft's [✂], as discussed further in Chapter 8 below.

5.92 Finally, the pattern of use across devices is already different for other competitors. Evidence from one competitor [✂] shows that around [✂].[162] Furthermore, this competitor stated that the vast majority of its users were not using high-end PCs and were new to gaming.[163]

5.93 In relation to Microsoft's submission that gamers who use cloud gaming features on their console are not the intended customers for cloud gaming service providers, we do not think there are different markets (or market segments) based on the end-device:

(a) First, given that cloud gaming is device agnostic, we do not think that a service developed for those using a console as an end-device is fundamentally different from a service developed for users of other end-devices, just as its development is not determined by the end-device.

(b) Second, based on the evidence discussed in the above paragraphs, Microsoft's strategy, investment and the growth Microsoft has made in cloud gaming, we do not think it likely Microsoft has invested in cloud gaming, and will continue to do so in future [✂], only so that customers can try games before they download them (ie we do not think it likely that is the sole reason). We further note in this context that Microsoft described the acquisition as supporting the opportunity to 'pivot away from the device centric strategy of the past' and 'focus instead on a consumer-centric, cross-platform approach that will allow gamers to play wherever and on whatever device they wish.'[164]

(c) Third, many customers already use xCloud off-console, and [✂] as described above.

(d) Fourth, cloud gaming offers various benefits that are not limited to access by a particular device. For instance, being able to try a game before downloading it, or indeed, avoiding the need to download at all, apply to

---

[161] See further Chapter 8 below.
[162] [✂] Internal Document.
[163] [✂] call note.
[164] See paragraph 2.27.

other end devices, not just consoles. The evidence above does not support a customer segmentation on the basis of any particular use case.

(e) Finally, as consoles age, customers accessing cloud gaming via a console may derive greater benefit from the technological advantages of cloud gaming, which could include the option of cloud as a way to avoid a console upgrade. In particular those customers might well decide not to spend a significant sum of money on a new console and so only consider cloud options at that point.

5.94 On the supply side, cloud gaming services are very different from console gaming. To offer cloud gaming services, a provider needs access to cloud infrastructure that is capable of running high performance games and offering a low-latency gaming experience. Console gaming, by contrast, requires the manufacture, distribution, and ongoing support of physical devices.

5.95 Certain internal documents from Microsoft show that [✂].[165] These documents are discussed in more detail in Chapter 8. Microsoft gaming's CEO publicly stated in 2020 that it sees Amazon and Google as its main competitors in gaming going forward, rather than the traditional gaming companies SIE and Nintendo which are not well positioned for cloud gaming.[166] In our view, this suggests that Microsoft considers cloud gaming as distinct to console gaming (and that it expects cloud gaming to be more important, which is covered in more detail in the 'future development of cloud gaming' section).

5.96 Similarly, internal documents from another competitor [✂], discuss cloud gaming separately from console.[167]

5.97 As the market is still developing, and our assessment is forward looking, we do not have real world evidence of consumer diversion in response to a change in price or quality. However, in our view, the above evidence suggests customers are likely to have specific reasons for choosing to cloud game (including not being tied to a particular piece of hardware), Microsoft and other cloud gaming service providers monitor cloud gaming competitors separately from console competitors, and on the supply side the required inputs to compete are very different. Therefore, while we expect at least some

---

[165] For example, see Microsoft Internal Document; Microsoft Internal Document; Microsoft Internal Document; Microsoft Internal Document; and Microsoft Internal Document.
[166] 'Games Industry.biz - "We see Amazon and Google as the main competitors"', accessed by the CMA on 30 January 2023.
[167] [✂] Internal Document; and [✂] Internal Document.

constraint from console and PC, we find that cloud gaming services should be considered as a distinct market to console and PC.

Other considerations in the supply of cloud gaming services

5.98 As described above, we have found that, when it comes to gaming hardware, mobile devices are in a different market to consoles, partly because of technical differences and the comparative limitations of mobile devices. Similarly, we do not think that firms that are solely focused on bringing mobile-quality games to cloud are a meaningful constraint on cloud gaming services that provide console-quality and/or gaming PC-quality games (high-performance games). Throughout this Final Report, where we refer to high-performance games, we mean games that would not typically run natively on mobile. From the evidence we have reviewed in Chapter 8, we consider that these games are the focus of competition within cloud gaming services, and are therefore the focus of our competitive assessment.

5.99 As the market is still developing, cloud gaming service providers are testing a range of different business models to monetise their service. Different services monetise their gaming content in different ways, including (i) the traditional B2P model, whereby users must purchase a game through the cloud provider's storefront in order to play it (eg, Google Stadia),[168] (ii) BYOG model, whereby users pay a regular subscription fee for access to cloud gaming servers and can play games bought in third-party storefronts (eg, NVIDIA GeForce Now (**NVIDIA GFN**)), (iii) free-to-play offerings paid through advertising revenue and in-game purchases, and (iv) MGS services, whereby users pay a subscription fee for access to gaming servers and a catalogue of games through the cloud provider's storefront (eg, Amazon Luna and Xbox Game Pass Ultimate). As with consoles, we consider it appropriate to treat cloud gaming services and their associated game distribution as part of the same product market, and consider these collectively in the competitive assessment.

5.100 The evidence we have reviewed shows that these business models are not fixed, and that cloud gaming service providers are open to exploring different ways of monetising their services, and a single participant may have more than one way of monetising content. For example, Amazon has implemented a B2P and BYOG option in Luna for Ubisoft games, [✂].[169] An internal document from Microsoft [✂].[170]

---

[168] This service was shut down in January 2023.
[169] 'Amazon Luna Ubisoft Store', accessed by the CMA 17 January 2022; and [✂] call note.
[170] Microsoft Internal Document.

5.101 As noted above, given the market is still developing, we also do not have real world evidence of consumer diversion between different options. However, we would expect the evidence on diversion and segmentation between B2P and MGS on console presented above to apply to cloud gaming too, given the point about cannibalising sales holds for cloud gaming too, with the additional option of BYOG—which in practice is similar to B2P for the customer, although with the flexibility to use the game across compatible platforms–not changing that assessment.

5.102 We therefore consider it appropriate to assess the impact of the Merger within a product market for cloud gaming services that includes all business models (including B2P, BYOG and MGS). We have however taken the differences between these business models into account in our competitive assessment, including our assessment of the relevant counterfactual, which is discussed further in Chapter 8.

Geographic market definition: supply of cloud gaming services

Parties' views

5.103 The Parties submitted the market for cloud gaming services is worldwide.[171]

Our assessment

5.104 Customers can only use cloud gaming services that are available in the country in which they are located, as providers can typically restrict usage based on IP address.[172] There are currently substantial differences in the availability of services across countries, for example:

(a) Amazon Luna is currently only available in the US, Canada, Germany and the UK, having launched in the UK very recently.[173]

(b) NVIDIA GFN is available only in selected countries, excluding for example China and India.[174][175]

---

[171] Parties FMN.
[172] For instance, Amazon's terms of service for Luna note that 'Amazon will use technologies to verify your geographic location. You may not use any technology or technique to obscure or disguise your location.' Amazon Luna Terms of Use, accessed by the CMA on 3 April 2023. In addition, GFN uses 'Alliance Partners' in some countries, where customers sign up directly with the Alliance Partner in the given country.
[173] Amazon Luna accessed by the CMA on 3 April 2023.
[174] 'NVIDIA GeForce Now supported locations', accessed by the CMA on 26 January 2023.
[175] For instance, NVIDIA GFN notes 'Not all membership plans or promotions may be available in your location or language' GeForce Now Membership Terms, accessed by the CMA on 10 April 2023.

(c) xCloud is only available in selected countries, excluding for example China, India, and Indonesia.[176]

5.105 Whilst we might expect these differences in availability to reduce over time as services are expanded to more countries, providers may still price differentiate based on customer location, since customers are unable to easily switch to cloud gaming services operating in other countries if the price of the UK service increases.

5.106 In addition, on the supply side, to provide a low latency gaming experience a cloud gaming service provider must have servers located in a data centre close to the consumer.[177] This creates a barrier to expanding to new geographies as a provider must first invest in or gain access to national or regional data centres.

5.107 Providers, however, are multi-national. The content available on different services is generally the same across countries, and the cloud infrastructure technology used is also generally the same, subject to being rolled out to regional data centres.

5.108 As such, while recognising that there are multi-national features to this market, there is also evidence of regional and national variations in supply and demand. We therefore consider it is appropriate to assess the impact of the Merger in the market for cloud gaming services in the UK, but taking account of the multi-national aspects of competition where relevant. We consider much of the evidence available which is not limited to the UK is highly relevant to our assessment, in part because (i) some business decisions are taken at a global level and (ii) understanding global trends and developments may help to inform how we expect the market to develop in the UK. We also do not consider our competitive assessment or conclusions would materially change if we were to consider a wider geographic frame of reference (ie regional or global). For example, foreclosure strategies may be implemented on a multi-national or global level, and we take this into consideration where appropriate.

The supply of game publishing services

5.109 Game development refers to the creation of a game (including the design, art, programming and testing), using software development tools (including software development kits (**SDKs**) and 'game engines'). Game publishing

---

[176] 'Game Pass supported countries/regions', accessed by the CMA on 26 January 2023.
[177] For example, providers are likely to require servers in a UK or Western European data centre to provide cloud gaming in the UK.

refers to subsequently making available a game to the public, for sale or free of charge. For the purposes of this Final Report, and in line with the Parties' submissions, we have considered development and publishing activities jointly (under the single term, publishing).[178]

5.110 The Parties are both active in the publishing of games for PCs, consoles, and mobile devices.[179]

Product market definition: supply of game publishing services

5.111 In this section, we consider the product market for game publishing services. There is a wide variety in the types of games that are published, with significant differences between them, including based on the device on which they are published and their content/target audiences. In this section, we therefore assess whether game publishing should be segmented into markets by device types (ie PC, consoles and mobile) and/or by game genre.

Product market definition by device type

5.112 First, we consider whether games published on mobiles, PCs and consoles should be included in the same product market.

- *Parties' views*

5.113 The Parties submitted that the CMA should consider an overall market for game publishing.

5.114 The Parties submitted that there are differences between PC/console games and native mobile games.[180] They explained that technical differences between mobile and PCs/consoles lead to the development of different gaming content in each. The Parties explained that PC/console games tend to be more complex and narrative-driven than native mobile games and, therefore, cater to different audiences.[181]

5.115 The Parties also submitted that the distinction between PC and console games has blurred as game publishers are increasingly launching games for both PCs and consoles. The Parties explained that this trend has been reinforced by the launch of next generation consoles that are becoming similar to PCs, and by the emergence of **cross-play** and **cross-progression**

[178] Parties FMN.
[179] Parties FMN.
[180] Parties FMN.
[181] Parties FMN.

(ie the ability to save game progress on one device and access it on another device) which enables gamers to play across devices.[182]

- *Our assessment*

5.116 We have assessed whether game publishing should be segmented by the type of device on which the game is published.

5.117 **Mobile vs PC/consoles:** Third party evidence supports the view that there are material differences between publishing games on mobile devices relative to PCs/consoles, due to their technical differentiation, differentiated monetisation models and type of games:

(a) One third party [✂] stated that mobile devices have physical limitations in terms of power, battery life, screen size, etc. As such, mobile games are generally lower quality, simple in design and concept, and frequently played to kill time, eg while commuting. The third party explained that mobile games tend to be free-to-play, with revenues driven almost exclusively by in-app purchases.[183] The competitor [✂] noted that most third parties put their content on PCs and consoles, but that mobile content is further removed from PC and console content.[184]

(b) A publisher [✂] stated that some of its games are available across all platforms except mobile due to the level of porting and optimisation required.[185]

(c) Another publisher [✂] stated that even if the technology to play console titles on mobile does become available, the mechanics required to play a game on console may not translate well to a mobile screen.[186]

5.118 The Parties' internal documents also support the view that there is relatively low substitutability from the publishers' side between mobile and PCs/consoles. For example, one Microsoft document notes that [✂].[187] An Activision strategy document noted that publishing companies are [✂] between PC/console and mobile.[188] Another Activision document noted that

[182] Parties FMN.
[183] [✂] response to the CMA's RFI.
[184] [✂] call note.
[185] [✂] call note.
[186] [✂] call note.
[187] Microsoft Internal Document.
[188] Activision Internal Document.

games such as [✂] and [✂] either chose not to pursue a cross-platform game that include mobiles due to [✂] and for [✂]; or chose to [✂].[189]

5.119 From a demand side perspective, evidence from the Parties' internal documents indicated that the target audiences for mobile are different to consoles and PC games. One Activision internal document highlighted that by [✂], Activision has been able [✂].[190] Another Activision internal document notes that only approximately [✂]% of [✂], and points to the differences in [✂] as an area for investigation.[191] One Microsoft internal document looks at [✂].[192] An Activision document looks at [✂], finding that they differ in areas such as the length of playtime and preferred type of gameplay.[193]

5.120 **PCs vs consoles:** Third party views similarly also indicated that there are hardware and software differences between PCs and consoles which limits their ability to publish games on both PC and consoles without additional cost and effort:

(a) A number of third parties told the CMA that they require SDKs from console original equipment manufacturers to publish games on console, which is not required for publishing PC games.[194]

(b) One third party explained that one console has hardware limitations that other consoles and PCs do not, which can present difficulties in publishing PC games on that console.[195]

5.121 We note that many games, including the Parties', are often published on only one form of hardware (for example, Activision's WoW games are only playable online on PCs, and have not been released on the latest generation consoles).[196]

5.122 As discussed above, internal documents and third-party reports submitted by the Parties also consider mobile, PC and console gaming separately in their discussion of competitive landscapes in publishing.[197] However, some third-party reports discuss the increasing similarity between PCs and the latest generation of consoles; for example, one report noted that trends in cross-play and cross progression will eventually lead to consolidation as consumers

---

[189] Activision Internal Document.
[190] Activision Internal Document.
[191] Activision Internal Document.
[192] Microsoft Internal Document.
[193] Activision Internal Document.
[194] [✂] call note; and [✂] response to the CMA questionnaire.
[195] [✂] call note.
[196] Parties FMN.
[197] Microsoft Internal Document; Microsoft Internal Document; Microsoft Internal Document; Microsoft Internal Document; and Microsoft Internal Document.

[✂].[198] We note that this overlaps with the developments in cloud, ie over time gaming could become more device agnostic (at least for devices capable of running high-performance games), such that over the longer term we can expect these high-performance games for PC and console to increasingly overlap.

5.123 Finally, we note that (i) Microsoft's stated rationale for the Merger is in part to improve its presence and expertise in mobile gaming; and (ii) the Parties' shares of supply vary between publishing games for each of PCs, consoles, and mobile devices, with the competitor sets varying between category of gaming hardware too.[199] We consider this further supports a conclusion of different markets by device type.

- *Conclusion on segmentation by device type*

5.124 Based on the above, we consider that there are differences between games published on PC, console and mobile, and that it is appropriate to treat them as separate game publishing markets for our analysis of the Merger. We also note that over the longer term there is evidence that PC and console games may become increasingly substitutable, especially with the increased relevance of cloud gaming that may impact preferred game development formats in future. We will consider any constraint from PC games or console games where relevant in the competitive assessment, and consider the expansion and entry of games more generally in Chapter 9 on countervailing factors.

Product market definition by genre

5.125 In this section, we assess whether it is appropriate to consider separate markets by genre within game publishing.

- *Parties' views*

5.126 In relation to segmenting the market by game genre, the Parties submitted that, whilst games are sometimes categorised by reference to their genre (eg role-playing games, shooters, puzzle games, etc), there is no need to further segment on that basis as many games combine aspects of multiple genres, and gamers generally just play whatever game they like best, irrespective of what genre that game may be.[200]

---

[198] Microsoft Internal Document.
[199] Parties FMN.
[200] Parties FMN.

5.127 Microsoft further submitted that Xbox telemetry data shows that gamers play multiple genres: [✂]% of gamers play three or more genres and [✂]% of gametime on Xbox was accounted for by gamers playing at least three different genres.[201] Microsoft also submitted that evidence from actual gamer behaviour on Xbox also shows that gamers switch between genres in response to new releases.[202]

- *Our assessment*

5.128 Games are generally classified, discussed and listed for sale in digital storefronts by reference to their 'genre', which can include action, adventure, role-playing games, shooter, sport, strategy, etc. Some of these genres can be further segmented into sub-genres—for example, shooter games can be further classified into first-person shooters, third-person shooters, etc. We also note that some games can belong to multiple genres.

5.129 As context, we note that two of Activision's main games on console, CoD and Overwatch, belong to the shooter genre. The shooter genre constitutes a significant share of the publishing market, particularly on consoles. Evidence from the Parties shows that shooters account for [✂] of publishing revenues across all platforms.[203] Evidence submitted by third parties also indicates that shooter is an important game category on consoles. For example, data from [✂] indicates that shooters constituted [✂]% of PlayStation's revenue and 40% of PlayStation's playtime globally.[204] [✂] also submitted that in 2021, 'first person shooter' games represented[✂]% of gameplay hours amongst PlayStation's top 100 titles.[205]

5.130 The Parties' internal documents indicate that the Parties categorise, distinguish, and compare games from different publishers according to genre. For example, a third-party report submitted by Microsoft analyses trends and market shares in the game publishing market by genres, within different geographies.[206] The Parties also advertise games by genre in their digital storefronts.[207]

5.131 Some third parties explained that certain game genres (such as shooter games) compete more closely with each other than with games from different

---

[201] Microsoft response to working papers.
[202] Microsoft response to working papers.
[203] Parties Internal Document.
[204] [✂] Internal Document; and [✂] Internal Document.
[205] [✂], submission to the CMA.
[206] Microsoft Internal Document.
[207] See 'Xbox Games Catalog', accessed by the CMA on 24 August 2022; and 'Battle.net', accessed by the CMA on 10 January 2022.

genres.[208] Specifically in relation to the shooter genre and CoD, [✂] publishers that responded with CoD's closest competitors listed other shooter games such as EA's Battlefield.[209] Publishers also listed: Halo, Overwatch, Apex Legends, Rainbow 6 Siege, Far Cry, Destiny, PlayerUnknown's Battlegrounds (**PUBG**) and Hell Let Loose.

5.132 In relation to the shooter genre, various Activision internal documents list and track [✂] as competitive constraints to CoD (and Overwatch), including comparing [✂].[210] The main competitors tracked include [✂].

(a) In particular, multiple documents track [✂] as a close competitor to CoD.[211] For example, one Activision email chain refers to a competitor analysis produced by Activision's EMEA insights team: it compares the performance of [✂] to the one of 'Call of Duty Vanguard' in the first week after its launch since CoD is a 'competitor'.[212]

(b) Various Activision documents also track [✂] closely as a competitor to CoD,[213] including comparing the effect on engagement on CoD during a [✂].[214]

(c) Other documents also analyse the impact of [✂] on CoD.[215]

5.133 In addition to the Activision documents listed above, one internal Microsoft presentation analyses the impact of the introduction of [✂] in the market on gameplay time and spending on [✂]; and notes that [✂].[216]

5.134 On the other hand, we received evidence suggesting that the importance of genre as a means of segmenting games has decreased in recent years. One third party publisher [✂] stated that popular games have adopted elements of multiple genres, and games often compete across genres for the attention of gamers.[217] Other third party publishers [✂] stated that factors beyond genre may lead to titles competing closely, such as the quality of the franchise,

---

[208] For example, see [✂], submission to the CMA; and [✂] call note.
[209] [✂] response to the CMA's RFI; and [✂] response to the CMA's RFI.
[210] See for example, Activision Internal Document.
[211] See for example, Activision Internal Document; Activision Internal Document.
[212] Activision Internal Document.
[213] Activision Internal Document; Activision Internal Document; and Activision Internal Document.
[214] Activision Internal Document.
[215] Activision Internal Documents; Activision Internal Document; Activision Internal Document; and Activision Internal Document.
[216] Microsoft Internal Document. [✂].
[217] [✂] call note.

release date or quality of the gaming franchise (leading to its overall popularity).[218]

5.135 Third parties' internal documents suggest that CoD's closest competitors are titles of other large franchises across genres, along with shooters. For example, one third party console gaming service competitor's [✂] internal document from February 2022 compared CoD's total gameplay hours per title on the competitor's two most recent console generations with other titles like Fortnite, FIFA, Apex Legends and GTA V (out of which Fortnite and Apex Legends are shooters).[219]

5.136 Activision's internal documents also indicate that it monitors titles that release in the same [✂], rather than by genre. One Activision internal document analyses specific [✂].[220] Another Activision internal document analyses CoD Vanguard's competitors in its launch window. The document states that [✂] was the top competitor in the launch window, with [✂] the top competitors in the shooter genre [✂]. The document later states that outside of [✂] are CoD Vanguard's top competitors for overall share of gameplay time.[221]

- *Conclusion on segmentation by genre*

5.137 Based on the above evidence, we consider that games compete most strongly with other games within the same genre; however, they also compete with games outside the genre (particularly if they are large multi-player franchises with gameplay elements and social aspects similar to other large multi-player franchises in other genres).

5.138 In addition, we note that defining genres, and whether or not a game belongs to a particular genre, can be difficult and somewhat arbitrary, and also subject to change over time (eg games can belong to multiple genres, and games are sometimes classified under different genres by different publishers/platforms).

5.139 We therefore consider it is appropriate to assess the impact of the Merger in the overall game publishing market, rather than defining separate markets by genre. However, given the strong evidence above on the extent to which there is similarity within genres, and differentiation across them, we consider any relevant differences regarding competitive constraints within genres in our competitive assessment. In particular, we consider the particular competitive conditions within the shooter segment in our competitive assessment.

---

[218] [✂] call note; and [✂] call note.
[219] [✂] Internal Document.
[220] Activision Internal Document.
[221] Activision Internal Document.

Geographic market definition: supply of game publishing services

Parties' views

5.140 The Parties submitted that they consider the relevant geographic market for game publishing to be worldwide. They stated that this is supported by the fact that many publishers typically produce one version of a video game for distribution worldwide (subject to possible localizations), without significant price differences.[222]

Our assessment

5.141 The demand for game publishing services for both PC and console is both from the distributors of the game (direct) and the end-gamers (indirect, for example because game publishers, particularly on console, have a certain degree of control in suggesting the retail price).

5.142 From a demand-side perspective of the distributor, we note that contracts are generally negotiated and agreed upon globally.

5.143 From a demand-side perspective of the consumer, we note that there do not seem to be significant differences in price across jurisdictions (though there are some variations based on exchange rates, VAT and other taxes applicable different regions).[223]

5.144 However, evidence also points to some regional variations across games, especially on PC:

(a) Market shares in publishing vary significantly by geography, indicating that there are likely regional variations in consumer demand. Some games (such as League of Legends, Genshin Impact, and Crossfire) are significantly more popular in Asian countries than in the UK. For example, one Microsoft internal document contains the top genres for PC gaming by hours played split by region [✂].[224] [✂][225], [✂].

(b) Games are not always released at the same time across all countries (or at all). There are also differential requirements in some countries in

[222] Parties FMN.
[223] See for example, Steam All Region Price Checker (steamregionalprices.com), accessed by the CMA on 3 February 2023.
[224] Microsoft Internal Document.
[225] We note that the document indicates that Chinese data may be less reliable due to the high level of regional localization of titles, however we believe that it is still broadly representative of preferences.

relation to age restrictions, depiction of violence, etc which require games to be tailored accordingly.

(c) Matching of gamers in multiplayer games places a degree of weight on players' relative locations when forming a lobby, because geographical proximity both to the hosting server and to other players is an important determinant of the latency experienced by gamers when playing a match.[226]

5.145 As such, our view is that it is appropriate to assess the effects of the Merger on the supply of console game publishing and PC game publishing services globally, while taking account of any regional or UK-specific differences where relevant in the competitive assessment. In any event, we consider that our competitive assessment and its conclusions would not materially change if we were to consider a narrower geographic frame of reference (eg UK or EEA countries).

[226] Activision response to the CMA's RFI.

6. Counterfactual

Framework for assessment of the counterfactual

6.1 The counterfactual is an analytical tool used to help answer the question of whether a merger gives rise to an SLC.[227] It does this by providing the basis for a comparison of the competitive situation with the merger against the competitive situation absent the merger.[228]

6.2 The counterfactual is not, however, intended to be a detailed description of those conditions of competition that would have prevailed absent the merger.[229] The CMA's assessment of those conditions is better considered in the competitive assessment.[230] The CMA also seeks to avoid predicting the precise details or circumstances that would have arisen absent the merger.[231]

6.3 At phase 2, the CMA will select the most likely conditions of competition as its counterfactual against which to assess the merger.[232] For anticipated mergers, the counterfactual may consist of the prevailing conditions of competition, or conditions of competition that involve stronger or weaker competition between the merger firms than under the prevailing conditions of competition.[233]

6.4 In its assessment of the counterfactual, the CMA may need to consider multiple possible scenarios, before identifying the relevant counterfactual.[234] As part of this assessment, the CMA will take into account whether any of the possible scenarios make a significant difference to the conditions of competition,[235] and if they do, the CMA will ultimately select the most likely conditions of competition absent the merger as the relevant counterfactual.[236] Counterfactual assessments will often focus on significant changes affecting competition between merger firms, such as entry into new markets in competition with each other, significant expansion by the merger firms in markets where they are both present, or, exit by one of the merger firms.[237]

6.5 We may examine several possible scenarios to determine the appropriate counterfactual, one of which may be the continuation of the prevailing

---

[227] CMA129, paragraph 3.1.
[228] CMA129, paragraph 3.1.
[229] CMA129, paragraph 3.7.
[230] CMA129, paragraph 3.7.
[231] CMA129, paragraph 3.11.
[232] CMA129, paragraph 3.13.
[233] CMA129, paragraph 3.2.
[234] CMA129, paragraph 3.13.
[235] CMA129, paragraph 3.13.
[236] CMA129, paragraph 3.13.
[237] CMA129, paragraph 3.8.

conditions of competition. An example of a situation where the CMA may select a counterfactual different from the prevailing conditions of competition is where the target is likely to exit the market absent the transaction under review. Another scenario in which the CMA may consider an alternative counterfactual to the prevailing conditions of competition is where one of the merging parties would have entered or materially expanded its presence in a market absent the transaction.

6.6 Further, the time horizon considered by the CMA in its assessment of the counterfactual will depend on the context and will be consistent with the time horizon used in the competitive assessment.[238]

The Parties' submissions on the relevant counterfactual

6.7 The Parties submitted that the relevant counterfactual against which to assess the Merger is the prevailing conditions of competition. They submitted that: (i) there are no competing bids or parallel transactions; (ii) neither Party can be considered a failing firm; and (iii) the Merger does not result in the loss of a potential entrant that would make a material difference to the competitive assessment.[239]

6.8 Microsoft submitted that there is no counterfactual available in which Activision content (specifically CoD) would be widely available via multiple subscription services.[240] It told us that Activision currently only makes limited back-catalogue titles available on subscription, and only on a limited time-period basis.[241] Microsoft submitted that Activision has never published newer content on multi-game subscription services and has no intention to do so in the future,[242] which it submitted is reflected in statements made by Activision's senior leadership and in internal documents.[243]

6.9 Microsoft also noted Activision's existing agreements with SIE, [✂]. Microsoft submitted that [✂] SIE. [244]

6.10 The Parties also submitted that Activision games would not have been available to cloud gaming services absent the Merger.[245]

---

[238] CMA129, paragraph 3.15.
[239] Parties FMN.
[240] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.39.
[241] Microsoft response to the phase 1 decision, 11 October 2022, paragraph 4.12.
[242] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.35.
[243] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.36-4.37.
[244] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.38.
[245] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 1.16. See also Activision response to the Provisional findings, 2 March 2023.

Our assessment

6.11 In making our counterfactual assessment, we do not seek to ossify the market at a particular point in time.[246] Our assessment can reflect that, absent the merger, a merger firm would have continued making investments in improvements, innovations or new products.[247]

6.12 We agree with the Parties' view that the prevailing conditions of competition is the correct framework under which to assess the Merger. The Parties both operate in dynamic markets which are growing and evolving quickly, and in which competition revolves around bringing new and innovative products to market (see Chapter 4, Industry Background). On this basis, we consider the prevailing conditions of competition in this Merger include changes or developments in strategy to reflect changing market dynamics, and innovations, including the continued growth and development of multi-game subscription and cloud gaming services.

6.13 We are of the view that the assessment of the likelihood of Activision's content becoming available on MGS services or cloud gaming services is best carried out within the competitive assessment. For the reasons set out in our competitive assessment, we consider that absent the Merger, in the foreseeable future, Activision 'day and date' content would become available on cloud gaming services, but not on MGS services on gaming consoles, at least for Activision's most valuable games. However, we consider that Activision would likely place increasingly valuable parts of its gaming catalogue on MGS services as these services continue to grow.

[246] CMA129, paragraph 3.3.
[247] CMA129, paragraph 3.3.

7. Theory of harm 1: Vertical effects in console gaming

Introduction

7.1 This chapter analyses the Merger's effects on competition in the supply of console gaming services (ie their hardware, associated digital storefronts and subscription services) arising from input foreclosure.

7.2 Microsoft currently competes in the supply of console gaming services via its Xbox, and Activision provides inputs to Microsoft and other console providers in the form of videogames, including CoD.

7.3 The concern under this input foreclosure theory of harm is that the Merger may lead to the Merged Entity using CoD and other Activision content to foreclose rival providers of console gaming services (which we refer to as 'gaming consoles' in this Final Report). Specifically, we consider whether Microsoft could harm its rivals' competitiveness by ceasing to supply CoD and other Activision content (total foreclosure), or by worsening the terms or quality of the content provided to rivals (partial foreclosure).

7.4 This chapter is structured as follows. First, we assess the competitive landscape in the market for console gaming services. Second, we assess the possibility of Activision's content being available on gaming consoles' MGS services. Third, we present our framework for the assessment of this theory of harm. Fourth, we assess the Merged Entity's ability and incentive to implement a foreclosure strategy, and the effect that this would have on competition in the supply of console gaming services.

7.5 For the reasons set out below, our conclusion is that the Merged Entity has the ability to foreclose downstream console gaming rivals, particularly PlayStation. However, we found that the Merged Entity would not have the incentive to do so.

Competitive landscape in console gaming services

Introduction

7.6 Before considering the vertical foreclosure framework and assessment, we provide an overview of the competitive landscape of the console gaming services market.

7.7 In this section, we consider:

(a) Features of the market that are relevant to our assessment (network effects and multi-homing).

(b) Shares of supply in console gaming services, ie looking at gaming hardware, distribution and subscription services.

(c) The closeness of competition between Xbox, PlayStation and Nintendo's consoles.

Features of the console gaming market

Network effects

7.8 Gaming platforms are two-sided, with users on one side and content providers on the other. Two-sided markets are often characterised by network effects, where the value of the product for customers on one side of the platform depends on the volume of users either on the same side (direct network effects) or on the other side (indirect network effects).[248]

7.9 Network effects in gaming can be direct and indirect:

(a) Direct network effects are likely to arise particularly in multiplayer games, where users like playing the same game with their friends (at the same time), and where players get 'matched' with other players more effectively as the number of players on the platform increases. This often requires having the same manufacturer's consoles (except for games that allow cross-play across different consoles). As such, an increase in the number of users that play a game in a particular platform would increase the attractiveness of that game and platform, thereby drawing additional users.

(b) Indirect network effects arise because game publishers are more likely to develop content for a platform with a significant user base and, in turn, a strong content library attracts more users to the platform.

7.10 In this section, we assess whether evidence supports the existence of such direct and indirect network effects at game and platform level. This is important because (i) the existence of direct network effects amplifies the effect of any foreclosure strategy, with a greater number of users switching away to continue playing the same game with their friends, and (ii) indirect network effects incentivise publishers to focus their efforts on making games

[248] CMA129, paragraph 4.22.

for platforms with a significant user base (which in turn attracts more customers to that platform).

Parties' views

7.11 In relation to direct network effects, Microsoft explained that gamers like to be on the same platform as their friends to play multiplayer games.[249] It also submitted that gamers may benefit from a broad gamer base with multiplayer games on account of better 'matchmaking' across players when there is a larger pool of players available to be matched. Microsoft stated that this therefore implies that direct network effects operate primarily at the game level rather than at a platform level.[250]

7.12 Microsoft further submitted that direct network effects are too weak for Microsoft to foreclose rival consoles because (i) gamers make console decisions based on the utility they derive from the library of games on a console rather than a single game (and therefore network effects on one game cannot foreclose rival consoles); (ii) the co-existence of Nintendo, PlayStation and Xbox over the past 20 years does not support the existence of strong network effects; and (iii) more multiplayer games can be played online across devices, due to cross-play functionality.[251] Microsoft submitted that an increasing number of games have cross-play functionality, which means that network effects operate at the market level (rather than the platform level) and publishers have an increased incentive to publish on multiple consoles.[252] Evidence submitted by Microsoft showed that the gametime share of Xbox's top 20 games with cross-play available as an option was [✂] in 2021, up from [✂] in 2020.[253]

7.13 In terms of indirect network effects, Microsoft explained that game publishers are more likely to develop content for a platform with a significant user base and that, in turn, a strong content library attracts more users to a platform.[254] Microsoft also submitted that evidence from the past 20 years has shown that indirect network effects in the gaming industry are too weak to foreclose rivals because (i) SIE, despite having 'double the user base of Microsoft', has not been able to foreclose Microsoft or stop it from attracting content from

[249] Microsoft response to the phase 1 Issues Letter.
[250] Microsoft response to theory of harm (TOH) 1 working papers.
[251] Microsoft response to TOH 1 working papers.
[252] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.56(d).
[253] Microsoft response to TOH 1 working papers.
[254] Microsoft response to the phase 1 Issues Letter.

publishers, and (ii) publishers multi-home across platforms, which is consistent with weak indirect network effects.[255]

7.14 In respect of Microsoft's argument that the continued co-existence of Nintendo, PlayStation and Xbox does not support the existence of strong network effects, we consider that network effects can be strong even in a scenario where they are not sufficiently strong to have caused a market to 'tip' to a single supplier. We acknowledge that cross-play can, in principle, dampen network effects at the console level, and the extent to which this will be the case will tend to be reflected in the evidence we consider in our assessment below. The following sections set out our assessment of the evidence on the strength of network effects, which includes third parties' views and internal documents.

Our assessment

- *Third parties' views*

7.15 Third parties have noted the existence of direct and indirect network effects in gaming, with direct network effects being particularly strong for large multi-player social franchises such as CoD:

(a) A third party gaming console supplier [✂] submitted to the CMA that network effects are a prominent feature in console video gaming and are directly related to the user base and number of content providers. The supplier stated that this therefore would magnify the impact of any action that led to a change in sales, as it would have wider effects beyond the impact on direct sales. It described both direct and indirect network effects as being prevalent in gaming.[256]

(b) A cloud gaming provider [✂] explained that leading AAA games had multiplayer functionality and had become social media platforms. As a result, established AAA games benefited from significant network effects, which raised barriers to entry for new games and developers.[257] It also stated that, as gamers play games with their friends, they created something akin to a social network devoted to specific games, which they said created large switching costs when transitioning to other games, even in the same genre. These switching costs could result in franchises

[255] Microsoft response to TOH 1 working papers.
[256] [✂] response to the CMA's RFI.
[257] [✂] response to the CMA questionnaire.

being popular for years, as gamers are so deeply invested in terms of time, money and friends.[258]

(c) The PC storefront Steam announced that it changed its revenue share structure to reward the positive network effects that developers of large games create, stating that successful games and their large audiences had a material impact on those network effects.[259]

7.16 We note that some of the evidence above is not directly related to consoles and comes from rivals in cloud gaming and PC storefronts. However, we consider that network effects, particularly at the game-level, work similarly across different gaming platforms.

7.17 We consider other evidence relevant to assessing the strength of direct and indirect network effects in gaming below, such as (i) the costs of making a game available on multiple consoles; (ii) the prevalence of cross-play and cross-progression; and (iii) the views of publishers regarding making games exclusive to one platform. These factors determine the stickiness of gamers and/or publishers to consoles, in turn affecting the strength of network effects.

7.18 Third parties noted that the costs of developing a game for different consoles or porting a game across consoles were not too high. One publisher [✂] stated that developing games for different consoles requires the use of different software development kits, but this does not result in a material increase in development difficulty, time or costs.[260] Another publisher [✂] stated that there are minor hardware differences between PlayStation and Xbox, such as GPU and driver speeds, which require work to account for the hardware differences. However, the publisher also noted that in general, the game development platforms for PlayStation and Xbox are similar (eg both use C++ coding language).[261] Another publisher [✂] noted that tools like the Unreal Engine empower developers to create games that work on multiple platforms including PC and consoles.[262]

7.19 In relation to the prevalence of cross-play and cross-progression, nearly all publishers that responded to our phase 2 questionnaire stated that there was

---

[258] [✂] response to the CMA questionnaire.
[259] 'New Revenue Share Tiers and other updates to the Steam Distribution Agreement (steamcommunity.com)', accessed by the CMA on 13 December 2022.
[260] [✂] response to the CMA's RFI.
[261] [✂] response to the CMA's s109 notice.
[262] [✂] response to the CMA's RFI.

an increase in the prevalence of cross-play and cross-progression, particularly in multi-player games like CoD.[263]

7.20 Further, publishers stated that they would in general not be in favour of making games exclusive to a platform, unless there were strong commercial or strategic incentives to do so. For example, all of the third party publishers that we have obtained evidence from noted that making a game exclusive to a platform prevents publishers from reaching a large part of players, who are on other formats/hardware, therefore forgoing a part of potential revenues.[264] One publisher [✂] noted that exclusivity to a console platform favours certain players and upsets others, which can be risky in terms of community management and/or public relations given the current installed base for each console.[265]

7.21 However, various publishers also stated that they have made games either fully or partially exclusive to a certain platform for commercial or strategic reasons. These included obtaining access to the first-party IP of a particular platform and/or increasing interest in a particular game from users of a platform.[266] For example, two publishers [✂] and [✂] stated that platform exclusivity can aid in gaining deeper market penetration on a given platform.[267]

- *Evidence from the Parties' internal documents*

7.22 Various internal documents of the Parties note that direct network effects are prevalent in gaming and are associated with both (i) ecosystems/platforms that facilitate gaming and (ii) large social multiplayer games like CoD.

7.23 In relation to direct network effects at the platform-level:

(a) One Microsoft internal document from September 2020 looks at platform network effects on Xbox. A regression analysis using Xbox data shows [✂].[268]

(b) Another Microsoft internal document from June 2022 states that [✂].[269]

---

[263] [✂] response to the CMA's RFI; [✂] response to the CMA's RFI; [✂] response to the CMA's RFI; and [✂] response to the CMA's RFI.
[264] [✂] responses to the CMA's RFI.
[265] [✂] response to the CMA's RFI.
[266] [✂] response to the CMA's RFI; and [✂] response to the CMA's RFI.
[267] [✂] response to the CMA's RFI; and [✂] response to the CMA's RFI.
[268] Microsoft Internal Document.
[269] Microsoft Internal Document.

(c) A Microsoft internal document from April 2020 containing a review of Microsoft's strategy states that [✂].[270]

7.24 In relation to direct network effects at the game-level:

(a) An Activision internal document providing an overview of the game streaming industry states that multiplayer games have [✂]. The document explains that [✂] as the gaming audience widens.[271]

(b) An Activision presentation notes that 'while the concept of enduring, multi-decade franchises has long been seen across media and entertainment, gaming franchises enjoy attributes that are unique to the sector'. These include [✂].[272] Activision submitted that this document was a deck prepared by Activision to share with [✂]. Activision also explained that the purpose of this particular slide was to explain how consumer interest in video game franchises is [✂].[273]

(c) Another Activision document discussing industry trends notes that 'top performing games are [✂]. The biggest franchises [✂] are massively accessible, deeply social and engaging (often linked to real-world pop culture), [✂]'. The document also noted that [✂]. The document further notes that consumers are increasingly demanding an [✂].[274]

7.25 We note the Parties' submission that some of the internal documents referred to above are consistent with network effects occurring at the market/game (rather than the platform) level and were drafted prior to [✂] cross-play games [✂].[275] However, we note that (i) more recent documents discuss the existence of strong network effects at the platform level; and (ii) the prevalence of cross-play has increased, but not to the extent of eliminating platform-level network effects.

7.26 Microsoft's internal documents also discuss the presence of indirect network effects in gaming, noting the presence of a virtuous cycle where more games attract more content, which in turn attracts more gamers.

(a) One Microsoft internal document, for example, explains [✂].[276]

---

[270] Microsoft Internal Document.
[271] Activision Internal Document.
[272] Activision Internal Document.
[273] Activision response to TOH 1 Ability working paper.
[274] Activision Internal Document.
[275] Microsoft, email to the CMA.
[276] Microsoft Internal Document.

(b) Another Microsoft internal document explains that Microsoft's gaming ecosystem creates [✂]. The document goes on to illustrate a flywheel that shows [✂],[277] [✂].[278]

Conclusion on network effects

7.27 The evidence presented above indicates that direct network effects are prevalent in the gaming industry at both a game-level and platform-level. There is evidence that network effects are stronger for large multiplayer social franchises like CoD, with gamers wanting to play with their network of friends.

7.28 Indirect network effects also exist, with publishers wanting to publish their games on the platform with the most users. However, the evidence shows that most publishers choose to make their games available on as many platforms as possible. It indicates the additional cost of developing a game for both Xbox and PlayStation—as opposed to developing it for a single console—is relatively low. Developments in technology (eg Unreal Engine) have reduced these costs further. Therefore, we consider that Xbox and PlayStation both have a sufficiently large user base to attract good content from game publishers. Although we cannot rule out that indirect network effects could magnify the effectiveness of a foreclosure strategy (due to publishers choosing to not make their games available on the foreclosed console, especially if any such strategy succeeds in significantly reducing a console's user base), we consider that at present indirect network effects do not represent an obstacle to attracting content for either Xbox or PlayStation.

7.29 We also found that the prevalence of cross-play has increased in recent years, based on data from the Parties and third-party evidence. In general, the increased prevalence of cross-play makes it possible to play with gamers on different consoles, along with increasing the total user base available for matchmaking (though we note that it is still possible to have differences in gameplay features and certain content while still enabling cross-play). This, in turn, reduces the strength of direct network effects at console level (but does not reduce the strength of direct network effects at game level). We discuss the impact of network effects and cross-play on incentives to foreclose in our competitive assessment.

[277] [✂].
[278] Microsoft Internal Document [✂].

Multi-homing across consoles

7.30 In this section, we consider evidence on the extent to which users own more than one type of console (multi-homing). This is important to the assessment for the following reasons:

7.31 First, the extent of multi-homing across various consoles indicates the degree to which gamers consider them to be substitutable, ie a higher level of multi-homing indicates that gamers view the consoles as complements rather than substitutes.

7.32 Second, to the extent that gamers are already multi-homing across Xbox and PlayStation, a hypothetical withholding of CoD and other Activision content from PlayStation is likely to (i) involve lower switching costs for these gamers and (ii) allow Xbox to recapture a smaller amount of the sales lost on PlayStation, which we consider in our assessment of incentives.

Parties' views

7.33 Microsoft submitted that gamers often multi-home across gaming consoles. In relation to multi-homing across the PlayStation and Xbox consoles (as well as PC), it submitted that at least [20-30%] of PlayStation 5 users also owned an Xbox Series X/S and [✂] also gamed on a PC, based on third party data for the USA procured by Microsoft from a third-party data provider (NPD). Microsoft also submitted that these metrics are as of December 2020 and are likely to have increased materially at the time of its submission (31 October 2022).[279]

Our assessment

- *Third parties' views*

7.34 In relation to multi-homing across PlayStation and Xbox, third party evidence indicated that a small proportion of PlayStation gamers also owned an Xbox.

7.35 Evidence [✂] submitted by a third party [✂] indicated that [✂].[280]

7.36 In relation to multi-homing across other consoles, third party evidence indicated that a greater proportion of users owned a Nintendo Switch along

[279] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.78.
[280] [✂] Internal Document.

with either Xbox or PlayStation, as compared to multi-homing between Xbox and PlayStation of the same generation.

7.37 Evidence [✂] submitted by a third party [✂] indicated that [✂].[281]

7.38 Survey results submitted by a third party [✂] in 2021 indicated that a high proportion of UK users of a Nintendo console ([✂]%) owned an Xbox or a PlayStation.[282]

7.39 Evidence based on third-party NPD data submitted by the Parties showed that in Q4 2020, [✂]% of PS5 owners owned an Xbox whereas [✂]% of PS5 users owned a Nintendo Switch console.[283]

- *Evidence from the CMA survey*

7.40 Our survey of a sample of PlayStation CoD gamers in the UK found that levels of multi-homing of the surveyed PlayStation CoD gamers with either Xbox or Nintendo were similar.[284] In particular, alongside a PlayStation, 15% of respondents also owned an Xbox, 18% also owned a Switch, and 13% also owned both an Xbox and a Switch. This therefore indicates that 28% of respondents owned both a PlayStation and an Xbox, whereas 31% of respondents owned a PlayStation and a Nintendo console.

7.41 We note that the above statistics do not separate out by the console generation and therefore over-estimate the extent of multi-homing within a generation. The CMA survey found that among those gamers owning both PlayStation and Xbox, 61% owned consoles of the same generation whilst the remaining 39% owned consoles only across generations.

7.42 However, most of these respondents use only one device as their main gaming console despite owning multiple devices. In particular, among those owning multiple gaming devices, 92% of them use one device almost all of the time or most of the time.

Conclusion on multi-homing across consoles

7.43 We note that different sources of evidence point to different levels of multi-homing across consoles. This may be driven by differences in the generation

---

[281] [✂] Internal Document.
[282] [✂] response to the CMA's RFI.
[283] The Parties' submission.
[284] The CMA survey refers to an online survey of a sample of SIE's UK customers conducted by DJS Research Ltd. Our sample frame included primary accounts used to play CoD between July 2021 to June 2022 for 10 hours or more and/or to have spent at least $100 in the period. Please refer to Appendix D for further detail on the CMA survey.

of console owned, timing of the survey and the size, geography and other characteristics of the underlying sample of respondents being considered. The evidence nevertheless shows that:

(a) less than 28% of PlayStation users already own an Xbox; and

(b) some evidence suggests that a greater fraction of users owns the Nintendo Switch along with either Xbox or PlayStation, as compared to multi-ownership between Xbox and PlayStation.[285]

Shares of supply in the downstream market

7.44 Shares of supply in the downstream console gaming market can provide an indication of the relative size of console manufacturers and can be used to assess the competitive constraints faced by Microsoft in the console gaming market. They can also be informative in analysing the effect of any foreclosure strategy on downstream rivals.

7.45 However, while shares of supply are a useful indicator when firms provide similar products, they are less useful if their products are differentiated. As noted by the CMA's Merger Assessment Guidelines (**MAGs**), 'the CMA may calculate concentration measures on multiple different bases, including and excluding different firms, depending on which firms the CMA wishes to compare. The CMA may then attach greater weight to concentration measures that include firms whose products are more substitutable, and less weight to concentration measures that include firms whose products are less substitutable.'[286]

Parties' views

7.46 The Parties submitted that Microsoft's sales of console hardware have lagged behind SIE's and Nintendo's on a worldwide basis over the last three years:[287]

(a) Globally, the Parties submitted that Xbox's share of console hardware in 2021 was [10-20%] by sales value.[288] They also submitted that the corresponding shares for PlayStation and Nintendo were [40-50%] and [30-40%] respectively.[289]

---

[285] Please refer to paragraphs above discussing information on multi-homing submitted by Microsoft and [✂].
[286] CMA129, paragraph 9.3.
[287] Microsoft, email to the CMA.
[288] The corresponding shares by sales volume, ie number of console units sold, were [10-20%] for Xbox, [30-40%] for PlayStation and [40-50%] for Nintendo.
[289] Microsoft, email to the CMA.

(b) In the UK, the Parties submitted that Xbox's share of console hardware in 2021 was [20-30%] by sales value. The Parties stated that the larger shares of Nintendo ([20-30%]) and PlayStation ([40-50%]) in the UK are indicative of their strength in the console segment.[290] In addition, the Parties submitted that PlayStation's shares increased significantly relative to Nintendo between 2020 and 2021 following the release of the new console generation both globally and in the UK.[291]

7.47 Microsoft also submitted that PlayStation was twice the size of Xbox in terms of the installed console base globally in 2021:[292]

(a) Globally, Microsoft submitted that PlayStation had the largest share [40-50%], followed by Nintendo [30-40%] and Xbox [20-30%].[293]

(b) In the UK, Microsoft submitted that Xbox had a share of [30-40%] by installed console base, while PlayStation and Nintendo had a share of [40-50%] and [20-30%] respectively.[294]

7.48 Microsoft further submitted that PlayStation had the average MAUs of Xbox globally.[295]

7.49 In console digital game distribution (B2P),[296] the Parties submitted that Xbox has a UK revenue share of [40-50%] in 2021, whereas PlayStation and Nintendo have a share of [40-50%] and [5-10%] respectively. At the global level, the Parties say that Xbox's share is [20-30%], while PlayStation has a share of [50-60%] and Nintendo [10-20%].[297] The Parties noted that these shares reflect the fact that Nintendo sells more of its games in physical (rather than digital) form.[298]

7.50 In MGS services, the Parties submitted that Xbox had a UK revenue share of [50-60%] in 2021, whereas PlayStation had [30-40%]. At the global level the Parties stated that Xbox's share was [30-40%], while PlayStation had a share of [30-40%].[299] These shares included subscription services on all platforms. The Parties also noted that in console MGS services that Xbox's share is not materially different to its overall share in digital distribution, estimating Xbox to have a [50-60%] share in the UK and a [30-40%] share worldwide in 2020.

---

[290] Microsoft, email to the CMA. The corresponding shares by sales volume, ie number of console units sold, were [20-30%] for Xbox, [30-40%] for PlayStation and [30-40%] for Nintendo.
[291] Parties FMN.
[292] Microsoft response to working papers.
[293] Microsoft response hearing opening statement.
[294] Microsoft response hearing opening statement.
[295] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.28.
[296] This includes distribution revenue from all content – including in-game and add-ons for free-to-play games.
[297] Parties Internal Document.
[298] Microsoft, email to the CMA.
[299] Parties FMN.

The Parties said that PlayStation had higher shares in console MGS globally in 2020.[300]

Our assessment

7.51 We used data from the Parties and third parties to estimate market shares for different gaming consoles. We found that, depending on how these shares are measured (ie, by total gaming console revenues, installed base or yearly active users), Microsoft is the second-largest gaming console provider in the UK, and the second or third largest gaming console provider globally. As set out below, Microsoft's global share of supply ranges between [20-30%] to [30-40%].

7.52 We also found that Microsoft's shares by gaming console revenue and volume of console units were higher than estimated by the Parties.[301] While still smaller than SIE, the difference between the shares of Microsoft and SIE, both in the UK and globally, is significantly smaller than suggested by the Parties. We consider that the discrepancy arises because the Parties do not have access to third party data, which shows that [✂].[302]

7.53 The table below summarises the shares of supply we estimated using the Parties' and third parties' data in 2021 (with further detail provided in Appendix C).[303] We consider all gaming console revenues collectively (ie hardware, B2P distribution and subscription) based on our assessment of market definition above.

[300] Parties FMN.
[301] The Parties' estimated shares presented above indicate that PlayStation was [✂] times the size of Microsoft in 2021 by console hardware revenue and [✂] times by console units. We found that the PlayStation was [✂] times larger than Microsoft, even when just considering console hardware revenue (ie. excluding distribution and subscription revenue).
[302] [✂] response to the CMA's RFI; [✂] response to the CMA's RFI.
[303] Microsoft's shares are not significantly different in 2019 and 2020, but SIE's share in 2020 is c. [✂]% lower by console hardware revenues, with Nintendo gaining that lost share.

Table 7.1: Shares of supply in 2021

%

	Console revenues	Installed console base	Yearly Active Users
Global			
Microsoft	[20-30]	[20-30]	[30-40]
SIE	[40-50]	[40-50]	[40-50]
Nintendo	[20-30]	[30-40]	[10-20]
Total global	**100**	**100**	**100**
UK			
Microsoft	[30-40]	NA	NA
SIE	[40-50]	NA	NA
Nintendo	[10-20]	NA	NA
Total UK	**100**	**NA**	**NA**

Source: CMA's calculations.
Note: The installed console base was computed as the cumulative number of console hardware sales over the period 2013-2021.Console revenues include revenues from hardware, B2P digital distribution and subscription revenues

7.54 In 2021, depending how market shares are calculated:

(a) PlayStation was [✂] times the size of Microsoft globally and about [✂] times Microsoft's size in the UK.

(b) Nintendo was [✂] times the size of Microsoft globally, but [✂] times Microsoft's size in the UK.

Conclusion on shares on supply in the downstream market

7.55 We therefore consider SIE to be the largest supplier of console gaming services both globally and in the UK. Microsoft is smaller than SIE, but the difference is smaller than suggested by the Parties, particularly in the UK. Nintendo also has a significant share in the console gaming market globally. However, Nintendo has lower shares in the UK relative to both PlayStation and Xbox in console gaming revenue.

Competition among gaming consoles

7.56 In this section, we assess the closeness of competition between Nintendo's Switch, Microsoft's Xbox and SIE's PlayStation.

Parties' views

7.57 Microsoft submitted that the suggestion that Xbox, PlayStation and Nintendo are not close competitors is incorrect.[304]

7.58 Microsoft submitted that there are many ways that SIE markets the PlayStation 'reflecting the fact that there are many dimensions of competition

[304] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.46.

in the console market'. Microsoft submitted that these included (i) the technical capabilities and price of the console itself, (ii) SIE's own exclusive content; and (iii) third party content, including Call of Duty and other titles such as FIFA and Grand Theft Auto.[305]

7.59 In relation to Nintendo specifically, Microsoft submitted that Nintendo is a strong competitor in consoles and the Nintendo Switch is one of the most successful consoles of all time.[306] Microsoft further submitted that while the Nintendo Switch is [✂].[307] [✂].[308]

7.60 In response to the suggestion that Nintendo's offering is likely different to other consoles by virtue of its target audience, Microsoft submitted that Nintendo does not just target a family-friendly audience, and instead offers a broader range of 'mature' content than Xbox which are also actively marketed.[309] Microsoft stated that several of Nintendo Switch's latest exclusives have been non 'family-friendly' games and have received mature ratings.[310] Microsoft also submitted data showing that the distribution of gamers by age on all three consoles is similar, to further substantiate that Nintendo caters to a similar audience as Xbox and PlayStation.[311] It also submitted that, according to the same data, on average the Switch has a lower proportion of young gamers [✂] than SIE and Microsoft's consoles.[312]

7.61 Microsoft also submitted that the portability of the Nintendo Switch offers a significant advantage over PlayStation and Xbox, as users have the ability to play games away from their home base.[313]

Our assessment

7.62 In assessing the closeness of competition between the Xbox, PlayStation and Nintendo consoles, we first note the following preliminary points in relation to the competitive landscape between the three consoles:

7.63 First, Microsoft's internal documents track PlayStation more closely than Nintendo, with Nintendo often being absent from internal competitive

---

[305] Microsoft response to TOH 1 working papers.
[306] Microsoft response to TOH 1 working papers.
[307] Microsoft, response to TOH 1 working papers.
[308] Microsoft, email to the CMA.
[309] Microsoft cited examples of games rated 'Mature' by the Entertainment Software Rating Board ("ESRB") for violence, blood and gore, partial nudity and strong language, such as Bayonetta 3 and Megami Tensei V.
[310] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.46b.
[311] Microsoft response to TOH 1 working papers; Microsoft response to the CMA supplementary evidence paper.
[312] Microsoft response to the CMA supplementary evidence paper.
[313] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.25.

assessments.[314] One Microsoft internal document assesses [✂].[315] Another email exchange between [✂].[316]

7.64 Second, previously expressed views of Microsoft show that the Parties consider Nintendo to compete less closely with Xbox compared to the PlayStation. For example, Microsoft's vice-president of business development for gaming, media, and entertainment in 2021 stated in the US Epic Games v. Apple case that 'the most direct competitor for hardware sales would be the SIE PlayStation'; and when asked if there were any others, stated that the Nintendo Switch is also a competitor, but 'to a much lesser extent'.[317]

7.65 In addition to the above evidence, we have considered the following aspects of competition in the rest of this section:

(a) Technical specifications and price

(b) Content type and target audience

(c) Consumer preferences

Technical specifications and price

7.66 We first assess the closeness between the three consoles in terms of their technical specifications. This is important because gamers require high-performance devices (eg in terms of memory, processing speed) to play graphically intensive games such as CoD. To the extent that a console does not meet these technical requirements, it is likely to compete less closely with other consoles for those games.

7.67 Xbox and PlayStation are similar in terms of their technical specifications, while Nintendo's technical specifications differ significantly from either of the two. As can be seen from the table below, the Nintendo Switch has significantly lower energy usage, fewer cores in the CPU, a lower clock speed, a significantly lower value of graphics processing power and performance and a smaller RAM as compared to PlayStation 5 or Xbox Series X.[318] By contrast, the PlayStation 5 and Xbox Series X are very similar to each other in terms of these parameters.

---

[314] Parties Internal Document; Parties Internal Document; Parties Internal Document.
[315] Parties Internal Document.
[316] Parties Internal Document.
[317] Testimony of [✂], Epic Games, Inc., v. Apple, Inc., 5 May 2021.
[318] This is measured in TFLOPS, or Tera floating point operations per second.

Table 7.2: Comparison of technical characteristics of the Nintendo Switch, Xbox X and PlayStation 5

Specification	*Xbox Series X*	*PlayStation 5*	*Nintendo Switch (TV mode)*
Launch Date	10 November 2020	12 November 2020	8 October 2021
Energy Usage	153W	208.8W	7W
CPU: number of cores	8	8	4
CPU: clock speed	3.8 GHz	3.5 GHz	1 GHz
GPU: performance	12 TFLOPS	10.3 TFLOPS	~0.77 TFLOPS
RAM	**16 GB**	**16 GB**	**4 GB**

Sources: 'Unveiling New Details of PlayStation 5 Hardware Technical Specs' accessed by the CMA on 17 January 2023; 'Energy Efficiency: Active Power Consumption' accessed by the CMA on 17 January 2023; 'Xbox Series X' accessed by the CMA on 17 January 2023; 'About power options on Xbox One and Xbox Series X|S' accessed by the CMA on 17 January 2023; https://www.nintendo.com/switch/tech-specs/ accessed by the CMA on 17 January 2023; [✂] response to the CMA's RFI; 'Nintendo Switch OLED Model', accessed by the CMA on 24 January 2023; and 'PlayStation 5 Release Date, Pricing, and Launch Games', accessed by the CMA on 24 January 2023.

7.68 The Nintendo Switch is also different in terms of its portability. Unlike Xbox or PlayStation, which need to be connected to a screen to function, the Nintendo Switch is a portable device that contains its own screen. The Switch is also significantly cheaper (currently at most £310) than the flagship Xbox Series X and PlayStation 5 consoles (sold at £450 and £480, respectively), and is closer in price to the technically less capable Xbox Series S console (sold at £250).

7.69 Activision's internal documents note the technical limitations of the Nintendo Switch console. For example, one Activision document notes in an early-stage assessment that, to produce a CoD title on the Nintendo Switch, the CoD game would need [✂][319] (whereas most current CoD titles require from 125-175GB of storage on console or PC).[320] The document also refers to Apex Legends's [✂].[321] Another Activision document analysing potential studios [✂] CoD assesses the additional work required [✂] and notes technical issues in other games [✂].[322]

7.70 We have also seen evidence that large shooter games do not run as well on Nintendo's consoles due to its technical differentiation. One third party submitted that graphically intensive shooters may often be targeted originally at PlayStation and Xbox due to the specific characteristics of their console performance, and that porting to the Nintendo Switch may require financial investment and compromises on graphical quality, or the use of cloud-gaming solutions.[323]

[319] Activision Internal Document.
[320] See for example, Minimum and Recommended System Requirements for Call of Duty: Warzone Caldera on PC (activision.com) and Minimum and Recommended System Requirements for Call of Duty: Modern Warfare on PC (activision.com), accessed by the CMA on 17 January 2023.
[321] Parties Internal Document.
[322] Parties Internal Document.
[323] [✂] response to the CMA's.

7.71 Publishers' views similarly indicated that developing a game for Switch is a significantly different task relative to doing it for Xbox and PS due to its technical differences. One publisher stated that it encountered technical difficulties when bringing a game to Nintendo Switch but no difficulty in bring the same game to Xbox or PlayStation. The publisher noted that the Switch's limited graphics and storage are technical limitations that affect the performance of competitive games more than that of game(s) brought to Xbox or PlayStation.[324] Another publisher stated that several of its games are not available on Nintendo as Nintendo has different capabilities from PlayStation and Xbox.[325]

7.72 We note the Parties' submission that challenges with porting a game to Nintendo Switch has not impacted Nintendo's ability to compete on the downstream console market, as it offers more games than Xbox and PlayStation, including major games such as *Apex Legends*, *Fortnite* and *Doom Eternal*.[326] However, we consider the evidence above shows that, relative to the Xbox and PlayStation, the Nintendo Switch (i) does not currently offer the same suite of graphically intensive games that PlayStation and Xbox compete on (with the exception of a few games such as *Fortnite* and *Apex Legends*), (ii) may not be capable of offering certain graphically intensive multiplayer games (such as CoD), and (iii) does not offer a similar user experience (eg, in terms of storage, graphics, and framerate).

7.73 We also note the Parties' submission that Nintendo's partnership with Ubitus' cloud streaming technology to release *Resident Evil Village* on Switch enables gameplay with levels of graphical fidelity comparable to that found on a high-level PC, PlayStation 5 or Xbox Series X.[327] However, as discussed above, we consider that there are currently significant differences between cloud gaming and gaming on consoles (eg, the need for an internet connection to stream games from cloud gaming services). Also, the ability of the Switch to connect to a third party cloud gaming service provider would not make it a closer competitor to Xbox and PlayStation in the console gaming market.

7.74 Overall, the evidence shows that the product characteristics of Nintendo Switch are significantly different from those of Xbox and PlayStation, including its technical specifications, capability to host graphically intensive games and prices. Xbox and PlayStation are more similar in this respect.

---

[324] [✂] call note.
[325] [✂] response to the CMA's RFI.
[326] Microsoft, response to working papers; and Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.46c.
[327] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.46c.

Content type and target audience

7.75 Next, we have considered the target audience and content type of Xbox, PlayStation and Switch.

7.76 Microsoft's internal [✂]. One Microsoft internal document points to the differences in the technical strategies of Xbox/PlayStation and Nintendo consoles [✂].[328] This internal document considers that [✂].[329]

7.77 Third parties noted the differences in Nintendo's business strategy in terms of developing own content for its consoles—making its proposition sufficiently differentiated from other gaming ecosystems; and less dependent on the availability of specific third party games. Two third parties submitted that Switch's most popular games are largely developed and published by Nintendo and are based on Nintendo's owned intellectual property.[330]

7.78 Third parties also noted the differences in the type of content and target audience of Nintendo, compared to PlayStation or Xbox. Two third parties submitted that Nintendo content typically focuses on its family-based target audience;[331] and that its games tend to be family-friendly (eg, Mario Kart and Super Mario).[332]

7.79 We also assessed data from the Parties and third parties on the most popular games in the UK on Nintendo Switch, SIE PlayStation and Microsoft Xbox, ranked by revenue, gametime and MAUs, including their Pan European Game Information (PEGI) content age rating.[333]

7.80 This data shows that a [✂] of titles in the top 50 titles on the Switch were rated PEGI 3 or PEGI 7, than the equivalent lists on PlayStation and Xbox (see Table 7.3 below). [334] We consider that this shows that the most popular content on the Switch generally falls under a different category (ie, more family-friendly) from the most popular content on PlayStation and Xbox.

Table 7.3: Number of top 50 titles on console with PEGI 3 or PEGI 7 ratings in 2021

	Ranked by Revenue	*Ranked by Gametime*	*Ranked by MAUs*
PlayStation	[✂]	[✂]	[✂]
Xbox	[✂]	[✂]	[✂]
Switch	[✂]	[✂]	[✂]

[328] Parties Internal Document.
[329] Parties Internal Document.
[330] [✂] call note; and [✂] response to the CMA's RFI.
[331] [✂] response to the CMA's RFI; and [✂] call note.
[332] [✂] response to the CMA's RFI; and [✂] response to the CMA's RFI.
[333] [✂] response to the CMA's RFI; [✂], Annex to response to the CMA's RFI; Microsoft, Annex to response to the CMA's RFI; and 'PEGI age ratings', accessed by the CMA on 20/03/2023.
[334] PEGI 3 titles are suitable for all ages, while PEGI 7 titles have content with scenes or sounds that can possibly be frightening to younger children.

Source: CMA calculations

7.81 Using the same data,[335] we analysed the extent to which there is an overlap in the top 50 titles across the Switch, PlayStation, and Xbox in the UK for 2020 and 2021 (see Table 7.4 below). This data shows that the overlap in the top 50 titles between Xbox and PlayStation is [✂] than that of the Switch with either PlayStation or Xbox. For example, when ranked by revenues in 2021, the number of top titles overlapping between PlayStation and Xbox was [✂] than the number of titles overlapping between the Switch and either Xbox or PlayStation. From the titles that overlap between PlayStation and Xbox in 2021 (and are therefore not exclusive titles), [✂] ([✂] by revenue, gametime, and MAUs, respectively) are not available to be played on the Switch. Most of the remaining titles, despite being available on the Switch, [✂].

Table 7.4: Number of UK top 50 Titles by console that overlap by year

	Year	*Revenue*	*Gametime*	*MAUs*
PlayStation/Switch	2021	[✂]	[✂]	[✂]
Xbox/Switch	2021	[✂]	[✂]	[✂]
Xbox/PlayStation	2021	[✂]	[✂]	[✂]
PlayStation/Switch	2020	[✂]	[✂]	[✂]
Xbox/Switch	2020	[✂]	[✂]	[✂]
Xbox/PlayStation	2020	[✂]	[✂]	[✂]

Source: CMA calculations

7.82 The above evidence suggests that the Switch is differentiated from PlayStation and Xbox. We note the Parties' submission above that the distribution of gamers by age on the Switch is not very different to Xbox or PlayStation. We also note that the Switch offers some content for a mature audience. However, the technical differences noted above mean that users do not generally play certain types of games on the Switch which are more popular on Xbox and PlayStation. The evidence on the extent of overlap between the titles that are popular on each of the consoles also shows that the Switch's most popular titles tend to be targeted at a family audience. We consider that family-friendly content is differentiated and may be more complementary to the other consoles' content. The same evidence also shows that the overlap between the Switch's most popular titles and the most popular titles on each of PlayStation and Xbox is low compared to the corresponding overlap between PlayStation and Xbox. Therefore, we consider that while the Switch may be a substitute to either PlayStation or Xbox for some gamers, overall it is likely to be less so.

[335] [✂] response to the CMA's RFI, question 1; [✂], Annex to response to the CMA's RFI; and Microsoft, Annex to response to the CMA's RFI.

Consumer preferences

7.83 Consumer behaviour in relation to multi-homing across consoles is likely to indicate closeness of competition to a certain degree, with consumers being more likely to own another console if they consider it to be sufficiently differentiated to their current console.

7.84 We described the evidence on multi-homing across consoles above. While the exact figures by which gamers multi-home across consoles varied based on the timing of the analysis, the sample considered and the console generation, overall, most of the evidence suggests that people tend to multi-home more often between the Switch and PlayStation/Xbox than between PlayStation and Xbox (within the same generation). This supports the view that the Switch is less substitutable to the PlayStation or Xbox.

7.85 On the other hand, evidence showed that the extent of multi-homing between the PlayStation and Xbox was fairly low, indicating that these are closer substitutes.

Conclusion on closeness of competition among consoles

7.86 The evidence shows that Xbox, PlayStation and Nintendo all compete in the console market on the basis of technical specifications, content (including range and type), and price.

7.87 The evidence also shows, however, that whilst Xbox and PlayStation compete closely with each other, Nintendo competes less closely with Xbox and PlayStation:

(a) Microsoft and SIE offer non-portable consoles with similar technical specifications. Nintendo's flagship console, the Nintendo Switch, offers a portable console for a lower price and with significantly lower technical specifications.

(b) Whilst Nintendo offers some content for a mature audience, its most popular titles are targeted at a family audience.

(c) The overlap between the Switch's and either of PlayStation's or Xbox's most popular titles is low compared to the corresponding overlap between PlayStation and Xbox.

(d) Gamers more often own a Nintendo console and an Xbox or PlayStation than own an Xbox and a PlayStation. This suggests that Nintendo is less substitutable with Xbox or PlayStation than the latter are with each other.

Availability of Activision's content on MGS services

7.88 As previously explained, MGS services have become a feature in the offering of gaming console providers and an additional lever for these providers to compete in the gaming consoles market.

7.89 Activision has previously made some of its content available on console MGS services. In that context, this section focuses on the following question: to what extent would Activision's content be made available on console MGS services absent the Merger?

7.90 The greater the extent to which Activision's content would be made available on these services, the more relevant these services would be for foreclosure of gaming console rivals. In other words, if absent the Merger, Activision's games would be available on rivals' console MGS services (eg PS+), the Merged Entity could use that as an additional lever to foreclose those rivals. For example, the Merged Entity could do that by making either current and/or future Activision content unavailable on rival console MGS services (ie exclusive to XGP). If, instead, Activision's games would not have been available on those services at all absent the Merger, the Merged Entity would be unable to foreclose rival gaming consoles using content on MGS services as a foreclosure mechanism.

7.91 In this and the following sections, we focus on console MGS services and use the phrase 'MGS services' to mean console MGS services, unless specified otherwise.

Parties' submissions

7.92 Microsoft submitted that subscription services are expected to coexist and compete alongside other payment models, whilst remaining only a limited segment of the broader gaming industry.[336] Microsoft submitted that [✂]. Microsoft also submitted that, although MGS services were growing, the vast majority of gaming revenues would still come from gamers purchasing individual games.[337]

7.93 The Parties submitted that Activision currently makes only limited back-catalogue titles available on subscription, and only on a limited time-period basis.[338] Microsoft also submitted that Activision has never published any newer content on MGS services and has no intention to do so in the future.[339]

---

[336] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.25.
[337] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.9.
[338] CMA, Phase 1 Decision, 12 October 2022, paragraph 212(e).
[339] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.35.

The Parties also submitted that Activision does not currently offer and has no current plans to offer an MGS service similar to XGP.[340]

7.94 Microsoft submitted that an important reason for Activision not offering current content on MGS is because MGS sales would cannibalise Activision's B2P sales, which are a key source of and driver of revenue for Activision. It submitted that the [✂]. According to Microsoft, in the rare cases where Activision has contemplated placing its content on MGS services, its ordinary course documents consistently reflect Activision's view that MGS services, regardless of platform, severely cannibalise B2P sales, particularly in the case of newer releases.[341]

7.95 Activision submitted that [✂] for several other reasons, including that it would [✂] which, according to Activision, is important to ensure a high-quality experience in its games.[342] Activision submitted that these considerations apply even if [✂], and that Activision's incentives as an independent game developer and publisher will remain the same.[343]

7.96 Activision also submitted that Activision's senior leadership has never supported [✂].[344]

7.97 Microsoft also submitted that [✂].[345]

Our assessment

Future growth of MGS services

7.98 In this section, we assess the growth prospects of MGS services based on evidence from independent third party forecasts, the Parties' forecasts and internal documents, and views and evidence provided by third parties during our investigation.

Forecasts

7.99 Microsoft provided independent third party forecasts relating to the growth prospects of MGS services. One of these is a report by IDG (an industry analysis firm), which estimated that the share of MGS services relative to B2P

---

[340] CMA, Phase 1 Decision, 12 October 2022, paragraph 210.
[341] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.28.
[342] Activision response to the working paper.
[343] Activision response to the working paper.
[344] Activision response to working paper.
[345] Microsoft response to working papers.

would grow from [✂]% in 2021 to [✂]% in 2026.[346] We note that these IDG estimates might include any subscription services, including single-game subscriptions and services like PS+ Essential, which mainly offer access to online multiplayer and only a few monthly games. We do not consider these services to fall into our definition of MGS services for the purpose of our assessment (ie services which offer a relatively wide range of games through a subscription). Therefore, in the context of our assessment the IDG estimates might overstate the share of MGS relative to B2P.

7.100 Microsoft submitted its own estimates showing that MGS services are likely to show [✂] growth relative to B2P over the next few years. It estimates that MGS services as a proportion of all transactional revenue—including B2P and in-game transactions—will grow from [✂]% in 2022 to [✂]% in 2030.[347]

7.101 We note, however, that Microsoft's estimate may not accurately capture the growth of MGS services relative to B2P. A more accurate comparison would either exclude in-game transactions on B2P or include them for both B2P and MGS Services. We also note that in the same estimate, Microsoft predicts the number of XGP subscribers will grow from [✂] million to [✂] million over the period 2022-2030. Microsoft submitted that actual realised figures for XGP subscribers demonstrated that [✂].[348]

7.102 Taken together, these forecasts suggest some growth in MGS services relative to B2P in the next 5-8 years. Although it is difficult to arrive at a precise estimate, these suggest that MGS services will continue to grow and represent a higher proportion of the overall console gaming market over time. However, these forecasts also suggest that MGS will remain smaller than B2P over the same time period.

Parties' internal documents

7.103 Several of the Parties' internal documents suggest that, along with the traditional B2P model, the importance of MGS services in the gaming industry is increasing:

(a) One Microsoft internal email from October 2018 states that [✂].[349] This document suggests that [✂]. This is in line with the IDG forecast

---

[346] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.24; and [✂] Internal Document; these estimates are for console gaming only, ie they exclude PC, mobile, and cloud gaming; we calculated the share of MGS relative to B2P by dividing 'subscription' by the sum of 'subscription', 'digital full game', and 'physical SW' (physical software).
[347] Parties FMN; Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.24; and Microsoft Internal Document.
[348] Microsoft, email to CMA.
[349] Microsoft Internal Document.

discussed above, although the email is relatively dated compared to other documents presented in this section.

(b) One Activision internal document from 2020 states that [✂]. The document adds that MGS services are increasing on console and mobile and that the free to play, premium and subscription business models will coexist at scale.[350]

(c) A document from late 2021 submitted by Microsoft states that [✂].[351]

(d) Another Microsoft document from 2020 explains that [✂].[352]

7.104 Microsoft submitted that these documents are [✂]. Microsoft submitted its more recent Gaming Strategy documents show that [✂]citing an internal document which states that '[✂]'.[353] We consider that these documents submitted by Microsoft do not contradict the other documents presented above.

7.105 According to Activision, the document in paragraph 7.103(b) above shows that Activision [✂] for gaming content. According to Activision, the document does not suggest that [✂].[354]

7.106 Third party reports submitted by the Parties also suggest MGS services will be increasingly important:

(a) A third party report from July 2020 held by Activision and shared with the CMA states that the expansion of new business models has boosted monetisation in the gaming industry, one of those models being MGS services.[355]

(b) Another third party report from 2022 provided to the CMA by Activision states that MGS services are one 'key development' for the gaming industry. The document explains that the gaming industry is going through a transition towards digital services, particularly MGS services, and that gamers will be attracted to these services because they would have a lower cost access point and a large game library.[356]

---

[350] Activision Internal Document.
[351] Microsoft Internal Document.
[352] Microsoft Internal Document.
[353] Microsoft response to working papers; Microsoft Internal Document.
[354] Activision response to TOH 2&3 Subscription or Cloud working paper.
[355] Activision Internal Document.
[356] Activision Internal Document.

(c) A third party report from October 2021 submitted by Microsoft states that cloud gaming and subscriptions will become an increasingly important part of the games market.[357]

7.107 Activision submitted that the third party reports it provided above [✂] – and in any case any such assertion has not been borne out in practice, where in fact, free-to-play games account for the vast majority of growth in the gaming industry today.[358] We note that the relevant question in this section is whether MGS is growing compared to B2P, not F2P. In particular, adding a F2P game to an MGS service does not lead to cannibalisation of upfront sales because by definition there are no upfront sales on F2P games.

7.108 Some of Microsoft's internal documents also talk about the future importance of XGP to its business, which is relevant to the potential prospects of growth in MGS services generally. For example:

(a) One Microsoft internal document suggests that [✂].[359]

(b) Another Microsoft document from August-November 2021 indicates [✂].'[360] This suggests that [✂].

7.109 These documents show that Microsoft was confident in significant growth in MGS services and XGP in the future.

Third party evidence

7.110 We received third party evidence showing that subscription-based gaming is expected to grow relative to B2P, even though the precise extent and pace of such expected growth was unclear from the evidence:

(a) A publisher [✂] submitted that it believed that in the future consumers would still want to purchase individual games but noted that the percentage of consumers purchasing subscription services was increasing. It added that subscription services would become a sizeable part of the game industry ([✂]) and that it wanted to be present in it. It also explained that, although some players spent time on a limited number of games per year, the subscription model was likely to become increasingly attractive as the publishers' first-party catalogues strengthen

[357] Microsoft Internal Document.
[358] Activision response working paper.
[359] Microsoft Internal Document; [✂].
[360] Microsoft Internal Document.

each year. It stated that even casual gamers would find the subscription model interesting.[361]

(b) One internal document from a gaming platform supplier [✂] shows that this competitor is expecting the MGS market to grow and, as a consequence, is investing in its subscription services. The document notes that [✂].[362]

(c) One competitor [✂] speculated that the gaming sector had already seen a recent shift from purchasing individual games (either digitally or physically) towards MGS services, and it thought that this was as a result of consumers' desire to access a wide variety of content.[363]

(d) One publisher [✂] told the CMA that MGS services are still nascent and that it believes that they may become a more notable way for players and consumers to experience new ways of accessing more games.[364]

(e) One competitor [✂] explained that the gaming industry was gradually moving towards MGS service business models.[365]

Conclusion on future growth of MGS services

7.111 We consider that the evidence from industry analysts, Microsoft's forecasts, the Parties' internal documents and most third party evidence indicates that MGS services are growing in importance within gaming, and will become a sizeable part of the gaming industry. However, we note that the available estimates of MGS growth vary significantly depending on the source.

7.112 The evidence also suggests that, while MGS is expected to grow relative to B2P, MGS is likely to remain a smaller part of the console gaming services market in the foreseeable future.

7.113 This expected growth could still make placing games on MGS services more attractive, as it would reduce the rate of cannibalisation of B2P sales (as the proportion of B2P sales shrinks). However, whether this would be enough to change Activision's incentives depends on the starting point, ie Activision's current incentives and its current stance and behaviour towards MGS. This is assessed below.

---

[361] [✂] response to the CMA's RFI.
[362] [✂] Internal Document.
[363] [✂] call note.
[364] [✂] call note.
[365] [✂] call note.

Publishers' behaviour on adding content to MGS services

7.114 The behaviour of rival publishers in relation to the supply of content, including their AAA titles, is a potential indicator of Activision's incentives to supply CoD and other Activision content to MGS services.

7.115 Rival publishers such as Ubisoft and Electronic Arts already offer a selected portfolio of their games as part of their own MGS service on PC, console or cloud, either on a standalone basis or as part of third party MGS services. In particular:

(a) Electronic Arts currently offers its EA Play MGS service as part of XGP, including some latest releases and AAA game franchises like FIFA and Battlefield. However, we note that the latest version of FIFA is not available on the service.[366] We also note Electronic Arts' submission that the games it offered as part of EA Play on XGP are added to EA Play around 8-12 months after their release.[367]

(b) Ubisoft currently offers some of its AAA games as part of XGP – these are mostly older releases with the exception of Tom Clancy's Rainbow Six Extraction, although this was not released day and date on XGP.[368]

(c) Ubisoft also offers its Ubisoft+ MGS service as part of Amazon Luna, including some AAA game franchises and latest releases like Assassin's Creed Valhalla, Far Cry 6, and Tom Clancy's Rainbow Six Extraction.[369] We note this example is not relevant to console, but rather to cloud gaming services.

7.116 Microsoft submitted that, unlike Ubisoft and Electronic Arts, Activision does not have a wide portfolio of games to leverage. Microsoft also submitted that Activision cannot use its main franchise on console to attract gamers that it can monetise on other titles, simply because it does not have other titles to benefit from.[370]

7.117 Activision submitted excerpts from public interviews by the CEOs of SIE and Take-Two, which expressed reservations about adding their major titles day-and-date to MGS services.[371]

---

[366] See EA Play | Xbox, accessed by the CMA on 16 January 2023.
[367] [✂] response to the CMA's s109 notice.
[368] See Xbox Game Pass Games Library | Xbox, accessed by the CMA on 16 January 2023.
[369] See Amazon.com: Play Ubisoft+, accessed by the CMA on 16 January 2023.
[370] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 4.31-4.32
[371] Activision response to the Activision Titles on Subscription or Cloud Gaming working paper.

7.118 We consider that the evidence from publishers' behaviour is mixed. On one hand, some large publishers like Electronic Arts and Ubisoft are adding their games, including AAA content and some latest releases to third party MGS services. On the other hand, these games were almost never added to the service on the date of their release and, in the case of some big franchises (eg FIFA), they are older releases. We also note based on public sources that some publishers (eg Take-Two) seem to be more cautious in their approach towards MGS services.

Parties' internal documents

7.119 Activision's internal documents suggest that Activision was. For example:

(a) One document dated May 2020 discusses [✂].[372] The document assumes [✂].[373]

(b) Another document dated May 2020 discusses similar [✂]. The document notes that [✂]. However, the document suggests that [✂].[374]

(c) In a document dated August 2021, Activision was at that time [✂]. The document also explains that [✂].[375]

7.120 One internal Activision email from [✂] suggests that Activision saw [✂]. The same employee also notes that third party publishers putting their games on XGP [✂].[376] Activision submitted that this document is written by [✂].[377]

7.121 Despite this [✂], Activision's internal documents show that it [✂]. These [✂] included [✂]. However, we note that the most advanced negotiations [✂]. In particular:

(a) One internal document shows that Activision had presented to [✂].[378]

(b) One document dated April 2020 shows that [✂].[379]

(c) One Activision document dated October 2021 shows that [✂]. This document states that [✂].[380]

---

[372] [✂].
[373] Activision Internal Document.
[374] Activision Internal Document.
[375] Activision Internal Document.
[376] Activision Internal Document.
[377] Activision response to TOH 2&3 Subscription or Cloud working paper.
[378] Activision Internal Document.
[379] Activision Internal Document.
[380] Activision Internal Document.

(d) Another document dated December 2021 discusses [✂]. The document shows that [✂]. The document notes that [✂]. The document also notes that [✂].[381] Activision submitted that this document presents [✂].[382]

(e) [✂] – one Activision document [✂] shows that [✂]. The document also notes that [✂].[383] A [✂] document from May 2022 confirmed that [✂]. However, the document also notes that [✂].[384]

7.122 It is not entirely clear why [✂]. The documents suggest that the main reason was that Activision [✂] and that [✂].

7.123 The documents also show that Activision has [✂] and might have [✂]. [✂] Activision has submitted that the position of Activision's senior leadership, including its CEO, has always been [✂] these internal documents [✂].

7.124 Microsoft submitted that [✂].[385] In support of this statement, Microsoft submitted a document dated March 2020 that [✂]. The document shows that [✂].[386]

7.125 This was not, however, [✂]. Subsequent internal documents from Microsoft [✂]. For example, one document [✂] shows that [✂]. The document notes that [✂]. The same document shows that, [✂].[387]

7.126 Activision's internal documents also show that it considered [✂]:

(a) One internal document shows that Activision [✂].[388]

(b) Another document presents a detailed analysis of a possible [✂]. The document notes that [✂].[389]

(c) One Activision document [✂].[390]

7.127 Activision submitted that the documents identified by the CMA are isolated examples of businesspeople discussing potential ideas for the business, and that they [✂]. Activision also submitted that no version of [✂].[391]

---

[381] Activision Internal Document.
[382] Activision response to working paper.
[383] Activision Internal Document.
[384] Microsoft Internal Document.
[385] Microsoft response to working papers.
[386] Microsoft Internal Document.
[387] Microsoft Internal Document.
[388] Activision Internal Document.
[389] Activision Internal Document.
[390] Activision Internal Document.
[391] Activision response to working paper.

7.128 These documents show, however, that Activision was actively considering [✂]. Its discussions concerning MGS services [✂]. The documents also show that senior employees within Activision, [✂].

Conclusion on availability of Activision content on MGS services

7.129 This evidence suggests that Activision is open to making at least some of its back catalogue and older games available on MGS services. [✂].

7.130 The evidence also shows, however, that Activision is concerned about the potential impact on its B2P revenues of placing any games – especially newer games and day and date releases – on MGS services. [✂]. Up until now, Activision has made its content available on subscription only to a limited extent, both in terms of the type of content available – namely, older titles – and for a limited time period.

7.131 We consider it relevant context that other AAA games (facing similar cannibalisation effects) already make some of their content available on console MGS services (eg XGP). However, we note this is almost always limited to back catalogue or older games. We also note that some large publishers do not currently add their games to MGS services.

7.132 Based on this evidence, we consider it unlikely that Activision would make its most valuable games – such as CoD – available on MGS services on the date of release in the foreseeable future absent the Merger. We believe the evidence indicates, however, that Activision would likely place increasingly valuable parts of its gaming catalogue on MGS services as these services continue to grow. This would likely include back-catalogue games, as well as Activision's latest releases, although some time after they are released (ie, not on the date of release).

7.133 This therefore implies that the Merged Entity has the option of denying some or all of Activision's gaming catalogue on MGS services to rival gaming consoles. Further, the likelihood of more valuable content appearing on MGS services could increase, over time, any ability and incentive of the Merged Entity to foreclose rivals. We assess the significance and relevance of any such content on MGS services in relation to the Merged Entity's ability and incentive to foreclose rival consoles collectively alongside B2P content in the sections that follow.

Framework for assessment

7.134 Vertical theories of harm involve the merged entity harming the ability of its rivals to compete post-Merger, for example through input foreclosure; raising

effective prices or worsening non-price aspects, such as quality, of an input to its rivals (partial input foreclosure); or refusing to supply them completely (total input foreclosure). Such actions may harm the ability of the merged entity's rivals to provide a competitive constraint on the merged entity, and thereby lead to higher prices, worse quality or less choice for consumers. The CMA only views foreclosure as anticompetitive where its effect is to reduce competition sufficiently to give rise to an SLC in the affected market, not where it merely disadvantages one or more competitors.

7.135 The concern under an input foreclosure theory of harm is that the Merger may lead to Microsoft using Activision's games to foreclose rival console providers, harming their current and future ability to compete in the supply of consoles; thereby leading to lower quality, higher prices or less choice for consumers. Specifically, we consider whether Microsoft could harm its rivals' competitiveness and thus lessen current and future competition in console gaming services through the following foreclosure strategies (which could be used in isolation or combination):

(a) **total foreclosure**: making either current and/or future Activision content unavailable on rival consoles (ie exclusive to Xbox);

(b) **partial foreclosure**, which includes several potential strategies such as:

(i) making Activision content available for release on rival console gaming platforms at a later date compared to Xbox (ie timed exclusivity);

(ii) degrading the graphical quality (eg resolution and framerate) of Activision gaming content available to rival console gaming platforms;

(iii) making features or upgrades of Activision games unavailable to other console gaming platforms (ie content exclusivity); and/or

(iv) raising the wholesale price of Activision content on rival console gaming platforms.

(v) We are assessing overall whether the Merged Entity would have the ability and incentive to engage in partial and/or total foreclosure strategies and the effect of these strategies. In our main assessment, we do not presuppose any specific foreclosure strategy. The Merged Entity may focus first on partial foreclosure strategies with the expectation of shifting users to its platform over a period of time, gradually shifting to a total foreclosure strategy. This assessment does not assume any particular combination or order of foreclosure strategies but considers more generally whether the Merged Entity

would have the ability and incentive to engage in these strategies, and how that would affect competition. However, we also assess whether the Merged Entity would have the ability and incentive to foreclose PlayStation post-Merger through partial foreclosure strategies alone. In this additional assessment, we focus on those partial foreclosure strategies that would stop short of total foreclosure.

7.136 Our assessment below focuses on the strategies that the Merged Entity could engage in using CoD, as CoD constitutes [✂]% of Activision revenue on consoles.[392] We note, however, that Activision makes other games available on PlayStation and other consoles (such as Overwatch, another shooter game and Diablo, an action role-playing game). To the extent that the Merged Entity could use these other Activision games to foreclose rivals, this could worsen any effect on competition that the Merger could have in the market for console gaming services, as assessed below.

7.137 We consider that any foreclosure of Microsoft's console rivals would affect console hardware and the related storefronts (including subscription services). This is because gaming consoles are integrated in terms of their offer of hardware and digital storefronts (as discussed in the market definition section in Chapter 5).

7.138 CoD is not available on Nintendo consoles, nor have we seen evidence to suggest it would become available on Nintendo absent the Merger. As noted above, we consider that Nintendo competes less closely with Xbox as compared to PlayStation. Therefore, we consider that SIE is currently the strongest competitive constraint on Microsoft, and to assess whether competition is affected as a result of the Merger, we are assessing whether this closest rival in the console gaming market would be foreclosed. This theory of harm, therefore, focuses on the potential impact of the Merger on SIE. In our assessment of whether Microsoft may harm SIE's ability to compete in consoles by denying or worsening its access to Activision's games, we follow the framework set out in the MAGs for assessing input foreclosure theories of harm.[393] We consider whether three cumulative conditions are satisfied:[394]

(a) Would the Merged Entity have the ability to use its control of inputs to harm the competitiveness of SIE?

---

[392] Parties, submission to the CMA.
[393] CMA129, paragraphs 7.9-7.22.
[394] CMA129, paragraph 7.9.

(b) Would it have the incentive to actually do so, ie would it be profitable in the short-term and/or long-term?

(c) Effects of foreclosure: would the foreclosure of SIE substantially lessen overall competition between console gaming providers?

Ability to foreclose

7.139 In order to assess whether the Merged Entity would have the ability to foreclose rivals in the downstream market for console gaming services, we have considered evidence on the following factors:

(a) the importance of content to a gaming platform such as a console, including SIE's PlayStation;

(b) the importance of Activision content, particularly CoD, to SIE; and

(c) the extent to which rival gaming consoles, particularly SIE, can substitute CoD with effective alternatives.

7.140 The MAGs explain that the CMA will typically focus on two issues when assessing whether the Merged Entity will have the ability to foreclose its rivals, namely: (i) market power upstream (looking at *inter alia* the structure of the upstream market and ability of downstream rivals to switch to a range of effective alternatives); and (ii) the importance of the input (assessing whether the input the merged entity will supply plays an important role in shaping downstream competition). In this case, this involves assessing whether Activision's content gives it market power in the upstream market for console game publishing, and whether Activision content is an important input to PlayStation in particular. We explore these questions below through the three factors set out above.

7.141 The three factors above allow us to assess both the upstream market power of Activision stemming from its content, in particular CoD, within the console game publishing market, and the importance of Activision's content to PlayStation in particular in the downstream market for console gaming services. After assessing these factors, we assess contractual arrangements in relation to the Merged Entity's ability to foreclose. Although most of the assessment in this section is focused on total foreclosure, the evidence we used is largely relevant to standalone partial foreclosure strategies as well. We have also assessed specific evidence and arguments on partial foreclosure strategies.

Importance of content

Parties' views

7.142 The Parties submitted, based on a detailed conjoint analysis conducted in the ordinary course of business, that the most important factor in the choice of console is the price of the console. That is followed by the type of console which the gamer currently owns (ie, whether the owner already has an Xbox or PlayStation), with content offered by the new console being further down the list.[395] The Parties, however, also acknowledge in other submissions that content plays a role in the success of a gaming platform like a console. For example, in response to the CMA's issues statement, Microsoft refers to the gaming industry as 'content-focused' while discussing content exclusivity.[396]

Our assessment

Third parties' views and internal documents

7.143 Overall, third parties have stated that content is one of the main reasons for consumers' choice of platform:

(a) One third party [✂] told the CMA that the key driver for consumers is content. The same company also added that if a user is going to switch to another platform, content will generally be the motivation for that. The third party explained that it attracts and retains new customers by marketing to consumers that it offers the best range of content.[397]

(b) Another gaming platform supplier [✂] also explained that the quality and number of games as well as the franchises offered are the most important factors driving consumers' decisions.[398] In particular, this competitor stated that "quality of games" is the single most influential driver of engagement for a platform, above other attributes including graphics, interface, and hardware. It submitted that, for most gamers, popular content is more important than any customer loyalty towards a particular platform.[399]

7.144 Various internal documents from a third party [✂] further show the importance of content, [✂].

---

[395] Microsoft response to working papers.
[396] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.66.
[397] [✂] call note.
[398] [✂] submission to the CMA.
[399] [✂] response to the CMA's RFI.

(a) An internal document dated [✂] emphasises that the game library available on a platform is an important element of the gaming experience and thus it is highly important to consumers. The document says that the size [✂], and this is also not likely to change following Xbox's significant investments.[400]

(b) The same document emphasises the importance of exclusives, mentioning that for Xbox to increase its software strength it needs to [✂].[401]

7.145 Another internal document produced by the same third party [✂] also discusses how the quality and variety of content is a key factor in consumers' satisfaction with their console. It assesses the factors that contribute to user satisfaction [✂] and shows that 'quality of games' is the most important factor contributing to gamers' satisfaction [✂], which is closely followed by 'Variety of games'.[402]

Evidence from documents

7.146 Various internal documents from Microsoft, as well as statements made by its staff, indicate that the company considers content (especially large game franchises and exclusive content) to be an important factor affecting both customers' choice of console and the attractiveness of Xbox's subscription service:

(a) For example, in an interview with the US's Federal Trade Commission (**FTC**), Microsoft gaming's CEO [✂]. In the same interview he added that, [✂].

(b) An internal email exchange between members of Microsoft's PR team that discusses Microsoft's strategy for the next generation of consoles notes that [✂]. The document states that [✂].[403]

(c) One Microsoft internal document highlights [✂];[404] [✂].[405]

(d) A report prepared by IDG Consulting and submitted by the Parties confirmed that [✂]. The report also outlined that [✂].[406]

---

[400] [✂] Internal Document.
[401] [✂] Internal Document.
[402] [✂] Internal Document.
[403] Microsoft Internal Document.
[404] [✂].
[405] Parties Internal Document.
[406] Parties Internal Document.

(e) A Microsoft internal document explains that [✂].[407]

(f) Finally, in reference to the importance of content to Microsoft's future gaming offerings, one Microsoft internal document explains that [✂].[408] We note the Parties' submission that [✂].[409] However, we consider that franchises with annual releases of sophisticated graphically-intensive multiplayer titles (such as CoD) are well placed to offer [✂] given their strong brand recognition.

7.147 We also reviewed documents which suggest content, especially AAA day and date releases, drives the success of MGS services (including on consoles). These documents suggest that acquiring a big publisher would have a severe impact on the ability of rival MGS services to succeed:

(a) One email from [✂].[410]

(b) One Microsoft email dated January 2022 contains [✂].[411]

7.148 Internal documents from Activision also emphasise the importance of large game franchises in driving consumer engagement and spend. For instance, an Activision strategy document, in discussing the competitive landscape in publishing, notes that [✂]. The document also noted that developers are increasingly [✂].[412]

Evidence from the CMA survey

7.149 The CMA survey responses provided some information on the importance of the content available on a console as a choice factor when purchasing a console. A total of 89% of respondents to the CMA survey said that the available games were quite important (32%) or very important (57%) as a choice factor.

7.150 The other factors that respondents considered quite important or very important in their choice of purchasing a PlayStation were:

(a) the possibility of playing with friends and/or family members who also own a PlayStation (87%) and with other PlayStation gamers in general (67%);

---

[407] Microsoft Internal Document.
[408] Microsoft Internal Document.
[409] Microsoft, response to working papers.
[410] Microsoft Internal Document.
[411] Microsoft Internal Document.
[412] Activision Internal Document.

(b) PlayStation's superior technical specifications, performance, visual appeal and features (89%); and

(c) the better value for money of PlayStation's offer compared to other consoles (75%).

7.151 We note that the CMA survey was targeted at CoD gamers and therefore may not be representative of console gamers more broadly—we consider this evidence in the round along with the other evidence on the importance of content.

Conclusion on the importance of content

7.152 We consider that the evidence indicates that content is a very important factor affecting the choice of a console (including its MGS services offering) and driving consumer engagement. This is supported by evidence from internal documents from both Parties, third parties' submissions and evidence from the CMA survey.

Importance of CoD to SIE

7.153 Having found that content is important for console providers, we now consider the importance of Activision's content – and in particular CoD.

7.154 The MAGs explain that, if downstream rivals can easily switch away from the upstream party to a range of effective alternative suppliers, they will be less likely to suffer harm than if the merged entity occupies an important position upstream.[413] The starting point for this assessment will be the structure of the upstream market. As such, we consider upstream shares of supply in this section, as well as the alternative content available. The MAGs also explain that: 'The merged entity could only harm the competitiveness of its rivals if the input it supplies plays an important role in shaping downstream competition. In assessing this the CMA will have regard to all foreclosure mechanisms, so will consider not only the proportion of rivals' costs that the input accounts for, but also for example the role it plays as a determinant of product quality or the rate of innovation. Its focus will be not on predicting the precise impact of each possible deterioration on rivals' businesses, but on the overall question of whether in aggregate they could be foreclosed.'[414] We therefore consider in this section the role Activision's content, and in particular CoD, plays in

[413] CMA129, paragraph 7.14(a).
[414] CMA129, paragraph 7.14(b)

shaping downstream competition by looking at the evidence on the importance of this content to SIE's PlayStation.

Parties' views

7.155 Microsoft submitted that the Merged Entity will not have upstream market power, given Activision's low shares in terms of various metrics both in overall console game publishing and within the narrower segment of shooter games for consoles.[415] Microsoft further submitted that CoD's popularity varies over time and does not equate to market power (eg CoD Vanguard saw drops in purchases and player engagement).[416]

7.156 Microsoft submitted that CoD is not an important input to consoles because (i) gaming platforms like Nintendo and Steam have prospered without access to CoD; (ii) CoD did not drive platform adoption; (iii) a majority of Xbox users did not play CoD; (iv) for the vast majority of gamers, CoD was a small component of their overall gaming consumption;[417] and (v) gamers play multiple games and were not likely to be influenced to switch by a single game.[418]

7.157 Microsoft further submitted that SIE had overstated the importance of CoD to its viability because (i) CoD represented a small share of PlayStation's digital sales and total MAUs worldwide in 2021;[419] and (ii) CoD's significance to SIE was fuelled by SIE's marketing efforts and that it would be misleading to compare CoD with games that SIE does not market.[420]

7.158 The Parties also commissioned YouGov to carry out an online survey of console gamers in the UK from the agency's online panel. A total of [✂] gamers responded, of whom [✂] both used a PlayStation as their main gaming device and identified CoD as their favourite or second-favourite game.[421] Microsoft submitted that the aim of its survey was expanding the scope of the CMA's survey and assess the impact of any game on gamers' choice of console.[422] Microsoft submitted that the YouGov survey found that:

---

[415] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 1.5. See also Microsoft response to the CMA supplementary evidence paper.
[416] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.27.
[417] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 1.7.
[418] Parties, submission to the CMA.
[419] Microsoft response to the Phase 1 Decision, 11 October 2022, paragraph 3.17.
[420] Microsoft response to the Phase 1 Decision, 11 October 2022, paragraph 3.18.
[421] Microsoft, Annex to response to the Provisional Findings, 2 March 2023, paragraph 2.2 and supporting Excel replication file.
[422] Microsoft, Annex to response to the Provisional Findings.

(a) The most popular game on PlayStation is generally [✂] and that CoD's popularity is similar to that found for other games franchises.[423]

(b) Estimated levels of diversion are low across all titles, thereby showing that no single game drives console choice.[424]

(c) Xbox gamers systematically reported a higher inclination to switch away to the other console than PlayStation gamers as a result of their preferred games becoming unavailable on Xbox, thereby showing that PlayStation gamers have greater loyalty to their console than Xbox gamers.[425]

Our assessment

7.159 In order to assess the importance of CoD to PlayStation, we have assessed evidence on the following aspects:

(a) First, we have considered evidence on shares of supply, including (i) upstream game publishing shares of supply across consoles and on PlayStation; and (ii) shares of supply within the narrower segment of shooter games on PlayStation.

(b) We then consider other evidence on the importance of CoD to PlayStation, including (i) the level of engagement and spend by CoD gamers on PlayStation; (ii) evidence on CoD's role in console adoption, (iii) the success and longevity of the CoD franchise; (iv) evidence from revenue sharing agreements of consoles with various publishers including Activision; and (v) evidence from the Parties' valuation model. As part of our analysis, we look at a range of evidence, including the Parties' and third-party views and data, internal documents, and evidence from the Parties' and the CMA's surveys.

Shares of supply

- *Introduction*

7.160 The share of gamers' time and money spent on playing CoD is an indicator of the relative value they derive from playing CoD as compared to other games. In that sense, the greater CoD's share of supply within console game

[423] Microsoft, Annex to response to the Provisional Findings.
[424] Microsoft, Annex to response to the Provisional Findings.
[425] Microsoft, Annex to response to the Provisional Findings.

publishing, the more significant CoD is likely to be in influencing gamers' perception of how good the range of games on PlayStation would be.

7.161 Given the various cuts of shares of supply available, we first assess which metrics are the most informative of Activision's upstream market power in relation to CoD and the importance of CoD to PlayStation:

(a) First, we consider Activision's share of supply in the overall upstream console game publishing market.

(b) Second, we consider whether Activision's shares of supply in publishing on PlayStation are more relevant to our assessment of the importance of CoD to PlayStation than the shares in overall game publishing on all consoles. As noted above, shares of consumers' time and money spent on playing CoD on PlayStation would help us understand what proportion of SIE's range is currently accounted for by CoD, and therefore the impact on its competitive offering if it were no longer available or available on worse terms. While shares across all consoles are indicative of Activision's upstream market power in relation to CoD within the console publishing market, they may understate the importance of CoD to PlayStation in particular because they will include (i) games that are popular to gamers that play on other consoles such as Nintendo which, as set out above, has a differentiated offer and is not as close a competitor to Xbox and PlayStation, and (ii) first-party content held by Microsoft and Nintendo that may not be available to PlayStation.

(c) Third, we consider whether it is appropriate to assess shares of supply within genres (the shooter genre for CoD) or across all genres. As evidenced above, there is a certain degree of differentiation between genres in terms of their product offering, with games within a genre being considered most substitutable than across genres. The evidence also indicates that, whilst some users play games across genres, others are likely to prefer shooter games (and therefore may not find other games substitutable for that proportion of money or time spent). This means that shares of supply across all game genres might understate the importance of games that are within a genre (and that matters to a greater extent if the genre itself is important, which is true for shooters as evidenced above).[426] Therefore, whilst we consider the shares of supply across genres, we also look at the shares within the segment of shooter games

[426] On the other hand, shares of supply within a genre overstate the importance of a game, given material substitutability across genres.

to understand the extent to which shares across all genres may be an underestimate of the true importance of CoD to PlayStation.

(d) Fourth, we consider the relevance of shares of supply on a global and UK basis. As discussed in Chapter 5, we consider the geographic market for console game publishing to be global, whereas we consider the geographic market for console gaming services to be the UK (while taking account of broader evidence where relevant). In assessing whether the Merged Entity has the ability to foreclose, given our focus on whether PlayStation could be foreclosed (weakened) as a competitor in the UK, we consider UK shares to be more relevant.[427] In addition, global figures may include sales patterns for regions where CoD may be less important. As such, we discuss UK shares in the below assessment, but we also consider global shares where they are significantly different.

(e) Finally, we have not considered shares of supply in isolation. In a highly differentiated market such as console game publishing, some games may be more or less important than their shares of supply suggest. We therefore consider other evidence on the importance of CoD before concluding on the importance of CoD to SIE.

- *Shares of supply by consumer spend and gametime*

7.162 In this section, we consider the shares of supply by consumer spend and gameplay time constituted by CoD.

7.163 **Share of supply of games on all consoles:** First, we consider Activision's share of supply in overall upstream console game publishing. The Parties' submissions and data from third party market testing (for revenues only) show that Activision's share in console game publishing in the UK is [✂]% by revenue, [✂]% by digital downloads and [✂]% by gameplay time.[428] The other publishers and their shares (by revenue in console game publishing in the UK) were Electronic Arts ([✂]%), Nintendo ([✂]%), Take-Two ([✂]%), Ubisoft ([✂]%), SIE ([✂]%) and Epic Games ([✂]%)—we discuss them further in the section on available alternatives to CoD below.

7.164 However, as discussed above, we are of the view that shares of supply across all consoles are likely to underestimate Activision's strength in

[427] On the other hand, when we assess the Merged Entity's incentives to foreclose, our assessment is mainly at a global level as we recognise that decisions on game exclusivity etc are often made globally.
[428] Parties FMN. Globally, Activision's shares in console game publishing are [✂]% by revenue, [✂]% by digital downloads and [✂]% by gameplay time.

publishing and its importance to PlayStation. We therefore consider other relevant metrics of shares of supply below.

7.165 **Share of supply within all games to PlayStation:** Second, we consider the share of supply accounted for by Activision content, particularly CoD, as a proportion of all games currently available on SIE's PlayStation platform, without differentiating between genres.

7.166 Activision games, and CoD in particular, constituted a significant share of PlayStation consumer spend and gameplay time. Data from [✂][429] showed that:

(a) Activision had a share of [✂]% by consumer spend in 2021 globally and in the UK (with Microsoft representing a further [✂]%).[430] In particular, CoD constituted [✂]% of PlayStation consumer spend in the UK and globally.[431]

(b) Activision constituted [✂]% of gameplay time on PlayStation, with CoD alone accounting for [✂]% in the UK. Globally, CoD's share was [✂]%.

7.167 Additionally, we note that both consumer spend and gameplay time were concentrated on a few large game franchises including CoD on PlayStation, with a long tail of other games with lower shares of spend/gameplay time. Data from [✂] showed that, in the UK, [✂] of PlayStation's consumer spend and [✂] of PlayStation's gameplay time was on three franchises in 2021, including CoD. There were only two other titles—[✂] and [✂]—at similar levels of spend and gameplay time as CoD on PlayStation.[432] We discuss this further in the section on available alternatives to CoD below.

7.168 We note that the above shares of spend and gameplay time are consistent with the Parties' submission that CoD represented [✂]% of SIE's digital sales worldwide in 2021.[433]

7.169 **Share of supply of shooter games to PlayStation:** Shares of supply within the shooter genre indicate that CoD is particularly important to PlayStation in this genre. Data from [✂] showed that CoD accounted for a large share of PlayStation's revenue from shooter games in the UK, constituting [✂]% of total spend and [✂]% of gameplay time on PlayStation's shooter games in

---

[429] [✂] Internal Document; and [✂] Internal Document.
[430] Consumer spend includes digital spend and in-game purchases on B2P games. While we exclude physical spend, including it does not make a material difference to the shares of CoD on PlayStation.
[431] All Activision games constituted [✂]% of PlayStation spend in the UK and globally, with Microsoft representing a further [✂]%.
[432] [✂] Internal Document; and [✂] Internal Document.
[433] Microsoft response to the Phase 1 Decision, 11 October 2022, paragraph 3.17.

2021.[434] CoD similarly was important to PlayStation in shooter games globally, accounting for [✂]% of consumer spend ([✂]% if we only considered first-person shooters) and [✂]% of gameplay time ([✂]% for first-person shooters) in 2021.[435]

7.170 The only other shooter game that was similar to CoD in terms of consumer spend shares of supply was [✂] ([✂]% in the UK), with the next highest share being that of [✂] ([✂]%).[436] As above, we discuss alternative shooters further below.

- *Size and engagement of CoD gamers on PlayStation*

7.171 In this section, we assess the number of PlayStation gamers who play CoD, and the extent of their engagement with the game.

7.172 Microsoft submitted that [✂] of Xbox gamers did not play CoD in a specific year. According to Microsoft, amongst those gamers that do play CoD, the majority only do so for a short period of time.[437] In particular, among gamers that played at least one hour of CoD on Xbox in 2021, more than [✂]% played it for less than [✂]% of their total gaming time and [✂]% of CoD gamers spent less than [✂]% of their gaming time on the game.[438] The Parties also submitted that gamers play multiple games. More than [✂]% of gamers on Xbox played at least three games during 2021, with only [✂]% of total game time accounted for by gamers that played two or fewer games throughout the year.[439]

7.173 [✂] data shows that CoD has a large and engaged user base on PlayStation globally:

(a) On average across each month of 2021, [✂]% of PlayStation's MAUs on PS4 or PS5 with gameplay played a CoD game in that month.[440]

[434] [✂] Internal Document.
[435] [✂] Internal Document.
[436] [✂] Internal Document.
[437] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 1.7(c).
[438] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 1.7(f).
[439] Parties response to RFI. [✂].
[440] [✂], Annex to response to the CMA's questions; PlayStation's MAU on a given month are defined as the de-duplicated number of PlayStation accounts on the PS4 or PS5 that had any gameplay in that month. CoD's MAU on a given month are defined as the de-duplicated number of accounts that played any CoD game on the PS4 or PS5 in that month.

(b) [✂]% of PlayStation's Yearly Active Users (**YAU**) on PS4 or PS5 with gameplay played a CoD game in 2021.[441] In terms of the number of PlayStation devices, [✂]% of devices played a CoD game in 2021.[442]

(c) In terms of engagement, out of the PlayStation devices that played a CoD game in 2021, [✂]% played it for all their time, [✂]% played it for more than 80% of their time, and [✂]% played CoD for a significant amount of time (>20%).[443]

7.174 Microsoft submitted that the figures based on YAU are not informative, as they are estimated without applying any form of minimum threshold to capture engagement.[444] Microsoft also submitted that MAU figures are more informative.[445] It submitted that the Parties' own estimates of CoD MAU on PlayStation in 2021 suggests a [✂]% penetration at MAU level.[446]

7.175 We acknowledge that the YAU figures may overestimate the level of CoD engagement and that MAU figures may be more relevant. Nonetheless, we consider that the CoD MAU figures we estimated and presented above show CoD captures significant engagement among PlayStation users globally.

7.176 We also consider that the Parties' own estimates of CoD MAUs on PlayStation are not accurate and underestimate the importance of CoD on PlayStation.[447] Even by using Activision's estimates of CoD MAU on PlayStation instead of [✂]'s, we obtain that, on average across each month of 2021, [✂]% of PlayStation's MAU on PS4 or PS5 with gameplay played a CoD game in that month;[448] we still consider this to be a significant number.

---

[441] [✂], Annex to response to the CMA's questions; PlayStation's YAU are defined as the de-duplicated number of PlayStation accounts on the PS4 or PS5 that had any gameplay in 2021. CoD's YAU are defined as the de-duplicated number of accounts that played any CoD game on the PS4 or PS5 in 2021. The percentage of PlayStation's YAU that played CoD across all devices (including PS3 and those with no gameplay and only multimedia usage) is [✂]%.
[442] [✂], submission to the CMA.
[443] [✂], submission to the CMA.
[444] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.40(c).
[445] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.40(c).
[446] Microsoft response to the CMA supplementary evidence paper,12 April 2023, page 34-35; the Parties estimated the [✂]% figure by dividing the number of CoD MAU on PlayStation as estimated by Activision ([✂]) by their estimate of PlayStation MAU for 2021 as based on Sony's Supplemental Information to its financial report ([✂]).
[447] One of the reasons for the discrepancy between the Parties' figures and ours is that the Parties' estimate appears to be the number of CoD MAU on PlayStation as a proportion of all PlayStation MAU, thereby including PlayStation users who do not have any gameplay but performed activities like [✂]. ([✂], Annex to response to the CMA's questions). On the other hand, our estimate excludes those activities and focuses only on those PlayStation users that had any gameplay in 2021 – these are the relevant users to consider when assessing the importance of a certain game (eg CoD) for PlayStation. Another possible reason why the Parties' estimate differs from ours is that Activision and [✂] might have different methodologies to classify a user as a MAU, as suggested by Microsoft (Microsoft response to the CMA supplementary evidence paper,12 April 2023, page 34-35).
[448] This figure is obtained by dividing the average CoD MAU in 2021 as estimated by Activision ([✂]) by the average PlayStation MAU that had any gameplay in 2021 ([✂]).

7.177 While we acknowledge that the above figures are largely consistent with the Parties' submissions that a majority of PlayStation gamers do not play CoD and some CoD gamers are not highly engaged, we note that the shares of supply figures that we present above (eg [✂]% by consumer spend, [✂]% by gametime) already take that into account. Additionally, these shares are indicative of how much of PlayStation's 'range' of game offering is accounted for by CoD, and this is relevant to how much scope there is for PlayStation's overall range to be affected by CoD. It is not necessary for a majority of consumers to consume a product in a retailer's range for that product to contribute substantially to the overall attractiveness of that range and therefore to that rival's competitive offering.

Other evidence on the importance of CoD

7.178 In the previous sections we looked at the share of spend and gameplay time that CoD accounts for and the size and engagement of the CoD gaming community. However, as noted above, shares do not capture everything because (i) there is differentiation even within the segments considered, and (ii) some games with equal spend or time spent may have a greater or lesser influence on console choice than others. We therefore consider additional evidence on the importance of CoD.

- *Overall spend and gameplay of CoD gamers on PlayStation*

7.179 In this section, we assess whether CoD drives engagement and spend on other games on PlayStation.

7.180 SIE submitted estimates purporting to show the importance of CoD to their overall business. In particular, SIE submitted that CoD gamers on PlayStation generated estimated annual platform spending of around [✂] billion on hardware, peripherals, subscriptions, games, and other PlayStation services and that this represented around [✂]% of total spending on hardware, peripherals, subscriptions, games, and other PlayStation services.[449]

7.181 However, we consider that SIE's estimate overstates CoD's importance. The figure above includes spend of every user who played CoD regardless of the time spent on it. We consider that it would be more relevant to assess the importance of CoD by reference to users' engagement with CoD and the proportion of overall spend on PlayStation.

[449] SIE response to the phase 2 Issues Statement, 28 October 2022, paragraph 12.

7.182 As shown in the table below, the evidence provided by [✂] showed that:[450]

(a) Gamers that spent more than 80% of their time on CoD accounted for [✂]% of total platform spend (including [✂]% of all B2P game spend, [✂]% of hardware spend and [✂]% of subscription spend) and [✂]% of total gameplay time on PlayStation;

(b) Gamers that spent more than 50% of their time on CoD accounted for [✂]% of total platform spend (including [✂]% of all B2P game spend, [✂]% of hardware spend and [✂]% of subscription spend) and [✂]% of total gameplay time on PlayStation; and

(c) Gamers that spent more than 20% of their time on CoD accounted for [✂]% of total platform spend (including [✂]% of all B2P game spend, [✂]% of hardware spend and [✂]% of subscription spend) and [✂]% of total gameplay time on PlayStation.

7.183 Therefore, we consider the evidence above shows that customers that spent a significant amount of time playing CoD accounted for a substantial proportion of revenue across PlayStation's business, including customer spending on other games, hardware, and subscription on PlayStation. These customers also accounted for a significant fraction of total gameplay time on PlayStation across all games.

- *Diversion of spend and gameplay time based on survey evidence*

7.184 Along with the above evidence of overall spend and gametime by CoD gamers, evidence from the CMA survey is likely to be indicative of the actual spend and gametime that PlayStation would lose based on stated diversions of CoD gamers in the UK.

7.185 Our survey asked CoD gamers on PlayStation to think about the time when they bought their most recent PlayStation. The survey asked what they would have done if the most recent CoD game they owned at that time had not been available on PlayStation, but had been available on Xbox and PC.

7.186 Results indicated that 24% of respondents would have bought an Xbox, a PC, or no gaming device at all instead of a PlayStation. Adjusting this figure to account for all PlayStation users rather than the respondents considered in

[450] [✂] Internal document.

the survey, we found that withholding CoD from PlayStation would have made [✂]% of UK PlayStation users move away from PlayStation.[451]

7.187 Adjusting this diversion of PlayStation gamers to diversion of spend/ gametime, we found that the impact on PlayStation amounts to at least [✂]% of spend and [✂]% of gametime. This is because we found that in the UK, the average 'non-casual' CoD gamer in 2021 spent more than either the average gamer that played CoD 'casually' on PlayStation or the average gamer that did not play CoD on PlayStation.[452] This difference is even greater when we look at gametime.[453]

7.188 Microsoft submitted that [✂] – not the other way around.[454] According to Microsoft, its Xbox data shows that [✂].[455] Microsoft submitted that, as a result, the true value of switchers from the CMA survey should be [✂].[456]

7.189 However, our analysis of data provided by [✂] on PlayStation devices in the UK shows that PlayStation devices where CoD is not played at all [✂], and devices where CoD is the only game played also [✂]. Average spend is highest among those who [✂].[457] This pattern is very similar to [✂].[458] We consider the data on PlayStation devices to be more accurate for this analysis, given we are assessing the value of CoD players to PlayStation.

7.190 We also consider it is not necessarily the case that only the most engaged CoD gamers on PlayStation would switch. The distribution of switchers in terms of CoD engagement levels is unknown, but it will include some who play other games and therefore spend only a proportion of their gametime on CoD. Therefore, we believe that the best estimate of the amount of spend lost by PlayStation for each switcher as per the survey is the average spend of all 'non-casual' CoD gamers. This is the population of gamers we surveyed. This best estimate forms the basis to our adjustment to the value of diversion presented above.[459]

---

[451] Microsoft submitted an alternative calculation that indicates that less than [✂]% of PlayStation gamers would move away (Microsoft response to working papers, response to respondent level survey data). However, this is based on three adjustments we do not consider appropriate: excluding gamers who play only the free Warzone game, calculating the percentage of respondents who would buy an Xbox instead (excluding those who would buy a PC instead or no gaming device) and then re-scaling this percentage using published Monthly Average User statistics rather than annual figures.
[452] We classify gamers who spent more than 10 hours gametime or $100 spend in 2021/22 as 'non-casual' CoD gamers.
[453] CMA analysis of [✂] data.
[454] Microsoft response to Provisional Findings, 2 March 2023, paragraph 2.53; See also Microsoft response to the CMA supplementary evidence paper.
[455] Microsoft response to Provisional Findings, 2 March 2023, paragraph 2.54.
[456] Microsoft response to Provisional Findings, 2 March 2023, paragraph 2.54.
[457] [✂], Annex to response to the CMA's RFI.
[458] Microsoft, Annex to response to the CMA's RFI.
[459] The same reasoning applies to our adjustment of diversion by gametime.

7.191 In the YouGov survey submitted by the Parties and described above, gamers were asked how they would have responded if the latest CoD game had not been available for PlayStation but had been available for Xbox and PC. The Parties used this data to estimate that only [✂]% of all UK PlayStation gamers would switch to Xbox in response to total foreclosure of CoD.[460]

7.192 We gave this less evidential weight than the estimates derived from the CMA survey, for the following reasons:

(a) The relevant statistic for assessing ability to foreclose is the proportion of gamers that would leave PlayStation, not just the proportion that would switch to Xbox. We are trying to capture the impact on PlayStation's competitive offering and all switching away from PlayStation is indicative of the materiality of taking CoD away.

(b) Our survey good practice guide notes that some customer sources that are used in commercial research are generally not considered sufficiently robust by the CMA for merger cases. In particular, it advises against recruiting customers from panels with non-random samples, because such panellists may have systematically different attitudes and behaviours to other customers.[461] The YouGov panel used for the Parties' survey does not recruit its panellists in a way that meets the standards set out in the good practice guide.

(c) [✂] PlayStation gamers were asked about foreclosure of CoD in the YouGov survey, compared with 1,397 in the CMA survey.

7.193 There are reasons why our estimate of [✂]% of spend lost to PlayStation derived from the CMA survey may be an underestimate of the real impact. For example:

(a) Some of the CoD gamers that decided to stay on PlayStation will likely reduce their spend and gametime on PlayStation generally in the absence of CoD. We note that not all gamers will do so but, to the extent that gamers reduce their spend even by a fraction of their average CoD spend, there would still be a significant impact on PlayStation's spend and gametime.

(b) We are assuming all gamers who are part of the wider PlayStation user base that were ineligible for, and hence excluded from, our survey sample (because they do not play CoD or play it 'casually') do not move away

---

[460] Microsoft, Annex to response to the Provisional Findings, 2 March 2023.
[461] Good practice in the design and presentation of customer survey evidence in merger cases, May 2018, paragraph 2.27b.

from PlayStation at all. In fact, some gamers might decide to move away from PlayStation because, for example, their friends who play CoD switched reaction to a foreclosure strategy. This will increase the overall impact of foreclosure on PlayStation.

7.194 On the other hand, multi-homing may decrease the impact that foreclosure would have on PlayStation. Our survey indicates that, of those who owned more than one gaming device, 62% spent almost all of their game time on their main device. For consoles, this multi-homing can be within the same generation or with consoles across different generations. These gamers are likely to maintain some of their game time on PlayStation, at least in the short term. However, we consider it is likely that gamers will progressively switch more of their game time onto their new device, particularly for gamers that multi-home across devices of different generations, eg an old PlayStation and new Xbox.

7.195 Microsoft submitted that the assumption that any gamer who played CoD in a year, irrespective of the duration, would reduce their engagement level across PlayStation more broadly to the average gameplay time of gamers who never played CoD is unjustified and speculative.[462]

7.196 As explained above, we acknowledge that not all gamers who remain on PlayStation would reduce their spend and gametime on PlayStation in the absence of CoD. However, we think it is reasonable to assume that there would be at least some further reduction in gametime and spend. We have found that CoD is a popular game with limited substitutes, so it is likely that some gamers who stay on PlayStation would not switch to alternative games in place of CoD. Therefore, the engagement of these gamers on PlayStation could decline, leading to some reduction in gametime and spend on PlayStation.

7.197 Results from the CMA survey in relation to partial foreclosure are similar, albeit slightly lower than the diversion in the total foreclosure scenario described above. Results indicated 17% of our survey respondents, ie [✂]% of UK PlayStation users would move away from PlayStation in the event of a specific type of partial foreclosure strategy (ie content exclusivity). We have reservations about the results of our survey in relation to partial foreclosure, and discuss these below when we discuss our modelling of the Parties' incentive to foreclose.

---

[462] Microsoft response to Provisional Findings, 2 March 2023, paragraph 2.58.

7.198 We therefore consider that the above evidence shows that PlayStation would likely lose a significant share of its spend and gametime based on CoD gamers switching away from it.

- *CoD's role in console adoption*

7.199 Microsoft submitted that CoD does not drive platform adoption. It submitted that between 2016 and 2022 only [✂]% of gamers played CoD as their first game on their new Xbox console, and [✂]% of new Xbox gamers never played or purchased Call of Duty content on Xbox. The Parties stated that [✂] was the most common first-played game, with [✂], [✂] and numerous other titles being played first.[463]

7.200 Evidence from third party internal documents suggests that CoD is a major driver of console sales.

(a) For example, one [✂] document prepared in [✂] stated that over [✂].[464] Based on third party data, we note that this constitutes at least [✂]% of PS4's installed console base.[465] The document also stated that CoD titles represented [✂], and that [✂].

(b) Another [✂] internal document prepared in [✂] shows that, based on [✂], CoD is the second most important game in the UK for driving purchase interest [✂].[466] The same internal document finds that for more engaged consumers, the importance of CoD is even bigger. [✂].[467] [✂].[468]

7.201 We considered additional evidence to understand how relevant CoD is in the adoption of PlayStation consoles:

(a) First, we considered the proportion of PlayStation gamers globally who played CoD on the first day of buying the console. Data from [✂] showed that [✂]% of PlayStation gamers played CoD on the first day of gameplay on their new console in 2021, followed by [✂] ([✂]%), [✂] ([✂]%), [✂] ([✂]%) and [✂] ([✂]%).[469] CoD was also the most played franchise on

---

[463] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.25a.
[464] [✂], submission to the CMA.
[465] IDG data submitted by the Parties indicated an installed console base of [✂] million PlayStation 4 in the US. Whilst the time period over which the [✂] figure is measured over is unclear, considering the entire PS4 console base would be a lower bound of the share of console sales driven by CoD.
[466] [✂] Internal Document.
[467] [✂] Internal Document.
[468] [✂] Internal Document.
[469] [✂] submission to the CMA.

the first day of gameplay in 2020 globally, and ranked 3rd in 2018 and 2019 and 2nd in 2017.[470]

(b) Second, we considered the proportion of PlayStation consoles sold in a year globally that were used to play CoD in the first month following their purchase. Data from [✂] showed that [✂]% of PlayStation consoles sold in 2021 were used to play CoD in the first four weeks of gameplay, followed by [✂] ([✂]%), [✂] ([✂]%) and [✂] ([✂]%). CoD was also the most played game in the first four weeks following console purchase in 2020, ranked third in 2018 and 2019 and second in 2017.[471]

7.202 The above statistics show that a significant proportion of PlayStation gamers play CoD as one of their first games on buying a PlayStation, indicating that CoD is a key driver of platform adoption.

7.203 Evidence from the CMA survey also showed that the availability of CoD was an important factor in choice of console for survey respondents.

7.204 Among the respondents who stated that the availability of content on a console is important (89% of our sample), 73% of them said that the availability of CoD influenced them towards buying a PlayStation.

7.205 At an aggregate level, this was similar to those that were influenced by the availability of one or more PlayStation exclusive games (69%). However, individual PlayStation exclusives influenced smaller fractions of respondents—in particular, respondents were influenced by God of War (41%), Last of Us (39%), Marvel's Spider-man (37%) and Ghost of Tsushima (25.5%).

7.206 A significantly smaller share of respondents picked other games as being important in their choice of consoles: these games included GTA (45%), Assassin's Creed (23%), Fortnite (17%), Star Wars (15%) and Other (15%).

7.207 We note that evidence from the CMA survey in relation to the availability of games in driving console choice is likely to overstate the importance of CoD given the CMA survey was targeted at CoD gamers—we therefore place less weight on this piece of evidence but consider it in the round along with the other evidence on the importance of CoD.

[470] [✂] Internal Document.
[471] [✂] Internal Document.

7.208 Microsoft submitted that the success of platforms that do not offer CoD, such as Nintendo and Steam (on PC), show that CoD is not important to the success and adoption of a platform.[472] However, we note that:

(a) Nintendo is not a close competitor to Xbox or PlayStation (as set out above).

(b) Steam is not a gaming console, and the competitive dynamics of PC are different to consoles as noted in Chapter 5. PC gamers can access a range of content from different PC stores, including Steam and others, which they can then play on the same PC. This is different to the market for consoles, where most customers typically select one console, and that choice is driven in large part by the content available on the storefront for that console.

7.209 Microsoft also submitted that making CoD exclusive on Battle.net on PC since 2018 [✂].[473] We however note the following points in relation to the above:

(a) The comparison is not analogous because the alternative available to CoD PC gamers when it was withdrawn from Steam was Battle.net, which only offered Activision games. On the other hand, in the event of a withholding from or material degradation of CoD on PlayStation, CoD gamers on console would have the choice of Xbox, which offers a significantly larger catalogue of games relative to Battle.net. Therefore, it is likely to induce greater switching relative to Battle.net.

(b) Notwithstanding the above, making CoD exclusive on Battle.net allowed Activision to compete with Steam by offering fewer than 10 games, whilst Steam offered c.8000 games in 2018.[474] The fact [✂] shows the strength of the Activision portfolio, particularly CoD.[475]

- *Success and longevity of the CoD franchise*

7.210 In this section, we consider additional evidence on the overall performance of CoD over time.

7.211 Evidence shows that CoD has been one of a small number of large and consistently successful game franchises available to gamers for many years. As can be seen from the figure below, CoD has had a new release every year

[472] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.40(a) and (b).
[473] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.40(b).
[474] statista.com, accessed by the CMA on 19 December 2022.
[475] Microsoft response to the phase 2 Issues Statement, 31 October 2022, Figure 31.

since 2012, with each title selling at least [✂] units worldwide (except CoD Vanguard, which sold [✂] units).[476]

Figure 7.1: [✂]

[✂]
Source: Activision site visit.

7.212 Microsoft submitted that CoD's popularity varies over time and success in the previous release does not guarantee the success of future titles (eg CoD Vanguard saw drops in purchases and player engagement).[477] We agree that there was a drop in the total number of monthly active users across all CoD titles after the Vanguard release turned out not to be as successful (no change in the first 3 months after the release of CoD Vanguard, however an overall decrease of [✂]% in the first ten months of 2022 relative to the first ten months of 2021).[478] However, given the huge success of the latest release, CoD Modern Warfare II in November 2022, we infer that the fall in MAUs at the franchise level was temporary. For instance, Activision stated publicly that Modern Warfare II 'has become the #1 top-selling opening weekend ever in the franchise, delivering more than $800 million worldwide in sell-through following the first three days from its release on October 28, 2022'.[479]

7.213 In relation to PlayStation in particular, CoD has consistently performed well over the past few years. For example, data from Activision shows that [✂] in 2020 and 2021 compared to prior years due to the success of Warzone as a free-to-play title.[480] CoD titles, released annually, [✂]. For example, CoD World War 2 2017 made [✂]% of its total revenue to date in the [✂] months post release, with the figures for Black Ops 4 2018 ([✂]%) and Cold War 2020 ([✂]%) being similar.[481] Data also shows that add-on sales are [✂] part of CoD sales in recent years, indicating that the game is able to monetise in different ways.[482]

7.214 We further consider evidence from the Parties' internal documents, third party views and industry reports on the importance of the CoD franchise below.

7.215 **Internal documents:** Several internal documents discuss the relative size and importance of the CoD franchise overall to a platform, including its consistent and long-lasting success:

---

[476] Prior to 2012, CoD had a release at least once every two years, starting in 2003.
[477] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.27.
[478] Microsoft Internal Document.
[479] 'investor.activision.com', accessed by the CMA on 14 December 2022.
[480] Activision response to the CMA's s109 notice.
[481] Microsoft response to TOH 1 working papers.
[482] Activision response to the CMA's s109 notice.

(a) A 2019 letter to Activision shareholders noted that the CoD franchise has been the number one console franchise globally for 10 of the last 11 years based on third party data and Activision's estimates of upfront console sales.[483] Similarly, a 2021 letter to Activision shareholders refers to CoD as 'one of the most successful entertainment franchises of all time', but also notes that CoD Vanguard 'didn't meet our expectations'.[484] We also note the Parties' submission that the estimates in the 2019 letter did not include free-to-play games or post-sale monetisation, many of which are also popular.[485]

(b) One Activision internal document from 2020 shows that Activision had [✂] franchises generating revenues greater than USD [✂] based on owned IP across platforms and demos (including mobile and PC). Of these, CoD was the [✂]. The document states that there is '[✂] for Activision content across new distribution outlets and devices'.[486]

(c) One third party consultancy report submitted by the Parties prepared in 2020 show that CoD: Modern Warfare ranked second in 'Console Top Titles' in the UK by physical and digital unit sales in 2019 and 2020.[487] We note the Parties' submission that this ranking did not include free-to-play games or in-game revenues; and included other successful games such as FIFA, one SIE exclusive and two Nintendo exclusive games.[488]

7.216 Whilst we note that the above documents do not provide a comprehensive list of the importance of every game by every metric, they still point to CoD being consistently amongst the top franchises on consoles.

7.217 Internal documents also highlight the factors that make a large franchise like CoD successful, durable, and, therefore, important to a platform. These include the high level of brand awareness and the loyal user base it commands. For example, one Activision document prepared in 2020 noted that the top-grossing game charts are dominated by established franchises, with multiple factors driving the durability of game franchises. These factors included [✂] The document noted that CoD had [✂]; and stated that Activision's strengths lie in its [✂]; and [✂]. Other reasons highlighted for Activision Blizzard's success were [✂].[489]

---

[483] Activision Blizzard 2019 Annual report, page 5, accessed by the CMA on 17 January 2023.
[484] Activision Blizzard 2021 Annual report, page 2, accessed by the CMA on 17 January 2023.
[485] Microsoft response to working papers.
[486] Activision Internal Document.
[487] Microsoft Internal Document; and Parties Internal Document.
[488] Microsoft, response to working papers.
[489] Activision Internal Document.

7.218 In relation to the above document, Activision submitted that, even if big gaming franchises taken together are important to a console when looked at in aggregate, an individual franchise may not be as important by itself.[490] We agree with Activision that it is important for platforms to have access to a suite of franchises (which both Xbox and PlayStation currently do), and we also consider that taking away one of those major franchises from a console is likely to impact its ability to compete as effectively as it would absent such foreclosure. There are very few franchises with all or most of the features listed above.

7.219 Internal documents also discuss the importance of CoD to PlayStation in particular, including the revenue and sales it has brought to PlayStation and the impact on sales of PlayStation hardware:

(a) One Activision internal document shows that in 2020 the CoD franchise [✂] on PlayStation in multiple categories, including full game sales and standalone add-on revenue. The document also shows that CoD remains [✂], with [✂] games in the Top 10 best-selling games list.[491]

(b) Another Activision internal document states that Activision's content [✂] and would continue to do so. The document explains that a [✂] CoD partnership between SIE and Activision [✂] since the launch of PlayStation 4. The document concludes that Activision [✂] in the next generation.[492]

7.220 Activision submitted that both of the above documents were prepared [✂], and that the information presented in these documents are [✂] and presented in order to [✂].[493] Whilst we acknowledge that Activision may have [✂], we believe that these documents are nonetheless useful context around the success of CoD on PlayStation. In particular, we believe [✂].

7.221 **Third party views:** Third parties also noted that Activision games, including CoD, are strong franchises and important to competition in high-end gaming (whether in console, PC, or cloud gaming services):

(a) One third party [✂] stated that Activision games are 'critical to competition in high-end gaming'; are 'must have' games for many consumers of gaming platforms and have no meaningful substitute; and that CoD games help drive sales of the gaming platform.[494]

---

[490] Activision response to TOH 1 Ability working paper.
[491] Activision Internal Document.
[492] Parties Internal Document.
[493] Activision, response to TOH 1 Ability working paper.
[494] [✂] response to the CMA's RFI.

(b) Another third party [✂] stated that successful titles [like CoD] attract customers to their platform and impact on smaller titles; and that it was noticeable when new releases of Call of Duty were not available on their platform.[495]

(c) One gaming platform supplier [✂] submitted that CoD has the highest awareness and ownership of all third party franchises on its platform. It argued that having access to the CoD franchise is likely to be a priority for a larger number of players.[496]

7.222 **Third party industry reports:** Third party analyst and industry reports further point to the strength and endurance of the CoD franchise:

(a) An analyst report prepared by a third party media and telecommunication research company in 2021 noted that 'the Call of Duty franchise could hardly be stronger, with free-to-play (F2P) entry Call of Duty: Warzone driving a structural step-up of in-game monetization'. The document also noted that Call of Duty: Mobile, one of the biggest mobile launches in the West, should continue to grow.[497]

(b) Another public article stated that CoD had the most passionate fan base amongst top gaming brands in 2019. It explained that CoD's significance to entertainment could not be overstated, with it being the only game in the top 10 of all entertainment brands amongst the most avid gamers.[498]

(c) Another external industry report submitted by a third party [✂] discussed a research consumer survey dated September 2021, covering a set of countries (UK, US, Canada, Australia, Germany, France, Sweden, Brazil, South Korea). The survey found that in Q3 2021, CoD was the most played game, played by 17% of the sampled consumers. The survey found that among the top 15 most widely played games in those countries in Q3 2021, CoD was played by the highest percentage of sampled consumers (17%). [499]

- *Evidence from revenue-share agreements*

7.223 We have seen evidence that Activision has been able to negotiate [✂] of B2P sales on both Xbox and PlayStation storefronts as compared to [✂]:

---

[495] [✂] call note.
[496] [✂] response to the CMA's RFI.
[497] Activision Internal Document.
[498] 'Report: Call of Duty has the most passionate fan base among 2019's top gaming brands', accessed by the CMA on 3 August 2022.
[499] [✂], Annex to response to the CMA's RFI.

(a) Activision keeps [✂] and [✂]% for other third party games on average (including [✂]).[500]

(b) Similarly, Activision has negotiated a revenue share of [✂]% for CoD on PlayStation,[501] [✂]% for other third party games on average.[502] This suggests that Xbox and PlayStation are willing to make a more attractive offer to CoD in order to attract it to their platform.

7.224 Microsoft submitted that publishers' contractual terms with Xbox include [✂]. Based on this, Microsoft submitted that Activision's [✂] is [✂]%. In comparison, [✂] of [✂].[503] Whilst we acknowledge that an assessment of bargaining power should consider all aspects of the contractual relationship with publishers, we note that the above evidence still indicates that Activision [✂].

7.225 The greater bargaining power of Activision in relation to CoD was also confirmed in testimonial evidence by Microsoft's executives. The Corporate Vice President of Xbox, stated in an FTC interview that [✂], and stated that [✂].[504] [✂]. In the same FTC interview, [✂] also stated that [✂].'[505] [✂] also stated that [✂].[506]

- *Evidence from the valuation model*

7.226 In addition to valuing Activision's existing business at $[✂], the valuation model used by the Parties in relation to the Transaction places [✂].[507]

7.227 First, the valuation model includes [✂].[508] [✂].[509] We also note that this [✂] implying that to the extent that adding CoD makes a difference even in the context of other games being available, taking CoD away from a rival is also likely to have a substantial impact.

7.228 Microsoft submitted that (i) [✂]; (ii) [✂]; and (iii) [✂].[510]

7.229 In relation to the above, we note that [✂].[511]

---

[500] Parties response to the CMA's RFI.
[501] [✂] response to the CMA's RFI.
[502] [✂], submission to the CMA.
[503] Microsoft, response to TOH 1 working papers.
[504] FTC transcript.
[505] FTC transcript.
[506] FTC transcript.
[507] Parties Internal Document.
[508] Specifically, on Game Pass, the model [✂].
[509] Parties Internal Document.
[510] Microsoft, response to TOH 1 working papers.
[511] The Parties submitted that [✂]. See Parties Internal Document.

7.230 Second, [✂]:

(a) [✂];

(b) [✂]; and

(c) [✂].[512]

7.231 Whilst we note Microsoft's submission that the increase in ASP is an industry factor not specific to Activision,[513] we nevertheless consider that [✂]demonstrate its continued importance to gaming platforms, including consoles.

Conclusion on the importance of CoD

7.232 Based on the above evidence, our view is that CoD is strong in the upstream market for console game publishing and is an important input to PlayStation. It is one of the three largest franchises on PlayStation. It contributed a significant share of PlayStation's consumer spend and gameplay time in 2021.

7.233 There are additional factors that make CoD an important input to PlayStation:

(a) CoD is particularly important to PlayStation within shooter games, an important segment of the market.

(b) CoD is important in driving console sales and a significant proportion of PlayStation console sales are associated to sales of CoD. Nearly a quarter of respondents to the CMA survey stated that they would switch away from PlayStation if CoD were not available on it – this is equivalent to [✂]% of PlayStation total users.

(c) Gamers that spend more than a fifth of their gametime on CoD generate a significant amount of revenue on PlayStation in the form of spend on third party games. Evidence from our survey indicated that PlayStation could lose at least [✂]% of its overall consumer spend based on diversion of CoD gamers.

7.234 There are other features that are unique to CoD (and possibly few other titles, as discussed further in the section below) that increase this importance:

---

[512] Parties Internal Document.
[513] Microsoft, response to TOH 1 working papers.

(a) CoD is one of the largest game franchises available to consoles currently and has been for a long time. As evidenced above, game franchises are instrumental in driving demand to a gaming platform like a console.

(b) Data on units sold and revenues show CoD has had consistently successful annual title releases for at least the past 10 years.

(c) CoD has a high level of awareness and brand loyalty among gamers, and it is a multiplayer game with a social component which induces network effects, making it less likely that gamers will unilaterally switch away from the franchise.

7.235 Overall, we conclude that CoD is an important input in the console gaming services market.

Alternatives to CoD

7.236 In this section, we assess the alternatives to CoD that are available to PlayStation, and the implications of these alternatives for the ability of the Merged Entity to foreclose SIE.

7.237 Before considering evidence on the availability of alternatives to CoD, we make the following observations relating to how this evidence fits into our wider assessment:

(a) The loss of CoD would represent a net reduction in SIE's range. A foreclosure strategy would move SIE from a scenario where all of its current games are available to a scenario where one of its most important games is no longer available.

(b) In that context, the purpose of assessing evidence on the alternative games and franchises available to SIE is not to examine to what extent those games could be used to 'replace' CoD and maintain a range of equal quality to the range absent any foreclosure. Rather, the purpose is twofold:

(i) First, to the extent the range of other games is sufficiently large and popular, this would reduce the overall significance of CoD to SIE's range. The question we are assessing is therefore not whether other popular games exist, but rather whether the number and popularity of other games is sufficiently great that the elimination of the CoD franchise from PlayStation's range would not represent a significant reduction in range in relative terms.

(ii) Second, to the extent there is differentiation between games, the inability of a console supplier to offer more of those differentiated games will tend to be more significant by contributing to a worse range and less consumer choice. Conversely, where games are not significantly differentiated from each other, the removal of any individual game or franchise would be less likely to make a significant difference to range or choice.

7.238 We therefore consider below evidence on the alternatives to CoD, as well as the extent of differentiation between them. This section focuses on the availability of alternatives that already exist. We consider the scope for entry and expansion by other alternatives (including SIE's first-party games) in response to the Merger in Chapter 9.

Parties' views

7.239 The Parties submitted that Activision's shares in the upstream publishing market indicated that the market was highly fragmented, with gamers playing the games of many different publishers, and with each of those publishers having a limited position overall. They submitted that Activision games had a modest share; that Activision had a share of MAU of [✂]% globally in 2021; and that other publishers were of equal or comparable scale, including Electronic Arts (eg FIFA, Apex Legends, Star Wars) at [✂]% globally, Epic Games (eg Fortnite), with a share of [✂]% globally and Take Two (eg GTA, Red Dead Redemption) with a share of [✂]% globally.[514] Microsoft submitted that data from NPD, a market research company, shows that PlayStation gamers buy games from a large range of publishers to play on their console. It submitted that, according to this data, [✂] is the largest supplier of games to PlayStation, followed by [✂] and [✂]. [✂] and [✂] are listed as the fourth and fifth largest game publishers respectively.[515] As the Parties noted, this data does not include F2P games such as Fortnite and CoD Warzone. [516]

7.240 The Parties also submitted that there were several other franchises that gamers play. They stated that whilst Fortnite and CoD account for a significant proportion of game-time played on Xbox ([✂]% and [✂]% in 2021, respectively), gamers also play popular games such as GTA, FIFA, Minecraft, NBA2K, Tom Clancy, Roblox, Apex Legends and Rocket League, which account for a significant proportion of the remaining game-time.[517]

---

[514] Parties, submission to the CMA.
[515] Microsoft response to the Provisional Findings, 2 March 2023, paragraphs 2.33 to 2.36.
[516] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.33.
[517] Parties, submission to the CMA.

7.241 The Parties submitted that Activision's internal documents also consistently recognise the strength of other franchises as a competitive constraint on CoD, reflecting the fact that CoD is not an important input to SIE. Activision's documents monitor games in the 'shooter' genre, [✂]; along with other games [✂].[518]

7.242 The Parties further submitted that SIE had a large portfolio of high-quality exclusive first-party content that would continue to attract users to its platform. This included prominent titles such as The Last of Us, Ghost of Tsushima, God of War, Spider-Man and Demon's Souls. The Parties said that these exclusive first-party titles accounted for approximately 17% of consumer spend on PlayStation over the period 2019-2021.[519]

7.243 The Parties also submitted that their YouGov survey shows that [✂], not CoD, was the game reporting the highest level of diversion, both in terms of past console purchases ([✂]%) and future purchases ([✂]%). According to the Parties, the YouGov Survey also confirms that CoD falls squarely in the middle of the pack of games available on PlayStation that would prompt diversion, which the Parties submitted in any event is minimal across all games. [520]

7.244 As a preliminary point, as noted above, the availability of other strong franchises on PlayStation may not be inconsistent with CoD being important to the range of PlayStation's offer, particularly because PlayStation gamers already have access to these other franchises. We have already considered the limitations of the Parties' YouGov survey above. We discuss the rest of the Parties' arguments in our assessment below.

Our assessment

Third party views and internal documents

7.245 As noted in Chapter 5, we received mixed evidence from third party publishers on CoD's closest rivals, indicating that while CoD competed most closely with other shooter games, it is also constrained by titles from large franchises across genres such as FIFA, Grand Theft Auto, Assassin's Creed etc. We consider the evidence from third parties and their internal documents on the effectiveness of these competitors in helping PlayStation continue to compete.

---

[518] Parties submission to the CMA [✂].
[519] Microsoft response to the phase 1 decision, paragraph 3.9.
[520] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.69.

7.246 Third party views indicate that existing alternatives available to PlayStation, including other shooters and its first-party content, were not as strong as CoD. One competitor [✂] submitted that console gamers are more interested in purchasing a new CoD title than any other third party franchise.[521] The competitor also stated that third party developers and/or publishers, who already have strong incentives to develop an alternative to CoD, have not managed to do so. The competitor provided the example of Electronic Arts' Battlefield, stating that despite the apparent similarities between Battlefield and CoD (eg Battlefield games have been set in both WWII and the modern era; may contain story-driven campaigns with rich cinematics; and include large-scale multiplayer modes with similar game types, etc), and despite developing other successful AAA franchises (such as FIFA, Mass Effect, Need for Speed, and Star Wars: Battlefront), Electronic Art's Battlefield had failed to achieve CoD's level of user engagement.[522] The competitor submitted that as of August 2021, more than 400 million CoD games had been sold, while Battlefield had sold just 88.7 million copies.[523] The competitor also submitted that [✂] first-party content was not of the same scale and importance as CoD.[524]

7.247 Third party internal documents however also suggested that titles like [✂], [✂], [✂] and [✂] performed similarly to (and sometimes outperformed) CoD in terms of sales and gameplay time. For example:

(a) One third party internal document suggested that there are alternative games, such as FIFA, with a similar impact on [✂] as CoD.[525]

(b) Another internal document of the same third party showed that as of February 2022, only [✂] attracts more gaming hours than CoD.[526] No shooter game attracts similar levels of gaming hours to CoD.[527] Other games that ranked below CoD in terms of hours included [✂], [✂] and [✂].

(c) Another third party industry report stated that in terms of pure physical and online sales (with no in-game purchases), [✂] had the largest sales in 2021, with CoD games in second and fourth place. CoD is the only shooter-genre game in the top 10.[528]

---

[521] [✂] submission to the CMA.
[522] [✂] submission to the CMA.
[523] [✂].
[524] [✂] response to the CMA's RFI.
[525] [✂] Internal Document.
[526] [✂] Internal Document.
[527] [✂] Internal Document.
[528] [✂] Internal Document.

Evidence from the Parties' internal documents

7.248 As noted above, Activision's internal documents list and track [✂] as competitive constraints to CoD (and Overwatch), before considering other games. We also discussed in Chapter 5 the evidence as regards closeness of competition within the shooter segment.

7.249 In terms of the effectiveness of these competitors, the Parties' documents show that CoD is one of the top performing games on Xbox, with [✂], [✂] being closest to it in terms of revenue and MAU. Other games such as [✂]. For example:

(a) A Microsoft document analysing sales of third party titles shows that [✂].[529] Multiple documents also showed that [✂].[530]

(b) An Activision document comparing premium and F2P first-person shooter games shows that [✂]% of revenues of the set of premium first-person shooter games considered were from CoD in 2020, with Destiny, Overwatch, PUBG, Rainbow Six and Battlefield each being less than [✂]%. In the F2P sector, Fortnite was at [✂]% of revenues of the set of F2P games considered, with CoD Warzone at [✂]%, and other competitors like Apex Legends and Valorant were less than [✂]%.[531]

7.250 Activision's internal documents also show that other shooters, such as [✂], do not perform as well as CoD in terms of revenues and engagement:

(a) An Activision document assessing the impact of CoD's expansion on Steam in 2022 uses the shares of [✂] on PC as a proxy for CoD, indicating that these games are considered to be close competitors.[532]

(b) Another Activision document comparing the performance of [✂] and CoD at the time of their respective season releases shows that CoD had significantly greater revenues and MAU than [✂].[533] For example, CoD (Black Ops Cold War and Warzone) made USD [✂] million in the first 5 days after the release of its Season 3 (in April 2021) whereas [✂] made USD [✂] million after its Season 8 release (in February 2021). Similarly, CoD had [✂] million MAU in the first month while [✂] had [✂] million.[534]

---

[529] Microsoft Internal document.
[530] Microsoft Internal document; and Microsoft Internal document.
[531] Activision Internal Document.
[532] Activision Internal Document.
[533] Multiplayer games have temporary 'seasons' wherein the developers can make changes in the game and introduce new content (such as maps, weapons, etc), and often will cover a few months and/or have special themes.
[534] Activision Internal Document.

Other evidence

7.251 Data from [✂] showed that the top 100 games on PlayStation by consumer spend are published by more than 30 publishers globally. However, only four third party publishers had a share of spend greater than 5% on PlayStation globally in 2021: [✂], [✂], [✂] and [✂]. In addition, SIE publishes successful exclusives which collectively account for [✂]% of the total spend on PlayStation.[535]

7.252 We consider this data to be more reliable than the NPD data submitted by the Parties and described above, as it [✂] and therefore provides a more accurate picture of the share of different publishers on PlayStation. In assessing whether there are any games that are effective alternatives to CoD, we look at (i) other game franchises across genres available on PlayStation; (ii) other 'shooter' games on PlayStation that are likely to compete with CoD; and (iii) exclusive games on PlayStation that are likely to draw gamers to the platform.

7.253 In relation to assessing the extent of differentiation between CoD and these available alternatives, we note that evidence presented in Chapter 5 shows that there is a certain differentiation between genres, making shooter games different to other games such as FIFA, Grand Theft Auto, etc. We therefore do not reassess the differentiation between CoD and non-shooter games. However, we consider where relevant the extent to which CoD differs from other shooters.

- *Alternative franchises on PlayStation*

7.254 There are two games/franchises that in recent years have performed on the same scale as CoD in terms of spend and gameplay time on PlayStation. 2021 data from [✂] indicated that:[536]

7.255 In terms of share of consumer spend in the UK, FIFA ([✂]%) is larger than CoD ([✂]%) and Fortnite is of a similar size ([✂]%).

7.256 In terms of share of gameplay time, FIFA ([✂]%) is the only game bigger than CoD ([✂]%) in 2021 in the UK. Fortnite is the only game bigger than CoD at a global level ([✂]%).[537]

---

[535] [✂] Internal Document; and [✂] Internal Document.
[536] [✂] Internal Document; and [✂] Internal Document.
[537] The shares of consumer spend at a global level were [✂]% for FIFA and [✂]% for Fortnite in 2021. In terms of gameplay time, the shares of FIFA and Fortnite were [✂]% and [✂]% respectively globally.

7.257 Other games/franchises on PlayStation include NBA, Genshin Impact, Apex Legends, Grand Theft Auto and Assassin's Creed. However, their consumer spend and gameplay times are significantly lower than CoD. For example, in 2021, none of these franchises had a share of revenue greater than [✂]% in the UK; nor a share of gametime greater than [✂]%.[538]

7.258 FIFA, Fortnite and CoD also have the highest levels of engagement of gamers on PlayStation. Account-level data from [✂] for 2021 showed that:[539]

(a) [✂]% of PlayStation gamers played FIFA for more than 40% of their total gametime, and [✂]% played it for more than 80% of their total gametime;

(b) [✂]% of PlayStation gamers played Fortnite for more than 40% of their total gametime, and [✂]% played it for more than 80% of their total gametime.

(c) By comparison, [✂]% of PlayStation gamers played CoD for more than 40% of their total gametime, and [✂]% played it for more than 80% of their total gametime.

(d) There was a substantial gap with the level of engagement reached by other games. Apart from GTA (and to a lesser extent Apex Legends and Minecraft), not more than [✂]% of gamers played any of the other games available on PlayStation for more than 40% of their total gametime. Similarly, not more than [✂]% of gamers played any of the other games for >80% of their total gametime

7.259 Microsoft submitted that CoD is not the most popular franchise; and submitted data on playtime share and various user rankings (such as on Metacritic, PlayStation user polls) and game reviews of top video games (such as those by IGN, Business Insider etc) to evidence that CoD does not feature highly on these lists, and is consistently outranked by other games.[540] Whilst we have considered this evidence, we believe that data on actual revenue and gameplay time on PlayStation provides a better indication of its importance to SIE and should be given more weight.

7.260 The Parties also submitted that there is a wide range of studios that have produced a hit title, and that SIE would have the ability to work with these third party developers. These studios included Epic Games, Electronic Arts, Riot Games, Konami, TakeTwo Interactive, Ubisoft, etc.[541] The Parties also

---

[538] [✂] Internal Document; and [✂] Internal Document.
[539] [✂] Internal Document.
[540] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.44.
[541] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.43e.

submitted that new titles often reach the top of game-time charts. They stated that each month, at least [✂] new titles are released on Xbox, and over the past five years almost [✂] of those new titles have risen into the top 25 games, and that [✂]% of those had done so within [✂] of their release.[542]

7.261 We acknowledge that there are a range of studios that have produced hit titles over the years. However, we consider there are few franchises as enduring and as significant in terms of PlayStation's revenue and gameplay time as CoD. In relation to the new titles that reach the top of game charts, the Parties' data above indicates the low chance of success – the data above shows that [✂]% of titles have made it to the top 25 games over the past five years.

- *Alternative shooters on PlayStation*

7.262 Alternative games from the shooter genre are smaller than CoD and/or offer a differentiated experience. We discuss below three games that could broadly be considered as shooters and that compete with CoD: Fortnite, Battlefield, and Apex Legends.

7.263 **Fortnite** is a free-to-play multiplayer shooter game published by Epic Games, which contributes significantly to PlayStation's range of spend and gameplay time.[543] Data from [✂] showed that Fortnite represented [✂]% of gameplay time on PlayStation, and [✂]% in the shooter genre in the UK. This is similar to CoD, whose gameplay time contribution was [✂]% in the UK (and [✂]% within shooters).[544] Results from our survey of CoD users on PlayStation indicate that among those respondents to whom content on a console is important (89% of our sample), 17% of them would be influenced to buy a PlayStation by the availability of Fortnite, versus 73% for CoD. However, we note that this survey was targeted at CoD gamers and therefore will over-represent console gamers with a preference for CoD. We therefore consider this evidence in the round along with the other evidence on the importance of content.

7.264 Moreover, as set out above, to the extent two products are differentiated, PlayStation's ability to offer both games will tend to be of value to consumers.

---

[542] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.43f.
[543] Fortnite was initially developed as an independent game with a small team and budget and released in 2017; however, it soon became successful with millions of players playing the game in the first few months, and earning more than $1 billion in its first year. See for example, How Fortnite became the most successful free-to-play game ever – The New Economy, accessed by the CMA on 28 December 2022.
[544] [✂] Internal Document.

In this context, we have identified a number of aspects of Fortnite's gameplay that are substantially differentiated from CoD. In particular:

(a) Gameplay mode: Fortnite has different modes that are not always first-person shooter (unlike CoD), and its main mode is battle royale, with CoD Warzone being the only CoD title with this mode available.

(b) Game features: The overall theme of Fortnite is more casual/cartoon-like, and has fewer elements of serious combat as in CoD and the additional build element. The game therefore targets a younger demographic because of the above—Fortnite's age rating is 13+, whereas CoD has an age rating of 18+.

(c) Business model: The game is largely free to play (similar to CoD Warzone but not other CoD titles), with a single title that gets regularly updated/expanded.

7.265 **Battlefield** is a multi-player shooter franchise published by Electronic Arts, which is significantly behind CoD in terms of user spend and gameplay time. Data from [✂] showed that in 2021, Battlefield contributed to less than [✂]% of overall gameplay time in the UK (CoD at [✂]%) and [✂]% within shooters (CoD was at [✂]%).[545] We note that though Battlefield releases its titles less frequently than CoD (normally in 3-year cycles), CoD and Battlefield both released a title in late 2021—CoD Vanguard and Battlefield 2042 respectively.

7.266 Battlefield however is the closest game to CoD in terms of gameplay features and settings. For example:

(a) Gameplay mode: Similar to CoD, Battlefield is a first-person shooter game. In its latest release, Battlefield offers an online multi-player game mode like CoD.

(b) Game features: Similar to CoD, Battlefield is a first-person shooter whose context is either the Second World War or a modern world. Also, like CoD, Battlefield contains story-driven campaigns with rich cinematics.

7.267 Various publishers also listed Battlefield as being the most similar to and the closest competitor to CoD, as evidenced above.

7.268 **Apex Legends** is another battle royale shooter game published by Electronic Arts, and is also smaller than CoD in terms of consumer spend and gameplay time on PlayStation. [✂] data showed that Apex Legends was the third biggest shooter game in the UK after CoD and Fortnite, and contributed to

---

[545] [✂] Internal Document.

[✂]% of overall gameplay time on the PlayStation in the UK (as compared to [✂]% of CoD), and [✂]% within shooters (CoD being at [✂]%).[546]

7.269 In relation to differentiation, we note that Apex Legends is more battle-royale focused, whilst premium CoD titles are multiplayer games with different modes (though we note CoD Warzone is battle-royale focused). Apex Legends offers some similarities in graphics style and war settings to CoD, though its mechanisms and gameplay are significantly different.

7.270 Overall, there are limited alternative shooter games comparable in both size and experience to CoD. Fortnite is similar or bigger in terms of user spend on PlayStation, but its gaming experience is significantly differentiated. Battlefield and Apex Legends provide a more comparable experience but are [✂] less successful than CoD on PlayStation (indicating that given the choice, players prefer CoD over these other similar games). Therefore, we consider that any withholding of CoD is likely to affect consumers that game on PlayStation in terms of the range and quality of games available to them.

- *SIE's first-party and third party exclusive catalogue*

7.271 Microsoft submitted that SIE has a strong catalogue of first and third party exclusive games: SIE publishes bestselling first-party titles such as God of War, The Last of Us, Marvel's Spider-Man, Uncharted, Ghost of Tsushima, etc. The Parties submitted that SIE also has a portfolio of high-quality exclusive third party content including Genshin Impact, Final Fantasy 16, Bloodborne, Sackboy: A Big Adventure, Street Fighter V, Sifu and the Silent Hill 2 remake.[547]

7.272 Results from our survey indicate that exclusives are one of the main factors that drive console choice (noting above the point that our survey was targeted CoD gamers and needs to be interpreted accordingly). Among those respondents to whom content on a console is important (89% of our sample), 69% of them indicated that the availability of exclusive games would influence their choice of purchasing a PlayStation.

7.273 However, data from [✂] shows that SIE exclusive titles are each significantly smaller than CoD in terms of consumer spend on PlayStation. For example, SIE's best performing exclusive title in 2021 globally was [✂]. Its total consumer spend for SIE was [✂] of that from CoD in 2021, [✂]. Another successful title is SIE's first-party title Marvel's Spider-Man which generated a consumer spend of c.$ [✂] million across all its titles over the period 2019-

[546] [✂] Internal Document.
[547] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.43c.

2022, ie [✂] of the revenues generated by CoD only on PlayStation in 2021.[548]

7.274 [✂] if we consider all SIE's (fully) exclusive content portfolio in aggregate, their size in consumer spend terms is [✂] than CoD in 2021.[549]

Conclusion on alternatives to CoD

7.275 As noted above, the loss of CoD would represent a net reduction in SIE's range, which cannot be fully offset by games that are already available on PlayStation.

7.276 Based on the above evidence, we conclude that there are few other games—including franchises, shooter games and SIE's exclusives—with comparable consumer spends and gameplay time as CoD that are available on PlayStation. This therefore means that the elimination of the CoD franchise from PlayStation's range would represent a significant reduction in range in relative terms.

7.277 We also conclude that most of the above games offer a differentiated experience to CoD:

7.278 Non-shooter games (including SIE's top exclusive games) like FIFA, GTA, NBA, Marvel's Spider-man etc are a different genre to that of CoD; and these games would not be a close substitute for CoD games in the absence of CoD on PS.

7.279 Within shooter games, the closest alternative to CoD is Battlefield – however, it was significantly behind CoD in terms of consumer spend and gameplay time in 2021. There are other shooter games like Fortnite and Apex Legends that are comparable to CoD in terms of performance, but there is sufficient differentiation between them and CoD that these cannot be considered close alternatives to CoD.

7.280 The extent of differentiation, including within shooters, of CoD's closest alternatives means that any foreclosure strategy will significantly impact PlayStation's ability to offer more of those differentiated games by contributing to a worse range and less consumer choice.

7.281 We note that PlayStation also has the option of expanding an existing game or creating a new game, either using SIE's first party studios or by tying up

[548] [✂] Internal Document.
[549] [✂] Internal Document.

with third party publishers, in response to the Merger. We discuss this in Chapter 9.

Contractual arrangements and negotiations

7.282 In this section, we assess the impact that the Merging Parties' contractual arrangements and negotiations could have on the Merged Entity's ability to foreclose SIE. Activision has an existing contract with SIE covering the arrangements between the two entities with regards to the availability of CoD, to SIE PlayStation. This contractual arrangement lasts until the end of 2024 [✂].

7.283 In addition, Microsoft has made a separate offer to SIE to keep CoD on PlayStation post-Merger.[550] Microsoft has also noted that it has entered into a legally binding 10-year agreement with Nintendo to bring CoD to Nintendo platforms post-Merger.[551] Microsoft added that an offer was made to Steam that was ultimately declined.[552] As this theory of harm is focused on SIE for the reasons already discussed, we have focussed our assessment on any potential impact on the Merged Entity's ability stemming from contractual arrangements and negotiations with SIE.

Parties' and SIE's views

7.284 Microsoft submitted that contractual arrangements would limit the Merged Entity's ability to foreclose because SIE has more than ample time to adapt its commercial strategy. Microsoft initially stated that this is because access to CoD is guaranteed through to [✂] the end of 2024 under SIE's existing agreement with Activision and through at least the end of 2027 if it were to accept Microsoft's contractual offer.[553] Microsoft also submitted that the existing agreement between SIE and Activision includes [✂].[554]

---

[550] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 3.47 and 3.50(g). See also Microsoft, letter to the CMA and Microsoft, letter to the CMA.
[551] Microsoft explained that it entered into a final agreement with Nintendo on [✂] February 2023 to publish CoD titles on Nintendo post-merger. Microsoft explained that the agreement provides that Microsoft will develop and publish future native console versions of CoD titles for Nintendo platforms for [✂] 10 years and that Microsoft will publish future CoD versions for Nintendo platforms on the same date as the release of those versions on Xbox console platforms and will maintain feature and content parity to the console versions published on Xbox console platforms, [✂] (see Microsoft response to the Provisional Findings, 2 March 2023, paragraphs 1.2 and 4.6).
[552] Microsoft, letter to the CMA. We note that Valve has commented publicly that an agreement with Microsoft is not necessary to keep CoD on Steam. See, for instance, videogameschronicle.com, accessed by the CMA on 17 January 2023.
[553] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.43(g).
[554] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.10. See also Microsoft, email from Microsoft to CMA.

7.285 Since those submissions, the offer to SIE [✂] to cover a ten-year period [✂].[555] As far as we are aware, this offer from Microsoft has not been accepted by SIE. While SIE [✂],[556] Microsoft submitted that [✂];[557] we understand that [✂].[558]

7.286 SIE submitted that no contractual protections can ever provide proper protections against a foreclosure strategy, nor would any contractual arrangement be able to predict the myriad foreclosure strategies available to Microsoft.[559] SIE also stated that Microsoft has mischaracterised its initial offer to SIE,[560] [✂].[561]

7.287 Both Microsoft and SIE have provided detailed chronologies to the CMA of the negotiations between Microsoft and SIE, providing their own commentary on why certain aspects of certain offers should or should not have been accepted by the other party, as well as the respective motivations of Microsoft and SIE.[562]

Our assessment

7.288 The MAGs state that:

> 'The CMA's assessment of the ability of the merged entity to foreclose its rivals is unlikely to place material weight on contractual protections, for example, to continue supplying both the current version and future upgrades of the input. In practice, such contracts may not completely remove a firm's ability to harm its rivals, given that certain rivals might not be covered by these contracts, the contracts might not protect all ways in which the competitiveness of rivals could be harmed, and the contracts may be of limited duration. Moreover, over time contracts may be renegotiated or terminated, and firms may waive their rights to enforce any breaches in light of their overall bargaining position (reflecting the change in market structure brought about by a merger). However, the CMA may consider any financial or reputational costs of terminating contracts in its assessment of foreclosure incentives.'[563]

---

[555] See Microsoft, letter from Microsoft to the CMA. See also Microsoft, response to TOH1 working papers.
[556] [✂]; [✂] response to the CMA's s109 notice.
[557] See Microsoft, letter to the CMA.
[558] Microsoft response to working papers.
[559] SIE response to the phase 2 Issues Statement, 28 October 2022, paragraph 16; and SIE response to the Provisional Findings, 1 March 2023, paragraph 19.
[560] SIE response to the phase 2 Issues Statement, 28 October 2022, paragraph 16. See also SIE response to the CMA's s109 notice.
[561] See SIE response to the CMA's s109 notice.
[562] See for instance, Microsoft, letter to the CMA; and SIE response to the CMA's s109 notice. See also Microsoft response to the Provisional Findings, 2 March 2023, paragraph 1.4.
[563] CMA129, paragraph 7.15.

7.289 In our view, these considerations apply to the present case. Contractual protections: (i) may not account for all the possible foreclosure mechanisms that could be available to the Merged Entity, (ii) may be renegotiated or terminated early, or (iii) may not be enforced depending on the respective parties' bargaining positions. Nor can we be sure that SIE (or any other third party) would be able to enforce the terms of any relevant contracts should it need to do so.

7.290 In any case, and notwithstanding the general position on contracts set out in the MAGs, the relevant SIE protections that are currently in place with Activision only last until end-2024 [✂].[564] Moreover, the statement by Microsoft that the agreement [✂],[565] [✂].

7.291 While we acknowledge that the existing contractual arrangements between SIE and Activision may provide SIE with some protection in the short-term (but noting the general limitations with contracts as explained above), the relevant protections are clearly of limited duration. As a result, even if they did impact the Merged Entity's ability to foreclose in the short term to some extent, they are not of sufficient duration to have a material impact on our competitive assessment, which considers potential concerns with a longer time horizon.

7.292 As there is currently no agreement in place between Microsoft and SIE in relation to Activision content, we do not consider that the negotiations referred to above have any impact on our assessment of the Merged Entity's ability to engage in foreclosure. We also do not consider it appropriate or relevant to comment on the various motivations and behaviour of Microsoft and SIE during these negotiations.

7.293 Likewise, when considering the 10-year agreement entered into by Microsoft with Nintendo, in addition to noting that this theory of harm is primarily focussed on SIE for reasons already explained, we have also not been presented with evidence to show with sufficient certainty that this will lead to CoD ultimately becoming available on Nintendo. The agreement itself imposes [✂] Microsoft to develop and publish future native console versions of the CoD titles for Nintendo platforms after completion of the Merger. Microsoft submitted this [✂].[566] As explained above, the Nintendo Switch has certain technical limitations compared to the latest PlayStation and Xbox consoles (including, for instance, storage capacity). These limitations would need to be overcome for CoD to become available on the Nintendo Switch.

---

[564] Parties Internal Document.
[565] See Microsoft, email to CMA.
[566] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.74.

[✂], or any detailed plans for how the optimisation of CoD for Nintendo is intended to be achieved. This is notwithstanding any further disagreements or issues that may become apparent as both parties move forward with their respective obligations under the agreement. For example, to the extent that [✂]. Further, it is not clear at this stage the degree to which the CoD experience would differ on Nintendo. This is acknowledged [✂].[567] We therefore do not consider it appropriate to place material weight on this agreement in terms of the Merged Entity's ability and/or incentive to foreclose given the early stage of the process and unforeseeable impacts on the market, and the more general limitations around contractual protection as noted above.

7.294 As such, our view is that Microsoft's contractual arrangements are not likely to have any significant impact on its ability to foreclose SIE.

Partial foreclosure

7.295 As set out above, we consider that the Merged Entity will also be technically able to engage in a range of partial foreclosure strategies that do not involve total withdrawal of access to CoD, such as releasing Activision titles on rival consoles at a later date or with fewer features, degrading the graphical quality of Activision content on rival consoles, or raising the wholesale price.

7.296 In this section, we assess whether the Merged Entity would have the ability to foreclose rivals console gaming services by adopting those partial foreclosure strategies on a standalone basis.

Parties' views

7.297 Microsoft submitted that the Merged Entity would lack the ability to bring about the partial foreclosure of rivals by making certain features of Activision's games exclusively available on Xbox, and/or degrading performance of and/or withholding technical support for Activision's games on rival console platforms. Microsoft submitted that:

(a) CoD has provided exclusive or timed-exclusive downloadable content for either SIE or Microsoft since CoD 2 in 2005, and these arrangements have not resulted in either SIE or Microsoft being impaired in their ability to compete at times when the other had a limited exclusive.[568]

[567] Microsoft Internal Document.
[568] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.42 (a).

(b) Activision already has a strong incentive to come up with different forms of content and marketing exclusivity that it can monetise in its negotiations with Microsoft and SIE. It submitted that, since 2005, these marketing arrangements have included (i) exclusive console marketing arrangements following the release of new titles and downloadable content; (ii) priority access to new maps (until these were phased out following the introduction of cross-platform play); (iii) exclusive access to the online alpha version of the game and access to the beta version of the game 5 days earlier than gamers on Xbox consoles or PC; (iv) game bonuses such as extra "tier skips" on the battle pass; (v) the ability to access additional "experience points" (eg through exclusive events); and (vi) certain in-game character customisations and content bundles.[569] Microsoft submitted that none of these foreclosed Xbox in the console market, and that it is not credible to suggest that there are further forms of exclusivity which Activision could have monetised but has not considered, and which could have a material impact on downstream competition.[570]

(c) Past attempts by Activision to steer users towards PlayStation to play CoD had very little impact on Xbox. Between Call of Duty: Black Ops 3 (2015) and Call of Duty: Modern Warfare (2019), Xbox maintained around [✂]% of CoD gamers, despite Activision's efforts to promote PlayStation instead. The attempt to steer gamers towards SIE's platform did not have a foreclosure effect on Xbox.[571]

Our assessment

7.298 A competitor [✂] submitted that Microsoft would have the incentive to engage in one or more of the following partial foreclosure strategies: i) raising the price of CoD on PlayStation relative to Xbox or increasing CoD's B2P prices on both Xbox and PlayStation while offering lower prices for Game Pass, ii) releasing CoD on Xbox ahead of its release on PlayStation, which could have a major impact on spend and gameplay hours on PlayStation, iii) degrading the quality and performance of CoD on PlayStation compared to Xbox (eg, Xbox players could enjoy greater frame rates, richer textures, higher resolutions, or enhanced maintenance and support), iv) degrading CoD to ignore PlayStation-specific features (eg, better controller haptics) restricting or degrading multiplayer experience on PlayStation (eg, by refusing to enable CoD's multiplayer on PlayStation or, more likely, degrade the multiplayer experience by reducing speed or quality, or by charging a PlayStation users

[569] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.42 (b).
[570] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.42 (c).
[571] Microsoft response to the phase 2 Issues Statement, 31 0ctober 2022, paragraph 3.42 (d)

additional fees to access multiplayer features), vi) making in-game content or features exclusive to Xbox indefinitely or for a limited period, and/or vii) bundling new releases of CoD within the next generation of Xbox.[572] This competitor [✂] submitted that any degradation in the price, performance, or quality of play on PlayStation or any delays on release would quickly harm its reputation and cause a loss of engagement and players.[573] It submitted evidence about the volume and nature of online conversations surrounding consoles and games, and data which, in its view, showed that quality issues such as crashes, freezes, and glitches, as well as graphics and load times have a significant impact on consumer satisfaction.[574]

7.299 This competitor [✂] also submitted that the position that Microsoft has the ability to totally, but not partially, foreclose PlayStation is not sustainable.[575]

7.300 In our survey of PlayStation CoD gamers, we asked what they would have done at the time of their last PlayStation purchase if the most recent CoD game they owned at the time had still been available on PlayStation, but with less content (not able to access certain content such as specific levels, maps or gameplay modes). In this scenario, around two thirds of gamers said that they would have bought only the PlayStation (67%). Just over one in ten would have bought another gaming device instead of the PlayStation (12%), and just under one in ten would have bought the PlayStation and another gaming device (9%).[576]

7.301 We consider, however, that this question (which was drafted early in our investigation) is not sufficiently precise to produce accurate predictions of likely diversion rates in response to partial foreclosure strategies. Instead, it aggregates several potential partial foreclosure strategies and asks a general question about what gamers would do in response to one or more of them. Furthermore, because our survey was primarily designed to capture consumer behaviour in response to a total foreclosure strategy using CoD, responses to the single question about partial foreclosure may have been framed and thus biased by this. As such, we place limited weight on the data that was produced in answer to the partial foreclosure survey question.

7.302 Based on the evidence that we have seen, we do not believe that Microsoft would have the ability to foreclose PlayStation solely through partial foreclosure strategies (to the extent that such strategies do not, in effect, equate to total foreclosure). First, we place some weight on the Parties'

---

[572] [✂] email to the CMA. See also [✂].
[573] [✂] email to the CMA.
[574] [✂].
[575] [✂].
[576] CMA, DJS Research report: PlayStation gamer research, 8 February 2023.

arguments that Activision has already granted marketing and content exclusivity to PlayStation and Xbox at different times and on different versions of CoD. These do not appear to have materially affected their respective ability to compete, eg as proxied by limited variations in their respective market shares following these events. We acknowledge that this type of analysis can only have a certain amount of evidential weight, as it is difficult to control for the impact of those marketing and content exclusivity strategies on either PlayStation's or Xbox's ability to compete, which is likely to be affected by other factors.[577]

7.303 More generally, we found above that CoD accounts for around [✂]% of gametime on PlayStation – this means that a total foreclosure strategy leading to CoD no longer being available at all on PlayStation would represent a [✂]% reduction in PlayStation's range. In case of partial foreclosure, however, PlayStation would not lose [✂]% of its range; rather, [✂]% of its range would suffer a quality deterioration (or price increase) that would represent only a proportion of the value that gamers derive from CoD. Even in circumstances where gamers are sensitive to game degradation, as SIE submits, given that [✂]% of PlayStation's range would not be directly affected, and the remaining [✂]% of its range would remain intact, albeit deteriorated to an extent, we consider the overall impact on PlayStation's competitive offering would be small and insufficient to substantially reduce its effectiveness as a competitor.

Conclusion on the Merged Entity's ability to foreclose

7.304 Our view is that the above evidence shows that the Merged Entity would have the ability to engage in total foreclosure of PlayStation, including its distribution storefront and subscription services:

(a) CoD is currently an important component of PlayStation's range of game offerings. It is one of the three largest franchises on PlayStation and contributes a significant share of PlayStation's revenue and gameplay, particularly within shooter games. CoD is important in driving console sales, with nearly a quarter of our survey respondents stating that they would divert away from PlayStation if CoD were no longer available on there – these respondents amount to a significant proportion of all PlayStation users and a significant proportion of consumer spend that would be diverted away from PlayStation. These gamers would likely

[577] For example, when CoD marketing and content exclusivity was granted to PlayStation, this may have had a negative impact on Xbox's ability to compete. At the same time, there may have been other factors which instead had a positive effect on Xbox and offset the negative impact caused by those strategies, leading to a net impact on Xbox which was neutral.

spend less time and money on the console than they did previously and are likely to induce further diversion due to the presence of strong direct network effects.

(b) There are insufficient alternatives available on PlayStation that could offset any reduction in PlayStation's range caused by a withholding of CoD. The remaining games available on PlayStation, including alternative large franchises, shooter games, and PlayStation's exclusives, are either (i) sufficiently differentiated from CoD that their availability would not compensate for the reduction in PlayStation's range, or (ii) are significantly smaller than CoD in terms of spend and gameplay, indicating that they are less preferred by gamers relative to CoD and would be unable to fill the void created by a withholding of CoD.

7.305 With respect to Microsoft's submission that a range of other games would be available for gamers to play on PlayStation, the impact of foreclosure would be to move from a scenario where gamers already have a choice of those games in addition to CoD to one in which they have more limited choice. This would represent a reduction in the game range available to them. The time spent by PlayStation gamers playing CoD when given a free choice between CoD and other games is a highly relevant measure of the significance of that reduction in range. The observation that CoD accounts for [✂]% of PlayStation's gameplay time in the UK, and that its removal would trigger consumers to switch away in substantial numbers is—alongside other evidence on the importance of CoD in consumer choice—evidence of an ability to materially weaken PlayStation as an alternative.

7.306 We recognise that partial foreclosure strategies can be incremental and, depending on their type and severity, can have a similar impact to a total foreclosure strategy. We consider that partial foreclosure strategies which, alone or in combination, amount to something similar to a total foreclosure strategy would materially weaken PlayStation. For example, if the degradation of or price increase in a game was so extreme that gamers stopped playing it, or if timed exclusivity was sufficiently long-term such that it had the same impact as total exclusivity, we consider this would be equivalent to total foreclosure and therefore subject to the same analysis as total foreclosure contained in this Chapter. But we also recognise that there can be milder forms of partial foreclosure that would not amount to or even come close to total foreclosure, such as marketing and content exclusivity, which Activision has granted to Xbox and PlayStation at different points in time. We consider that the ability and incentive of the Merged entity to engage in partial foreclosure strategies that resemble total foreclosure can be analysed under the same framework as total foreclosure. However, for the reasons explained

above, we believe that the types of partial foreclosure that fall short of total foreclosure would not materially weaken PlayStation.

7.307 On the basis of this evidence, we believe that the Merged Entity would not have the ability to materially weaken PlayStation through partial foreclosure strategies, where those strategies do not in effect amount to total foreclosure.

Incentive to foreclose

Introduction

7.308 In this section, we assess whether a total foreclosure strategy would be profitable and, therefore, whether the Merged Entity would have an incentive to engage in such a strategy. As part of this assessment, we consider the extent to which the Merger increases the incentives to foreclose downstream competitors relative to the situation absent the Merger.

7.309 The MAGs state that 'the assessment of incentives typically involves a combination of quantitative and qualitative evidence, though the balance will vary between cases. The CMA may undertake more extensive quantitative analysis in simple markets with high quality data, but it will focus on a qualitative assessment in complex and dynamic markets, where firms' current positions and margins may not be a good guide to the future, and strategic considerations may play a greater role. In any event, its focus will be on the relative magnitude of the overall cost and benefit of foreclosure, not on predicting the exact size of each element.'[578]

7.310 We have assessed the incentives to foreclose with a mix of both qualitative and quantitative evidence. This is because financial modelling can quantify some gains and losses of foreclosure (ie, short-term profitability), but it ignores others (ie, long-term strategic objectives). In this case, beside our quantitative modelling, we considered Microsoft long-term strategic objectives, its behaviour in relation to previous acquisitions, and the relevance of potential contractual arrangements.

7.311 Given our conclusions on the lack of ability of the Merged Entity to adopt a partial foreclosure strategy, we focus on the gains and losses that would arise out of a total foreclosure strategy.

7.312 The rest of this section presents:

---

[578] CMA129, paragraph 7.18.

(a) the Parties' views,

(b) third parties' views,

(c) our assessment of the quantitative and qualitative evidence.

Parties' views

7.313 Microsoft submitted that it does not intend to remove CoD from PlayStation or degrade access to the franchise.[579] Microsoft said its incentives to continue distributing CoD to SIE are clear from the deal valuation, its public statements and correspondence with SIE, public statements by SIE, the strategic rationale for the Merger, and Microsoft's internal documents in relation to the Merger.[580]

7.314 Microsoft further submitted that:

(a) its past business practices are consistent with its stated position;[581]

(b) cross-platform play is a powerful disincentive to foreclosure;[582]

(c) contractual protections provide a powerful disincentive to withdraw content;[583] and

(d) the CMA's survey of PlayStation users suffers from design flaws which bias its results, and in any case, the CMA survey results strongly support the absence of incentive to foreclose,[584] and show that foreclosure of S is not possible.[585]

7.315 In addition, Microsoft submitted a quantitative analysis which models the financial gains and losses of withdrawing CoD from PlayStation.[586]

7.316 In response to our Provisional Findings, Microsoft submitted that it has no incentive to withhold CoD from PlayStation because this would involve immediately foregoing the associated revenues, which account (in present value terms) for approximately [✂]% of the overall value of the deal with Activision. Microsoft noted that this [✂] and would [✂].[587]

---

[579] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.50.
[580] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.49.
[581] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph *(ii)*, page 54.
[582] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph *(iii)*, page 57.
[583] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph *(iv)*, page 60.
[584] Microsoft, response to TOH 1 working papers.
[585] Microsoft submission to the CMA.
[586] Parties response to the EC's RFI.
[587] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.76.

7.317 Microsoft submitted that, when using more recent data, and when taking into account five years of potential losses on PlayStation, our lifetime value (**LTV**) model shows that Microsoft would not profit from a total foreclosure strategy.[588]

7.318 Microsoft also submitted that SIE's claim that the gains from any alleged strategic benefits (see below) would be large enough to compensate Microsoft for the financial loss incurred by withholding CoD from PlayStation was based on "unfounded speculation".[589]

Third parties' views

7.319 SIE submitted that Microsoft would have the incentive to withhold CoD from SIE, its closest competitor.[590]

7.320 SIE submitted an economic analysis which showed that the Parties would have an incentive to withhold the CoD franchise from PlayStation. The analysis concluded that a total foreclosure strategy would be profitable for the Merged Entity if more than [✂]% of current PlayStation users were to switch to Xbox.[591]

7.321 SIE provided evidence that suggests the switching rate is higher than [✂]%. In particular, SIE presented four possible switching rate scenarios based on gamers' 'engagement level' with CoD (ie the share of time spent playing CoD relative to the total time spent playing on PlayStation). In all scenarios, the switching rate was higher than [✂]%.[592] SIE also submitted an additional analysis based on survey data of PlayStation users that suggested a switching rate of [✂]% if *Call of Duty* were to become exclusive to Xbox.[593]

7.322 More details on this analysis are presented in Appendix E.

7.323 In response to our Provisional Findings, SIE submitted that our assessment wrongly downplays the "significant" strategic benefits to Microsoft adding Activision content to Game Pass.[594]

---

[588] Microsoft response to the Provisional Findings, 2 March 2023, paragraphs 2.86 and 2.92.
[589] Microsoft response to SIE's observations on the Addendum Provisional Findings.
[590] SIE, submission to the CMA.
[591] SIE, submission to the CMA.
[592] SIE, submission to the CMA.
[593] SIE, submission to the CMA. We note that, based on the information provided, we have reservations about the survey methodology. For example, there is no indication that the sample is representative; the selected answers are not a measure of diversion; awareness of CoD does not imply the respondent played CoD; and the survey approach does not meet the evidence standards set out in our published good practice guide. For these reasons, we have no given no material weight to this evidence.
[594] SIE response to the Addendum Provisional Findings, 31 March 2023, paragraphs 11-12.

Our assessment

7.324 In this section, we discuss:

(a) evidence from quantitative analyses,

(b) less quantifiable gains and losses from foreclosure,

(c) Microsoft's behaviour in past acquisitions of game publishers, and

(d) any protections offered by contracts.

7.325 Our assessment focuses on total foreclosure because, as discussed above, we have concluded that Microsoft would not have the ability to materially weaken PlayStation through partial foreclosure strategies.

Quantitative modelling

7.326 In this section, we assess the economic analyses received during our inquiry and we present our own financial modelling.

7.327 Quantitative analyses provide only a partial assessment of the incentives to foreclose. Several gains and losses described below are not captured by any financial analyses. Microsoft acknowledged this and stated that quantitative analyses are a static comparison of the potential costs and benefits of a withholding strategy while holding everything else equal, and therefore do not capture dynamic considerations.[595]

Parties' submissions

7.328 The Parties submitted an economic analysis of incentives to engage in total foreclosure. They submitted that the Merged Entity would have no financial incentive to withhold the CoD franchise from SIE's console gaming platform [✂].[596] Based on this analysis, the Parties estimated that more than [✂]% of current CoD players on PlayStation would have to switch to Xbox for it to be profitable for Microsoft to make CoD exclusive to Xbox. This is called the 'critical diversion ratio'. The Parties submitted that a rate of consumer switching in excess of the critical diversion ratio of [✂]% found in their analysis would be 'implausibly high'.[597] More details on this analysis are presented in Appendix E.

[595] Microsoft response to working papers.
[596] Parties response to RFI; and Parties, submission to the CMA.
[597] Parties response to RFI.

7.329 The Parties relied on inputs and data from Activision and Microsoft. The model has some advantages:

(a) it accounts for the presence of multi-homers, ie gamers who own both a PlayStation and an Xbox and therefore might switch console without facing the cost of buying a new one;

(b) it accounts for gamers potentially switching from consoles to PC; and

(c) it accounts for the possibility of gamers choosing between B2P and subscription options.

7.330 However, we have material doubts about the methodology and inputs to this economic model. Some of the model's results also seem counterintuitive. In particular:

(a) The Parties perform a sensitivity analysis in which they consider the impact on the critical diversion ratio if gamers were to switch to Xbox only (and not to PC). They estimate that the share of CoD users who would need buy an Xbox for the foreclosure strategy to be profitable increases to [✂]%. However, [✂][598] [✂], it is not clear why the critical diversion ratio would increase under this assumption. The Parties state that this is because the revenues recouped from multi-homers decrease, but we find no reason why this should be the case. We consider this casts doubt on the reliability of the baseline results.

(b) Changing the diversion to PC and Xbox by a significant amount (eg increasing the share of CoD gamers on PC by 10% and decreasing those on Xbox by 10% or *vice versa*) changes the critical diversion ratio only by [✂]%. Given that the revenues recouped on Xbox and PC are very different on the Parties' model, the corresponding low impact on the critical diversion ratio seems unjustified.

7.331 In the ordinary course of business, Microsoft estimates the value of an Xbox customer and calls this their "lifetime value" (**LTV**), based on actual purchase data of Xbox Series X/S owners. The LTVs are essentially [✂].[599] As part of its analysis, Microsoft used LTVs as an input to capture the value of gamers that would hypothetically switch in response to the withholding of CoD releases from PlayStation. These LTVs are based on [✂] and, the Parties submitted, they reflected the LTVs of customers who bought [✂]. In order to

[598] Parties Internal Document.
[599] Microsoft response to the CMA's s109 notice.

estimate the trend of console LTVs for later years, Microsoft has [✂].[600] In relation to the above, we note that:

(a) While we recognise the reasoning behind the adjustments, we are of the view that it does not seem sufficient to justify the large magnitude adjustment.

(b) Given these LTVs are used, unadjusted, in the ordinary course of business, we consider that they are likely to be more reflective of customer value when not adjusted, and we expect that Microsoft's adjustments are likely to cause a significant underestimate in the Merged Entity's incentive to foreclose.

(c) We consider there is no reason to believe switching would not happen at the beginning of the next console generation. Therefore, the downward adjustment applied by Microsoft seems unjustified.

7.332 Overall, we consider these limitations have the effect of understating the Merged Entity's gains and overestimate the critical diversion ratio. As such, we place no material weight on these results and focus instead on our analysis, which takes into account the Parties' submissions and data, but adjusts for its apparent weaknesses.

7.333 Microsoft also presented a more stylised model during the CMA's site visit considering the incentive to engage in total foreclosure. Microsoft described this analysis as a 'mini', 'stylised', and 'simplified' version of their original incentives analysis which should not be preferred to their original analysis which accounts for additional potential benefits.[601] We provide further details on this analysis in Appendix E. However, in light of Microsoft's preference for the Parties' more detailed analysis discussed above, the limitations identified with the site visit model which are discussed in Appendix E, and our reliance instead on our own analysis, we place no material weight on the results of this analysis and therefore do not discuss it further here.

Third parties' submissions

7.334 An analysis submitted by SIE estimated that [✂]% of PlayStation users need to switch to Xbox for total foreclosure to be profitable.[602] To make this result comparable to the Parties' submissions and our own survey, we converted

[600] Parties response to RFI.
[601] Microsoft response to working papers.
[602] Based on device-level data. SIE, submission to the CMA [✂].

this as the share of CoD gamers on PlayStation that needs to switch to Xbox.[603] The resulting equivalent critical diversion ratio is [✂]%.

7.335 More details on this analysis are presented in Appendix E.

7.336 We consider that this analysis has the following limitations:

(a) **Absence of multi-homing**: there is no recoupment through sales of CoD on Xbox consoles and PCs already owned by PlayStation gamers. As explained above, in theory the effect of multi-homing is ambiguous; however, in this analysis SIE assumed all spend of diverted gamers on PlayStation is lost and transferred to Xbox. This likely overestimates PlayStation's losses and Xbox's gains.

(b) **No option to switch to a new PC**: there is no recoupment through sales of CoD on a PC. By ignoring a potential source of recoupment, the analysis underestimates the foreclosure gains.

(c) **Switching rates**: when calculating the expected switching rate of users from PlayStation to Xbox, it is assumed that the probability of a user switching is equal to that user's current engagement level with CoD. While we believe that the two may be correlated, we do not have any evidence that supports a perfect link between the probability of switching and engagement.

(d) **Inconsistent profit margin**: the analysis assumed a third-party revenue-share of [✂]% with CoD on PlayStation, which is larger than the current third-party margin of [✂]%. This therefore underestimates the losses the Merged Entity would incur by withholding CoD from SIE by [✂], all else equal. A sensitivity analysis examined the impact of using the effective margin SIE currently generates for CoD, after taking into account all payments from SIE to Activision. This results in a SIE margin of [✂]%.[604] The proportion of PlayStation users that need to switch to Xbox for foreclosure to be profitable under this scenario increases from [✂]% to [✂]%.

(e) **Overestimates Xbox Game Pass spending:** weak evidence supports the [✂]% uplift applied to overall user spending to account for the additional spending that Game Pass is reported to generate. This is likely to overestimate the additional gains that Microsoft will receive from

---

[603] Data from [✂] indicates that [✂]% of PlayStation gamers played CoD in 2021, as noted in our assessment of Ability above. We therefore divided 8% by [✂]% to obtain the share of CoD gamers that would need to switch for total foreclosure to be profitable.
[604] SIE submission to the CMA.

spending on Game Pass, as subscription spend on PlayStation is already incorporated. Removing the uplift in spending for XGP increases the critical switching rate at which it becomes profitable to withhold CoD from [✂]% to [✂]%.[605]

(f) **Data:** The analysis uses data from PlayStation as a proxy for Xbox. The effect this has on the estimated gains and losses depends on the relative profitability of CoD and other games on PlayStation and Xbox.

7.337 Overall, we consider that the analysis includes various factors that could either increase or decrease the Parties' gains (or the Parties' losses) from the input foreclosure strategy. Therefore, it is difficult to unambiguously say whether the estimated critical diversion ratio is likely to be under- or over-estimated. As with the Parties' model, we place no material weight on the results of this analysis and rely instead on our own analysis, which incorporates SIE's submissions and data.

CMA modelling

7.338 We carried out two separate quantitative analyses to assess the Parties' incentives to engage in a total foreclosure strategy.

7.339 As with the analyses submitted by Microsoft and by SIE, our analyses have advantages and disadvantages. However, our analyses account for some of the drawbacks of the analyses submitted by Microsoft and SIE. For example, we account for switching to PC and multi-homing, and we rely on diversion ratios estimated directly from our survey. For these reasons, we consider our model to warrant greater evidential weight than those of Microsoft and SIE. We discuss the relative advantages and disadvantages of our quantitative model in detail in Appendix E.

7.340 While we consider our model has some advantages relative to the other models we have reviewed, both our models are subject to the caveats mentioned above, namely they cannot take account of all possible gains and losses emerging from a foreclosure strategy. An additional issue that our model necessarily faces is that it can be difficult to cross-check the accuracy of the profit margin estimates submitted by the Parties and third parties (other than checking their methodology for producing it, which we have done where possible).

[605] SIE submission to the CMA.

7.341 With this in mind, we summarise below the main results of our quantitative analyses.

7.342 First, we use the Parties' submitted LTVs and our survey results to estimate gains and losses of a potential total foreclosure strategy. Using LTVs allows us to capture the gains from all revenue streams for Xbox. We also allow for switching to PC, while we consider multi-homing is already reflected in the LTV estimates. Indeed, we use the same LTV estimates as those used in the normal course of business for Xbox;[606] this has the advantage of basing our analysis on the same data used by Xbox for its internal decisions. We consider that the users likely to switch from PlayStation to Xbox in response to a foreclosure strategy are more likely to have spending patterns that resemble early adopters than later adopters. This is based on evidence showing that CoD gamers on PlayStation are likely to contribute considerably to platform spend relative to the non-CoD gamers.[607] Therefore, we used an Xbox LTV based on what the Parties defined to be 'early adopters'. [608] In the absence of an LTV from Activision, we computed the LTV for CoD based on the annual profit per user for CoD that Activision makes on PlayStation. We compute this LTV over a five-year horizon to reflect the opportunity cost of withholding CoD from PlayStation consistently with the time horizon used for the Xbox LTV. We combine these with our survey results. We provide more details in Appendix E where we also address the Parties' and third parties' submissions on this analysis received in response to the Provisional Findings.

7.343 The analysis indicates a net loss of between $[✂] billion and $[✂] billion, depending on how 'users' are measured.[609] These numbers sum five years' worth of profits and losses on Xbox (including hardware, subscription, and games) and Activision. The overall picture arising from this analysis is that total foreclosure would not be profitable for the Merged Entity.

7.344 Second, we use 2021 data from Activision and SIE, as well as our survey results, to estimate the gains and losses that would result from a total foreclosure strategy, and in particular those gains and losses that would result from customers switching away from PlayStation (and some of those being recaptured by the Merged Entity). We allowed for multi-homing, both within and across consoles generations, as well as switching to PC. We also distinguish between profits made on other first-party and third-party games. This analysis did also allow for modelling of a partial foreclose strategy;

---

[606] Parties response to RFI. We use LTVs for the 2021 cohort.
[607] See Appendix E for more details.
[608] Microsoft, Annex to response to the Provisional Findings.
[609] We used three different types of users-count: YAU who spent at least 10 hours or $100 in 2021 as measured by Activision; the same measure from SIE; and the average number of MAUs in 2021.

however, as we have found the Merged Entity would not have the ability to engage in partial foreclosure for the reasons explained above, we do not discuss this further.

7.345 The analysis provides a range of results, depending on the assumption made on the switching rate of CoD gamers out of our sample and whether we weight responses by revenue or gametime. Our survey focused on PlayStation gamers who spent at least 10 hours or $100 on CoD. This means that non-surveyed CoD gamers would have played CoD for a more limited time and/or spent less money on it than surveyed gamers. For this reason, and differently from Provisional Findings, we consider it appropriate to focus on an outcome in which these gamers would not switch consoles in response to total foreclosure. We also consider weighting our survey results by spend has a more intuitive economic interpretation than weighting by gametime. Based on this, we find that this analysis leads to a net loss of $[✂] million per year, a loss equivalent to [✂]% of Xbox's revenues. We provide more details in Appendix E.

7.346 Overall, our model suggests that it would not be financially profitable for the Merged Entity to engage in a total foreclosure strategy.

7.347 In interpreting the results from our model as well as the models provided by the Microsoft and SIE, we are conscious that quantitative modelling is inherently subject to uncertainties and has to rely on assumptions where information is imperfect. This limits the weight we can give to this type of evidence. For this and the reasons explained above (ie, these analyses cannot take account of all possible gains and losses emerging from a foreclosure strategies), we consider it important to assess the Merged Entity's incentive to foreclose rivals by considering all the available evidence in the round, including of Microsoft's behaviour following previous acquisitions and its stated strategy as reflected in internal documents.

7.348 In particular, we are conscious of the following elements that our financial modelling does not account for (see below for a more thorough explanation of their overall effect on the Parties' incentives to foreclose):

(a) Our survey ignores the fact that Microsoft plans to add Activision content to Game Pass. This is likely to underestimate the diversion ratio from PlayStation to Xbox and, therefore, the Merged Entity's incentive to engage in total foreclosure.

(b) Our survey results account for reputational considerations to an extent. Respondents will have taken into account their perception of Microsoft if it were to engage in a total foreclosure strategy when responding to, for

example, a question on whether they would switch to Xbox in those circumstances. The fact that some gamers responded that they would still switch suggests that, at least for some gamers, any such reputational consequences would not prevent them from switching. Nonetheless, we recognise that attitudes evolve over time, and that gamers' future choices may not be fully reflected in our survey results.

7.349 Strong direct network effects at a game level have two opposite effects on the Parties' incentives to foreclose:

(a) Diversion ratios estimated in our survey are likely to be an underestimate. While some PlayStation gamers responded that they would not switch to Xbox in response to a total foreclosure strategy using CoD, these same gamers may have been willing to switch if they were to realise that other gamers (including their friends) would do so. In this case, the Parties' gains would be greater than estimated in our short-term financial modelling.

(b) Another secondary effect that our survey does not capture is the effect of cross-play. As explained below, we believe this to have a limited impact on the gaming experience and, therefore, on the Merged Entity's gains and losses from total foreclosure.

Less quantifiable gains and losses from total foreclosure

7.350 In this section, we consider a range of other potential gains and losses from a total foreclosure strategy that are more difficult to quantify on a comparable basis. They include (i) furthering Microsoft's strategy of expanding Game Pass, (ii) any reputational impacts (good or bad), (iii) the strength of the Xbox brand and user loyalty, (iv) the impact of network effects (including for games that allow cross-play), and (v) the potential for entry, expansion, or repositioning by rivals to disincentivise total foreclosure. We discuss some of these broader strategic considerations below.

7.351 In response to our Provisional Findings, Microsoft submitted that long-term strategic benefits are, by their nature, speculative and uncertain. It submitted that there would need to be particularly clear evidence on strategic benefits to counterweight more certain evidence suggesting no incentive to foreclose.[610]

7.352 Microsoft also submitted that our LTV model already takes account of the key issues raised as potential long-term strategic benefits. Specifically, Microsoft said that, given the multi-year timeframe of the LTV calculations, these

[610] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.109.

calculations account for any longer-term benefits from a total foreclosure strategy, including:[611]

(a) *New loyal customers*: Microsoft observed that the LTV covers a period over five years so, to the extent that Activision content can be used for this strategic benefit, it is already being captured into the medium term in the LTV calculation.[612]

(b) *Growing Game Pass*: Microsoft submitted that, given the five-year period captured by the LTV, any incremental growth of Game Pass is being captured in the LTV calculation.[613]

(c) *Reputational benefits*: Microsoft stated that, as withholding CoD would directly contradict Microsoft's public statements, the effect would be likely to be very negative given the significant gamer backlash that would inevitably occur following such a reversal. Also, Microsoft submitted that, insofar as the suggestion is that those reputational harms would be outweighed by having CoD on Xbox, there is no good evidential basis for that conclusion. Microsoft said that, to the extent that CoD causes switching, the five-year horizon in the LTV likely means that any reputational benefits are captured in the calculation.[614]

7.353 However, we note that the Xbox LTV is based on [✂]. The CoD LTV is based on [✂]. As such, they do not account for less quantifiable considerations like customer loyalty, reputational impact, or strategic considerations related to the growth of Game Pass as it does not appear that those considerations are captured in the underlying data from which the Xbox LTV is derived.

Expansion of Game Pass

7.354 Microsoft submitted that it intends to include Activision content on Game Pass on a 'day and date' basis.[615] This is relevant to our assessment of incentives. Indeed, any analysis that ignores this feature of the Merger would understate the attractiveness of Xbox. In particular, this is likely to have three effects on the Merged Entity's incentives to foreclose:

(a) It may increase the number of gamers who switch from PlayStation to Xbox. This is because CoD's addition to Game Pass would add a way for gamers to pay for CoD titles, which to some gamers may be preferable to

---

[611] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.110.
[612] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.110(a).
[613] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.110(b).
[614] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.110(c).
[615] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 1.8(e).

purchasing them on a B2P basis.[616] Our survey does not account for the fact that CoD will be available on Game Pass. Microsoft and SIE do attempt to capture this through the use of assumptions on profits made by Xbox for customers who switch to Game Pass.

(b) On the other hand, CoD's addition to Game Pass may cannibalise some of the B2P sales of CoD. In its valuation model, Microsoft estimated this cannibalisation to be [✂]%, [✂].[617] The fact that Microsoft is nonetheless adopting this strategy suggests that it expects it to be profitable in the long run. This would also apply to overall revenue from customers switching from PlayStation to Xbox.

7.355 Consistent with this, the valuation model prepared by Microsoft in anticipation of the Transaction suggests that it expects its impact on Game Pass to be positive:

(a) Microsoft assumed CoD and other Activision content would increase both the number of subscribers and the revenue spent on Game Pass.[618] In particular, the model assumes an additional [✂] users will subscribe to Game Pass as a result of the Transaction. This represents an increase of [✂]% in the subscriber base.[619] The model also assumes an increase [✂] played on Game Pass.

(b) The net impact of the shift in mix from B2P to subscription is [✂].[620]

(c) The growth of Game Pass appears to be an important strategic objective for Xbox. The valuation model prepared by Microsoft assigns [✂]% of the valuation assigned to Activision to [✂].[621] This [✂] amounts to $[✂] (including a Terminal Value of $[✂]).[622] Given the valuation is taken over [✂] years, this amounts to a $[✂] valuation in net present value terms per annum, on average, excluding the Terminal Value. Without applying the discount rate to generate an NPV (and, therefore, on a comparable basis to the quantitative analysis presented later in this chapter), the annual value of this [✂] is $[✂].

7.356 This valuation does not include the effects of any foreclosure of PlayStation. However, we consider it reasonable to expect that the benefits to Game Pass

---

[616] We recognise that this may be beneficial to some customers. Here, our focus is on the impact on the Merged Entity's incentives only. We discuss benefits from Game Pass in our chapter on Countervailing factors.
[617] Microsoft Internal Document; and Microsoft Internal Document.
[618] Microsoft Internal Document.
[619] Microsoft Internal Document.
[620] CMA analysis of: Microsoft Internal Document. [✂].
[621] Microsoft Internal Document.
[622] Microsoft Internal Document.

of including CoD would be larger if it were not available on another console (including as a result of some PlayStation gamers switching to Xbox). As such, we consider this to be relevant when assessing the profitability of a foreclosure strategy.

7.357 Overall, we consider the potential for expansion of Game Pass represents an important part of Microsoft's strategy. To the extent a foreclosure strategy would contribute to the expansion of Game Pass, we consider that this would have at least some strategic value to Microsoft that would go beyond the sale of consoles and games to the cohort of customers that would switch in response to a total foreclosure strategy. When weighting all gains and losses from foreclosure, we considered the value of an expansion in Game Pass alongside the quantitative analysis set out above.

Reputation

7.358 Microsoft submitted that it would suffer reputational damage arising from non-compliance with Activision's contracts with SIE if it were to engage in a foreclosure strategy. Microsoft said that withholding CoD from PlayStation would result in backlash from gamers on social media.[623]

7.359 For the avoidance of doubt, we are not considering a foreclosure strategy that would require the Merged Entity to breach existing contracts with SIE. However, we assessed Microsoft's arguments in relation to the reputational costs associated with a foreclosure strategy in relation to prospective contracts and/or new releases.

7.360 We recognise that withholding CoD from PlayStation could have some reputational consequences for Microsoft. For example, an industry report stated that Activision and SIE faced some backlash in the past over temporary exclusivity of a CoD game mode. The third party report states that, when CoD Spec Ops: Survival was released exclusively on PlayStation for the first year, there was some backlash on social media. The document links this backlash to the gamers' expectation of playing CoD: Modern Warfare on cross-play.[624]

7.361 However, the evidence indicates that reputational effects may not prevent a foreclosure strategy:

(a) First, we note that any negative impact on Microsoft's reputation did not prevent it from making some ZeniMax games exclusive to Xbox. In response to the backlash due to Microsoft's decision to make ZeniMax's

---

[623] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.58(d).
[624] [✂] Internal Document.

game Starfield exclusive to Xbox and PC, ZeniMax's head of marketing apologised.[625] This reputational cost did not result in Microsoft making the game available on other platforms. While CoD [✂] than any ZeniMax games, such that any reputational effect may reasonably be expected to be larger in absolute terms, so too would the other gains and losses from making it exclusive. We have not seen reasoning or evidence to suggest that reputational effects would 'scale' disproportionately with size in a way that would negate any incentive to foreclose CoD.

(b) Second, in addition to reputational costs, there are also potential reputational gains from a foreclosure strategy. Given CoD's popularity, Xbox would benefit from an increased expectation that Microsoft would in future be willing to invest in successful studios and release more games exclusively on Xbox.

(c) Third, negative reputational effects can often be managed. For example, exclusivity can be presented as a positive differentiating factor for Xbox, and any limitations of CoD on PlayStation may be attributed to technical reasons. In a scenario where no agreement is reached to supply CoD on PlayStation, it would be difficult for consumers to discern whether this is as the result of a foreclosure strategy or the failure to reach a deal on reasonable terms for both parties. Given this ambiguity, a proportion of affected consumers may not blame Microsoft.

(d) Fourth, we have no evidence of where a reputational impact would arise or how it would affect customer behaviour. For example, if any backlash against Microsoft were primarily emanating from loyal PlayStation gamers who are in any event less inclined to switch to Xbox, it would not significantly affect Microsoft's incentives to engage in a foreclosure strategy (since it would be unlikely to gain these consumers in any event).

7.362 Overall, we consider that negative reputational effects could have some impact on Microsoft's incentive to make CoD exclusive to Xbox, but that these can be managed to a large extent by broader commercial and strategic objectives. Therefore, we place limited weight on reputational effects in the overall assessment of the Parties' incentives.

Loyalty and switching costs

7.363 Microsoft submitted that, once the choice of console has been made, gamers tend to remain loyal to their choice. Microsoft stated that rival consoles have

---

[625] 'Bethesda Apologizes for Starfield Xbox Exclusivity: Can Be 'Frustrating' For PlayStation Owners – IGN', accessed by the CMA on 22 November 2022.

built a strong reputation and enjoy a high degree of brand loyalty.[626] Microsoft also submitted that there are switching costs for gamers on PlayStation due to the backward compatibility of its games and the fact that not all SIE's games are available on PC.[627] Microsoft submitted that other switching costs such as entitlements (eg achievements and trophies earned through gameplay time), as well as intangibles such as familiarity with the console hardware and controller, and connections to the broader gamer network keep gamers engaged with their console.[628]

7.364 We note that, according to the survey referred to by Microsoft, not only rival consoles, but also Xbox has built a significant degree of brand loyalty.[629]

7.365 We acknowledge the Parties' submissions that a degree of loyalty to gamers' platforms is likely to exist. Such loyalty is likely to have two effects:

(a) First, loyalty to a platform will tend to reduce the total amount of switching in response to a total foreclosure strategy using CoD. Our survey nonetheless indicates that a significant proportion of PlayStation customers would be willing to switch to Xbox. This suggests that the value of being able to continue playing CoD (or the full version of CoD) can outweigh loyalty to a given platform and associated switching costs.

(b) Second, if customers are loyal to their platforms, this increases the value of consumers that eventually do switch from PlayStation to Xbox in response to a foreclosure strategy. This is because inducing a switch to Xbox will give rise to an opportunity to engender loyalty among those new Xbox customers.

7.366 Evidence provided by a third party [✂] showed that as gamers played more of Microsoft's first-party games, they were less likely to upgrade from PlayStation 4 to PlayStation 5 than other gamers. This held true even when accounting for total gametime spent on PlayStation 4.[630] This suggests that switching post-Merger may be higher than suggested by our survey. Given the potential to generate strong brand loyalty, this also suggests that the value of each switch may be higher (because each switch raises the chance of future console sales).

---

[626] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.78(b).
[627] Microsoft response to TOH 1 working papers.
[628] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.65.
[629] 'The Best SEO Companies' survey Generational Brand Loyalty', accessed by the CMA on 5 January 2023.
[630] Based on account-level data. [✂] response to the CMA's RFI.

Cross-play and network effects

7.367 Microsoft stated that cross-play represents a disincentive to total and partial foreclosure. According to Microsoft, a foreclosure strategy in a cross-play enabled game like CoD would hurt gamers' playing experience on all platforms, cause severe reputational damage and gamer backlash (we considered this above), and lead to significant financial damage.[631] In particular, Microsoft submitted that:

(a) cross-play benefits gamers on all platforms because it leads to improvements in user experience due to more efficient matchmaking. Gamers benefit from shorter waiting times to find a match, lower disparity in the average level of experience across gamers in the online match, and improvements in the overall stability of the internet connection to the server hosting the online match;[632]

(b) a larger user base due to cross-play amplifies the impact of direct network effects which operate at the market level, not the individual console or platform level;[633] and

(c) CoD game titles have allowed gamers to cross-play since 2019, and cross-play is now widespread. For example, over the last twelve months, [✂]% of [✂] of CoD: Modern Warfare and CoD: Warzone had cross-play enabled while playing online, which allowed them to play with gamers on Xbox and PC.[634]

7.368 As discussed above under features of the market for console gaming services, the gaming industry is characterised by strong direct network effects. They are especially strong for large multiplayer franchises like CoD. Strong direct network effects at a game level have two opposite effects on the Parties' incentives to foreclose:

(a) Some gamers will switch from PlayStation to Xbox because other gamers (including their friends) have switched, and they want to remain on the same platform. This would increase the Merged Entity's gains from foreclosure.

(b) The presence of cross-play means that withholding CoD from PlayStation could in principle also worsen the experience of Xbox users. A total foreclosure strategy would reduce CoD's overall user base. If some Xbox

---

[631] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.56.
[632] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.56.
[633] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.56.
[634] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.56.

gamers stopped playing CoD as a result of the foreclosure strategy, the Merged Entity's losses would be higher than estimated in our short-term financial modelling. Moreover, if the lack of cross-play means that gamers will reduce their overall level of engagement with Xbox because they cannot connect with gamers (eg friends) on PlayStation, then Xbox's losses would increase.

7.369 Evidence suggests that any impact from the second point above is likely to be limited:

(a) Microsoft submitted that cross-play leads to shorter matchmaking times, lower skill disparity, and better online match stability.[635] However, data from the Parties indicates [✂].[636] Comparing the average time to search for a user with cross-play relative to one without cross-play across platforms in Europe, the difference between the quickest and slowest matchmaking time is [✂]. For context, global data from the Parties shows that the waiting time for a match is [✂]. Only after [✂].[637] UK data shows that search times for users are [✂] for [✂] cross-play and non-cross-play users.[638] Even if the impact on wait times were more significant, it is unclear that this would have an impact on Microsoft's profits on Xbox and induce gamers to switch away from Xbox or significantly reduce their overall engagement with the platform.

(b) Our survey estimates that [✂]% of PlayStation gamers will buy an Xbox, either in addition or instead of a PlayStation. This increases CoD's user base on Xbox, somewhat reducing the benefits from a larger user base across platforms.

(c) Cross-play is a tool introduced by Activision in 2019. CoD's popularity was established well before then, indicating that its success is not dependent on cross-play. In fact, there are successful games on both Xbox and PlayStation that support cross-play (between console and PC) and yet are not available on the other console, for example Halo, Genshin Impact, and Forza. This suggests commercial and strategic considerations may override any potential benefits from cross-play.

7.370 Given the evidence above, we consider the impact of cross-play to be limited. As such, we consider direct network effects are still likely to have a positive

---

[635] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.56.
[636] Activision response to the CMA's RFI.
[637] [✂].
[638] Activision response to the CMA's RFI.

impact on the Parties' incentives to foreclose by inducing some gamers to follow others in their choice of console.

7.371 Indirect network effects also exist, with publishers wanting to publish their games on the platform with the most users. However, most publishers choose to make their games available on as many platforms as possible. Publishers told us that their incentives in this respect would not change as a result of a potential withholding of CoD from PlayStation.[639] Therefore, we do not consider indirect network effects to be central to our assessment.

Entry, expansion, and repositioning of other games

7.372 When considering the long-term incentives of the Parties, we have also considered the long-term incentives of other game publishers to take advantage of the gap left from CoD on PlayStation following a foreclosure strategy. Without CoD on PlayStation (or with a reduced CoD offering on PlayStation), other publishers may be incentivised to develop new games, expand, or reposition existing games to gain users. If Microsoft expected this to occur, it would be less incentivised to engage in foreclosure strategies.

7.373 In the Chapter below on Countervailing Factors, we assess this possibility of entry and expansion in response to the Merger including barriers to entry and expansion for game publishers. We find that barriers to entry and expansion are high, especially to achieve a similar success to that of CoD. Barriers include development costs, staff and franchise loyalty. We have not seen any evidence of entry and/or expansion plans of rivals who will enter or expand irrespective of whether the Merger proceeds.

7.374 On this basis, we consider entry, expansion, and repositioning of other games would not be sufficiently likely to materially reduce the incentive of the Merged Entity to engage in a total foreclosure strategy.

Past acquisitions

7.375 We considered whether Microsoft's strategy following previous gaming acquisitions could be informative of its likely strategy following the Merger. The Parties stated that decisions regarding past mergers, which involved mid-sized games, are not evidence of Microsoft's incentives in this Merger because they are fundamentally different,[640] in particular because CoD is a

[639] [✂] response to the CMA's RFI; and [✂] response to the CMA's RFI.
[640] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.55(c).

multiplayer franchise,[641] and because mid-sized games are not evidence of Microsoft's incentives related to CoD.[642]

7.376 Microsoft submitted that its acquisition of Minecraft is the closest analogue to its proposed purchase of CoD, and that Microsoft kept Minecraft available on PlayStation and expanded its reach to other platforms, including Nintendo, after its 2014 acquisition of Minecraft's publisher Mojang.[643] Microsoft explained that *Minecraft*, like CoD, is a globally popular multi-player franchise with a strong player community and social element that was available on multiple platforms when Microsoft acquired it. Microsoft explained that, similar to *Minecraft*, CoD monetises its content through: (i) subscription payments for multi-player functionality (seasonal battle passes); (ii) merchandise (from its dedicated online CoD Shop); and (iii) game enhancing features (such as player skins and map packs).[644]

7.377 A console gaming competitor [✂] submitted that Minecraft is not a close analogue to CoD, including because (i) it is a single-release title that was published in 2011, (ii) it is based on a legacy monetisation model of a one-time fee, after which users receive lifetime updates and content, (iii) it is not graphically intensive and offers a visual experience that relies on blocky and pixelated visuals, and (iv) it does not drive anything close to the level of gameplay, engagement, or purchasing decisions as CoD, having fewer players, fewer MAUs, lower engagement levels, less than [✂] of CoD gameplay hours, and limited impact on console purchasing decisions.[645] According to this competitor, the closest analogue to the current transaction is Microsoft's acquisition of ZeniMax.[646]

7.378 We consider that Minecraft has some similarities to CoD (ie, it was an established multiplayer game with multiple revenue streams) but that it also has important differences. One important difference is Minecraft's legacy monetisation model. Before being acquired by Microsoft, Mojang Studios sold Minecraft for a one-time fee, after which users received lifetime updates and content. Following the acquisition, Microsoft continued to charge a one-time fee (of around $30) and developed other ways of monetising the game, including subscription payments for multi-player functionality, merchandise from the Minecraft Shop (eg, t-shirts, lamps, mugs, etc), and game-enhancing features from the Minecraft marketplace (eg, skin packs, texture packs,

---

[641] Microsoft response to working papers.
[642] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.55(c).
[643] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 3.55(a). See also Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.118-2.119
[644] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.119.
[645] [✂] submission to the CMA.
[646] [✂]; See also [✂].

adventure maps, etc). Despite CoD having similar in-game monetisation streams to Minecraft, this legacy monetisation model of a one-time fee for lifetime access and updates, which predated Microsoft's acquisition, differs significantly from CoD, where users generally buy the new premium iteration of the game every year for a higher fee.

7.379 With respect to other past acquisitions, the Parties submitted that, as of October 2022, from the development studios Microsoft has acquired, there are [✂] upcoming titles, [✂] of which are not planned to be available on PlayStation or Nintendo.[647] Examples as of October 2022 include:

(a) [✂].

(b) [✂].

(c) [✂].

(d) [✂],[648] [✂].

7.380 Having reviewed Microsoft's strategy following its previous acquisitions of game studios and publishers, we consider that most of these were, in effect, acquisitions of talent. The majority of studios that Microsoft has acquired (with some notable exceptions including ZeniMax) did not have regular releases of popular gaming franchises available on different platforms. As such, Microsoft did not have to decide whether to make multiplatform games with a large customer base exclusive to Xbox following these acquisitions; it acquired those studios with the specific purpose of making exclusive games for its platform.

7.381 The main exception is Microsoft's 2021 acquisition of ZeniMax:

(a) Prior to the acquisition, 24 of the 26 games ZeniMax released on PlayStation or Xbox consoles since 2010 were released on both consoles.[649]

(b) ZeniMax has published three games since its acquisition by Microsoft. The most recent was Hi-Fi Rush, a single player action game which was released exclusively on Xbox and PC in January 2023. Prior to this it released Deathloop in September 2021 and Ghostwire: Tokyo in March

---

[647] Microsoft Internal Document.
[648] Wasteland 3 was released on Xbox, PlayStation and Windows in August 2020 and on Linux and Mac in December 2020
[649] 'Wikipedia | List of Bethesda Softworks video games', accessed by the CMA on 23 January 2023. The two games not published on both consoles were Quake III Arena Arcade released only on Xbox 360 and Fallout Shelter released only on Xbox One, android and iOS.

2022.[650] Both games were released under one-year exclusive contracts with PlayStation which were agreed prior to the acquisition. Therefore, it seems that Microsoft has honoured existing contractual agreements and acted in accordance with the statements it made at the time of the ZeniMax acquisition.[651] Deathloop has since been released on Xbox (and Game Pass) in September 2022 with the addition of new content available across all platforms.

(c) Microsoft and ZeniMax have confirmed that some future releases of games from Zenimax studios will be Xbox exclusives (which includes a Windows PC version).[652] Microsoft has also confirmed that all future releases will be on Xbox Game Pass on release.[653] Microsoft has publicly confirmed that new games Starfield and Redfall expected in 2023 will be Xbox/PC exclusives.[654]

(d) Microsoft Gaming's CEO has publicly alluded to the next Elder Scrolls (Elder Scrolls VI) release being an Xbox exclusive (which includes a Windows PC version).[655] Both Starfield and Elder Scrolls: VI were announced in 2018, before Microsoft's acquisition, and were not anticipated to be Xbox exclusives.[656]

(e) ZeniMax also publishes Elder Scrolls Online, a live service massively multiplayer online role-playing game within the Elder Scrolls franchise. It was first released in 2014 but receives annual content releases. The game continues to be available on Xbox, PC and PlayStation.

7.382 This strategy of acquiring talent to make new games that are exclusive to Xbox is consistent with our finding that console providers place significant value in having exclusive content to differentiate their platform and attract

---

[650] Deathloop is a single player first-person shooter (FPS) game with a 2-person campaign mode. Ghostwire: Tokyo is a single-player action-adventure game.
[651] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 3.55(a)-(b).
[652] We note that, in the context of the European Commission merger investigation in relation to the Microsoft/ZeniMax acquisition whose report was published in March 2021, Microsoft submitted it had strong incentives to continue making ZeniMax games available for rival consoles and their related storefronts (see Case M.10001 – Microsoft / ZeniMax, paragraph 107). Microsoft's decisions described above regarding new titles Starfield and Redfall., and the suggestion of future exclusive releases in the Elder Scrolls franchise on Xbox, which reveal its real-world incentives, suggest that static incentives analyses developed in the context of a merger inquiry may fail to capture significant unstated commercial incentives.
[653] 'Microsoft News | Get The Facts: How Microsoft is Committed to Growing Gaming Communities' accessed by the CMA on 7 February 2023.
[654] Starfield is a single player role-play game (RPG). Redfall is a FPS with a 4-person co-operative multiplayer mode. 'Gamerant | Xbox three exclusive Bethesda games explained', accessed by the CMA on 19 January 2023. See also https://www.xbox.com/en-US/games/starfield and https://www.xbox.com/en-GB/games/redfall.
[655] Elder scrolls is a role-playing game (RPG); all releases in the franchise (except for Elder scrolls online) have been single player and Elder Scrolls VI is expected be single player. Microsoft gaming's CEO publicly alluded to Elder Scrolls VI being an Xbox exclusive in an interview in November 2021. 'GQ magazine | xbox Phil Spencer Todd Howard interview', accessed by the CMA on 30 January 2023.
[656] 'E3 2018: Bethesda's Press Conference News Recap – Fallout 76, Elder Scrolls 6, Starfield, and More', accessed by the CMA on 5 January 2023.

more users. Most first-party Xbox and PlayStation games are exclusive to their respective platform, and almost every studio that Microsoft has bought now makes games exclusive to Xbox. Moreover, where Microsoft has seen value in making multiplatform third-party studio games exclusive to Xbox, it has done so (eg, the upcoming release of their new game Redfall following the ZeniMax acquisition).

7.383 We consider, however, that the financial and strategic calculation of creating new exclusive games for Xbox may be different from that of making CoD exclusive to Xbox: making an existing multiplatform gaming franchise exclusive leads to losses (ie, lost revenues from customers on other platforms), which have to be weighed against expected gains (ie, increased revenues from new Xbox customers). Moreover, in this case, at least part of CoD's value comes from the size of its community of gamers, and that would be eroded by removing it from PlayStation. By contrast, making new gaming IP available on other platforms has some costs associated with it (eg, optimizing for a different OS and possible diversion of users to a rival console) and leads to uncertain gains. We consider that these differences could reasonably lead Microsoft to make a different strategic decision in relation to new releases of CoD than it has done in relation to entirely new games generated after previous acquisitions, especially in light of the significant quantifiable losses suggested by the revised LTV model.

7.384 Overall, our view is that the evidence arising from Microsoft's past acquisitions alone is inconclusive. It suggests that exclusivity matters, that Microsoft strives to acquire and produce exclusive content, but that when it acquired *Minecraft*, it had the incentive to keep it on PlayStation and Nintendo.

Contractual arrangements and negotiations

7.385 In this section, we assess the impact that the Merging Parties' contractual arrangements (and negotiations that might end up in contractual arrangements) could have on the Merged Entity's incentive to foreclose SIE. As explained above, Activision has an existing contract with SIE which will expire in the short term covering the arrangements between the two entities with regards to the availability of CoD on PlayStation. Microsoft has also made a separate offer to SIE to keep CoD on PlayStation for a period of ten years post-Merger.[657] Microsoft also explained that it has entered into a legally binding 10-year agreement with Nintendo to bring CoD to Nintendo platforms post-Merger and an offer was made to Steam.[658] As this theory of

[657] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 3.47 and 3.50(g). See also Microsoft, letter to the CMA; and Microsoft, letter from to the CMA.
[658] Microsoft, letter to the CMA and Microsoft response to the Provisional Findings, 2 March 2023, paragraph 1.2.

harm is focused on SIE for the reasons already discussed, we have focussed our assessment on any potential impact on the Merged Entity's incentives stemming from contractual arrangements and negotiations with SIE.

Parties' and SIE's views

7.386 Microsoft submitted that SIE's existing contractual arrangements with Activision, as well as Microsoft's separate offer to SIE to keep CoD on PlayStation post-Merger, limit the Merged Entity's incentive to foreclose.[659]

7.387 Microsoft submitted that the financial and reputational damage arising from non-compliance with Activision's contracts with SIE would be severe. Microsoft explained that, given [✂] Activision's existing contracts with SIE of c. [✂] per annum, there would be costly penalties for breaching these contracts. Microsoft also submitted that the reputational damage would be even worse.[660]

7.388 Microsoft referred the CMA to its acquisition of ZeniMax. Microsoft submitted that, post-acquisition, it honoured ZeniMax's existing contractual commitments with SIE.[661] Microsoft also referred the CMA to public comments made by SIE that it expects Microsoft to abide by existing contractual commitments post-Merger.[662]

7.389 SIE submitted that Microsoft's past conduct shows that its 'public utterances' should be treated with 'extreme scepticism'.[663] However, SIE did not suggest that Microsoft has breached existing contractual arrangements following previous acquisitions; instead, it referred to new releases made by particular game studios post-acquisition.[664] This is consistent, for instance, with the fact pattern outlined by Microsoft regarding the ZeniMax acquisition: Microsoft states it has honoured existing contractual arrangements in place between SIE and ZeniMax at the time of the acquisition. Microsoft explained that two titles (Deathloop and Ghostwire: Tokyo) were released first on PlayStation post-acquisition in accordance with the terms of the relevant contractual arrangements.[665]

---

[659] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 3.58(a)-(d). See also Microsoft, letter to the CMA and Microsoft, letter to the CMA.
[660] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.58(d).
[661] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.47.
[662] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 3.47(c), 3.50(h).
[663] SIE response to the phase 2 Issues Statement, 28 October 2022, paragraph 17.
[664] SIE response to the phase 2 Issues Statement, 28 October 2022, paragraph 17.
[665] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.47. See also Microsoft response to the working papers.

7.390 Regarding the agreement with Nintendo, Microsoft submitted that its 10-year agreement with Nintendo demonstrates its lack of incentive to foreclose by showing a general intention to distribute CoD on more consoles, not fewer, post-Merger, as well as the commercial reality that Microsoft is looking to monetise CoD as much as possible and, as a result, its clear incentive is to expand access to the franchise.[666]

Our assessment

7.391 As there is currently no agreement in place between Microsoft and SIE in relation to Activision content, we do not consider that the negotiations referred to above have any impact on our assessment of the Merged Entity's incentive to engage in foreclosure.

7.392 As regards the existing agreement between Activision and SIE, the MAGs make clear that the CMA may consider any financial or reputational costs of terminating contracts in its assessment of foreclosure incentives.[667] The question of reputational impacts and the financial implications of foreclosing CoD from SIE has already been incorporated into our assessment above. More generally, we also consider that the points discussed above in relation to ability to foreclose are relevant to the CMA's assessment on the Merged Entity's incentives to engage in foreclosure in this market. In particular, we note that while the existing contractual arrangements between SIE and Activision provide SIE with some protection in the short-term, the relevant protections are of limited duration. We do not consider they are of sufficient duration to have a material impact on our competitive assessment, which considers potential concerns with a longer time horizon.

7.393 Regarding the Nintendo agreement, in addition to noting that this theory of harm is primarily focussed on SIE for reasons already explained, we also consider the points discussed in the ability assessment regarding the uncertainty created by certain terms of this agreement also apply to our incentive analysis. With regards to Microsoft's submission that this agreement demonstrates a general intention to distribute CoD on more consoles, we note that this agreement has been entered into during the course of our Merger investigation (and those of other authorities). We therefore do not consider this is reliable evidence of what Microsoft's incentives would otherwise be in the ordinary course.

---

[666] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 2.74 and 2.115.
[667] CMA129, paragraph 7.15.

7.394 As such, our view is that Microsoft's contractual arrangements are not likely to have any significant impact on its incentive to foreclose SIE, at least beyond the short term once the existing contract with SIE comes to an end.

Conclusion

7.395 We assessed whether a total foreclosure strategy would be profitable and, therefore, whether the Merged Entity would have an incentive to engage in such strategy. As part of this assessment, we considered a mix of both qualitative and quantitative evidence.

7.396 Our quantitative modelling indicates that the Merged Entity would face substantial losses in case of total foreclosure. Given the significant losses that this model suggests the Merged Entity would incur, under all plausible scenarios, we place significant weight on this evidence when assessing it in the round, together with Microsoft's behaviour following previous acquisitions and its longer-term strategic objectives.

7.397 Our assessment also shows that Microsoft has acquired a range of gaming studios and, with very few exceptions, has redirected the efforts of those studios to produce exclusive Xbox games. We consider that this evidence is not sufficiently conclusive to suggest that Microsoft would have an incentive to foreclose PlayStation. This is because most of the studios that Microsoft has acquired did not have regular releases of popular gaming franchises available on different platforms; therefore, Microsoft did not have to decide whether to make multiplatform games with a large customer base exclusive to Xbox following these acquisitions. Although *Minecraft* has some similarities to *CoD,* we do not consider it to be sufficiently similar to provide strong evidence that Microsoft's strategy with *CoD* would be the same as its strategy with *Minecraft* insofar as making it available on PlayStation post-Merger.

7.398 We have also seen that there are longer-term strategic benefits that are difficult to quantify, but which nonetheless contribute to Microsoft's incentive to engage in foreclosure strategies to some extent. These include Microsoft's plans to grow Game Pass, which Microsoft's own valuation model estimates to be significant. Longer-term strategic benefits also include the potential to acquire new loyal customers, and the reputational benefits from owning a console with exclusive CoD content. We have not found evidence to suggest that these strategic benefits are of a scale that they would mitigate the significant losses that our LTV model suggests Microsoft would incur as a result of a total foreclosure strategy.

7.399 Based on our assessment above, and placing particular weight on the significant losses that our LTV model suggests Microsoft would incur if it were

to engage in a total foreclosure strategy, we conclude that the Merged Entity would not have the incentive to engage in a total foreclosure strategy using CoD.

7.400 We have, therefore, concluded that the Merged Entity will not have the incentive to engage in total foreclosure of PlayStation in the market for console gaming services in the UK.

Effect of foreclosure on competition

7.401 In light of our conclusions that (i) the Merged Entity will not have the ability to engage in partial foreclosure strategies vis-à-vis PlayStation, and (ii) that the Merged Entity would not have the incentive to engage in total foreclosure, it is not necessary for us to conclude on the effects of foreclosure on competition in the supply of console gaming services in the UK.

Conclusion on TOH1

7.402 We conclude that the Merger may not be expected to result in a substantial lessening of competition in the market for the supply of console gaming services in the UK.

8. Theory of harm 2: Vertical effects in cloud gaming services

Framework for assessment

8.1 The concern under this input foreclosure theory of harm is that the Merger may lead to the Merged Entity using Activision's games to foreclose cloud gaming service rivals, harming their ability to compete.

8.2 In relation to Activision's content, we consider whether the Merged Entity could harm its rivals' competitiveness and thus lessen current and future competition in cloud gaming services through total foreclosure, ie making either current and/or future Activision content unavailable on rival cloud gaming services (ie exclusive to Game Pass).[668]

8.3 In our assessment of whether the Merged Entity may harm rival cloud gaming services' ability to compete by denying or worsening its access to Activision's games, we follow the framework set out in the Merger Assessment Guidelines for assessing input foreclosure theories of harm.[669] We therefore consider whether three cumulative conditions are satisfied:[670]

(a) Would the Merged Entity have the ability to use its control of content to harm the competitiveness of rival cloud gaming services?

(b) Would it have the incentive to actually do so, ie would it be profitable?

(c) Effects of foreclosure: would the foreclosure of rival cloud gaming services substantially lessen overall competition between cloud gaming services?

---

[668] During our investigation we also considered whether the Merged Entity could harm its rivals' competitiveness and thus lessen current and future competition in cloud gaming services through partial foreclosure strategies, in particular by making Activision content available for release on rival cloud gaming services at a later day compared to Xbox (ie timed exclusivity). However, in circumstances where Activision content is not currently available on rival cloud gaming services, and – for reasons explained in this Chapter, we consider the Merged Entity would have the ability and incentive *not* to make it available to rival cloud gaming services post-Merger – we have not considered it necessary to assess this further. To the extent timed exclusivity was longer-term such that it was essentially akin to total foreclosure, this would be covered by the analysis in this Chapter more generally. Other partial foreclosure strategies may include i) degrading the technical quality of Activision gaming content available to cloud gaming rivals (eg content having worse graphics, worse latency, lower frame per second, longer load times; ii) making features or upgrades of Activision games unavailable to other cloud gaming rivals (ie content exclusivity); and/or iii) raising the wholesale price of Activision content to cloud gaming rivals. It has not been necessary to assess the extent to which Microsoft may have the ability and incentive to pursue any such strategies in light of our findings in relation to total foreclosure.
[669] CMA129, paragraphs 7.9-7.22.
[670] CMA129, paragraph 7.9.

8.4 An important question in this context is the likely development of this market, and the Parties' likely position within it, absent the Merger. We have therefore assessed the long-term viability of cloud gaming services, [✂].[671]

8.5 Microsoft has a wide range of products and services, some of which may be important assets or inputs into cloud gaming. These include the Windows and Xbox operating systems, its Azure cloud infrastructure, and its Xbox gaming library. Any ability on Microsoft's part to use these assets to foreclose rivals does not form part of this theory of harm, as Microsoft already benefits from these assets and inputs without the Merger. However, as detailed below, these assets and inputs may nonetheless affect Microsoft's incentive to engage in a foreclosure strategy using Activision's content, and they may also magnify the effect of any such foreclosure strategy in the market for cloud gaming services. We have therefore carried out an assessment of Microsoft's pre-existing strengths in cloud gaming services and assessed their impact on its incentives to foreclose rivals and the effects of any such foreclosure:

(a) In relation to incentive, Microsoft would have a greater incentive to foreclose rivals the stronger it is downstream, as it will capture more of the sales from any foreclosed rival (and we note that it is already strong given its pre-existing strengths in cloud gaming services). As noted in the MAGs, incentives will be greater if the Merged Entity has a more successful downstream offering.[672]

(b) In relation to effect, as noted in the MAGs, competition concerns may be particularly likely to arise if a merger firm has a degree of pre-existing market power in the downstream market, and already faces limited competitive constraints pre-merger.[673]

8.6 We are also mindful that Activision content has only been available on cloud gaming services to a limited extent thus far. We have therefore considered the extent to which Activision would have made its content available on cloud gaming services absent the Merger.

8.7 This chapter is structured as follows:

(a) First, we assess the likely future development and long-term viability of cloud gaming services.

(b) Second, we assess the competitive landscape in cloud gaming services.

---

[671] Microsoft response to working papers.
[672] CMA129, paragraph 7.19 (b).
[673] CMA129, paragraph 7.21.

(c) Third, we assess Microsoft's pre-existing strengths in cloud gaming services, focusing on the Windows and Xbox OSs, Azure, and its Xbox gaming library.

(d) Fourth, we assess Microsoft's overall strengths in cloud gaming services relative to rivals.

(e) Fifth, we assess the extent to which Activision content would have been available on cloud gaming services absent the Merger.

(f) Sixth, we assess whether the Merged Entity would have the ability to foreclose rival cloud gaming services as a result of the Merger.

(g) Seventh, we assess whether the Merged Entity would have the incentive to foreclose rival cloud gaming services.

(h) Finally, we assess the effect that any foreclosure strategy would have on competition in the market for cloud gaming services.

8.8 As set out in the MAGs, in the context of sectors that are characterised by fast-moving technological and commercial developments or assessments of potential or dynamic effects that are particularly dependent on the evolution of competitive conditions, the types of evidence that are available to the CMA may be more restricted. In such cases, the CMA may place particular weight on evidence such as internal documents, the expected number of competitors after the merger, similarities between the characteristics of the products or services that are under development, and the views and expansion plans of market participants. As with uncertainty, the absence of certain specific types of evidence such as historical data will not in itself preclude the CMA from concluding that the SLC test is met on the basis of all the other available evidence assessed in the round.[674]

Future development of cloud gaming

8.9 This section considers evidence on how the market for cloud gaming services will develop in the future, and Microsoft's plans for its cloud gaming service.

8.10 As set out in Chapter 5, we consider that there is a single market for cloud gaming services. We recognise, however, that cloud gaming service providers are testing a range of different business models to monetise their service. They all currently offer a subscription-based model for access to their servers (and some offer a free tier with advertising for this purpose). Different services

[674] CMA129, paragraph 2.28.

monetise their gaming content in different ways, including (i) the traditional B2P model, whereby users must purchase a game through the cloud service in order to play it (eg, Google Stadia), (ii) the BYOG model, where users can play games bought in third party storefronts (eg, NVIDIA GeForceNow), (iii) free-to-play offerings paid through advertising revenue and in-game purchases, and (iv) multi-game subscription services, whereby users pay a subscription fee for access to gaming servers and a catalogue of games (eg, Amazon Luna and Xbox Game Pass Ultimate). The evidence shows that these business models are not fixed, and that cloud gaming service providers are open to exploring different ways of monetising their services.

8.11 Under this theory of harm, we explore competition concerns in the market for cloud gaming services as a whole. Given our findings set out below that Activision's content is most likely to become available on cloud gaming services under a B2P or BYOG approach, we pay particular attention to the potential impact of the Merger on these services. We note, however, that industry participants in this growing industry are continuously experimenting with different payment models, and even a single participant may have more than one way of monetising content. For example, Amazon has implemented a BYOG option in Luna for Ubisoft games, and NVIDIA [✂] on GFN.[675]

8.12 As such, we believe that any competition concerns arising from the Merger would affect the market as a whole, rather than just existing participants following a B2P or BYOG approach.

Parties' views

8.13 Microsoft submitted the following on cloud gaming:

(a) It stated that cloud gaming is currently small. According to Microsoft, it accounted for a *de minimis* proportion of consumer spend on gaming in 2021 – just [✂]%.[676] Microsoft expects that it will account for only [✂]% of total consumer spend on gaming by 2025.[677] It submitted that on PC specifically cloud gaming is also *de minimis* with cloud gaming users accounting for less than [✂]% of PC gamers in the UK.[678]

(b) It submitted that consumer adoption was uncertain and expected to be limited,[679] and that downloading games was likely to remain the most popular option for playing games on PC and console. Microsoft noted that

---

[675] 'Amazon Luna Ubisoft Store', accessed by the CMA on 17 January 2022; and [✂] call note.
[676] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.3.
[677] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.8.
[678] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.32.
[679] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.3.

this was in part because cloud gaming requires the user to be connected to the internet and gameplay can be affected by latency.[680]

(c) It submitted that cloud gaming on mobile devices had been unsuccessful, citing the performance of Fortnite on xCloud as an example of difficulty in attracting and retaining gamers.[681] It also submitted that with the increasing computational power of mobile devices, many gaming companies are increasingly developing native mobile games, meaning there is unlikely to be material demand for cloud gaming on mobile devices (which Microsoft also submitted depends on the user having a stable internet connection).[682]

(d) It submitted that it did [✂]. It submitted that this had been demonstrated by its experience with streaming Fortnite, and provided data purporting to show that [✂].[683] Microsoft provided further data that suggested that [✂].[684]

(e) It submitted that it considered using [✂].[685]

(f) It explained that, as a result of these issues, it had [✂].[686] [✂].[687] It submitted that [✂]. It submitted that it [✂].[688]

Our assessment

Internal document evidence

8.14 This section considers the evidence from Microsoft's internal documents that discuss its plans and expectations for cloud gaming. The evidence is presented in chronological order to track the development of Microsoft's view of cloud gaming services over time.

8.15 Internal documents from [✂] suggest that Microsoft is optimistic about cloud gaming and committed to bolstering its already strong position in the market [✂]. These documents, set out in more detail below, include views from senior Microsoft employees such as [✂].[689]

---

[680] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 5.4-5.6.
[681] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 5.10-5.13.
[682] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.31.
[683] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 5.14-5.15.
[684] Microsoft site visit.
[685] Microsoft response to the CMA's s109 notice.
[686] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.16.
[687] Microsoft, response to working paper.
[688] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.37.
[689] Microsoft Internal Document; Microsoft Internal Document; Microsoft Internal Document.

8.16 A strategy document from October 2019, prepared by the Xbox gaming team for Microsoft's senior leadership team, states that 'cloud streaming' represents an [✂]. The document also notes that the transition to a [✂].[690]

8.17 In an email exchange from April 2020, [✂] discuss the possibility of putting [✂].[691]

8.18 A May 2020 presentation sets out a number of projects that would support a long-term strategy to support expansion in cloud streaming. In particular, the document defines [✂]. The document describes [✂].[692]

8.19 An email from [✂] in December 2020 states that [✂].[693] In the same email chain [✂] states: [✂]

8.20 A draft document from May 2021 discusses [✂]. It describes [✂]. It suggests that [✂].[694]

8.21 An email from [✂] in December 2021 [✂].[695]

8.22 In an email from February 2022, [✂] argues that [✂].[696] [✂]. In this email [✂] also notes [✂].

8.23 Another email from February 2022 provides an update on [✂].[697] Microsoft submitted that this project [✂]. It has publicly stated that it still expects to produce a streaming device at some point, but that this could be 'years away'.[698]

8.24 An email from [✂] in March 2022 notes [✂].[699]

8.25 Emails from [✂] in May 2022 discuss [✂]. In the same email chain [✂] describes [✂].[700]

8.26 In relation to Microsoft's argument that [✂], emails from [✂] to [✂] in July 2022 discussing [✂].[701]

---

[690] Microsoft Internal Document.
[691] Microsoft Internal Document.
[692] Microsoft Internal Document.
[693] Microsoft Internal Document.
[694] Microsoft Internal Document.
[695] Microsoft Internal Document.
[696] Microsoft Internal Document.
[697] Microsoft Internal Document.
[698] Microsoft, response to working papers.
[699] Microsoft Internal Document.
[700] Microsoft Internal Document.
[701] Microsoft Internal Document.

8.27 In submissions to the CMA during these proceedings, Microsoft has submitted that this analysis had been prepared relatively early [✂].[702] The analysis [✂]. Microsoft also described [✂]. In this respect we make the following observations:

(a) The Parties have not pointed to any internal documents generated in the ordinary course of business that update these analyses and show [✂].

(b) Other games are likely to be [✂].

(c) Whilst different assumptions would have an impact on [✂], the analysis nevertheless broadly demonstrates that [✂].

(d) A more recent internal document from September 2022, providing an email update on [✂], describes how [✂]. This indicates that Fortnite has [✂] on the basis of more recent data.[703]

8.28 Microsoft also provided data showing that [✂].[704] As such, Microsoft considers that [✂].[705] However, we note that this data involves [✂]. It was also based on [✂]. In addition, Microsoft highlighted issues with discoverability on mobile due to app store restrictions which limited user uptake.[706] This means that the experience [✂] is likely to underestimate consumer uptake and the viability of cloud gaming services outside the mobile ecosystem.

8.29 Slides from May 2022 provide an update on xCloud quarterly results, showing MAUs of [✂] in Q3, with year-on-year growth in MAUs of [✂]%, [✂]. [✂]% of MAUs were NTX, which was [✂]%. It is also noted in the slides that [✂].[707]

8.30 Emails from [✂] in July/August 2022, primarily discussing opportunities in VR, note the opportunities and Microsoft's strength in cloud. In the emails he states that he sees [✂]. He also notes that in relation to Microsoft's game development studios, [✂] [708]

8.31 Slides from July 2022 presenting analysis on XGP [✂] describe [✂], and that, according to a survey, [✂]. The slides also show that survey respondents were [✂].[709]

---

[702] Microsoft response to working papers.
[703] Microsoft Internal Document.
[704] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 5.14-5.15.
[705] Microsoft site visit.
[706] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.13e.
[707] Microsoft Internal Document.
[708] Microsoft Internal Document.
[709] Microsoft Internal Document.

8.32 Slides from August 2022 provide an update on [✂].[710]

8.33 A July 2022 email exchange between [✂] describes [✂]. It also notes that [✂].[711]

8.34 An internal chat in July 2022 describes how [✂].'[712] This suggests that [✂].

8.35 An email from 4 August 2022 that discusses [✂]. The same document also describes that [✂] [713]

8.36 An email from 11 August 2022 to the Xbox Everywhere [✂] further sets out [✂]. For example, [✂]. It describes [✂]. It also describes that [✂].[714]

8.37 Microsoft provided a chart showing that, [✂]. In February 2022 it forecast approximately [✂] xCloud MAUs by [✂]. In September 2022, this forecast [✂], which [✂].[715] We note, [✂]. It may also be expected to [✂].

8.38 Microsoft highlighted further internal documents from April to July 2022, which [✂]:[716]

(a) An email exchange from April 2022 between [✂] and [✂], both of whom work in Xbox marketing,[717] [✂]. It notes that the [✂]. However, the same email also states that [✂].[718]

(b) An internal message from May 2022 from [✂] highlights [✂]. It notes that, [✂]. It states that that [✂].[719]

(c) An internal chat from July 2022 between [✂] [720] suggests that [✂]. In relation to the [✂] discussed above, it [✂].[721]

(d) Another internal chat from July 2022 between the same people highlights [✂]. It describes how [✂]. It also states that [✂].[722]

8.39 Despite these views and [✂], more recent internal documents continue to discuss [✂]. For example:

---

[710] Microsoft Internal Document.
[711] Microsoft Internal Document.
[712] Microsoft Internal Document.
[713] Microsoft Internal Document.
[714] Microsoft Internal Document.
[715] Microsoft response to the CMA's s109 notice.
[716] Microsoft response to working paper.
[717] Microsoft Internal Document.
[718] Microsoft Internal Document.
[719] Microsoft Internal Document.
[720] Microsoft Internal Document.
[721] Microsoft Internal Document.
[722] Microsoft Internal Document.

(a) Slides from August 2022 describing FY23 plans for [✂] note that [✂]. However, [✂].[723]

(b) Emails from September 2022 discuss [✂].[724]

(c) The September 2022 email to [✂] sharing [✂] referenced above also notes that Microsoft is continuing its [✂].[725]

(d) A document from September 2022 discusses in detail [✂].[726] Microsoft submitted that this document represents [✂]. However, it discusses [✂].

(e) A memo from September 2022 describing priorities for Fiscal Year 2023 sets out how [✂]. The new fiscal year is described [✂]. It describes [✂].[727]

(f) Two documents dated September 2022 and November 2022 discussing plans for next generation consoles show that [✂]. One slide describes [✂]. Another slide discusses [✂].[728]

8.40 In our view, the overarching impression from Microsoft's internal documents is that cloud gaming is expected to be a growing area in gaming [✂]. Whilst these documents highlight that [✂] we do not consider that they suggest that cloud gaming services will stop growing. At most, we consider that these documents show [✂]. As described above, more recent documents continue to discuss [✂].

Third party evidence

8.41 Evidence from rival cloud gaming providers, including from their internal documents, shows that they expect the market to grow and be profitable. Internal documents from one rival [✂] from October 2021 [✂]. The document suggests that this rival [✂].[729]

8.42 Microsoft submitted that [✂].[730] Whilst it is difficult to directly [✂]. Despite this [✂] [731] and [✂].[732]

---

[723] Microsoft Internal Document.
[724] Microsoft Internal Document.
[725] Microsoft Internal Document.
[726] Microsoft Internal Document.
[727] Microsoft Internal Document.
[728] Microsoft Internal Document; and Microsoft Internal Document.
[729] [✂] Internal Document.
[730] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.33 and 3.34.
[731] [✂] response to the CMA's RFI.
[732] [✂].

8.43 Another rival [✂] submitted that it expected that many users would switch to cloud gaming.[733] It said that it expected cloud gaming could and would be delivered profitably, and that getting the right content to attract paid users was the main barrier to succeeding in this market, rather than any technical or economic aspects of cloud gaming.[734] An internal document from this provider shows that [✂].[735] Whilst Microsoft submitted that these [✂],[736] in our view [✂].

8.44 The same rival [✂] submitted that technological barriers to streaming, including latency, were quickly dropping and were likely to continue to drop. It described how it had reduced latency on its service [✂].[737] On a call the same rival stated that it had solved the latency problem, and that its service now outperformed playing on a local console device including from a latency perspective, which it had achieved by using more powerful graphical processing units (**GPUs**).[738]

8.45 Evidence from this rival [✂] on play time for different games showed that multiplayer and 'fast-twitch' games[739] are amongst the most popular, indicating that latency does not present a problem for streaming these types of games. [✂]the [✂] most played games on the platform included [✂], all of which include multi-player and can be considered fast-twitch.[740]

8.46 Another rival [✂] expressed that it expected cloud gaming to increase substantially and ultimately replace consoles, stating that cost and technological issues such as latency could be overcome to provide an 'amazing gaming experience'.[741]

8.47 Another provider [✂] submitted that it had reached profitability in 2022 having started operating in 2019, although this excludes hardware expenses. It stated that it has high capital expenditure due to hardware investments, and that a hardware solution with efficient balance between cost and performance is key to profitability in cloud gaming.[742] This provider also stated that cloud gaming will be the main way users access gaming content in 7-10 years.[743]

---

[733] [✂] response to the CMA's RFI.
[734] [✂] response to the CMA's RFI.
[735] [✂]Internal Document; and [✂] Internal Document.
[736] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.34.
[737] [✂] response to the CMA's RFI.
[738] [✂] call note.
[739] Games that require fast response times such as first-person shooters.
[740] [✂] Internal Document.
[741] [✂] call note.
[742] [✂] response to the CMA's RFI.
[743] [✂] response to the CMA's RFI.

8.48 A potential entrant [✂] stated that there were challenges in cloud gaming, but that it was only a matter of time before they were solved, and cloud gaming really takes off.[744] The same company stated that 'fast-twitch' multiplayer games such as Call of Duty or Fortnite are suitable for cloud gaming services due to advancements in home networking performance, and that there may be some benefit to playing these types of games through a cloud gaming service because the high performance and reliability of cloud networking can increase the scalability (eg, number of players) in a multi-player game. It also stated that it had tested such games on its service and believes it offers competitive performance.[745]

8.49 A competitor [✂] described that GPUs are increasing in cost as the cost of transistors and required number of transistors are increasing, and that the benefit of cloud gaming is that it allows consumers to access the latest gaming hardware at a lower cost by providing a shared computing environment. It further submitted that in the future some games might only be able to run in the cloud due to the ability to have large memory and increasingly large GPUs.[746]

8.50 A third party publisher [✂] indicated that it did not expect cloud gaming to replace console in the near future, but that it would become an alternative for some consumers. It noted that it has not yet reached mass adoption, with one of the main reasons being that it can still be associated with 'lag' or latency. It described how to replace console, cloud gaming services needed to prove that the latency question has been addressed, and that internet coverage and data plans need to improve. It stated that it is interested in developing games for cloud gaming services where the 'quality of service is there' with respect to eg latency and bandwidth, [✂].[747]

8.51 Another third party publisher [✂] stated that it thought it likely that cloud gaming can support a transition away from PC and console gaming, although noting that is still an emerging technology and its development is associated with uncertainties, and it is therefore difficult to estimate approximate timescales. It described the main challenges for such a transition as mainly technical, including the requirement for low latency.[748]

8.52 Other major third party publishers also expressed opinions about the future development of cloud gaming.

---

[744] [✂] call note.
[745] [✂] response to the CMA's RFI.
[746] [✂] call note.
[747] [✂] response to the CMA's RFI.
[748] [✂] response to the CMA's RFI.

(a) [✂] noted that cloud gaming is a developing technology and that if it continues to develop it will likely further increase the competitive nature of game development and benefit consumers unable to purchase the hardware for console or PC gaming. It also noted the need for stable, high-speed internet access.[749]

(b) [✂] stated that cloud gaming is still nascent, and cloud gaming service providers are currently in the early adopter stage. It noted that in deciding whether to publish on a cloud gaming service it would, among other things, evaluate whether it has the capacity to provide users with a good gaming experience. It also noted that it has published games on GFN and xCloud.[750]

(c) [✂] described cloud gaming as still nascent. It stated that it would consider the in-game player experience including latency when evaluating opportunities to publish a game on a cloud gaming service, and has published a select number of games on GFN, xCloud and Stadia.[751] It also stated that it thinks cloud gaming offers one possible route to device agnostic gaming in the future.[752]

(d) [✂] stated that is likely that cloud gaming services will grow especially in markets with free fast internet access and low console penetration. It noted that in the UK 'machine gaming' (ie on console or PC) is most popular as there is no latency. It described cloud gaming as being early in its life cycle, and that as a rough guess it could be 10-15 years before cloud gaming replaces consoles.[753]

(e) [✂] stated that it did not think it was likely that cloud gaming would overtake console gaming in the next five years due to latency concerns.[754] It however stated that it did anticipate that cloud gaming will be a viable alternative to native devices in major markets within five years.[755]

8.53 Some cloud infrastructure providers also expressed views on the future development of cloud gaming.

---

[749] [✂] response to the CMA's RFI.
[750] [✂] response to the CMA's RFI.
[751] [✂] response to the CMA's s109 notice.
[752] [✂] call note.
[753] [✂] response to the CMA's RFI.
[754] [✂] response to the CMA's RFI.
[755] [✂] response to the CMA questionnaire.

(a) [✂] suggested that the main developments are likely to be a continued move to console-less games which are increasingly becoming cloud-based. It noted that this will likely lead to increased cloud demand.[756]

(b) [✂] stated that the closing of Google Stadia will 'leave a sizable hole not only in market share but also in regard to performance' and noted that the market is 'searching for someone else' as Microsoft and SIE do not wholly focus on cloud gaming. It stated that whilst many believe cloud gaming is the future, until cloud infrastructure and business models catch up, similar failures of cloud gaming services will continue to happen.[757]

8.54 Several market analyst reports demonstrate an expectation that the cloud gaming services market will grow, with estimates ranging from $6.1 to $11.4 billion by 2025, and $11.9 to $13.5 billion by 2026, but with differing views on the extent to which it will replace consoles.

(a) One recent industry market report from [✂] estimates that in 2021 there were 21.7 million paying users of cloud gaming services spending $1.5 billion. It forecasts an increase of almost triple in terms of user base (to 58.6 million paying users) and more than quadruple in terms of spending (to $6.3 billion) in 2024, according to the most-likely scenario.[758]

(b) Another industry market report from [✂] in 2021 indicates that cloud gaming's share of total consumer spend on games is expected to double, from 2.2% in 2021 to 5.3% in 2025, from $3.7 to $10.0 billion revenue. It is expected to reach $11.9 billion by 2026.[759]

(c) Another estimate from [✂] from 2021 forecasts cloud gaming to reach 101 million revenue-driving users by 2025, with $6.1 billion of revenue.[760]

(d) A report from [✂] in 2021 predicts that over the next five years cloud gaming revenue is expected to grow to $13.5 billion and account for over 5% of revenue in gaming (by 2026). Revenue is expected to be $11.4 billion by 2025. It expects that cloud gaming will not necessarily grow the market for 'fast-twitch' action games, but instead grow based on new forms of high production content.[761]

---

[756] [✂] response to the CMA's RFI.
[757] [✂] response to the CMA's RFI.
[758] [✂] Internal Document.
[759] [✂] Internal Document.
[760] [✂] Internal Document.
[761] [✂] Internal Document.

(e) A 2021 report from Oppenheimer describes how [✂]. It also described [✂].[762]

(f) A report from 2022 from Enders predicts that [✂].[763]

8.55 None of the market analyst reports referenced above provide estimates for the size of the UK market specifically. Based on the shares of supply analysis described below, in 2022 the UK represented 10% of global MAUs of paid cloud gaming services. To estimate the future size of the UK market we have applied this proportion to the above forecasts for the size of the global market for cloud gaming services. Using this approach suggests that the UK market for cloud gaming services will be worth $0.6 to $1.1 billion by 2025, and $1.2 to $1.3 billion by 2026.

8.56 Data on cloud gaming MAUs gathered for the shares of supply analysis also shows that the number of UK cloud gaming MAUs tripled between the start of 2021 and the end of the 2022, demonstrating substantial growth in the UKs use of cloud gaming services.

Conclusion on expectations for cloud gaming

8.57 Based on this evidence, we consider that cloud gaming will continue to grow and is likely to become profitable in the next five years. Although it is difficult to predict exactly how big cloud gaming will eventually become, the evidence supports the conclusion that it is a growing and promising market in which several market participants are investing considerable amounts.

8.58 We consider that [✂]. Most of Microsoft's internal documents show that its [✂] and there are indications in these documents that cloud gaming could be transformative for the gaming industry [✂]. As such, we believe it is likely that [✂].

8.59 There is also clear consensus from third party respondents that cloud gaming users and revenue will increase substantially in the next few years. Although current revenues compared to streaming costs present challenges for profitability, responses indicate that this will change as demand grows and costs are driven down. We also note that short-run loss-making is not uncommon in nascent technology markets, and that this does not preclude their viability as the technology and market develop.

---

[762] Microsoft Internal Document.
[763] Microsoft Internal Document.

8.60 With respect to the Parties' argument that the increasing computational power of mobile devices will limit the growth of cloud gaming, we note that, whilst the computational power of mobile devices has increased and may continue to increase, cloud infrastructure and hardware will continue to be more powerful with more memory, and therefore offer higher performance gaming. In the same way that there will continue to be demand for consoles and gaming PCs which are able to offer higher performance gaming than smaller, handheld devices, there is likely to continue to be demand for cloud gaming which can also offer higher performance from hardware housed in data centres. Playing via cloud also offers additional benefits such as using less battery life as less processing is happening locally.

Competitive Landscape in cloud gaming services

Features of the cloud gaming market

Network effects in cloud gaming

8.61 This section considers the extent of network effects in cloud gaming services. Significant network effects can be a barrier to entry or expansion in a market. In addition, the larger the network effects are in cloud gaming, the more likely it is that the market could 'tip', ie, reach a position where only one or a few providers are able to compete.[764] In a market with significant network effects, the effect of any foreclosure strategy can therefore be increased. As part of our assessment of network effects we also look at evidence on multi-homing, as this may mitigate the strength of network effects to some extent.

Parties' views

8.62 Microsoft submitted that cloud gaming reduces network effects. It stated that, as cloud gaming is effectively device agnostic and does not require the consumer to invest in hardware, gamers can easily switch and multi-home across services, reducing network effects. It cited Ofcom evidence that in the video streaming market many consumers multi-home, thereby reducing the importance of network effects (as smaller platforms can still attract content creators to distribute on their services) and decreasing barriers to entry.[765] It also stated that direct network effects operate at the game level rather than the platform level.[766]

---

[764] CMA129, paragraph 4.25.
[765] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 5.51-5.52.
[766] Microsoft response to working papers.

Our assessment

- *Evidence from ToH1*

8.63 As described above, there is evidence that direct network effects (ie the benefit to gamers of there being more other gamers on a platform) are prevalent in the gaming industry, at both a game-level and platform-level, and work similarly across different platforms. There is evidence that network effects are stronger for large multiplayer social franchises like CoD and WoW, with gamers wanting to play with their network of friends. This suggests that direct network effects are likely to be similarly prevalent in cloud gaming, though mitigated to some extent by multi-homing and switching being relatively easier than in console gaming (described below). As cross-play and cross-progression are implemented at the game level, they are available on cloud platforms at similar levels to console, reducing the strength of direct network effects at the platform level.

8.64 As described above, there is also evidence that indirect network effects (ie the benefit to publishers of there being more gamers on a platform, and vice-versa) exist in gaming. In principle, indirect network effects should be more limited in this market. Unlike gaming consoles, which operate with exclusive and proprietary console OSs, cloud gaming service providers predominantly use OSs designed for PCs. If they decide to use Windows, which already has the largest catalogue of compatible games, they would be able technically to run all Windows games on their service. They would, however, have to pay Windows licensing fees, and they would still have to reach an agreement with the relevant game publishers for the right to run the relevant games on the cloud gaming service. If they decide to use Linux, the availability of games would be significantly more limited. Although the availability of Windows (albeit for a licensing fee) reduces the impact of indirect network effects to some extent, we have seen evidence (see below) that game publishers are also more likely to license their content to cloud gaming services with a significant user base, meaning that indirect network effects are still relevant for individual cloud gaming platforms in this market.

- *Internal documents*

8.65 An internal email from [✂] at Activision in February 2021, discussing its approach to [✂], notes that there are currently few [✂] noting that [✂].[767]

[767] Activision Internal Document.

We consider this email shows that the number of users on a platform is a factor in attracting content.

- *Third party evidence*

8.66 On direct network effects, one competitor [✂] described their importance but pointed to ways of mitigating them. It described how consumers look at which platform other users choose as this is important to ensuring full enjoyment of multiplayer games. It noted that cross-play was a solution to this, and that cross-play was therefore extremely important for new cloud gaming platforms with small user bases, but that this option was not always available.[768]

8.67 Another competitor [✂] also submitted that direct network effects are important. It described that games have become social media platforms and that gamers play games with their friends, creating game-specific social networks, and increasing the cost of switching to another game even within the same genre. On cross-play it noted that the ability to play across cloud gaming platforms was not universal and dependent on how each platform is structured.[769]

8.68 On indirect network effects, one competitor [✂] also noted their existence and importance for developers. It described how a large user base is necessary to attract developers to release games on a platform, especially for games that primarily generate revenue from in-game transactions which it described as a model that is growing in popularity. It further stated that game developers want assurance that their games will reach a certain group and number of users, and that if a cloud gaming platform already has an established user base, it would therefore be easier to reach an agreement with a game developer to license their games. It also stated that having a large number of users could increase a cloud gaming provider's bargaining power with developers to put games on its service and negotiate exclusivity.[770]

8.69 In discussing commercial negotiations between a competitor [✂] and Activision, this competitor [✂] noted that [✂] given its [✂] size.[771] This competitor [✂] noted that when thinking [✂] [772]

8.70 An internal document from the same competitor dated April 2021 further demonstrates the significance of indirect network effects, with a chart showing

---

[768] [✂] response to the CMA's RFI.
[769] [✂] response to the CMA's RFI.
[770] [✂] response to the CMA's RFI.
[771] [✂] call note.
[772] [✂] call note.

a cycle of getting more games, leading to having more engaged gamers, and therefore better relationships with publishers.[773]

8.71 Another competitor [✂] also submitted that indirect network effects were important. It noted that to publishers, the number of users on a service is key, and that without sufficient users the cost of maintaining a game on a service may not be worthwhile, particularly if the service requires the publisher to port and update the game on a new OS. This competitor noted 'without a sufficient number of users, the administrative burden of maintaining a game on a particular cloud gaming service may not be worth the publisher's effort.' It stated that [✂].[774] This competitor explained that it understood [✂].[775]

8.72 An internal document from another competitor [✂] dated August 2020 [✂].[776] [✂].

8.73 Responses from several publishers indicated that they aimed to make games available on as many platforms as possible subject to considerations such as user experience and cost:

(a) One publisher [✂] described how it generally tries to make its games available to users on as many platforms as practicable, and that it evaluates a cloud gaming service provider's technical capacity to provide an optimal user experience and 'various business considerations' before deciding to publish a game on the cloud gaming service.[777]

(b) Another publisher [✂] stated that its strategy is to 'reach players wherever they are', and that in reaching that goal, it would consider developing/publishing its games on cloud gaming services. When deciding on which cloud gaming service to develop/publish a game, financial considerations are taken into account by weighing the opportunity cost with the added production costs.[778]

(c) Another publisher [✂] submitted that in deciding whether to make its games available on a cloud gaming service it will consider the player experience, development costs, and the expected financial return.[779]

---

[773] [✂] Internal Document.
[774] [✂] response to the CMA's RFI.
[775] [✂] response to the CMA's RFI.
[776] [✂] Internal Document.
[777] [✂] response to the CMA's RFI.
[778] [✂] response to the CMA's RFI.
[779] [✂] response to the CMA's s109 notice.

(d) Another publisher [✂] stated that it will take into account commercial and technological factors such as the additional costs incurred and potential consumer base.[780]

(e) A further publisher [✂] stated that it would look at the potential audience, financial incentives and sales forecasts, also noting that each platform would require some engineering work to publish on it.[781]

8.74 The evidence on multi-homing specific to cloud gaming was mixed and generally third parties seemed to lack detailed analysis or thorough views on the topic, mainly because the market is still developing:

(a) One competitor [✂] submitted that as cloud gaming services have untethered gamers from consoles, it is eliminating obstacles that prevent consumers from choosing the devices and platforms for gaming.[782] It noted that cloud gaming eliminates an important barrier to multi-homing in the purchase of expensive hardware. However, it suggested that multi-homing in cloud multi-game subscription services is less likely than in video streaming due to the high cost of subscribing. It also explained that gamers may not multi-home between cloud gaming services due to the loyalty they gain from both investing time and progress in games, and any investment in platform specific hardware such as controllers.[783]

(b) In a call, a competitor [✂] suggested that the existence of established players with their own content makes new entry in cloud difficult but not impossible. It further suggested that, for example, Nintendo, SIE and Microsoft's content ecosystems are deep, meaning that other entrants may struggle to obtain the necessary compelling content to attract users to multi-home away from incumbent services.[784]

(c) Another competitor [✂] commented that some degree of multi-homing does and will exist, but [✂].[785]

(d) A further competitor [✂] suggested that multi-homing may reduce indirect network effects but that the monthly subscription plan of cloud gaming is not low cost, so multi-homing can be expected to be less prevalent.[786]

---

[780] [✂] response to the CMA's RFI.
[781] [✂] response to the CMA's RFI.
[782] [✂] response to the CMA's RFI.
[783] [✂] response to the CMA's RFI.
[784] [✂] call note.
[785] [✂] call note.
[786] [✂] call note.

- *Conclusion on network effects and multi-homing in cloud gaming*

8.75 We consider the evidence shows that cloud gaming is currently characterised by both direct and indirect network effects.

8.76 Direct network effects exist because the multiplayer and social aspect of gaming means that gamers prefer to play on platforms with a large user base, where they can play with their friends and benefit from better multiplayer matchmaking. They are also more likely to stick to a platform in which their gaming progress has been saved (although the BYOG model allows for cross-progression which may mitigate this). As cross-play between a cloud gaming platform and other platforms exists at similar levels to console platforms, direct network effects are mitigated to a similar extent.[787] The strength of direct network effects seems to be mitigated further by multi-homing when compared to console gaming, as the financial cost of switching to a new cloud gaming service is lower than in the market for gaming consoles. However, since the non-financial costs remain relatively high (ie, moving away from friends and losing game progress), we consider that direct network effects are also likely to be prevalent in this market.

8.77 Indirect network effects also seem to be strong. The number of users of a cloud gaming service is an important consideration for publishers when deciding whether to make their games available to that service. Whilst developers generally aim to make games available on as many platforms as possible, there seem to be cost considerations when deciding whether to make a game available on a cloud gaming platform. These costs are especially high if the cloud gaming service provider does not use Windows as its OS, as most games are optimised for Windows. However, the fact that cloud gaming service providers are able to use Windows as their OS (albeit for a licensing fee) means that indirect network effects are likely to be weaker in cloud gaming services than in gaming consoles.

Overview of competitors

8.78 As explained in our section on market definition in Chapter 5, we consider that there is a UK market for cloud gaming services, primarily because not every provider is present in the UK and there are price differences between different countries. From a supply-side perspective, however, cloud gaming service providers are global players, and they have been expanding their presence to different regions in recent years. Since this is a rapidly changing market in

[787] In principle players could cross play amongst PC based cloud gaming providers (such as GFN and Luna), PCs and consoles (if available and PC-console cross play is supported), but this will depend on each specific game.

which the competitive landscape will likely continue to develop over the next few years, we consider that an assessment of the major global cloud gaming providers is relevant to understanding competition in this market today and in the near future.

8.79 We have identified five main global competitors offering cloud gaming services today. They are:

(a) **NVIDIA GFN**. NVIDIA's GeForce NOW provides streaming services for PC games using high-end GPUs on its servers, building on its strengths as a GPU supplier. Its service offers one free and two premium tiers, with premium tiers providing improved performance, priority servers access, and longer session lengths. It uses a BYOG model where consumers use the service to access games already owned on PC storefronts such as Steam, Epic Games Stores, EA Origin, and Ubisoft Connect.[788] It is available across several devices including PCs, mobiles and smart TVs.[789]

(b) **Amazon Luna.** Amazon is a leading provider of cloud computing services and has invested in improving its virtualisation technology to provide a better streaming performance to gamers. Luna streams PC games and has primarily an MGS model with different channels that users can subscribe to.[790] It has recently also incorporated BYOG for Ubisoft.[791] It first launched in the US in March 2022, and subsequently launched in the UK, Germany, and Canada in March 2023.[792] It is available across several devices including PCs, mobiles, and smart TVs.[793]

(c) **Microsoft xCloud.** Microsoft offers cloud gaming as part of the Game Pass Ultimate MGS. The service uses current generation console hardware to stream console games from the Game Pass Ultimate game library. It is available across several devices including Xbox consoles, PCs, mobiles, and smart TVs.[794]

(d) **SIE PlayStation Plus.** SIE offers cloud gaming as part of the Premium tier of its PlayStation Plus MGS. PlayStation Plus provides access to a large catalogue of games. Its cloud gaming offering, however, is currently limited to older titles, as the cloud infrastructure uses older console

---

[788] [✂] response to the CMA questionnaire.
[789] 'GFN system requirements', accessed by the CMA on 23 January 2023.
[790] Parties FMN.
[791] 'Amazon Luna Ubisoft Store', accessed by the CMA on 17 January 2023.
[792] 'Amazon Luna Blog', accessed by the CMA on 29 March 2023.
[793] 'Luna – getting started', accessed by the CMA on 23 January 2023.
[794] 'xCloud – ways to play', accessed by the CMA on 23 January 2023.

hardware.[795] It is only available on PlayStation consoles and Windows PCs.[796]

(e) **Boosteroid.** Boosteroid offers streaming of PC games using a BYOG model. It has only one paid tier available through a monthly or annual subscription. It is available in Europe, Latin America, and North America, operating 18 data centres where its hardware is deployed, and across several devices including PCs, mobiles and smart TVs.[797]

8.80 Google Stadia was a cloud gaming service that offered streaming of PC games using a Linux OS. It included a free and premium tier, and both B2P and MGS features. The service closed down in January 2023. Whilst it is no longer a competitor in the market, we consider it in the evidence below as its exit from the market provides insights into the importance of certain assets and inputs.

8.81 There are several other providers that are potential entrants or are already active in cloud gaming to some extent. We do not consider their strengths or position in the market in detail here for the reasons given below. However, we would still be concerned if the Merger increased barriers to entry or expansion, thereby constraining their ability to enter and compete effectively:

(a) **Blacknut.** Blacknut is a provider offering cloud gaming through a multi-game subscription model.[798] It submitted that it is also planning to add different models such as BYOG and F2P.[799] However, it offers a very limited number of AAA games.[800] We have not received sufficient evidence of its size to consider it as a key global competitor alongside those mentioned above. However, we note its growth ambitions as evidenced by a recent investment from Square Enix and availability on LG TVs.[801]

(b) **Tencent.** Tencent does not currently have a consumer facing cloud gaming service.[802] One competitor [✂] told us that, although Tencent has been exploring avenues for using cloud gaming, these initiatives have been small and focused on the PRC.[803]

---

[795] [✂] response to the CMA's RFI.
[796] 'PS Plus – what you need', accessed by the CMA 23 January 2023.
[797] Boosteroid response to the CMA's RFI.
[798] We note that Blacknut also has a significant B2B offering. See Blacknut.biz.
[799] Blacknut response to the CMA's RFI. See also NAB Tradeshow announcement.
[800] 'Blacknut Games', accessed by the CMA 29 March 2023.
[801] See Square Enix looks to the future with strategic investment in cloud gaming pioneer Blacknut and Blacknut for LG TV.
[802] Parties FMN.
[803] [✂] response to the CMA questionnaire.

(c) **Shadow.** Shadow is a cloud computing service—a service where the user can access a powerful Windows PC remotely for uses including but not limited to gaming—rather than a specific cloud gaming service.[804] We understand it to be a very small competitor and has not featured in any of the shares of supply submitted to us—see Appendix C: Shares of supply.

(d) **Meta.** Meta has a small presence in gaming of which cloud gaming [✂]. [✂], and in our view is therefore materially different to cloud gaming services offering the latest high-performance games.[805]

(e) **Nintendo.** Nintendo also offers a very limited cloud gaming service that is only available on the Nintendo Switch device. Nintendo explained that [✂].[806]

(f) **Antstream Arcade.** Antstream Arcade is a cloud gaming service that offers access to a library of retro games, such as Pac-Man.[807] Given it focuses on much older, niche content, we do not consider it as a competitor in the market for cloud gaming services offering the latest high-performance games. Antstream Arcade [✂], supporting this interpretation.

(g) **Others.** There are also some lesser-known providers such as Utomik, Playkey and Netboom.[808] These providers are likely to be much smaller and are therefore not considered in detail.[809]

8.82 In the course of the investigation, we contacted Shadow, Utomik, Playkey, Netboom, and Blacknut, with a view to obtaining MAU data to calculate shares of supply, but were unable to obtain this information. We do not expect that data for these providers would make a significant difference to our calculated shares of supply, as they have not been mentioned by any other market participants as significant suppliers, so we expect them to be small. They are also not included in any shares of supply estimates from the Parties or third parties.

---

[804] 'Shadow Cloud Computing', accessed by the CMA on 17 January 2023.
[805] [✂] response to the CMA's RFI.
[806] [✂] response to the CMA's RFI.
[807] 'PC Mag—Antstream Arcade review' accessed by the CMA on 17 January 2023.
[808] The Parties identified three additional competitors: Gamestream, Wiztivi, Ubitus, and Rainway. We consider that these companies are not close competitors as Gamestream, Wiztivi, and Ubitus are cloud gaming platform providers to other businesses rather than consumer facing cloud gaming services, and Rainway is an application allowing users to stream games from their own gaming PC.
[809] [✂] response to the CMA's RFI.

Shares of supply

8.83 We have looked at market shares as an indicator of the relative strength of currently available cloud gaming services. Our assessment is based on data and forecasts from several sources, including the Parties' submissions and third party evidence.

8.84 We recognise that market share data may not be particularly informative to assess relative strength in this market. Cloud gaming services remain in their infancy and, as such, static measures of market share are unlikely to accurately reflect the relative strengths of different cloud gaming services providers. We also note that cloud gaming service providers may face some degree of competition from out-of-market constraints, such as from PCs and consoles. These constraints are not captured within our market share data, meaning that market shares may understate the constraints on cloud gaming providers. We therefore treat our market share estimates for cloud gaming services as indicative only and interpret them alongside qualitative evidence on the competitive landscape.

8.85 Microsoft submitted global shares for cloud gaming services in 2021. Microsoft estimates that xCloud had a [0-10]% share,[810] NVIDIA GFN had a [50-60]% share, and Facebook Gaming a [10-20]% share.

8.86 Using the Parties' data and third party evidence, we estimated global shares of supply for cloud gaming for both 2021 and 2022 (set out at Table 8.1 and Table 8.2, respectively). Our estimates include broadly like-for-like services that provide a means to play high-performance games via cloud gaming and, therefore, exclude Facebook Gaming, Nintendo Switch Online, and Antstream Arcade.[811] Whilst we have found a UK market for cloud gaming services, we have presented both UK and worldwide shares of supply here, as we consider both are informative about the relative size and recent growth of cloud gaming service providers. We also present the shares of supply for paid cloud gaming services only.

[810] Microsoft response to the CMA's s109 notice. Given the limited available information on competing providers' cloud streaming offerings, these shares were produced by Microsoft on a best-efforts basis.
[811] A more detailed explanation of our methodology and the caveats surrounding the shares is contained in Appendix C: Shares of supply.

Table 8.1: Shares of cloud gaming services in terms of average MAUs, 2021-2022, worldwide, including paid and unpaid services.

Service	*2021 Average MAUs*	*%*	*2022 Average MAUs*	*%*
xCloud	[✂]	[20-30]	[✂]	[50-60]
NVIDIA GFN	[✂]	[20-30]	[✂]	[20-30]
PlayStation Cloud Gaming	[✂]	[30-40]	[✂]	[10-20]
Boosteroid	[✂]	[0-5]	[✂]	[0-5]
Google Stadia	[✂]*	[5-10]	[✂]	[0-5]
Amazon Luna	[✂]	n/a	[✂]†	[0-5]
Total	[✂]	**100**	[✂]	**100**

Source: CMA's calculations on the Parties' and third parties' data.
* Figure for April to December 2021.
† Figure for March (launch date) to September 2022, and does not include users who only played games via Free Games with Prime and/or games purchased from an external partner (eg, Ubisoft)
Note: Figures rounded to nearest thousand. Due to rounding, figures may not sum to 100%.

Table 8.2: Shares of cloud gaming services in terms of average MAUs, 2021-2022, worldwide, paid services only.

Service	*2021 Average MAUs*	*%*	*2022 Average MAUs*	*%*
xCloud	[✂]	[30-40]	[✂]	[60-70]
PlayStation Cloud Gaming	[✂]	[40-50]	[✂]	[20-30]
Boosteroid	[✂]	[5-10]	[✂]	[5-10]
NVIDIA GFN‡	[✂]	[5-10]	[✂]	[0-5]
Amazon Luna	[✂]	n/a	[✂]†	[0-5]
Google Stadia*	n/a	n/a	n/a	n/a
Total	[✂]	**100**	[✂]	**100**

Source: CMA's calculations on the Parties' and third parties' data.
* Google Stadia was unable to split its MAUs by tier.
† Figure for March (launch date) to September 2022 , and does not include users who only played games via Free Games with Prime and/or games purchased from an external partner (eg, Ubisoft)
‡ NVIDIA was [✂].
Note: Figures rounded to nearest thousand. Due to rounding, figures may not sum to 100%.

Table 8.3: Shares of cloud gaming services in terms of average MAUs, 2021-2022, UK, including paid and unpaid services.

Service	*2021 Average MAUs*	*%*	*2022 Average MAUs*	*%*
xCloud	[✂]	[30-40]	[✂]	[60-70]
PlayStation Cloud Gaming	[✂]	[40-50]	[✂]	[10-20]
NVIDIA GFN	[✂]	[10-20]	[✂]	[10-20]
[✂]Google Stadia*	n/a	n/a	[✂]	[0-5]
Boosteroid	[✂]	[0-5]	[✂]	[0-5]
Amazon Luna†	n/a	n/a	n/a	n/a
Total	[✂]	**100**	[✂]	**100**

Source: CMA's calculations on the Parties' and Third Parties' data.
* Google Stadia did not provide its MAUs split by region for 2021 or January 2022. The 2022 average MAUs figure is for February—December.
† Amazon Luna was not available in the UK until March 22, 2023.[812]
Note: Figures rounded to nearest thousand. Due to rounding, figures may not sum to 100%.

[812] 'Amazon Luna Blog', accessed by the CMA on 29 March 2023.

Table 8.4: Shares of cloud gaming services in terms of average MAUs, 2021-2022, UK, paid services only.

Service	*2021 Average MAUs*	*%*	*2022 Average MAUs*	*%*
xCloud	[✂]	[40-50]	[✂]	[70-80]
PlayStation Cloud Gaming	[✂]	[50-60]	[✂]	[20-30]
Boosteroid	[✂]	[0-5]	[✂]	[0-5]
NVIDIA GFN	[✂]	[5-10]	[✂]	[0-5]
Amazon Luna†	n/a	n/a	n/a	n/a
Google Stadia*	n/a	n/a	n/a	n/a
Total	[✂]	**100**	[✂]	**100**

Source: CMA's calculations on the Parties' and Third Parties' data.
* Google Stadia was unable to split its MAUs by tier.
† Amazon Luna was not available in the UK until March 22, 2023.[813]
Note: Figures rounded to nearest thousand. Due to rounding, figures may not sum to 100%.

8.87 These estimates show that worldwide Microsoft's share increased from [20-30]% in 2021 to [50-60]% in 2022, and that, in 2022, it had [✂] as many average MAUs as the next biggest service, NVIDIA GFN.

8.88 For users of paid services only, worldwide Microsoft's share was higher, with [30-40]% in 2021, and [60-70]% in 2022. The share of NVIDIA GFN was [✂] when only considering paid users.

8.89 The estimates for the UK show that Microsoft's share increased from [30-40]% in 2021 to [60-70]% in 2022. In 2022 it had over [✂] as many average MAUs as the next biggest service, PlayStation Cloud Gaming.

8.90 For users of paid services only in the UK, Microsoft's share was higher, with [40-50]% in 2021, and [70-80]% in 2022.

8.91 The Parties submitted that shares of supply analysis is misleading and overstates Microsoft's strength as [✂], and it is therefore not comparable to standalone cloud gaming services such as GFN.[814] Whilst it is not possible to determine how many users xCloud would have as a standalone service, the evidence described above indicates that cloud gaming attracts users to XGPU and that a significant proportion ([✂]%) of users would be willing to pay extra for it, even though they already have access to offline play, which suggests for those customers, streaming and offline play are not substitutes, and these customers may be interested in cloud gaming as a standalone service (although we recognise that it is difficult to fully separate Microsoft's ability to 'upsell' xCloud to Game Pass customers from Microsoft's ability to compete for stand-alone xCloud customers). In any case our concern is about Microsoft's future position based on our assessment of its strength, and its

[813] 'Amazon Luna Blog', accessed by the CMA on 29 March 2023.
[814] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.86.

substantial number of users now indicates that it may continue to attract a large number of users as cloud gaming grows.

8.92 One third party [✂]'s internal document contained a third party analyst report from March 2022 which showed 2021 shares of supply for cloud gaming services in terms of revenue.[815] It showed that PS Now had a share of more than [✂]% in 2021, with xCloud, NVIDIA GFN and Luna significantly smaller.

8.93 The same report contains estimates for the future of the cloud gaming market as a whole. It estimated that revenue would increase by almost 300% from 2021 to 2026, increasing from less than c. 0.4 billion to c. 1.05 billion USD.[816] Within this, xCloud's revenue was expected to increase from under 50 million to c. 450 million USD in the same period, estimating it to be the largest cloud gaming service by revenue in 2026.

8.94 Whilst we place less weight on independent reports than on the data that we gathered from third parties, we note that the report does corroborate our own findings regarding the growth of xCloud.

8.95 Our shares of supply may not be a good proxy for the future state of the cloud gaming market, given the caveats in the methodology and the nascent nature of cloud gaming. However, we consider that these shares provide a useful indication of the current strength of different cloud gaming providers.

Microsoft's strengths in cloud gaming

8.96 This section considers whether Microsoft holds pre-Merger advantages over current and potential cloud gaming rivals as a result of its wider multi-product ecosystem. The section is structured as follows:

(a) First, we consider the extent to which individual assets could give Microsoft an advantage in cloud gaming services. We focus our assessment on the following products and services:

(i) Microsoft's Windows and Xbox OSs;

(ii) Microsoft's Azure cloud infrastructure;

(iii) Microsoft's first- and third party content;

---

[815] [✂] Internal Document

[816] We consider forecasts for the size of the cloud gaming market in more detail in the future development of cloud gaming section. We note that this forecast is considerably lower than those from other market reports, with the forecast for 2026 being lower than many estimates of the market size for 2021.

(b) Second, we consider the assets held by rivals, and whether these are likely to offset any advantage Microsoft may have.

(c) Third, we consider the overall view of the respective strengths of different cloud gaming competitors.

Operating systems

8.97 In this section, we consider evidence on the extent to which Microsoft may have a strong position in OSs that can be used for cloud gaming, in particular through its ownership of Windows and the Xbox OSs. We also consider whether any such strong position would be likely to confer on Microsoft a competitive advantage in cloud gaming services.

Importance of operating systems

8.98 OSs are system software products that control the basic functions of computing devices, such as servers, PCs, tablets, and smartphones, and enable the user to use the device and run application software on it, including games.[817] A cloud gaming service requires an OS to run on the cloud infrastructure it uses to be able to provide its service.

8.99 The OS also has an important impact on the availability of gaming content. Games are developed to be compatible with specific OSs. Cloud gaming services can offer more content if they run on an OS for which many games have been developed.

8.100 In the following section, we consider Microsoft's pre-existing strength in cloud gaming services as a result of owning Windows OS and Xbox OS. We also consider evidence on the ability of rivals to access Windows OS for their own cloud gaming service (including the cost) and any alternatives available to them, such as porting games to rival OSs (eg, Linux) and the use of compatibility layers (eg, Proton).[818]

---

[817] Microsoft response to the CMA's s109 notice.
[818] Porting requires the game developer to create a version of the game that is compatible with a different OS. Once developed the game can then run natively on that OS. With a compatibility layer, the Windows version of the game is still used, meaning the developer does not need to create a new version of the game, but an additional layer of software is used to translate the game allowing it to run on a different OS.

Parties' views

8.101 The Parties submitted shares of supply indicating that the Windows PC OS is the predominant OS for PCs. Windows' share of PC OSs is [✂]% worldwide and [✂]% in the UK (January to June 2021).[819]

8.102 We note that Windows' market share for PC OSs used for gaming is even higher, upwards of 95%, based on a Steam survey.[820]

8.103 The Parties submitted that because xCloud runs on Xbox console hardware (running the Xbox OS and streaming Xbox console games), Microsoft does not benefit from any Windows-related advantages when competing in the supply of cloud gaming services.[821]

8.104 The Parties submitted that [✂].[822]

8.105 With respect to the cost of Windows for rival cloud gaming services, the Parties submitted that this is not relevant unless it results in rivals facing significantly higher costs than Microsoft.[823]

8.106 Regarding alternatives to Windows, Microsoft submitted that [✂].[824]

8.107 Activision submitted that, based on the experience of porting [✂] to [✂], porting typically takes a team [✂], with (taking the specific example of [✂] roughly [✂] USD upfront cost and [✂] USD annual ongoing cost. It also noted the [✂] cost of [✂].[825]

8.108 Microsoft stated that Linux is an alternative to Windows that is extensively used in cloud computing and is viable for cloud gaming.[826] Microsoft submitted that it expects [✂]. It submitted that Valve had successfully used Proton on its Steam Deck handheld gaming device and [✂]. It submitted that [✂] shows that Windows games can be run on Linux servers using Proton and other compatibility layers.[827] It also submitted that there are already game streaming providers (eg Maximum Settings) which use Proton.[828] Microsoft

---

[819] Microsoft response to the CMA's RFI.
[820] 'Steam Hardware & Software Survey: December 2022', dated December 2022, accessed 23 January 2023.
[821] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.21.
[822] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.24.
[823] Microsoft Annex 4 to response to the Provisional Findings.
[824] Microsoft response to the CMA's s109 notice.
[825] Activision response to the CMA's s109 notice.
[826] Microsoft, Annex 4 to response to the Provisional Findings.
[827] Microsoft response to the CMA's Supplementary Evidence paper.
[828] Microsoft response to the CMA's s109 notice; and Microsoft response to working paper.

stated that the large majority of the best-selling Windows PC games can be run on Proton and that it is highly rated by gamers.[829]

8.109 Microsoft noted the complexities that can arise from anti-cheat software meaning that some game titles cannot run on certain open-source OS and compatibility layers because of security concerns.[830]

8.110 With regard to Google's recent decision to shut down Stadia, Microsoft submitted that this was not linked to the use of a non-Windows OS. Microsoft submitted instead that the failure was linked to it having [✂].[831]

8.111 Microsoft also submitted that it had [✂] referencing a statement from CodeWeavers, the developers of Wine—the compatibility layer for running Windows applications which Proton is based on.[832] The quote stated that a certain application programming interface[833] (**API**) could not be used to make it difficult for Wine to keep up, as changing the API would break Microsoft's existing codebase as well as those of many other software developers.

8.112 It also submitted that using Linux has certain advantages for cloud gaming services, notably its wide use in cloud computing which means there are greater opportunities for re-use of Linux servers for non-gaming uses, allowing for recouping of costs.[834]

Our assessment

- *Internal document evidence*

8.113 An internal document from Microsoft recognises the [✂].[835]

8.114 Internal documents from Microsoft also describe the [✂]:

(a) One email chain from [✂]. The same email says that '[✂]. While noting that [✂] [836] [✂].[837]

(b) Another email from [✂].[838]

---

[829] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.46.
[830] Microsoft response to the Remedies Working Paper
[831] Microsoft response to the CMA's s109 notice.
[832] Microsoft response to working paper.
[833] An API is a way for two or more computer programs to communicate with each other.
[834] Microsoft response to the working papers.
[835] Microsoft Internal Document.
[836] [✂]
[837] Microsoft Internal Document.
[838] Microsoft Internal Document.

(c) An email from [✂] recognises [✂]. The email says that [✂].[839]

(d) An email from [✂].[840]

(e) An Activision internal document also describes that a key barrier to putting content on [✂] is that [✂].[841]

8.115 Several internal documents discuss Proton and show that [✂]:

(a) In an email chain [✂] [842]

(b) Another email [✂],[843] [✂].[844] In our view the statement that [✂], suggests [✂].

(c) An email from [✂].[845]

(d) Some internal discussions suggest that [✂].[846]

8.116 The Xbox OS also has a large library of compatible games and, in particular, the full range of games that Microsoft already uses to support the Xbox console business. Data provided by Microsoft indicates that [✂] games are playable on Xbox Series X (which runs Xbox OS).[847] This has allowed Microsoft to set up cloud infrastructure using Xbox consoles running Xbox OS in a quick and low-cost way, whilst maintaining access to a large library of games. This is discussed in more detail in the next section. Microsoft has submitted that [✂] and therefore does not gain an advantage from this library of games.[848] However, in our view the advantage still arises because, where a game is already compatible with Xbox OS, there is no additional development work or porting required to make the game available on xCloud, reducing the cost of making games available for streaming.

- *Third party evidence*

8.117 The strong position of Windows in OSs, especially among PCs used for gaming, is reflected in a similarly large proportion of PC games that are developed for Windows. Of the games available on Steam, 99.97% are compatible with Windows, compared to 21% for MacOS, and 14% for

---

[839] Microsoft Internal Document.
[840] Microsoft Internal Document.
[841] Activision Internal Document.
[842] Microsoft Internal Document.
[843] [✂].
[844] Microsoft Internal Document.
[845] Microsoft Internal Document.
[846] Microsoft Internal Document.
[847] Microsoft response to the CMA's RFI.
[848] Microsoft, Annex 4 to response to the Provisional Findings.

Linux.[849] This means that a cloud service provider that uses Windows will benefit from access to a significantly wider range of games that work on its system without any porting or emulation than will a cloud service provider that chooses other non-console OSs such as Linux or MacOS. Several third parties submitted that Windows is very important for cloud gaming:

(a) One competitor [✂] stated that Windows was an essential input for cloud gaming because, as a result of its large installed user base, publishers tended to write games for Windows/DirectX.[850]

(b) One potential entrant [✂] described Windows as crucial for gaming and noted that rivals that had attempted to use alternative OSs had failed.[851] It also described its reliance on Microsoft's agreement to use Windows for a specific element of its service, not covered by the standard licensing agreement.[852]

(c) A third party publisher [✂] stated that it mainly developed PC games for Windows as it was the most commonly used OS amongst gamers.[853] Activision also stated that all its available PC games run on Windows.[854]

8.118 The OS can have a significant impact on a cloud gaming service provider's costs. Whilst some OSs are free to use, others—including Windows—have licensing fees which can be substantial and represent a significant proportion of a cloud gaming services overall costs. Evidence, including from internal documents, provided by several rival services demonstrated that the cost of licensing Windows is substantial:

(a) One competitor [✂] said that Microsoft could charge high fees for Windows and that this provided Microsoft with a competitive advantage. It stated that the Windows licence fee it paid [✂].[855] Internal documents from this competitor show that Windows fees represent [✂]% of its streaming cost per hour.[856]

(b) Another competitor [✂] used Windows for early prototypes of its service but indicated that use of Windows would have almost doubled its streaming cost per hour, and that it would therefore be difficult for anyone other than Microsoft to provide a financially sustainable cloud gaming

---

[849] Analysis of 'Steam store page', accessed by the CMA on 24 October 2022.
[850] [✂] response to the CMA's RFI.
[851] [✂] call note.
[852] [✂] call note.
[853] [✂] response to the CMA's RFI.
[854] Activision response to the CMA's s109 notice.
[855] [✂] response to the CMA's RFI.
[856] [✂] Internal Document.

service using Windows that could be profitable in view of Windows licensing costs.[857]

(c) Internal documents from another competitor [✂] showed that [✂].[858]

8.119 One option for competitors using an OS other than Windows is to have developers port games and make them compatible with other OSs, such as Linux.

8.120 Responses from various third parties highlight the difficulties and cost associated with this approach. For example, one competitor [✂], submitted that the cost of porting games to Linux is a significant barrier to making content available on a cloud gaming platform and, therefore, is a key challenge in attracting users to a Linux-based platform.[859] It said that there was a substantial cost involved in porting a game built on the Windows/DirectX platform to the Linux/Vulkan platform.[860] [✂], the competitor described the development of a cloud gaming service on a non-Windows OS as time and resource intensive, dependent on acquiring a significant customer base to recoup the initial investment, and not viable without sufficient breadth and depth of content.[861] [✂].

8.121 A publisher [✂] described the OS as decisive in its decision to make a game available on a cloud gaming service, with a service using Windows requiring minimal effort.[862] In comparison it noted the difficulty of creating a port for cloud gaming services requiring publishers to use their own software development kits (**SDKs**), describing it as taking some time, effort and investment.[863] It described the cost of porting as dependent on several factors, but generally ranging between [✂], also suggesting that porting costs could decrease over time if a developer has a library including games or game engines that have previously been ported to the same OS.[864]

8.122 We have considered the experience of Google's Stadia, which was a Linux-based cloud gaming platform that relied on porting games from Windows to Linux. Stadia announced its closure in September 2022 and ceased operating as a cloud gaming service provider to customers in January 2023. [✂] noted that its failure was linked to [✂] to attract sufficient users and that the choice

---

[857] [✂] response to the CMA's RFI.
[858] [✂] Internal Document.
[859] [✂] response to the CMA's RFI.
[860] [✂] response to the CMA's RFI.
[861] [✂] response to the CMA's RFI.
[862] [✂] response to the CMA's RFI.
[863] [✂] response to the CMA's RFI.
[864] [✂] response to the CMA's RFI.

of a [✂] was a factor in this as it 'increased friction' for development studios.[865]

8.123 Another option for providers using a non-Windows OS is to use a compatibility layer which effectively translates a Windows game, allowing it to be played on a non-Windows OS. Proton is a notable example of a compatibility layer for Linux, which was introduced by Valve in 2018.[866] It is already in use by some cloud gaming providers and is under consideration by others.

8.124 Some third parties were confident in the effectiveness of Proton as an alternative to Windows. One competitor [✂] is already partially using Proton (alongside Windows) for game streaming [✂].[867] Internal documents from this competitor [✂].[868] It submitted that it was too early to be sure of its effectiveness in practice but that the relevant individual was not aware of any major issues so far.[869]

8.125 Others noted it as an option but expressed certain reservations about its effectiveness. One competitor [✂] described that [✂].[870] It described the disadvantages as [✂], the reduced performance associated with using a compatibility layer, and the potential for unexpected issues and bugs, eg, due to anti-cheat software.[871] It also noted that [✂].[872]

8.126 Another competitor [✂] stated that Proton was less effective for games built on the latest version of DirectX.[873] It also stated that Proton would perform less well for new games and therefore would not be suitable for offering games on release date.[874]

8.127 Another competitor [✂] stated that it uses different technical setups to run Windows games, including Linux, Proton, and other compatibility layers. It submitted that, although it is generally possible to use such solutions, it is often impossible to reach good levels of performance, especially with AAA games.[875]

---

[865] [✂] call note.
[866] Microsoft response to the CMA's s109 notice.
[867] [✂] response to the CMA's s109 notice.
[868] [✂] Internal Document.
[869] [✂] call note.
[870] [✂] call note.
[871] [✂] response to the CMA's RFI. Publishers use anti-cheat software to try to identify and prevent efforts to obtain unfair advantages during gaming. As an unexpected intervention in the gaming software, compatibility layers can become a target for anti-cheat software.
[872] [✂] call note.
[873] [✂] response to the CMA's RFI.
[874] [✂] call note.
[875] [✂] response to the CMA's RFI.

8.128 One potential entrant [✂] similarly noted disadvantages relating to performance, additional work required to resolve issues and bugs, and the difficulty of using Proton to provide games on release date.[876]

8.129 One publisher [✂] noted that compatibility layers could reduce performance and the key consideration for [✂] in deciding whether to put its games on a PC OS by way of a compatibility layer is whether its games performed well on the PC OS and hardware, notwithstanding the presence of a compatibility layer.[877]

8.130 One publisher [✂] stated that Proton enables Windows games to run on Linux with an almost seamless experience and that it could envision offering its games on a platform using it.[878]

- *Data on Game Performance*

8.131 Data on game performance using Proton suggests that it is an imperfect substitute for gaming on Windows, and a significant proportion of games cannot be played without issues. Valve categorises games based on how well they run using Proton on Valve's Steam Deck handheld gaming device.[879] Data on the proportion of Steam's top 100 games in each category showed that 16% were playable with no issues, with a further 33% playable with some tweaking required. 31% were unplayable and 20% had not been tested.[880]

8.132 A separate community-based categorisation is also available, and this also suggested that Proton was still subject to material performance issues.[881] Data for Steam's top 100 games using this categorisation suggested that 19% ran perfectly, 53% ran perfectly after some tweaking, 14% ran with minor issues, 2% ran but with more substantial issues, and 12% were unplayable. Whilst Microsoft submitted that this data demonstrates the effectiveness of Proton,[882] in our view it is consistent with the interpretation that it is an imperfect substitute to using the Windows OS.

---

[876] [✂] call note.
[877] [✂] response to the CMA's RFI.
[878] [✂] response to the CMA's RFI.
[879] steamdeck.com | 'Deck Verified', accessed by the CMA on 9 December 2022.
[880] Analysis of data from 'ProtonDB dashboard', accessed by the CMA on 19 October 2022. Proportions will be subject to change as the top 100 games changes. Some performance issues will relate to Steam Deck as a handheld device rather than Proton.
[881] 'ProtonDB', accessed by the CMA on 9 December 2022.
[882] Microsoft response to working papers.

- *Conclusion on Microsoft's position in operating systems*

8.133 OSs affect both the range of content available and cost to cloud gaming service providers. We believe that Windows OS and Xbox OS both give Microsoft a wide range of games that readily work without any need for porting or use of a compatibility layer. Further, as both OSs are owned by Microsoft, they can be self-supplied at little or no incremental cost.

8.134 With respect to Microsoft's submission that it does not benefit from Windows-related advantages on the basis that xCloud currently does not use Windows, we make the following observations:

(a) First, Microsoft has two strong OSs to choose from, and each has a significant library of compatible games that can run without the need to port them or emulate another OS.

(b) Second, Microsoft [✂]. We assess the importance of Azure below, [✂].

8.135 We consider the evidence above to be consistent in showing that Microsoft's ability to self-supply Windows represents a significant cost saving relative to rivals (as Microsoft does not have to pay an expensive license fee for Windows OS).

8.136 Use of a console OS provides similar content advantages, but this option is limited to a small number of competitors. A proprietary console OS is only available to providers who can use an existing console hardware OS for game streaming, which is limited to Microsoft, SIE, and Nintendo, the latter of which does not currently have its own cloud infrastructure to provide its cloud gaming service.[883]

8.137 For providers other than Microsoft, there is a significant cost to using Windows as licensing fees must be paid to Microsoft. This is demonstrated by several third party responses and recognised by Microsoft. As described above, Microsoft acknowledges that this licensing fee is relevant if it results in rivals facing higher costs than Microsoft. Several competitors have submitted that the licensing fee is a significant cost, and consequently the licensing fee in many cases gives Microsoft a cost advantage. Whilst this section specifically considers advantages arising from OSs, we consider other advantages (including those of rivals) and overall strength in subsequent sections.

[883] [✂] response to the CMA's RFI.

8.138 Evidence suggests that porting a game to a different OS is expensive, and developers are generally unwilling to develop games for OSs without a large installed user base. Google Stadia, for example, attempted to run its cloud gaming service on Linux and its business failed. Many see the lack of content on Stadia's Linux-based platform as a major contributor to its failure. We believe that this shows that porting games to an alternative OS (ie requiring developers to create a new version of the game compatible with that OS) is not a viable alternative to Windows currently and is unlikely to be in the near future.

8.139 Using a Proton compatibility layer on a Linux-based cloud gaming service may be a better alternative to porting, and it is already in use by some gaming platforms. [✂] and [✂] [✂].

8.140 There are, however, limitations to Proton. The majority of games require additional work to run well on Proton, with many not working at all, and it needs to be maintained to keep up with updates to Windows or DirectX. The presence of a compatibility layer can also reduce performance, and complications can arise from anti-cheat software. Releasing games day and date using Proton is also difficult given the additional work required. It is possible that further investment and increased use of Proton in gaming could reduce these limitations but that remains uncertain.

8.141 We consider that Microsoft's rivals in cloud gaming services, therefore, face the choice between high costs associated with using Windows or using an alternative OS (such as Linux) with limited native content. The ability to use its Windows and Xbox OS without a licensing fee, therefore, provides Microsoft with a significant advantage in cloud gaming services.

Cloud infrastructure

8.142 This section considers whether Microsoft has a strong position on cloud infrastructure given its ownership of the Azure cloud infrastructure network, and its option of using console-based infrastructure. First we describe Microsoft's current use of cloud infrastructure and the possibility of using Azure in the future. We then consider the strength of Microsoft's position by comparing its cloud infrastructure options to the alternative available to rivals.

8.143 Cloud infrastructure is an essential input for cloud gaming service providers. Cloud gaming platforms operate by storing and executing games remotely on hardware in a data centre and streaming the game to a gamer's device. Within the data centre, games which are being streamed are stored and run on hardware. The type of hardware depends on the provider and can range

from bespoke gaming hardware to servers which can be used for multiple workloads.[884]

Using Azure for cloud gaming

8.144 This section considers Microsoft's current use of cloud infrastructure for its cloud gaming service, and its plans for the future. We consider Microsoft's submissions as well as internal document evidence on the evolution of its plans over time.

Parties' views

8.145 Microsoft submitted that it currently does not use Azure for its cloud gaming service, which instead is provided on dedicated Xbox consoles located in Microsoft data centres, streaming console games running on the Xbox OS. It submitted that it cannot derive any advantage from an asset that it does not use.[885] It noted that this [✂]. Microsoft submitted that this [✂].[886] It also only allows for streaming of console games, not PC games.[887]

8.146 Microsoft submitted that there are expected benefits to using Azure PC infrastructure for cloud gaming, [✂]. It also noted the advantages of scale to cloud infrastructure providers such as Azure.[888]

8.147 Microsoft submitted that it [✂].[889] It stated the reasons for this were [✂].[890] Microsoft also stated [✂].[891] Microsoft also submitted that internal documents show that [✂].[892] As described previously, Microsoft submitted that it [✂].[893] It also submitted that [✂].[894]

Our assessment

- *Internal document evidence*

8.148 Microsoft's internal documents show that, [✂]:

---

[884] Microsoft response to the CMA's s109 notice.
[885] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 5.21-5.22.
[886] Microsoft, Annex 4 to response to the Provisional Findings.
[887] Microsoft response to the CMA's s109 notice.
[888] Microsoft response to the CMA's s109 notice.
[889] Microsoft response to the CMA's s109 notice.
[890] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.24.
[891] Microsoft, Annex 4 to response to the Provisional Findings.
[892] Microsoft, Annex 4 to response to the Provisional Findings.
[893] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 5.25-5.26.
[894] Microsoft response to the working papers.

(a) Slides from May 2020 [✂].[895] Microsoft has submitted that [✂].[896] Microsoft submitted that [✂].[897]

(b) Emails from [✂] in [✂].[898]

(c) An internal evaluation of rival cloud gaming services [✂] describes benefits from using PC hardware [✂].[899]

(d) Discussion between [✂].[900]

(e) An email discussion [✂].[901]

(f) An internal chat [✂].[902]

(g) A [✂] cloud gaming performance evaluation report [✂].[903]

(h) Emails from [✂].[904]

(i) Similarly, [✂].[905]

(j) Emails from [✂].[906]

(k) A Skype chat between [✂] and [✂] from May 2022 discusses the plan for PC streaming. Although [✂] describes [✂], [✂]states that for long-term compatibility issues such as [✂], that [✂].[907]

(l) Another email [✂]investment are also highlighted however.[908]

(m) Slides [✂].[909]

(n) Slides from August 2022 outlining the FY23 budget plan include [✂].[910] This suggests that [✂].

---

[895] Microsoft Internal Document.
[896] Microsoft response to working papers.
[897] Microsoft response to working papers.
[898] Microsoft Internal Document.
[899] Microsoft Internal Document.
[900] Microsoft Internal Document.
[901] Microsoft Internal Document.
[902] Microsoft Internal Document.
[903] Microsoft Internal Document.
[904] Microsoft Internal Document.
[905] Microsoft Internal Document.
[906] Microsoft Internal Document.
[907] Microsoft Internal Document.
[908] Microsoft Internal Document.
[909] Microsoft Internal Document.
[910] Microsoft Internal Document.

- *Conclusion on using Azure for cloud gaming*

8.149 With respect to Microsoft's cloud infrastructure plans, internal documents [✂], with this described as being [✂]. Some internal documents note [✂], and Microsoft has highlighted that [✂] and documents [✂].

8.150 We [✂], we believe that Microsoft's use of Xbox consoles provides it with an advantage over most rivals already as described in the following section.

Microsoft's position in cloud infrastructure

8.151 The previous section considered whether Microsoft is likely to use Azure for cloud gaming services. In this section, we consider Microsoft's position in the upstream market for cloud infrastructure, including the availability of alternatives.

Parties' views

8.152 Microsoft submitted that there are plenty of cloud infrastructure alternatives. According to Microsoft, cloud infrastructure is standardised, commoditised, and competitive. It stated that there are many providers, all of which source GPUs from the same suppliers and have comparable offers that can, and in some instances already are, being used for cloud gaming.[911] It submitted that Amazon and Google had [✂], and that NVIDIA had [✂].[912] It also submitted that it had [✂], and that Azure can therefore not be considered a competitive advantage.[913]

Our assessment

- *Internal document evidence*

8.153 One Microsoft internal document describes various advantages Microsoft has from Azure. [✂].[914] In submissions to the CMA, Microsoft submitted that [✂].[915]

8.154 Other internal documents indicate that Azure [✂]. A document [✂] discussing infrastructure services opportunities in cloud gaming notes that [✂].[916] A note of discussions with a customer from [✂] describes again that Azure [✂]. The

---

[911] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.45.
[912] Microsoft response to working papers.
[913] Microsoft response to the CMA's Supplementary Evidence paper.
[914] Microsoft Internal Document.
[915] Microsoft response to working papers.
[916] Microsoft Internal Document.

same note describes [✂].[917] A follow up email from September 2022 notes that the customer is interested in using [✂].[918] In our view this is an indication that [✂]. Although this provider [✂],[919] we do not think this contradicts the evidence about [✂], and the internal document referenced above shows that the provider [✂].

8.155 An internal document from Activision also states that, despite [✂] in [✂] cycles, [✂] is well positioned for [✂] with its ability to leverage [✂].[920]

8.156 Microsoft internal documents also provide some comparison of expected cost differences between major providers, [✂]. One document discussing infrastructure services opportunities in cloud gaming notes [✂], but states [✂] [921] [✂].[922] An email [✂] but notes that [✂].[923]

- *Third party evidence*

8.157 The cost of cloud infrastructure is a substantial component of a cloud gaming service's overall costs. One independent report submitted by Microsoft notes that compute cost per hour (ie the cost per hour of cloud usage) is [✂].[924] Responses from third party cloud gaming service providers estimated that cloud infrastructure represents from [✂] to [✂]% of overall costs.[925]

8.158 The technical capability of cloud infrastructure is also important in determining the performance of games on a cloud gaming service, and therefore the customer experience. One third party described several key requirements for cloud gaming infrastructure: low latency, high bandwidth, and reliability.[926] Another third party described how cloud infrastructure used for gaming requires GPUs to provide the smooth graphics and dynamic experience that customers expect.[927]

8.159 Cloud gaming services can self-supply cloud infrastructure, either utilising an existing cloud network or building one, or use a third party cloud infrastructure provider. The decision will depend on the firm's available assets and as such,

---

[917] Microsoft Internal Document.
[918] Microsoft Internal Document.
[919] [✂].
[920] Activision Internal Document.
[921] Cloud-based game streaming services are computationally intensive and also require significant network bandwidth (ie network egress) on account of being video-heavy. All providers of streaming and other online services need to pay egress charges, which is the cost to send information over the internet from a data centre to an end user. The greater the volume of data transported over the internet, the lower the per unit charge. As such, providers can benefit from economies of scale by providing a range of streaming and other online services.
[922] Microsoft Internal Document [✂].
[923] Microsoft Internal Document [✂].
[924] Microsoft Internal Document.
[925] Third party responses to the CMA questionnaire: [✂], [✂] and [✂].
[926] [✂] response to the CMA questionnaire.
[927] [✂] response to the CMA questionnaire.

any advantage Microsoft has will vary according to the rival we compare Microsoft to.

8.160 Third party responses indicate that most current competitors, with the exception of Nintendo, self-supply cloud infrastructure. For example:

(a) Amazon [✂],[928] which has the [✂].[929]

(b) SIE generally [✂] to provide cloud gaming services.[930]

(c) NVIDIA developed its own custom cloud gaming servers utilising its GPU assets [✂].[931]

(d) Google hosted Google Stadia [✂]. [932] Its GCP cloud infrastructure network has [✂].[933]

(e) Nintendo uses a third party cloud infrastructure provider [✂] to run its limited cloud gaming service.[934] The Parties submitted that this provider [✂] uses cloud infrastructure from multiple cloud infrastructure providers [✂].[935]

8.161 Third party responses noted the cost advantages of having a large cloud infrastructure network.

8.162 One rival [✂] noted that, by being a leading provider of cloud infrastructure services, Microsoft can leverage a much lower cost structure for its cloud gaming service.[936] This rival described that large cloud providers enjoy a significant cost advantage in cloud gaming services because they contract at much higher volumes than others including itself, and have cloud infrastructure located throughout the world.[937] It described that [✂].[938]

8.163 Another rival [✂] described how, as it is unable to replicate Microsoft's cloud infrastructure network, it would never be able to run its cloud gaming service as efficiently.[939] It also provided internal document evidence demonstrating

---

[928] [✂] call note.
[929] Parties, FMN.
[930] [✂] response to the CMA's RFI.
[931] [✂] response to the CMA's RFI.
[932] [✂] response to the CMA's RFI.
[933] Parties FMN.
[934] [✂] response to the CMA's RFI.
[935] [✂] response to the CMA's s109 notice.
[936] [✂] response to the CMA's RFI.
[937] [✂] response to the CMA's RFI.
[938] [✂] call note.
[939] [✂] response to the CMA's RFI.

that it considers Microsoft to have unique advantages in cloud gaming services, of which Azure is one.[940]

8.164 A market report from January 2021 described [✂].[941]

8.165 Third party responses indicated that several cloud infrastructure providers offered servers suitable for cloud gaming. One cloud infrastructure provider [✂] said that its platform offered the required capabilities for cloud gaming, [✂].[942] Another potential provider stated that several cloud infrastructure providers have similar capabilities.[943] As it uses older console hardware, [✂] cloud gaming service is currently behind rivals and can only offer older games.[944]

8.166 Some third parties stated that providing a cloud gaming service using third party cloud infrastructure, ie procured from a public cloud infrastructure provider such as Azure, AWS or GCP, was not viable.

8.167 One cloud gaming service rival [✂] described how it had built its own [✂] for its service [✂]. It further stated that it [✂].[945] [✂] notably is a [✂], a key input for cloud infrastructure, which will provide [✂].

8.168 Similar comments were made by another provider [✂] in a market report. It noted that it would not be possible to provide a cloud gaming service using a public cloud infrastructure offering as servers are not optimised for gaming, hardware is often outdated, and coverage is limited.[946] The same provider told us that it does not use third party cloud infrastructure due to the low performance, poor customization, and high costs offered by most of the public cloud providers. This provider uses its own server hardware designed in collaboration with several technology companies, and deploys its servers in third party data centres.[947]

8.169 A market report [✂] stated that [✂].[948]

8.170 However, other third party responses stated that, whilst high costs may make use of third party infrastructure difficult currently, it is likely to become feasible as streaming costs decrease and providers develop cloud gaming optimised

---

[940] [✂] Internal Document.
[941] Microsoft Internal Document.
[942] [✂] call note.
[943] [✂] call note.
[944] [✂] response to the CMA's RFI.
[945] [✂] response to the CMA's RFI.
[946] [✂]Internal Document.
[947] [✂] response to the CMA's RFI.
[948] Microsoft Internal Document.

servers in the longer run. One provider [✂] described it as expensive today but as being feasible in the 'not-too-distant future'.[949]

8.171 As described above, cloud infrastructure represents a substantial proportion of a cloud gaming service's costs, therefore streaming cost is likely to be a key determinant of a cloud gaming service's competitiveness.

8.172 It is difficult to make an exact comparison across providers as methods for calculating cost per streaming hour may differ, the cost is heavily influenced by the usage which can vary substantially, and costs are developing over time as most providers aim to reduce them through various means. Despite these caveats, comparison of the evidence submitted by providers shows:

(a) Microsoft submitted that current cost per streaming hour is [✂] using console-based servers.[950] Internal documents note that [✂].[951] A further document describes that [✂].[952] Another document on [✂] outlines targets [✂].[953]

(b) One competitor's [✂] internal documents show [✂].[954] [✂].[955] [✂].[956]

(c) Another competitor's [✂] internal document from January 2021 indicates a cost per streaming hour of [✂].[957] It is important to note that [✂] uses [✂] hardware for its streaming service. [✂].[958] It is therefore not directly comparable to other cloud gaming services currently. This will explain at least some of the large cost difference compared to others [✂]. According to internal documents [✂] intends to move to [✂].[959]

(d) Another competitor's [✂] internal document from January 2021 shows [✂].[960] A more recent August 2022 internal document indicates [✂].[961]

(e) Finally, one competitor [✂] submitted that its cost per streaming hour was [✂].[962]

---

[949] [✂] call note.
[950] Microsoft response to the phase 2 Issues Statement, 31 October 2022, table 10.
[951] Microsoft Internal Document.
[952] Microsoft Internal Document.
[953] Microsoft Internal Document.
[954] [✂] Internal Document.
[955] [✂] Internal Document.
[956] [✂] Internal Document.
[957] [✂] Internal Document.
[958] [✂] accessed by the CMA on 15 December 2022.
[959] [✂] Internal Document.
[960] [✂] Internal Document.
[961] [✂] Internal Document.
[962] [✂] response to the CMA's RFI.

8.173 Based on the available evidence, and noting the difficulties of making direct comparisons, [✂] has the lowest current streaming cost, but this is due to [✂]. Its costs can be expected to [✂]. At that point, it is likely to have higher costs than [✂]. [✂], [✂], and [✂] have relatively similar costs currently. [✂] current costs are considerably higher, but it has [✂]. Both [✂] and [✂] have similar long-term targets for cost per streaming hour.

8.174 It is clear from Microsoft's internal documents that it [✂]. It is worth noting that Microsoft's predicted costs for [✂] are also below [✂], meaning that the combination of [✂] significantly increases Microsoft's advantage in cloud gaming.

- *Conclusion on Microsoft's position in cloud infrastructure*

8.175 Cloud infrastructure is an essential long-term input for cloud gaming services and has an important impact on costs and performance.

8.176 Microsoft currently has the option of using Xbox consoles [✂] and which enables it to offer cloud services at a competitive cost. Whilst Microsoft has submitted that this infrastructure [✂], in our view Microsoft can [✂] its Azure infrastructure (ie if Microsoft needed to [✂], not only would that drive the impetus to [✂], but this [✂].

8.177 Evidence suggests [✂], given advantages such as [✂]. Whilst the current [✂].

8.178 Some rivals have their own cloud infrastructure solution. [✂]. Only Microsoft has a short-term, lower cost hardware option in the form of console infrastructure, and a large cloud infrastructure network that can enable it to efficiently scale its service as cloud gaming grows.

8.179 Alternatively, cloud gaming service providers can also access third party cloud infrastructure. Evidence suggests that this may not be a financially viable option at present but may become viable in future.

8.180 In any event, we consider that Microsoft has a strong position in cloud gaming as a result of its ownership of Azure, one of the biggest cloud infrastructure providers globally. This will likely give Microsoft a significant cost advantage over rivals without an in-house cloud infrastructure (although not over rivals with their own cloud infrastructure [✂]). When this cost advantage is combined with Microsoft's advantage from owning Windows OS, a license which is a significant proportion of rivals' costs, it becomes difficult to see how any cloud gaming service provider—whether or not it has its own cloud infrastructure—can match Microsoft's cost advantages. We therefore believe

that Azure will likely help to compound Microsoft's advantages over rival cloud gaming service providers.

First and third party content

8.181 Microsoft is a game publisher and currently owns 24 game development studios, several of which it acquired in recent years. These studios make games such as Minecraft, Forza, Elder Scrolls, and Halo for Xbox and other consoles, PC, and mobile devices. Some of this content is available exclusively on Xbox and some is licensed to rival console providers.[963]

8.182 Microsoft also has established relationships with third party developers and publishers, including a large existing library of third party content available on Game Pass.

8.183 This section will consider Microsoft's pre-existing position in first and third party content.

Microsoft's position on first and third party content

Parties' views

8.184 Microsoft submitted that its first and third party content does not give it an advantage over SIE and Nintendo, given these players' strong content portfolios. It also submitted that its cloud gaming competitors, including NVIDIA, Amazon, and Netflix, will have access to a large, diverse, and high-quality pool of content for their cloud streaming services.[964] Microsoft also stated that it agrees that content is an important factor driving the value of game streaming services, although Microsoft clarified that it is not the only factor.[965]

8.185 Microsoft also submitted that its agreement with NVIDIA to allow streaming of all Microsoft titles on GFN eliminates any potential content advantage, and that Microsoft is at a clear disadvantage compared to Nintendo and SIE on content.[966]

---

[963] CMA, phase 1 Decision, 12 October 2022, paragraph 12
[964] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 1.10 and 3.67.
[965] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.48(b).
[966] Microsoft Annex 4 to response to the Provisional Findings.

Our assessment

- *Internal document evidence*

8.186 Microsoft's internal documents suggest that rival cloud gaming service providers without an existing gaming console may lack the games and relationships with third party game publishers to compete effectively in cloud gaming:

(a) One Microsoft internal document from October 2019 shows that [✂]. The document explains that [✂]. We note that this document pre-dates the agreement of the Merger.[967]

(b) An email to the [✂] in March 2020 explains that rivals like [✂]. According to the email, these rivals are [✂]. The email explains that this is [✂].[968]

(c) Another document from April 2020 describes gaming content as [✂].[969]

8.187 We note that these documents precede Microsoft's acquisition of Zenimax, so Microsoft's position on content is likely to have been strengthened since their creation.

8.188 Further internal documents described below on Microsoft's overall strengths in cloud gaming also consistently highlight content as an area of strength. In these documents [✂].

- *Third party evidence*

8.189 Several rivals highlighted Microsoft's content library as a significant strength:[970] One described how Microsoft had a large catalogue of existing titles, with access to its own game development studio to increase this offering.[971] Another noted Microsoft's significant content advantages, including a leading first-party exclusive content library.[972] Another stated that Microsoft owns a significant library of must-have content.[973] And another described that XGP offered a robust game library, including games from companies Microsoft has already purchased.[974]

---

[967] Microsoft Internal Document.
[968] Microsoft Internal Document.
[969] Microsoft Internal Document.
[970] Third party responses to the CMA questionnaire: [✂], [✂], [✂] and [✂]
[971] [✂] response to the CMA questionnaire.
[972] [✂] response to the CMA questionnaire.
[973] [✂] response to the CMA questionnaire.
[974] [✂] response to the CMA questionnaire.

8.190 One rival [✂] described how Microsoft has access to exclusive gaming content, through its pre-merger ownership of 23 first party game studios.[975]

8.191 An internal document from one competitor [✂] in October 2021 describes how Microsoft has leveraged the Game Pass game catalogue for xCloud, and has secured day and date releases from AAAs like Square-Enix in addition to putting all 1P content into Game Pass on day one.[976]

8.192 A third party report described Microsoft as best positioned for subscription services generally, and for cloud gaming specifically as a large first-party content library will help the platform scale up faster and with better marginal economic benefits. The document explains that the cost of technology (ie processing and bandwidth costs) increases broadly with user growth, whilst the marginal cost of content can drop significantly if more subscribers join the platform.[977]

- *Shares of supply*

8.193 As an indicator of the strength of providers' respective first-party content libraries, we have considered data submitted by the Parties on different publishers' shares of supply of PC and console AAA games.[978] Of the current main global cloud gaming providers, only Microsoft and SIE feature amongst the top publishers. In 2021 Microsoft had a share of [5-10]% in the UK, and [0-5]% worldwide. SIE meanwhile had a share of [0-5]% in the UK, and [0-5]% worldwide. In our view this demonstrates that both providers have a strong library of first party content compared to other rivals.

8.194 Of the other main competitors, although Amazon has a first-party studio, it has published relatively few successful games, and therefore does not feature amongst the top listed publishers (indicating that it has a less than [✂]% share worldwide).[979] Other rivals such as NVIDIA and Boosteroid have no first-party content at all.

8.195 Although Nintendo only has a limited cloud gaming offer currently, it has a higher share of supply of PC and console AAA games than both Microsoft and SIE, with a share of [10-15]% in the UK in 2021, and [5-10]% worldwide.[980]

---

[975] [✂] response to the CMA's RFI.
[976] [✂] Internal Document.
[977] Microsoft Internal Document.
[978] Microsoft response to the CMA's RFI.
[979] Microsoft response to the CMA's RFI.
[980] Microsoft response to the CMA's RFI.

This may indicate that Nintendo has the strongest position on first party content, should it expand its cloud gaming offer.

8.196 We note that there are difficulties in defining AAA games and that this will impact the described shares, however using shares of supply for all PC and console games does not alter the shares substantially or change the assessment of the strength of Microsoft and SIE relative to other cloud gaming providers. The data is also compiled from various third party market intelligence sources meaning it may not be a completely accurate reflection of actual market shares, however we believe it is useful as a guide to the relative strength of different publishers.

- *Conclusion on Microsoft's position on first- and third party content*

8.197 Based on the evidence, we believe that the existing content portfolio and developer/publisher relationships that Microsoft has built over time may give Microsoft a significant advantage over cloud gaming services rivals without similar assets. Of current rivals, only SIE and Nintendo have comparable strength in this area.

Microsoft's overall strengths in cloud gaming services relative to rivals

8.198 We believe that Microsoft's strengths in cloud gaming services should not be assessed in isolation. The evidence suggests that the combination of Microsoft's multi-product ecosystem gives it a stronger position in cloud gaming than would be suggested by assessing each of its products and services individually. As described above, this may affect Microsoft's incentive to engage in a foreclosure strategy using Activision's content, and may also magnify the effect of any such foreclosure strategy in the market for cloud gaming services.

8.199 Microsoft is not, however, the only industry participant with a combination of assets that could be leveraged for cloud gaming. There are rivals with their own multi-product ecosystem, several of which have entered, are present, or intend to enter the market for cloud gaming services. These include Amazon, SIE, NVIDIA, Nintendo, Google, [✂].

8.200 In this section, we first consider the potential strengths that each of these rivals has. We then consider how these compare to Microsoft's advantages when assessed in the round.

Advantages of Microsoft's rivals

Amazon Luna

8.201 Amazon's key assets for cloud gaming services include:

(a) **AWS cloud infrastructure**. As described above, [✂]. Similar to Microsoft with Azure, this can be leveraged to provide cloud gaming services at a low cost.

(b) **Twitch.** Twitch is an interactive livestreaming service for content, primarily used for gaming ie watching streams of others playing games.[981] As described above this gives Amazon access to a large community of consumers interested in gaming.

(c) **Promotional channels**. As well as Twitch, Prime Video and Amazon's retail site offer useful channels for promoting its cloud gaming service.

(d) **First and third party content**. Amazon has a game development studio and has published the games Lost Ark and New World (although neither is currently available on Luna).[982] This game development studio is not comparable to rivals such as Microsoft, SIE, and Nintendo in the volume and range of first party content. On third party content, Amazon has been successful in placing some third party content on Luna (eg, from Ubisoft).[983]

SIE PlayStation Plus

8.202 SIE's key assets for cloud gaming services include:

(a) **PlayStation hardware and OS.** Similar to Microsoft, SIE has the option to use console hardware and the associated OS to stream games, providing a lower cost solution with a large library of compatible games. As discussed above, however, there are cost advantages in using PC servers in the long term, so any advantage that SIE may have by using its console hardware for cloud gaming services is not likely to extend into the future.

(b) **First and third party content.** SIE publishes several high profile and popular game franchises such as God of War, The Last of Us and Uncharted, and owns several studios capable of developing high quality

---

[981] 'Twitch', accessed by the CMA on 15 December 2022.
[982] 'Amazon Games', accessed by the CMA on 7 December 2022.
[983] 'Amazon Luna – Ubisoft', accessed by the CMA on 24 January 2023.

games.[984] Like Microsoft and Nintendo, it also has strong relationships with third party developers and publishers, including exclusive titles.

NVIDIA GFN

8.203 NVIDIA's key assets for cloud gaming services include:

(a) **GPUs**. NVIDIA is one of two leading manufacturers of GPUs, which are an essential input into the cloud infrastructure required for cloud gaming. Access to these at lower cost than rivals provide NVIDIA with an advantage in developing its cloud infrastructure and this has helped it develop its own infrastructure without having an existing cloud network.[985]

(b) **Third party content.** GFN has a large library of third party content available on its service with over 1,400 games available.[986] However we note that these games are not part of NVIDIA's service and must be purchased by the consumer separately, and that it does not have any exclusive titles.

Nintendo

8.204 Nintendo's key assets for cloud gaming services include:

(a) **First- and third party content.** Nintendo publishes several high profile and popular game franchises such as Mario and Zelda.[987] Like Microsoft and SIE it also has strong relationships with third party developers and publishers, including exclusive titles.

8.205 Whilst Nintendo has its own console hardware that could be used as cloud infrastructure, given its lower grade specification, it would not be suitable for streaming higher performance games, and has not been used by Nintendo for its cloud gaming offer.

Google Stadia

8.206 Although Google shut down its cloud gaming service, Stadia, it is worth considering Google's pre-existing strengths, given that these were insufficient for it to succeed in cloud gaming. Google's key assets for cloud gaming services include:

---

[984] 'TechRaptor article', accessed by the CMA on 15 December 2022.
[985] 'NVIDIA website', accessed by the CMA on 15 December 2022.
[986] 'Games available on NVIDIA GeForce NOW', accessed by the CMA on 7 December 2022.
[987] 'PlayDiaries article', accessed by the CMA on 15 December 2022.

(a) **GCP**. As described above, Google is the [✂] provider of cloud infrastructure services [✂]. Similar to Microsoft with Azure, this can be leveraged to provide cloud gaming services at a low cost.

(b) **Promotional channels**. As the owner of YouTube and the Google Play Store, Google has useful channels for promoting Stadia to consumers.

[✂]

8.207 [✂] is a potential entrant to cloud gaming. [✂] key assets for cloud gaming services include:

(a) [✂].[988]

Microsoft's overall strengths relative to rivals

Parties' views

8.208 Microsoft submitted that it does not have any pre-existing advantage or strength in cloud gaming due to its ecosystem, and that whilst it has several assets or products, these products are not integrated or linked and cannot be used to cause the market for cloud gaming services to tip.[989]

8.209 Microsoft also submitted that it does not hold a uniquely strong position in cloud gaming services. It submitted that NVIDIA has become the leading cloud gaming provider without having any first party content. It stated that both SIE and Amazon have first party content similar to Microsoft.[990] It has also suggested that Microsoft is behind both Amazon and Google on cloud infrastructure.[991]

Our assessment

- *Internal document evidence*

8.210 Internal documents from Microsoft since 2019 describe the key inputs and assets required for cloud gaming service providers and indicate that Microsoft has a strong position in the market due to its strength across the full set. For

[988] [✂] call note.
[989] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.17.
[990] Microsoft response to working papers.
[991] Microsoft response to working papers.

example, one Microsoft internal document displays a chart showing that [✂].[992]

Figure 8.1 Microsoft internal cloud gaming competitive assessment

[✂]

Source: Microsoft internal document.

8.211 We consider that developments since the document was produced have not significantly altered the situation. Notable developments include:

(a) Microsoft has strengthened its position on first party content with the acquisition of Zenimax Media;

(b) Amazon has increased third party content available on Luna with, for example, Ubisoft games now available.[993] Amazon has also published first party games Lost Ark and New World, although neither is currently available on Luna;[994]

(c) Electronic Arts has not launched a cloud gaming service;

(d) Google announced the winding down of Google Stadia in September 2022, with the service closing in January 2023;[995]

(e) NVIDIA has increased third party content accessible on GFN (over 1,400 games available),[996] and has developed cloud infrastructure utilising NVIDIA's GPUs;[997]

(f) SIE has [✂]. [998]

8.212 Another Microsoft draft internal document [✂], finding that [✂].[999] Our view is that both of these disadvantages are being addressed through [✂]. Microsoft submitted that this document had not been finalised and was not used as the basis for any decisions by Microsoft's Gaming Leadership Team.

8.213 An internal document from early 2021 notes that Microsoft is [✂].[1000] [✂]. However we note that Microsoft's [✂].

---

[992] Microsoft Internal Document.
[993] 'Ubisoft+ Now Available on Amazon Luna', accessed by the CMA on 7 December 2022.
[994] 'Amazon Games', accessed by the CMA on 7 December 2022.
[995] 'A message about Stadia and our long term streaming strategy', accessed by the CMA on 7 December 2022.
[996] 'Games available on NVIDIA GeForce NOW', accessed by the CMA on 7 December 2022.
[997] [✂] response to the CMA's RFI.
[998] [✂] response to the CMA's RFI.
[999] Microsoft Internal Document.
[1000] Microsoft's Internal Document.

8.214 In another document from 2020 comparing [✂].[1001]

8.215 Another internal document from early 2021 focusing on game development in the Xbox ecosystem highlights [✂].[1002]

- *Third party evidence*

8.216 Internal documents from one competitor [✂]. A document from August 2020 describes [✂]. The same document notes that [✂].[1003] Another document from the same competitor describes Microsoft as [✂] of the group of listed competitors [✂].[1004]

8.217 Another competitor [✂] described Microsoft as having a unique advantage in the expected transition to cloud gaming due to its capabilities across a range of products and services needed for gaming but noted the advantages of others. Microsoft's advantages included the Windows OS, its leadership in consoles, the game developers and publishers it has acquired, and its cloud infrastructure business.[1005] In comparison it described SIE as having strength only in content. Amazon was described as having a huge advantage through its cloud infrastructure network but lacking in content. NVIDIA was noted to compete by making rapid technological innovations, and constantly adding cutting-edge technology to its world-class GPU hardware and software but relies on others for access to content.

8.218 Industry market reports also described Microsoft's strong position. One report stated that Microsoft's strengths across most of cloud gaming's value chain mean it is much better positioned to succeed than other game companies.[1006] Another third party report described Microsoft as best positioned for subscription services generally, and for cloud gaming specifically as in-house cloud infrastructure is expected to provide a critical advantage, and a large first-party content library will help the platform scale up faster and with better marginal economic benefits.[1007]

[1001] Microsoft Internal Document.
[1002] Microsoft Internal Document.
[1003] [✂] Internal Document.
[1004] [✂] Internal Document.
[1005] [✂] response to the CMA's RFI.
[1006] [✂] Internal Document.
[1007] Microsoft Internal Document.

Conclusion on Microsoft's potential strengths in cloud gaming

8.219 The evidence supports the conclusion suggests that Microsoft has a multi-product ecosystem that places it in a very strong position relative to most or all rivals in the growing market for cloud gaming services.

8.220 We believe that Windows alone is one of Microsoft's strongest advantages in this market. Most PC games are developed for Windows and not for other OSs, meaning that a cloud gaming service running on Windows can potentially access a vast library of content. Since Microsoft owns Windows, it has a significant cost advantage over rival cloud gaming providers, who face substantial licensing fees reported to be around [✂]% of hourly streaming costs by some providers, and even up to [✂]% by others.

8.221 Alternative OSs are available but have significant disadvantages. There is a high cost of porting and maintaining games from Windows to Linux. And the Proton compatibility layer that allows Windows games to be played on servers running Linux is not seen as sufficiently reliable to guarantee gameplay parity with cloud gaming services running Windows.

8.222 On cloud infrastructure, Microsoft's xCloud infrastructure is a cost-effective short-term solution that gives it some advantage over most competitors, with the possible exception of SIE [✂]. In the longer term, [✂], we believe Microsoft will be able to leverage the full extent of its Azure infrastructure for its cloud gaming service, providing it with a significant cost advantage over most rivals. Only Amazon and Google (the latter having shut down its cloud gaming service) have similar internal cloud infrastructure capabilities. Neither of them, however, have the combined cost advantage of Azure plus Windows, (or the content advantages of Microsoft) which places Microsoft in a uniquely advantageous position. The failure of Stadia demonstrates that even a strong cloud infrastructure network cannot necessarily compensate for the difficulties associated with using an alternative OS.

8.223 Finally, we consider Microsoft already has a strong position on first-party content compared to most competitors, except for SIE and Nintendo. We believe that content is particularly important to the success of a cloud gaming service, particularly considering Google's failure with Stadia, which our evidence suggests was caused at least in part by a lack of gaming content, which was connected to its use of a Linux OS.

8.224 We recognise that a few rival cloud gaming service providers also have multi-product ecosystems that could offer an advantage in cloud gaming services. Some have an in-house cloud gaming infrastructure (eg, Amazon and Google), others have access to first- and third party content (eg, SIE), and

others have different cost advantages, such as GPUs (eg, NVIDIA). Consistent with Microsoft's own internal documents, however, we believe that none of these rivals can match Microsoft's advantage arising from its ownership of Windows, Azure, and the Xbox gaming catalogue combined. As such, we believe that Microsoft is already in a uniquely strong position in the market for cloud gaming services.

8.225 In the next sections, we first consider the evidence on the extent to which Activision would have made its content available on cloud gaming platforms absent the Merger, then assess whether the Merger would give Microsoft the ability and incentive to use Activision's content to foreclose rivals, and consider what effect, if any, this would have on competition.

Availability of Activision's content on cloud gaming services

8.226 As of April 2023, Activision content has only been available to cloud gaming platforms to a limited extent, in particular during the beta testing phase of NVIDIA GFN and has since been removed.

8.227 In this section we consider evidence on the extent to which Activision would have made its content available on cloud gaming platforms absent the Merger. In particular, we consider:

(a) The likely growth of cloud gaming services. The greater the growth, the greater we would expect Activision's incentive to be to make its content available on these services.

(b) Whether latency is a challenge likely to be overcome in cloud gaming services within the next five years.

(c) Additional evidence on Activision's incentives to make its content available on cloud gaming services, including from the Parties' internal documents and third party evidence.

Parties' views

8.228 Microsoft submitted that Activision content would not be available via cloud-based game streaming absent the Merger. It submitted that the evidence shows that Activision does not consider that cloud-based game streaming constitutes a good value proposition as it has major reservations about [✂].[1008]

[1008] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 4.29.

8.229 Microsoft also submitted that [✂] due to [✂]. In relation to any success that Fortnite—another shooter that has been made available for streaming on cloud gaming platforms—has enjoyed, Microsoft submitted that [✂].[1009]

8.230 Activision submitted that the technical limitations of cloud gaming mean [✂]. It further submitted that it considers cloud gaming [✂]. Activision also submitted that cloud gaming is a transient technology and that computing power of consumer electronics hardware – in particular mobile phones – is developing so rapidly that it will soon [✂], further constraining the future growth and reach of cloud gaming.[1010]

8.231 Activision submitted that [✂] has [✂] setting out a strategy or plan to do so in the future.[1011]

8.232 Activision submitted that, [✂] – especially at the highest levels, whose approval would be required – have never been convinced that [✂]. Moreover, Activision Blizzard has no involvement in cloud gaming today.[1012]

8.233 Activision also submitted an excerpt from the Main Parties Hearing, where [✂] stated: '[✂].'[1013]

8.234 Microsoft submitted that [✂]. It also submitted that Activision's [✂].[1014] Similarly, Activision submitted that [✂].[1015] On the same point, Activision submitted that CoD: Mobile has ~[✂]% MAUs of the total MAUs of the franchise, and that mobile gaming revenues from the King division and titles such as CoD: Mobile, as well as ancillary revenue, represented approximately 47% of Activision Blizzard's revenues in 2022. Activision also submitted that it will [✂].[1016]

8.235 We have already presented the Parties' arguments on the availability of Activision's content on MGS services in Chapter 7. We consider that these arguments, such as Microsoft's submission that MGS sales would cannibalise Activision's B2P sales, are relevant for those cloud gaming platforms that have an MGS-based business model.

8.236 Before setting out our assessment, we make the following observations relevant to the Parties' submissions set out above:

[1009] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 5.42-5.44.
[1010] Activision response to the Provisional Findings, 2 March 2023, paragraph 3b.
[1011] Activision response to the Provisional Findings, 2 March 2023, paragraph 6.
[1012] Activision response to the Provisional Findings, 2 March 2023, paragraph 26.
[1013] Activision response to the Provisional Findings, 2 March 2023, paragraph 7.
[1014] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.38.
[1015] Activision response to the Provisional Findings, 2 March 2023, paragraph 3b.
[1016] Activision response to the Provisional Findings, 2 March 2023, paragraph 22.

(a) While we have considered in our assessment the Parties' submissions to the CMA regarding Activision's perceptions of cloud gaming opportunities, including Activision's statements to the CMA in the context of this merger investigation, we have done so alongside other evidence, including in particular from internal documents generated in the ordinary course of business (which are less susceptible to being coloured by the merger process).

(b) Even if it was the case that, instead of pursuing cloud gaming, Activision's [✂], that would not be inconsistent with Activision being willing to add its games to cloud gaming services. We also note that several F2P games are currently available on cloud gaming platforms (eg Fortnite and Apex Legends on NVIDIA GFN).[1017] Plus, as we noted in the section on future development of cloud gaming above, whilst the computational power of mobile devices has increased and may continue to increase, there is likely to continue to be demand for cloud gaming which can also offer higher performance from hardware housed in data centres. Playing via cloud also offers additional benefits such as using less battery life as less processing is happening locally.

(c) The fact that Activision's games are not on cloud gaming services today and have been to a limited extent in the past does not imply they will not be in the future. In particular, any discussions of cloud gaming opportunities within Activision and between Activision and cloud gaming providers would show that Activision is still interested in cloud gaming, even though its games are not on one of those services yet.

Our assessment

Future developments in cloud gaming

8.237 We identified a number of likely developments in cloud gaming that we consider would contribute to an increase in the incentive for publishers to make their content available on cloud gaming platforms over time.

8.238 First, as set out in our assessment above, we found that cloud gaming is likely to continue to grow and is also likely to become profitable in the next five years. We consider that growth in the size of the cloud gaming market would make placing content on cloud gaming platforms increasing attractive.

[1017] Play Your Games Anywhere | GeForce NOW | NVIDIA, accessed by the CMA on 30 March 2023.

8.239 Second, we received evidence that MGS-based cloud gaming platforms are [✂]. We consider that this would further increase Activision's incentives to add content to those platforms, given [✂] would not lead to any cannibalisation of game sales by MGS.

(a) One Microsoft internal document dated April 2022 shows that [✂].[1018]

(b) An internal document provided by a competitor [✂] shows that [✂].[1019] [✂].[1020]

8.240 Third, with respect to latency and technical quality of games played on cloud gaming platforms, third party evidence suggests that these are not an issue or that any outstanding issues will be solved soon. To the extent any such issues imply that adding Activision's content to cloud gaming platforms would create a risk of harm to the perceived quality of that content, progress in reducing latency and improving technical experience on cloud gaming platforms would reduce any such risk. In particular:

(a) A competitor [✂] submitted that cloud gaming outperforms most PCs and consoles and is technologically viable for all game genres.[1021] The same competitor [✂] submitted that technological barriers to streaming, including latency, were quickly dropping and were likely to continue to drop. It described how it had reduced latency on its service [✂].[1022] As described above, evidence from this competitor [✂] on play time for different games showed that multiplayer and 'fast-twitch' games are amongst the most popular, indicating that latency does not present a problem for streaming these types of games.[1023]

(b) Another competitor [✂] submitted that most players on most internet connections can now have a great quality gaming experience via cloud gaming. It further submitted that there are many viable ways to make cloud gaming economically and technically viable in the current state. [1024]

(c) Another competitor [✂] submitted that there are challenges to be solved in cloud gaming with respect to latency. However, this competitor submitted that it is a matter of time before these challenges get solved. According to this competitor, [✂] would solve the latency issue.[1025] The

---

[1018] Microsoft Internal Document.
[1019] [✂] Internal Document.
[1020] [✂]
[1021] [✂] submission to the CMA.
[1022] [✂] response to the CMA's RFI.
[1023] [✂] Internal Document.
[1024] [✂] call note.
[1025] [✂]call note.

same competitor stated that 'fast-twitch' multiplayer games such as Call of Duty or Fortnite are suitable for cloud gaming services due to advancements in home networking performance, and that there may be some benefit to playing these types of games through a cloud gaming service because the high performance and reliability of cloud networking can increase the scalability (eg, number of players) in a multi-player game. It also stated that it had tested such games on its service and believes it offers competitive performance.[1026]

(d) As set out in the section below in which we consider other publishers' behaviour in relation to adding content to cloud gaming platforms, a number of publishers have already listed games in which reaction times are relevant to gameplay and low latency is therefore likely to be beneficial to gamers' experience. This includes shooter games such as Battlefield 2042, Fortnite, and Tom Clancy's Rainbow Six Extraction, as well as other games, such as FIFA.

8.241 We have taken these anticipated developments in cloud gaming into account in our assessment below. This is particularly relevant to our assessment of historical evidence, including evidence from Activision's contemporaneous internal documents. In particular, the observation that Activision has not yet licensed its content to cloud gaming platforms will not tell the full picture, particularly in the context of developments that will tend to increase its incentive to do so.

Publishers' behaviour on adding content to cloud gaming

8.242 Activision's incentives are likely to be impacted by what other publishers do, any additional costs in porting games to cloud gaming platforms, and the extent of any financial incentives offered by cloud gaming providers. We have considered the approach that rival publishers have taken to placing games on cloud gaming services. We consider that this is relevant evidence when assessing Activision's likely incentive to do so.

8.243 Rival publishers such as Ubisoft, Electronic Arts, and Epic Games already offer a range of games, including AAA titles and new releases, on cloud gaming services. They offer these games either on a standalone basis or through their own MGS bundles. In particular:

(a) Electronic Arts currently offers EA Play as part of Game Pass Ultimate, which allows subscribers to stream several games via xCloud. It also

[1026] [✂] response to the CMA's RFI.

offered a selection of games, such as the latest FIFA day and date, on Google Stadia (before it was shut down), and offers several games, including the latest Battlefield release (Battlefield 2042, an AAA shooter game) on NVIDIA GFN.[1027]

(b) Ubisoft offers several games, including latest releases and day-and-date AAA titles on Amazon Luna through its Ubisoft+ subscription and through a BYOG feature.[1028] Ubisoft also has several games available on NVIDIA GFN – these include latest releases of AAA games such as Assassin's Creed Valhalla, Tom Clancy's Rainbow Six Extraction, and Far Cry 6. [1029]

(c) Epic Games offers several games, including Fortnite, on NVIDIA GFN.

8.244 Activision has also offered games – including CoD – on cloud gaming services in the past. It offered games on NVIDIA GFN when this was in the beta phase, before they were removed from the service for reasons that were commercial in nature and not evidently related to technical performance.[1030] These were both back catalogue titles and day-and-date releases of the latest titles, including various CoD games[1031].

8.245 This evidence shows that some rival publishers have been willing to make their latest AAA games, including shooters, available on third party cloud gaming services both on a MGS (Amazon Luna) and BYOG (Amazon Luna and NVIDIA GFN) basis, and in some cases even on a day-and-date basis (on Google Stadia).

Activision's internal documents

Activision's general stance on cloud gaming

8.246 Although some Activision internal documents show that it has [✂]. In particular:

[1027] Launch & Play EA SPORTS™ FIFA 23 in Seconds - Stadia (google.com), accessed by the CMA on 17 January 2023; we note that Google announced it is closing down Google Stadia in January 2023, even though these games were still available to play in the meantime: A message about Stadia and our long term streaming strategy (blog.google); Play Your Games Anywhere | GeForce NOW | NVIDIA, accessed by the CMA on 17 January 2023.
[1028] Play Ubisoft Games You Own on Amazon Luna, accessed by the CMA on 17 January 2023.
[1029] Play Your Games Anywhere | GeForce NOW | NVIDIA, accessed by the CMA on 17 January 2023.
[1030] Activision Blizzard pulls all games from GeForce Now a week after launch | GamesIndustry.biz, accessed by the CMA on 2 February 2023, and Nvidia says a 'misunderstanding' led to Activision's departure from GeForce Now | PC Gamer, accessed by the CMA on 2 February 2023.
[1031] For example, we understand that Call of Duty: WWII was previously available day-and-date on NVIDIA GFN. Source: [✂] response to the CMA's RFI.

(a) One internal document dated May 2020 notes that [✂].[1032] We note this document was a working draft of [✂] and that the final version did not include [✂].[1033]

(b) A document dated October 2020 from Activision's [✂] team provides an overview of cloud gaming in general and [✂]. The document states that [✂].[1034]

(c) The same document also explores different ways for Activision to [✂]. The document explains that [✂]. The document also notes that [✂].[1035]

(d) The same document also sets out [✂]. It explains that [✂]. It adds that [✂]. However, it notes that, in the long term, Activision should [✂]. [1036]

(e) A draft presentation by [✂] in March 2021 discusses [✂]. The document notes that Activision has [✂]. The document also notes that all of [✂] when it comes to technological capabilities. However, overall the document notes that [✂].[1037]

(f) A document dated August 2021 on strategic planning notes that cloud gaming is emerging and will [✂]. It adds that Activision should [✂]. The same document expresses [✂].[1038]

(g) In an email dated January 2022, [✂]. The document considers [✂].[1039]

8.247 Activision submitted that these documents show that [✂].[1040]

8.248 Activision also submitted that the documents above are either [✂], and that [✂].[1041] For example, Activision submitted that the [✂].[1042] We note that the employee who [✂] in this email chain is [✂], a senior Activision employee in a team responsible for [✂]. We consider that the job title and position of this employee within Activision give this employee the ability to influence Activision's strategy in relation to cloud gaming.

[1032] Activision Internal Document.
[1033] Activision Internal Document; and Activision Internal Document.
[1034] Activision Internal Document.
[1035] Activision Internal Document.
[1036] Activision Internal Document.
[1037] Activision Internal Document.
[1038] Activision Internal Document.
[1039] Activision Internal Document.
[1040] Activision response to working paper.
[1041] Activision response to the Provisional Findings, 2 March 2023, paragraphs 33-35.
[1042] Activision response to the Provisional Findings, 2 March 2023, paragraph 35.

8.249 We note the Parties' submission that [✂] cloud gaming.[1043] However, as noted above, draft versions of these documents show that Activision employees [✂]. We also consider that, as cloud gaming grows over the next five years, the likelihood of it being reflected in [✂] increases significantly.

8.250 In relation to [✂] stance on cloud gaming, we note that the evidence we have seen from Activision internal documents in this respect is mixed. In particular:

(a) One internal Activision email by [✂] from January 2020, which discusses [✂], notes that [✂] is '[✂]'. The document also notes that [✂].[1044] As the email is focused on [✂], it is not clear whether [✂] stance as emerging from these statements refers to cloud gaming as a whole or is instead [✂]. For example, another document from September 2020 discussing [✂] refers to '[✂]'.[1045] This document suggests that any concerns by [✂] around [✂].

(b) Another internal Activision email chain from March 2020 discusses a [✂] on cloud gaming that did not come to fruition and involves multiple senior employees. [✂]. In response, [✂] notes: '[✂]'. In turn, [✂]responds to the email chain by noting: [✂].[1046] This document suggests that [✂] was [✂], and that senior Activision employees [✂] which they believed were aligned with [✂] stance.

8.251 Regardless of the general stance on cloud gaming as emerging from the documents above, we have seen evidence of Activision, including Activision's senior leadership and [✂], actively discussing potential opportunities with cloud gaming providers in the last three years. These are assessed more in detail below.

8.252 More generally, we consider that the main factors currently acting as a drag on cloud gaming, and therefore on Activision's interest in it, are the scale of the market (and therefore the scale of the opportunity) and latency in cloud gaming services. On the former, we have assessed what the future of cloud might look like in detail above. We found that cloud gaming is likely to continue to grow and is also likely to become profitable in the next five years.

8.253 With respect to latency, some Activision documents raise questions and doubts in relation to certain cloud gaming providers ([✂]) – these documents are discussed more in detail below. However, with the [✂], we consider that none of these documents or the documents above raise [✂]. In fact, one

---

[1043] Activision response to the Provisional Findings, paragraph 26.
[1044] Activision Internal Document.
[1045] Activision Internal Document.
[1046] Activision internal document.

Activision internal email by [✂] from February 2021 states that [✂]. The document recognises that [✂] as [✂]. However, in the same document [✂] states that [✂]. The document also states that [✂].[1047] On this latter point, we note elsewhere in this section other Activision documents which suggest that cloud gaming will [✂].[1048]

8.254 Overall, we consider that Activision's stance on cloud gaming as emerging from these documents is positive. This is despite some documents pointing towards scepticism from [✂] to partnerships with cloud gaming providers, [✂]. In particular, as we assess below, we have seen evidence of Activision, including Activision's senior leadership and [✂], actively discussing potential opportunities with cloud gaming providers in the last three years.

8.255 We now turn to internal documents relating to interactions with specific cloud gaming providers, including [✂].

[✂]

8.256 Activision's internal documents show that [✂]. The documents show senior Activision employees were involved in these discussions. In particular:

(a) One email from Activision to [✂] dated December 2021 [✂].[1049]

(b) A subsequent internal Activision email exchange from January 2022 shows that [✂]. The document shows that he planned [✂].[1050]

(c) Another internal Activision email exchange dated December 2021 discusses [✂]. The document shows that Activision was considering [✂].[1051]

(d) Another internal Activision email exchange from January 2022 shows that Activision was considering [✂].[1052]

(e) Another internal Activision email exchange from February 2022 discusses [✂] and notes that Activision '[✂].' The document also notes that Activision's 'strategy of [✂]' and that 'There's no need to mention anything related to [✂] as this is our regular course of business'.[1053]

[1047] Activision Internal Document; on this point, see also Activision Internal Document which is discussed more in detail below.
[1048] See for example: Activision Internal; Activision Internal Document; and Activision Internal Document.
[1049] Activision Internal Document.
[1050] Activision Internal Document.
[1051] Activision Internal Document.
[1052] Activision Internal Document.
[1053] Activision Internal Document.

(f) However, a subsequent internal Activision email from February 2022 from an Activision employee to [✂] discusses the [✂].[1054]

(g) Similarly, a subsequent Activision document from February 2022 contains a slide discussing the impact of the acquisition of Activision by Microsoft to Activision's current deals and pipeline. With respect to [✂], the document notes that [✂].[1055] The document appears to be an addendum to a previous Activision presentation dated January 2022, titled '[✂]', and meant for review by the Activision CEO. This presentation states that one of the [✂]. The same document also notes with respect to launching CoD Warzone on [✂] that [✂].[1056] This version of the presentation appears to have been reviewed by [✂],[1057]

8.257 Activision internal documents also suggest that Activision senior management, including [✂]. This was a follow-up to [✂]. These documents show that Activision was [✂].[1058] [✂].

8.258 Activision submitted that it has had the opportunity to consider [✂].[1059] However, Activision did not provide any evidence in support of these claims.

8.259 With respect to the February 2022 email exchange from an Activision employee to [✂] presented above, Activision submitted that this document was created by [✂] who relied upon outdated and unreliable information.[1060] However, as noted above, the information contained in that document is confirmed in a subsequent document which appears to have been an addendum to a presentation reviewed by a senior Activision employer and meant for review by the CEO.

8.260 With respect to the discussions with [✂] in [✂], Activision submitted that the communication with [✂] was never presented to [✂] to enter any cloud streaming deal.[1061]

8.261 However, as we noted above, certain Activision employees, including at a senior level, were involved directly or indirectly in discussions with [✂] when the Merger was announced in January 2022.[1062]' The Activision documents presented above strongly suggest that these discussions were [✂].

[1054] Activision Internal Document
[1055] Activision Internal Document.
[1056] Activision Internal Document.
[1057] Activision Internal Document.
[1058] Activision Internal Document; and Activision Internal Document.
[1059] Activision response to working paper,.
[1060] Activision response to the Provisional Findings, 2 March 2023, paragraph 50.
[1061] Activision response to the Provisional Findings, 2 March 2023, paragraph 49.
[1062] These senior Activision employees include the [✂], the [✂], the person who was [✂], and [✂].

Therefore, if these discussions were indeed not presented to either [✂], [✂] or [✂], this may have been [✂].

8.262 We consider that these documents show that Activision was [✂]. More broadly, these documents show that, regardless of whether Activision senior leadership would have ultimately [✂], Activision has had [✂], at a senior level (including, [✂], the [✂] and [✂] themselves). We consider that these documents are consistent with latency and other potential obstacles to streaming Activision content as being surmountable.

[✂]

8.263 The [✂] between [✂] are discussed in the section on the availability of Activision's content on MGS services in Chapter 7. These [✂] included [✂].

8.264 The documents relating to these [✂] appear to show that Activision [✂]. From these documents, it appears that the main reasons for Activision's [✂].

8.265 In relation to [✂]:

(a) An Activision email from [✂] to himself in January 2020, which appears to be a draft of talking points to [✂], notes in relation to a [✂]: '[✂] concern around Streaming
[✂]'.[1063]

(b) Another internal Activision email dated June 2020 from [✂] to [✂] regarding [✂] partnership discussions notes that Activision '[✂].' The document also notes that [✂] 'reiterated [✂] understands [✂] may still want to go become [✂]'.[1064] This suggests that Activision's reticence to [✂] was mainly linked to [✂].

8.266 In relation to [✂]:

(a) In one internal Activision email exchange from August 2021, [✂] states, responding to 'whether/ how to engage in the [✂] or not' that: 'I don't think it is necessary at this time. We are still meaningfully far away on [✂] from our discussions. In addition, I don't believe at this point [✂]. I think this will be good conversation [✂]'.[1065]

[1063] Activision Internal Document.
[1064] Activision Internal Document.
[1065] Activision Internal Document.

(b) An Activision email from [✂] to [✂] in April 2021, discussing an upcoming meeting with [✂] states that [✂].[1066]

(c) One Activision document dated February 2021 [✂].[1067]

(d) Another draft Activision document from August 2020 discusses benefits and considerations of adding Activision titles (in particular, CoD Warzone) to [✂]. Among the benefits, the document recognises: '[✂]'. Among the considerations, the document notes: '[✂]'.[1068]

(e) Another Activision document from May 2020 contains an email chain discussing the request of a CoD developer ([✂]) to [✂]. In the email chain, [✂] notes that '[I] assume we only want to do [✂]. As [✂] says, it's not clear at all that [✂].[1069]

(f) Another Activision document from January 2020 notes that with respect to [✂]. The document also notes that [✂], and that 'additional vetting [is] needed for [✂]'.[1070] This suggests that [✂].

8.267 We note that a Microsoft document dated May 2022 shows that [✂]. The document notes that [✂] [1071]

8.268 We consider that these documents show that Activision was [✂]. They also show that even if Activision [✂], Microsoft was [✂].

Other providers

8.269 Activision's internal documents show [✂].

8.270 One document dated April 2020 discusses a possible [✂] with [✂].[1072] However, the document notes that Activision remained available for discussions, noting that it would hold a follow-up conversation with [✂] to hear updates.[1073]

[1066] Activision Internal Document; See also an email from [✂] to himself (which appears to be a series of notes) from January 2019 noting [✂] position on [✂]: '[✂]. This relationship [between [✂] and Activision] continues to go in the wrong direction.' (Activision Internal Document).
[1067] Activision Internal Document.
[1068] Activision Internal Document.
[1069] Activision Internal Document.
[1070] Activison Internal Document.
[1071] Microsoft Internal Document.
[1072] [✂].
[1073] Activision Internal Document.

8.271 Another of Activision's internal documents dated March 2021 contains an internal Activision email chain. The email chain discusses a possible [✂]. In the document, one Activision employee noted that 'The biggest problem in the space is that it is [✂]. In any competitive situation, this puts players on the streaming service at a disadvantage'. However, in the same document [✂] states 'I don't want to make any commitment to [✂] at this point, [✂].[1074] This document shows that Activision was cautious about a possible partnership with [✂], outlining potential [✂].

8.272 This evidence suggests that Activision was open to discussing and [✂], subject to [✂], even though the [✂].

Third party evidence

8.273 We received evidence from several cloud gaming service providers on their discussions with Activision to bring Activision's content onto their platforms over the years up to 2022 before the Merger was announced.

8.274 [✂] submitted that it had held discussions with Activision to [✂]. It submitted that, from a technical perspective, it would be possible to do so.[1075] [✂] engaged in discussions with Activision several times over the last few years, including after 2019, [✂].[1076] [✂] impression was that Activision saw itself as a leading content provider that would 'wait and see' (ie, assess the success of [✂] over time) before placing any content on [✂].[1077]

8.275 [✂].[1078]

8.276 One Activision internal document dated February 2021 suggests that the reason why Activision was not interested in [✂]. This document notes that [✂]. The same document also states that the key barrier to [✂].[1079]

8.277 [✂] submitted that it [✂].[1080]

Conclusion on the availability of Activision's content on cloud gaming services

8.278 On the basis of the evidence above, we consider that Activision would likely have made its games – including day and date releases – available for cloud

---

[1074] Activision Internal Document.
[1075] [✂] call note.
[1076] [✂] call note.
[1077] [✂]call note.
[1078] [✂] call note.
[1079] Activision Internal Document.
[1080] [✂] response to the CMA's RFI [✂].

gaming in the next five years. We consider that this is more likely for cloud gaming services which do not have an MGS-based model, ie those with a B2P or BYOG model, and note that some [✂]. We consider that this will make it more attractive for Activision to add its games to those services.

8.279 The evidence suggests that technical obstacles such as latency have either been overcome already, or they would be overcome in the near future. Cloud gaming service providers explained that their respective platforms already offer gameplay on a par to consoles. We consider the fact that Activision allowed NVIDIA GFN to offer games – including CoD – on its streaming service during its beta testing phase also suggests that it's technically possible to play these games on cloud gaming services.

8.280 We consider Activision's interactions with cloud gaming service providers showed [✂] rather than to any significant concerns with cloud gaming itself. The evidence also shows an acknowledgment from Activision of the potential of cloud gaming services to expand the number of gamers Activision can reach. Indeed, several of Activision's internal documents suggested [✂] in identifying a commercially viable way to distribute its games via cloud gaming. We consider it likely, in particular, that Activision would have [✂] in the near future absent the Merger.

Ability to foreclose

8.281 In Chapter 7, we assessed whether the Merged Entity would have the ability to foreclose rivals in downstream console hardware and distribution. In doing that, we assessed both the upstream market power of Activision's content, and in particular CoD, to the console gaming market and its importance to PlayStation in particular.

8.282 We follow a similar framework here, by assessing whether the Merged Entity would have the ability to foreclose rivals in cloud gaming services. We do so by looking at Activision's market power upstream in game publishing and the importance of Activision's gaming content to the downstream cloud gaming services market.

8.283 In doing so, we focus on the whole of Activision's catalogue across console and PC. That is because, while Microsoft's and SIE's cloud gaming platforms run on console-based OS (ie, Xbox OS and Orbis OS, respectively), all the other could gaming platforms run on a PC OS (predominantly Windows or

Linux). We therefore consider the relevance of both console and PC games for cloud gaming platforms.[1081]

8.284 As noted in the section above, Activision content is not available on cloud gaming services at the moment, but we consider it would likely become available within the next five years absent the Merger (and that this would include day and date releases). We also noted that this would be most likely the case for cloud gaming rivals which have or will have in the future a BYOG or B2P business model (either standalone or in in combination with an MGS model). While we noted that older games are more likely to be added to MGS services, we consider that removing older games would not give the Merged Entity the ability to foreclose rivals, given that it is mostly new releases that drive downstream competition.

8.285 Moreover, in the market definition section we noted that we do not think that firms that are solely focused on bringing mobile-quality games to cloud are a meaningful constraint on cloud gaming services that provide console-quality and/or gaming PC-quality games (high-performance games). In the following sections, we focus on the latter, that is games that would not typically run natively on mobile. As is evident from the sections below, high-performance games are the focus of competition within cloud gaming services and therefore the focus of our competitive assessment.

8.286 In this section, we assess whether, absent the Merger, Activision's content would become an important input for cloud gaming as the market develops and this content becomes available. In doing so, we focus primarily on the importance of this content for rivals who have, or are likely to have, a BYOG or B2P business model (although we note that content, and AAA content in particular, will be no less important for a cloud MGS business model). Given that the importance of Activision's content must be considered relative to the full range of available games (ie, any 'alternatives'), we consider in the same section the importance of Activision's content and alternative games.[1082]

Importance of Activision content

8.287 The Parties offer a range of games available on console and PC:

(a) We have discussed the Parties' console games in the framework section of the previous theory of harm. They include CoD, Overwatch (another

[1081] We do not focus on mobile content as no cloud gaming platform currently runs on a mobile OS. This means that the content offered on cloud gaming services (almost all of which is games designed for console and PC) is generally very different from mobile content (games designed specifically for mobile).
[1082] Ie we do not consider non-Activision games in a separate section. Rather they are considered alongside Activision games when discussing evidence.

FPS game), and Diablo (an Action RPG / MMORPG). These games/franchises are all available on PC.

(b) In addition, Activision publishes PC-only AAA game franchises including WoW and Hearthstone (an online card game within the Warcraft franchise).

8.288 We consider that Activision's full range of content is relevant to our assessment of this theory of harm. We do not, however, consider it necessary to carry out a detailed assessment of the importance of each individual game for cloud gaming services. We focus primarily on the importance of Activision's most popular titles, such as CoD and WoW, which provide an indication of the importance of Activision's full gaming catalogue. We also highlight other Activision titles where they are relevant to our assessment.

Parties' views

8.289 Microsoft submitted that Activision's content would not give it a material advantage in cloud gaming services or deter entry. According to Microsoft:

(a) Activision's reluctance to make its content available through cloud gaming services has not deterred several companies from launching cloud gaming services (such as PS+, Amazon Luna and NVIDIA GFN) in recent years.[1083] The Parties also noted that Steam is the market leader in PC distribution without having CoD.[1084]

(b) The primary use case for cloud gaming today relates to 'try before you buy' functionality, and there is no sense in which the addition of Activision content could offer any advantages in this regard compared to rivals.[1085]

(c) There are challenges to making CoD available for streaming. [✂].[1086] [✂] and that Microsoft's tests show that [✂].[1087]

(d) Rival cloud gaming providers were also successfully developing their own first-party content, and that there was no suggestion that CoD was seen as 'unique' or 'special' amongst Windows PC games.[1088] In relation to

[1083] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.40; and Microsoft response to working papers.
[1084] Microsoft response to working papers.
[1085] Microsoft response to working papers.
[1086] Microsoft response to working papers.
[1087] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.72.
[1088] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.41.

WoW, as a single-game subscription game, it is not an obvious candidate for inclusion in a BYOG or B2P cloud gaming service.[1089]

(e) Popular alternatives to CoD are available for cloud gaming. Microsoft submitted that [✂] as well as seven of the top 10 most played games on Steam are already available on GFN.[1090] It also submitted that the range of games available for cloud gaming is only likely to increase in the future, at least on the CMA's interpretation of the evidence. It submitted that in particular, the CMA's counterfactual assumes that game publishers will be increasingly incentivised to place their content on cloud gaming services in the future as those services continue to grow.[1091]

(f) The CMA's approach to the evidence on the counterfactual fails to recognise that it contains a logical flaw in that if it were the case that without Activision content cloud streaming would be successful as a means of delivering games, that would be evidence that Activision content was not important for the development of cloud gaming. Thus, if the basis of the counterfactual finding were in fact to be correct, it would show that the importance of Activision games was wholly overstated and there was no basis for a foreclosure theory in the first place.[1092]

8.290 Microsoft also submitted that given Activision's share of supply in PC game publishing and combined PC and console game publishing is less than [✂]% on any basis, there is clearly a broad range of alternative games already in existence that gamers play.[1093] Microsoft submitted multiple estimates for PC and console shares of game publishing:

(a) Its own estimates based on a range of sources: Microsoft submitted that Activision's share in console game publishing in 2021 was very low, at [0-10]% worldwide ([10-20]% in the UK). [1094] It also submitted that the Merged Entity's share of PC game publishing in 2021 was only [0-10]% worldwide ([10-20]% in the UK), meaning that a vast range of other content (accounting for over [80-90]% of PC game publishing revenue) would remain potentially available for rival cloud gaming services to use.[1095]

[1089] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.48.
[1090] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.58.
[1091] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.59.
[1092] Microsoft response to the CMA's Supplementary Evidence paper.
[1093] Microsoft response to the CMA's Supplementary Evidence paper.
[1094] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 1.5; Parties FMN.
[1095] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.41 and Parties FMN. These are based on figures estimated by Microsoft using internal market intelligence data based on their-party sources.

(b) Microsoft also submitted shares from Newzoo:[1096] Microsoft submitted that Activision's share of game-time on PC in 2022 was limited both in the UK and on a worldwide basis at [✂]% and [✂]%, respectively, and in terms of MAUs, Activision's respective shares were even smaller at [✂]% and [✂]%. It submitted that on a combined console and PC game publishing segment, Activision's share of gametime in 2022 was only [✂]% in the UK and [✂]% worldwide, while in terms of MAUs, Activision's respective shares were, again, even smaller at [✂]% and [✂]%.[1097]

8.291 Finally, since the Provisional Findings, Microsoft has entered into agreements with NVIDIA, Boosteroid and Ubitus regarding the provision of content to their cloud gaming services. These are discussed in further detail under the ability and incentive assessments below. However, with regard to the appropriate counterfactual against which to assess the Merger, Microsoft has made submissions regarding the terms of these agreements which relate to [✂]. Microsoft submitted that this is a significant change in the counterfactual as set out in the CMA's Provisional Findings. Microsoft submitted that it is important in the context of the CMA's analysis under this theory of harm where it is the range of available games that is important. Microsoft therefore submits that the question for the CMA is the extent to which adding Activision games to the range of content, [✂] which cloud game providers would otherwise have.[1098] We take this as a submission that any provisions in the three agreements that apply regardless of the Merger should form part of the CMA's counterfactual – the result of this being Microsoft submitting that the CMA should consider the importance of Activision content in a counterfactual where [✂].[1099]

Our assessment

8.292 In relation to the Parties' submissions, we note the following:

(a) The competitiveness of rivals can be harmed even without deterring them from entering the market altogether. This is particularly relevant for a growing market like cloud gaming, where foreclosure may have an adverse impact on the growth of rival cloud gaming services compared to the Merged Entity's.

(b) Even if Activision's share were relatively small, it could still be significant in a market where a range of inputs (rather than a single input) is an

[1096] Microsoft response to the Remedies Working Paper.
[1097] Microsoft response to the CMA's Supplementary Evidence paper.
[1098] Microsoft response to the Remedies Working Paper.
[1099] This understanding is confirmed at [✂] of Microsoft response to the CMA's Supplementary Evidence Paper.

important driver of competition. In markets where downstream customers buy only one product, a relatively small share of supply upstream suggests that there are likely to be several alternatives to the necessary input. Where downstream customers want to access a range of products, reducing the range (or quality of that range) that rivals are able to offer may have a significant impact on downstream competition. The impact is particularly severe where the content making up that relatively small share of supply is particularly important to that range/quality. This is the case for console, PC, or cloud gaming services, in which the range and quality of gaming content available is an important parameter of competition as discussed in Chapter 7. As the MAGs explain, when assessing the importance of an input, the CMA may have regard to the role an input plays as a determinant of product quality.[1100] In any event, a narrow focus on shares of supply in differentiated markets, such as game publishing fails to recognise that games with an apparently modest share may have a more significant role in shaping downstream competition.

(c) As discussed in the market definition section, evidence from Microsoft suggests that consumers [✂]. This suggests that the use-case for cloud gaming is not limited to the 'try before you buy' functionality, and that most customers choose cloud gaming for these other reasons.

(d) In relation to WoW, although access to expansions require a monthly subscription through battle.net, the game currently requires users to have a PC in order to run it. A cloud gaming service would still benefit from serving customers who prefer to stream WoW from the cloud, rather than having to play it on their local PC (just like any other PC game). Any game-specific subscription payments could be processed through account linkage to battle.net.

(e) We agree with Microsoft that the range of games available on cloud gaming services is likely to increase in the future. In the evidence below we consider Activision games alongside games from other publishers (including those not currently on cloud gaming services). In relation to the agreements with [✂], our assessment already takes this into account, as our analysis generally assumes game publishers will have increasing incentives to put their content on cloud gaming services, and that this is not unique to Activision games. In addition, our analysis on the importance of Activision's games looks at games across console and PC, and is not limited to games already available on cloud. To the extent [✂] further spurs the growth of cloud (absent the merger), that will in turn

[1100] CMA129, paragraph 7.14(b).

increase the incentive for Activision to likewise make its games available, as per our assessment above.

(f) We disagree with Microsoft that there is any logical inconsistency between the counterfactual and importance of Activision content. The withdrawal of an important input could harm a competitor's competitiveness without causing it to become so unprofitable such that it goes out of business or impact the growth potential of the industry without eliminating any growth potential whatsoever. Cloud gaming exists today and has grown without Activision content and is projected to grow further, but it is still possible that i) it could grow more rapidly if Activision content is widely available across the market absent the Merger, and ii) limiting access to Activision content post-Merger could seriously harm rivals' competitiveness in circumstances where rivals could have had widespread access to Activision content absent the Merger.

8.293 We address the rest of the Parties' submissions by reference to the evidence below.

Microsoft internal documents

8.294 Evidence contained in the Parties' internal documents suggest that AAA content in general, and Activision's content more specifically, would be an important input to cloud gaming services in the counterfactual.

8.295 In relation to popular AAA content:

(a) One email from [✂] suggests that [✂].[1101]

(b) One email from [✂] discusses [✂].[1102]

(c) One email from an external analyst to Microsoft dated [✂]. [1103] A third party report also notes that [✂] [1104]

(d) One Microsoft internal document dated [✂] The document also shows that [✂].[1105]

8.296 In relation to Activision content:

[1101] Microsoft Internal Document.
[1102] Microsoft Internal Document.
[1103] Microsoft Internal Document.
[1104] [✂].
[1105] Microsoft Internal Document.

(a) One report by an investment advisor from January 2021 received by Microsoft assesses investment opportunities in Activision, Electronic Arts, and Take-Two. The document states that 'Activision Blizzard is the best-positioned company in our coverage space with regard to broader gaming industry trends. The company's broad and diverse portfolio of fully-owned intellectual property across multiple platforms allows Activision Blizzard to capitalize on industry trends'. The document also states that Activision's IP is a 'must-have for any broad gaming library service, allowing them to command advantageous terms'.[1106]

(b) One internal Microsoft document dated [✂]. The document suggests that [✂].[1107]

(c) A number of Microsoft documents discussing customer feedback/survey results in July 2020 report on the most-requested games for xCloud. These survey results show that [✂].[1108] These results were then used in a monthly programme update to the entire xCloud team.[1109]

(d) An Activision internal document dated December 2021 also reports that NVIDIA claimed it was expecting around [✂] NVIDIA GFN MAUs to play [✂].[1110] NVIDIA confirmed that it provided Activision with a rough estimate [✂].[1111] [✂] MAUs would have been equivalent to around [✂]% to [✂]% of NVIDIA GFN MAUs at the time.[1112]

Third party evidence

8.297 Cloud gaming service competitors also highlighted the critical importance of content, particularly AAA titles, to cloud gaming services. In particular:

(a) A competitor [✂] submitted that [✂] Google decided to close Stadia down.[1113] This competitor [✂] also submitted that for it content represents around [✂]% of the total cost of its cloud gaming service. It also submitted that a cloud gaming platform needs a sufficient number of top-

[1106] Microsoft Internal Document.
[1107] Microsoft Internal Document.
[1108] Microsoft Internal Document; and Microsoft Internal Document.
[1109] Microsoft Internal Document.
[1110] Activision Internal Document.
[1111] NVIDIA response to the CMA's RFI
[1112] [✂]. The Parties submitted that [✂] estimates for the [✂] would attract was [✂] and as such are almost certainly an overestimate of [✂] own internal estimates. Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.69 (b).
[1113] [✂] call note.

tier AAA titles from leading game developers and publishers to attract and maintain a bigger user base.[1114]

(b) Another competitor [✂] submitted that Google Stadia was not successful because they did not have enough content, which was a result of running their cloud gaming service on Linux, rather than Windows OS.[1115]

(c) Another competitor [✂] submitted that the success of gaming services (including cloud gaming) is critically driven by the quality of content.[1116]

8.298 These views are supported by competitors' internal documents:

(a) An internal document from a competitor [✂].[1117]

(b) Another document from that competitor [✂].[1118]

(c) Another document from that competitor [✂].[1119]

(d) An internal document from another competitor [✂] dated October 2021 attributes [✂].[1120]

(e) Another document from that competitor [✂] dated April 2021 states that having enough content is critical to 'land the content flywheel'.[1121]

8.299 Competitors highlighted the importance of Activision's content, in particular, for cloud gaming services:

(a) One competitor [✂] described Activision games as 'must-have' for its cloud gaming service with 'no meaningful substitute'.[1122] The same competitor stated that some gamers will not switch from CoD to anything else because of their investment of 'time, money, and friends into the franchise'.[1123]

(b) Another competitor [✂] submitted that CoD: Modern Warfare's presence on its cloud gaming platform would 'have a material effect' on the players that its platform could acquire.[1124]

[1114] [✂] response to the CMA's RFI.
[1115] [✂] call note.
[1116] [✂] response to the CMA's RFI.
[1117] [✂] Internal Document.
[1118] [✂] Internal Document.
[1119] [✂] Internal Document.
[1120] [✂] Internal Document.
[1121] [✂] Internal Document.
[1122] [✂] response to the CMA's RFI.
[1123] [✂] response to the CMA's RFI.
[1124] [✂] call note.

(c) Another competitor [✂] submitted that the failure of Google Stadia shows the importance of CoD compared to other gaming franchises, and that CoD's role in attracting consumers to platforms is not directly proportionate to engagement alone. This competitor submitted that Google Stadia did in fact have a reasonable catalogue of games, including successful franchises such as FIFA, Assassin's Creed and NBA 2K, which accounted for at least [✂]% of PlayStation engagement in 2021. It further submitted that, despite having these games, Google Stadia did not have CoD, and that this prevented Google Stadia from reaching a meaningful number of MAUs.[1125]

(d) Another competitor [✂] noted that, based on their knowledge and communication with customers the gaming community also asks for certain titles (including CoD) to be widely available in the cloud. The other games that are also most important in attracting customers according to this provider are [✂] and [✂].[1126]

8.300 These views are supported by competitors' internal documents, which shows that Activision content is expected to be particularly important relative to the alternatives in the counterfactual:

(a) One internal document from a competitor [✂] dated October 2019 shows that this competitor has targeted deals with publishers/franchises such as: EA, Activision, Roblox and Fortnite. The same document described Activision as having a 'critical IP portfolio'.[1127] Another document from this competitor dated December 2019 described Activision as a leading game publisher and this competitor's number one target for content acquisition at that time.[1128]

(b) Internal documents from another competitor [✂].[1129]

(c) Two other documents from this competitor [✂].[1130]

(d) Internal documents from a competitor [✂].[1131] [✂].[1132]

8.301 We also received reports from a competitor [✂] on what it described as the 'great success' of Activision games on this competitor's cloud gaming service

---

[1125] [✂], submission to the CMA.
[1126] [✂] response to the CMA's RFI.
[1127] [✂]Internal Document.
[1128] [✂] Internal Document.
[1129] [✂] Internal Document; [✂] Internal Document; and [✂] Internal Document.
[1130] [✂] Internal Document; and [✂] Internal Document.
[1131] [✂].
[1132] [✂] response to CMA's RFI; and CMA analysis, [✂].

during the time in which the service was in a testing phase.[1133] Activision complemented this evidence by also submitting documents on how many unique users of this competitor's [✂] service were playing Activision's games during the testing phase.[1134] This evidence suggests that:

(a) On the one hand, [✂].[1135]

(b) On the other hand, [✂].[1136]

8.302 In relation to the evidence on [✂], Microsoft submitted [✂].[1137]

8.303 Microsoft also submitted that the evidence on the [✂] during the [✂] demonstrates that CoD cannot be seen as an important game for cloud gaming services. It submitted that if CoD was not popular amongst [✂] users [✂], the CMA has no basis to assume that it would be in the future if it were hypothetically made available for streaming.[1138] In particular, Microsoft submitted that:

(a) the fact that [✂] did not suggest it was important. It submitted that, given [✂], gamers did not [✂]. The Parties also submitted that [✂].[1139]

(b) given CoD was available on [✂], that there was no rational basis to assume gamers would have been unwilling to 'invest' in it. This also ignores [✂].[1140]

(c) [✂].[1141]

(d) the testing phase for [✂] likely contained fewer games than the full [✂] offering. As such it submitted that the evidence from the testing phase therefore likely significantly overestimates the importance CoD would have in the counterfactual if it was made available on [✂] again.[1142]

8.304 We note that there are several limitations with the data and analysis above, including that:

[1133] This competitor explained that [✂]. See [✂] response to CMA's RFI; and CMA analysis [✂].
[1134] Activision Internal Document; and Activision Internal Document.
[1135] [✂] response to CMA's RFI; and CMA analysis, [✂].
[1136] [✂] told us that [✂]. [✂] response to the CMA's RFI.
[1137] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.69 (a).
[1138] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.66.
[1139] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.67 (a); and Activision response to the Provisional Findings, 2 March 2023, paragraph 58. See also Activision response to the Provisional Findings, 2 March 2023, paragraph 60 [✂].
[1140] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.67 (b).
[1141] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.67 (d).
[1142] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.68.

(a) Users from the testing phase may not be representative of current [✂] users. For example, access during the testing phase was free, so we would expect to see a disproportionate number of gamers who want to access a free service and play F2P games.[1143]

(b) Some gamers might have decided not to invest in an expensive game like CoD in order to use it on [✂], given there was no certainty the service would have continued after the testing phase. In relation to Microsoft's submission that customers would have been willing to invest given it was on the [✂] testing phase [✂], we note that customers would not have known how long it would be available. The actual CoD gametime on [✂] that took place during the testing phase, therefore, would not adequately capture potential demand from customers who would be more inclined to stream CoD if they had more certainty that it would remain available the service.

(c) The fact that [✂] is a BYOG service and users can download games to a PC does not make gametime data during the [✂] testing phase more reliable. Users without a gaming PC may have been reluctant to take the risk of buying CoD to play on [✂] testing phase service (as set out above). And users with a gaming PC would have been more likely to play CoD on their PC in any event. As such, the behaviour of both cohorts on [✂] testing phase service may underestimate potential gametime that CoD would have on cloud gaming services as the market develops and cloud gaming services become reliable alternatives to gaming PCs.

(d) [✂]. This means that actual usage during the testing phase would likely underestimate the potential importance of Activision content.

(e) Given the data is at an individual game level, it is possible the CoD franchise overall would have been consistently in the top 10, even if individual games were not. [✂] does not hold this data, so we are unable to test this. However, the PC telemetry data discussed below confirms that a number of CoD games account for a material proportion of total CoD game time. For instance in July 2022, according to the PC telemetry data, [✂] [1144] [✂].[1145] This would likely cause data on individual CoD titles reaching the top 10 to underestimate the importance of CoD as a franchise.

[1143] [✂] response to the CMA's RFI.
[1144] The PC telemetry data [✂].
[1145] CMA analysis of PC telemetry data. See paragraph 8.317 onwards and Appendix C.

8.305 We recognise that it is difficult to measure the importance of Activision's content based on the available data. We also recognise that the range of games on cloud gaming services such as [✂] will continue to expand, which will reduce the relative importance of individual games. We have, therefore, taken account of the available evidence in the round. For example, as the Parties submit, we recognise that measuring the popularity of a game by unique users is less accurate than by MAUs. This is because MAUs give a better indication of ongoing engagement with a game, whereas unique users can include gamers who try a game but are then disengaged from it. Nonetheless, in the absence of MAUs, we place some weight on the data on most requested games on [✂], together with available information on unique users (although we place less weight on the latter, given we are unable to verify the exact methodology, for the reason discussed above). For the reasons set out above, we also place limited weight on the gametime on [✂] when it was on its testing phase (though we note that even that data shows that [✂]).

Fortnite

8.306 Microsoft submitted that its experience with offering Fortnite on xCloud [✂].[1146] It submitted that [✂].[1147]

8.307 Microsoft submitted that the Fortnite evidence is highly relevant to assessing Microsoft's ability to foreclose using CoD.[1148] In particular Microsoft submitted:

(a) Fortnite is not relevant only to mobile. It is available through Xbox Cloud Gaming on console, PC and mobile.[1149]

(b) The evidence presented in the Provisional Findings show Fortnite is one the most popular games on [✂], and that on that service the [✂].[1150]

(c) [✂] Fortnite was not [✂].[1151]

(d) [✂].[1152]

8.308 We discuss Microsoft's experience with Fortnite in detail above. We recognise that Fortnite was available on xCloud to play on console, PC and mobile, and that any [✂] may be [✂]. However, we note that Fortnite is [✂]. On GFN

[1146] Microsoft response to working papers.
[1147] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.71.
[1148] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.75.
[1149] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.74 (a).
[1150] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.74 (b).
[1151] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.74 (c).
[1152] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.74 (d).

there are two versions of Fortnite, a mobile focused cloud version and a non-mobile focused cloud version, [✂]. Therefore, we consider this is clear evidence that Fortnite is important (and successful) for cloud gaming services. To the extent it [✂] for Microsoft, the evidence suggests at least a significant factor is related to those playing on mobile and in particular to [✂] (we note that Microsoft itself expressed Fortnite being [✂].) [1153] We also note that despite the above there were still [✂] average MAUs of F2P Fortnite globally, and [✂] in the UK, on xCloud between May and December 2022,[1154] [✂]. Whilst this is a [✂] of overall Fortnite MAUs across mobile, PC and console, this reflects cloud gaming's current small share of gaming generally. In our view the data still demonstrates that Fortnite has [✂].

Evidence from console and PC gaming

8.309 Microsoft submitted that the CMA cannot rely on its findings in relation to console gaming, which relate to CoD's importance to SIE specifically in attracting and retaining console customers, in determining whether CoD is an important input for cloud gaming.[1155]

8.310 Microsoft submitted this is wholly inconsistent with the CMA's market definition analysis which states that cloud gaming is attractive to a new pool of customers and consumers consider different factors important for cloud gaming as compared to consoles.[1156] It also noted that the CMA, in Provisional Findings, cited data [✂], indicating it expects more cloud gaming to take place on PC.[1157]

8.311 Microsoft further submitted that, absent evidence specific to cloud gaming, the most pertinent issue is CoD's importance as a PC game.[1158]

8.312 We agree with Microsoft that the most relevant evidence on the importance of CoD would come from cloud gaming services, if available. However, given CoD and other Activision games are not on cloud gaming services currently, there is limited and imperfect available evidence. Given that we are focusing on cloud gaming services capable of running graphically complex games that currently run on high-performance consoles and PCs, we consider customers' current preferences across console and PC gaming to be a good starting

[1153] See paragraph above.
[1154] Microsoft response to the CMA's RFI.
[1155] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.51.
[1156] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.52.
[1157] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.53.
[1158] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.54.

point to understand preferences in the developing cloud gaming services market.

8.313 We disagree with the Parties' submission that we should not rely on console evidence, and that the most pertinent evidence is CoD's importance as a PC game:

(a) Cloud gaming services aim to be device agnostic. Their purpose is to achieve parity in terms of gameplay with consoles as well as gaming PCs, without being tied to a specific piece of hardware. We recognise that there is a wider range of PC games relative to console games. Nonetheless, in assessing the relative importance of different games to cloud gaming services as the market develops, it is important to take account of the current preferences of all potential customers, which currently include both console and PC gamers.

(b) We do not consider it relevant that [✂]. We have repeatedly been told that cloud gaming is device agnostic,[1159] while [✂] stated that the vast majority of its users do not have a high-end PC and are new to gaming.[1160]

8.314 We consider that the most important games for cloud gaming services would be the most popular games across consoles and PCs. In assessing the importance of Activision's content for cloud gaming services, therefore, we consider its current importance to both consoles and gaming PCs. With respect to consoles, we have already assessed as part of our previous theory of harm the importance of CoD. We found that CoD consistently ranks as one of the most popular console games. We found that CoD is so popular that a significant number of PlayStation gamers would switch to Xbox if CoD were to become exclusive to Xbox post-Merger, and that this would materially harm PlayStation's ability to compete. We consider, therefore, that Activision has some of the most popular content for consoles.

8.315 With respect to PC, the number of available games is larger than on consoles. Whilst the Parties' internal documents suggest that CoD and WoW (which is PC-only) are among the most played games on PC, CoD is less prominent on PC than it is on console. These documents also suggest that there is a larger number of games that reach a similar or greater level of engagement to CoD on PC relative to console. They also suggest that shooters and Multiplayer

[1159] See for instance paragraph 2.27, 8.52, 8.62 and 8.425.
[1160] [✂] call note.

Online Battle Arena (**MOBA**) games are particularly popular genres on PC. In particular:

(a) A Microsoft internal document from 2021 looks at the top PC games played by various categories of PC gamers [✂]. The document shows that [✂]. The document also shows that [✂].

(b) This document also shows that [✂]. [1161]

(c) The same document also shows that [✂].[1162]

(d) One Activision internal document dated February 2022 shows that both CoD titles and WoW [✂]. In particular, [✂], respectively whilst [✂] in 2021. WoW [✂] 2020 and [✂] in 2021. The other games which featured in the [✂] list in 2020 were (in ranking order): [✂]. In the 2021 list, the other games were (in ranking order): [✂].[1163]

(e) One Microsoft document from 2020 shows that CoD: Modern Warfare was [✂] by PC gaming-hours in 2020 worldwide, preceded by [✂]. When looking at the [✂], *CoD: Modern Warfare* ranked [✂] by PC gaming-hours in 2020 worldwide with a [✂]% share of gaming-hours, whilst WoW ranked [✂] with a [✂]% share. Other Activision games in the list were Overwatch ([✂] position, [✂]% share), and WoW Classic ([✂] position, [✂]% share). The remaining games in the list were (in ranking order): [✂].[1164] The document also shows that there are [✂] in the composition of the top PC games list. For example, [✂].[1165]

(f) One Activision document shows that on PC, Activision Blizzard games achieved a total of [✂]m average MAUs in 2020, corresponding to [✂] of the total MAUs on Steam in the same year.[1166]

8.316 In relation to the document discussed in (a)-(c) above, Microsoft submitted that this document provides many examples of popular titles across multiple genres, and it shows the broad range of content which is of interest to PC gamers, which is much broader than the shooter genre.[1167]

[1161] Microsoft Internal Document; [✂].
[1162] Microsoft Internal Document.
[1163] Activision Internal Document.
[1164] Microsoft Internal Document.
[1165] Microsoft Internal Document.
[1166] Activision Internal Document; in 2020, Activision games were only available on PC through Activision's own PC storefront Battle.Net.
[1167] Microsoft response to working papers.

- *Microsoft PC telemetry data*

8.317 Microsoft submitted that Windows telemetry data for June 2021 through to December 2022 shows that [✂]. Microsoft also submitted that the (global) game-time share of the CoD franchise is low in comparison to the four highest ranked games or franchises during 2021 and 2022.[1168] Microsoft submitted that, in the UK, [✂].[1169]

8.318 We assessed Microsoft's telemetry data.[1170] We first looked at the share of gametime on PC of Activision's full range of games in terms of hours played (based on the 12 months to Feb 2023). We then looked at the ranking of Activision's most popular games in terms of hours played (based on the same data). In both of these assessments, we modelled different scenarios (the full methodology is described in Appendix C):

(a) **Sensitivity A**. This includes all games in Microsoft's telemetry data.

(b) **Sensitivity B**. This excludes very simple games (eg, [✂]) from Microsoft's telemetry data. We consider that these games are less likely to drive demand for cloud gaming services, given that cloud gaming services are capable of serving as console and gaming PC replacements in order to run graphically complex games such as CoD. We expect that consumers are less likely to pay the fees of a cloud gaming service to play simple games that can be played on almost any device (eg, old PCs, work laptops, etc)[1171]

(c) **Sensitivity C.** This excludes the same games excluded in the Sensitivity B analysis, and it also excludes [✂]. Microsoft's PC telemetry data shows that [✂] is [✂] the most popular game in terms of game hours [✂].[1172] However, it is a [✂] requirements, and it features [✂] in terms of most requested games we have seen for cloud gaming providers (eg for [✂]), so we consider its relative importance for cloud gaming is likely overstated by the PC telemetry data.

8.319 This is set out in tables 8.5, 8.6, 8.7, and 8.8.

[1168] [✂]. Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.56 (a).
[1169] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.56 (b).
[1170] Which is based on about [✂]% of PCs running Windows 10 or 11, given that customers need to opt-in to allowing Microsoft to collect telemetry data. This is explained further in Appendix C.
[1171] Gamers may still play these games on cloud because they may move all their gaming to cloud, but these are less likely to drive their choice.
[1172] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.57 (b).

Table 8.5: Activision games' shares of PC gaming in terms of hours played, March 2022—February 2023, UK

Activision Franchise	*Sensitivity A*		*Sensitivity B*		*Sensitivity C*	
	Hours (m)	*Percentage*	*Hours (m)*	*Percentage*	*Hours (m)*	*Percentage*
Call of Duty	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
World of Warcraft	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Overwatch	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Starcraft	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Diablo	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Hearthstone	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Sekiro	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Spyro	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Candy Crush	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Heroes of the Storm	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis of Windows telemetry data

Table 8.6: Activision games' rankings in PC gaming in terms of hours played, 2022, UK, Sensitivity A

	2022 monthly rank										2023 monthly rank		Averages	
ABK Franchise	*March*	*April*	*May*	*June*	*July*	*August*	*September*	*October*	*November*	*December*	*January*	*February*	*Mean*	*Median*
Call of Duty	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
World of Warcraft	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis of Windows telemetry data

Table 8.7: Activision games' rankings in PC gaming in terms of hours played, 2022, UK, Sensitivity B

	2022 monthly rank										2023 monthly rank		Averages	
ABK Franchise	*March*	*April*	*May*	*June*	*July*	*August*	*September*	*October*	*November*	*December*	*January*	*February*	*Mean*	*Median*
Call of Duty	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
World of Warcraft	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis of Windows telemetry data

Table 8.8: Activision games' rankings in PC gaming in terms of hours played, 2022, UK, Sensitivity C

	2022 monthly rank										2023 monthly rank		Averages	
ABK Franchise	*March*	*April*	*May*	*June*	*July*	*August*	*September*	*October*	*November*	*December*	*January*	*February*	*Mean*	*Median*
Call of Duty	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
World of Warcraft	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis of Windows telemetry data

8.320 Our assessment of Microsoft's telemetry data shows that Activision's games account for between [✂]% and [✂]% of PC game time in the UK. The data also suggests that both CoD and WoW are top [✂] games in terms of ranking. CoD's popularity varies across the year (most likely explained by the date of new game releases), and, under sensitivity C, both CoD and Overwatch were [✂].[1173]

8.321 In relation to CoD, we also consider that these gametime figures underestimate the popularity of the franchise. For two thirds of the year, the latest CoD game was Vanguard, which turned out to be one of the least popular games in the CoD franchise. This suggests that 2022 was not a representative year of CoD's popularity on PC gaming. This is consistent with the significant difference in sales in the first few months of Vanguard compared with Modern Warfare II.[1174] [1175]

8.322 Finally, we note that this PC telemetry data considers game time on all PCs. Given that CoD is a relatively demanding game to run from a technical perspective, only a subset of those PCs in the telemetry data will be capable of running CoD well.[1176] This contrasts with cloud gaming services, which are capable of serving as console and gaming PC replacements in order to run graphically complex games such as CoD. While Sensitivity B and C remove the most basic games, we consider that this telemetry data analysis still underestimates the popularity of the CoD franchise under all sensitivities given the impact on CoD will be larger relative to the less complex games remaining in the analysis. We note that this issue does not arise in relation to analysis of console telemetry data.

8.323 We also analysed global PC telemetry data (excluding China).[1177] We found that under Sensitivity A, Activision games were slightly less popular than in the UK ([✂]% vs [✂]% respectively). We understand this is primarily because CoD is less popular in Asia than in Europe/North America. We think it is most relevant to consider UK data, given we have found the geographic market to be the UK, and therefore place more weight on the UK figure.

[1173] While we have not calculated the ranking for Overwatch throughout the period, we note that generally Overwatch has had [✂]. However, following the release of Overwatch 2 on 4 October 2022, Overwatch ranked [✂]. We note that [✂], it still ranked [✂] under Sensitivity A, [✂] under Sensitivity B, and [✂] under Sensitivity C in February 2023. See Appendix C.
[1174] See for instance Call of Duty: Modern Warfare 2 UK launch sales are up 92% over Vanguard and Call of Duty: Modern Warfare 2 is close to out-selling Vanguard after just 2 weeks, both accessed 11 April 2023.
[1175] We expect the CoD ranking from March to September 2023 to be higher than in March to September 2022. For instance, CoD ranks [✂].
[1176] NVIDA's pitch to Activision noted that [✂]. Activision internal document.
[1177] Given neither Microsoft nor its rivals operate cloud gaming services in China.

8.324 We also note that Microsoft submitted alternative PC game publishing shares from Newzoo (see paragraph 8.290), which compared Activision with other publishers on both gametime and MAUs. This suggests that at the publisher level Activision has [✂] with [✂]% share compared with the [✂]% share. Similarly, Activision had the [✂] of MAUs ([✂]%, with [✂] next at [✂]%).

8.325 Microsoft made two submissions in relation to the PC digital storefront, Steam:

(a) Steam, the largest digital storefront, did not carry any new releases of CoD for three years until November 2022 following Activision's commercial decision to only sell its PC games on Battle.net, yet it still maintained its leading position in PC game distribution and increased its revenues.[1178]

(b) Even following CoD returning to Steam, it did not appear in the top 10 list of games played on the platform, while the peak number of players for CoD: Modern Warfare II (including Warzone II) is half the figure for Counter-Strike: Global Offensive, also a shooter game.[1179]

8.326 We do not consider the evidence of CoD's popularity on Steam to be strong evidence of its importance to cloud gaming services. First, Steam is not a cloud gaming service, it is a PC gaming store. As we noted above, we expect demand for cloud gaming services to resemble not just current demand for PC games, but some combination of demand for PC and console games. Second, although significant, Steam represents a subset of all PC game purchases and does not capture purchases of available games via other PC stores, it is therefore at best indicative of a subset of gamers purchases. Third, the data of the most played games on Steam does not represent an improvement on Microsoft's own PC telemetry data, which captures a greater proportion of PCs and is able to produce a more representative sample of users' gametime. This can result in material differences in the data output: for example, Microsoft submitted that Counter-Strike: Global Offensive had double the peak players of CoD: Modern Warfare II. But Microsoft's own PC telemetry data shows that [✂]. We therefore place limited weight on the table of the 10 most played games on Steam by peak number of daily active users.

8.327 Microsoft also submitted that industry rankings show that CoD is consistently outranked by other publishers' PC games, given IGN's ranking of the '25 best PC games to play right now' does not include CoD, Metacritic's ranking does not list CoD at the top of its rankings and PC Gamer's 'top 100 PC games' list

---

[1178] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.56 (c).
[1179] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.56 (d).

does not include CoD.[1180] We consider that these rankings are not an adequate measure of CoD's popularity, and in particular, its importance, given there can be stark differences between critic's reviews and actual game-time and sales.[1181] We consider it better to measure importance more directly through MAUs, share of gametime, and share of revenue across console and PC.

8.328 We also reviewed evidence from the latest Newzoo report (Newzoo is a third party provider of video games and gamer data) published on 21 December 2022. The report shows that CoD had a strong performance in 2022 across PC and console (Xbox and PlayStation). In particular, the report shows that two CoD games (*Modern Warfare 2/ Warzone 2* and *Modern Warfare/ Warzone*) were the fourth and fifth largest in terms of MAUs across PC and console (Xbox and PlayStation) in 2022, as based on Newzoo estimates.[1182]

Microsoft's agreements with NVIDIA, Boosteroid and Ubitus

8.329 Following the publication of our Provisional Findings, Microsoft entered into cloud gaming agreements with NVIDIA, Boosteroid and Ubitus. In this section we assess what impact these agreements have, if any, on the Merged Entity's ability to foreclose its cloud gaming service rivals.

Parties' views

8.330 Microsoft made several submissions regarding the agreement it has entered into with NVIDIA in response to the Provisional Findings and in response to the Remedies Working Paper.[1183] Microsoft explained that it has entered a legally binding agreement with NVIDIA for all of Activision's PC games to be made available on GFN for at least ten years post-Merger.[1184] Microsoft also made submissions regarding the agreements it has entered into with Boosteroid and Ubitus in response to the Remedies Working Paper. Microsoft explained that each of these agreements contains [✂], to be made available

---

[1180] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.56
[1181] For instance, the number one game on PC Gamers 'top 100 PC Games' is Disco Elysium, which sold 2.6million units on Steam and made $7.4million in the first six months. PC Gamers top 100 and Disco Elysium statistics, both accessed by the CMA on 12 April 2023. In comparison CoD: Modern Warfare II, which is not in the top 100 list, made over $1billion in 10 days.
[1182] The Games Market in 2022: The Year in Numbers | Newzoo, accessed by the CMA on 16 January 2023; China and India are excluded from these estimates.
[1183] See also Microsoft response to the Provisional Findings Addendum, 3 April 2023, paragraph 4.3. In addition to those submissions discussed here and in the incentive section below, Microsoft also made submissions that these agreements address the cloud SLC. These submissions are discussed further in Chapter 9 (countervailing factors) and Chapter 11 (remedies). This is because the assessment in this Chapter deals with the question of whether an SLC may be expected to arise in the cloud gaming market in the UK in the first place.
[1184] Microsoft response to Provisional Findings, 2 March 2023, paragraph 3.3.

for streaming on NVIDIA's, Boosteroid's and Ubitus' cloud gaming platforms for 10 years post-Merger.[1185]

8.331 Microsoft submitted that, given the terms of these three agreements, which provide for access to the content that the CMA considers to be 'important', there is no basis to find it could have the ability to foreclose NVIDIA, Boosteroid or Ubitus. Microsoft has submitted that the theory that it would be able to foreclose cloud gaming rivals is undermined by the fact that it has made legally binding commitments *not to do so*, and that it would have to breach these agreements in order to foreclose these rivals and would face [✂] claims if it did so.[1186]

Our assessment

8.332 As explained in Chapter 7, the MAGs make it clear that the CMA's assessment of the ability of the merged entity to foreclose is unlikely to place material weight on contractual protections.[1187] The considerations in our guidance apply to the present case. In particular, contracts may be renegotiated or terminated early, or may not be enforced depending on the respective parties' bargaining positions (and Microsoft's overall strengths in cloud gaming discussed already in this chapter is relevant in this regard, as we would expect it to hold considerable leverage in relation to any subsequent negotiation or contractual dispute). Nor can we be sure that NVIDIA, Boosteroid or Ubitus (or any other third party) would be able to enforce the terms of any relevant contracts should any of them need to do so.

8.333 In relation to the specific terms of these agreements, we note that Microsoft has specifically acknowledged a degree of uncertainty in respect of the future development of each contract by including an [✂] clause, which broadly sets out that [✂].[1188]

8.334 As well as demonstrating the difficulty of contracts adequately allowing for different circumstances that could arise in a dynamic and growing market, we consider this demonstrates the difficulties in placing any material weight on contracts being able to constrain an ability to foreclose that otherwise exists, where bargaining power in the event of such renegotiation or any related disputes would not be equal. Further, in all three agreements, [✂].

[1185] Microsoft response to the Remedies Working Paper. Microsoft also made similar submissions relating to all three agreements in its response to the CMA's Supplementary Evidence Paper.
[1186] Microsoft response to Remedies Working Paper.
[1187] CMA129, paragraph 7.15.
[1188] See Microsoft, email to the CMA; and Microsoft response to the CMA's Remedies Notice.

8.335 We note further uncertainty arising from the terms of these agreements through [✂] provisions. For example, the Boosteroid and Ubitus agreements each contain a provision allowing Microsoft to [✂].[1189] It is not clear the extent to which such [✂] may arise, although the fact that this provision has been included in these agreements indicates that Microsoft sees this as a material risk.

8.336 In any case, we note that Microsoft has entered into contracts with three cloud gaming providers, who either have a BYOG model (NVIDIA, Boosteroid) or a B2B focus (Ubitus). We are assessing here whether the Merged Entity would have the ability to use Activision's games to foreclose cloud gaming service rivals in general, not limited to any specific rivals. In the context of a nascent and growing market, we cannot be confident that agreements with a limited number of providers remove the Merged Entity's ability to foreclose in the cloud gaming services market more generally. This is the case even in circumstances where cloud gaming providers with agreements in place consider that any concerns they have are now resolved – as their incentives are to ensure access to content for their own business, rather than ensuring competition across the market more generally.[1190]

8.337 Accordingly, while we recognise that these agreements may provide NVIDIA, Boosteroid and Ubitus with some level of a protection against foreclosure to some extent, given the uncertainty flowing from the terms of these agreements which relate only to three cloud gaming providers, we do not consider it appropriate to place any material weight on these agreements in the overall assessment of the Merged Entity's ability to foreclose its cloud gaming service rivals.

Conclusion on Ability

8.338 Based on the available evidence, we consider that Activision's games—particularly CoD, WoW, and to a lesser extent Overwatch[1191]—would be an important input to cloud gaming services absent the Merger.

8.339 We recognise that the available evidence on the importance of Activision's games arising directly from existing cloud gaming services is limited. We

---

[1189] Clause 4.4 of the Cloud Gaming License Agreement, [✂] March 2023; Clause 4.4 of the Cloud Gaming License Agreement, 11 March 2023.
[1190] We note that Microsoft pointed us to NVIDIA's statement to the CMA that the agreement [✂]. Further, each of Microsoft's agreements with NVIDIA, Boosteroid and Ubitus include [✂].
[1191] We note that Activision is due to release a new game in the Diablo franchise (Diablo IV) on 6 June 2023 (Your guide to the Diablo IV open beta, accessed by the CMA on 10 April 2023). Given Diablo III is over 10 years old, we expect this new release to increase interest in the Diablo franchise significantly. However, we have not conducted any formal assessment of the future importance of Diablo IV specifically.

consider that limited data is to be expected in a dynamic market that is in the early stages of development.

8.340 We consider, however, that the popularity of Activision's games on consoles and gaming PCs is indicative of its importance for cloud gaming services now and in the near future. On consoles, we found that CoD is an important game and that alternatives with similar levels of gametime, revenue, and engagement are limited. On PC, the evidence indicates that CoD and WoW are among the most played games in the UK, and Overwatch is also reasonably popular. We found that there are more games on PC than on console, and CoD is relatively less popular on PC than on console (although still comfortably a top 10 game). Overall, however, we found that Activision's content is only slightly less important on PC than on console.

8.341 This evidence indicates that Activision content would likely become an important input to cloud gaming services absent the Merger. It also indicates that any alternatives would not be a sufficiently good replacement for Activision content, especially CoD and WoW, and that they would not be enough to offset any loss of Activision content by cloud gaming rivals, nor to compensate for the reduction in range and choice for customers of those rivals.

8.342 This is particularly relevant in a nascent market like cloud gaming, wherein economies of scale and network effects may play a significant role in determining the success of a service, as discussed above. In turn, any harm to cloud gaming rivals' competitive strength is likely to be self-reinforcing and may hinder these rivals from scaling quickly enough, which is especially important to compete successfully when network effects play a role.

8.343 In the previous sections we also considered that multi-homing might be stronger in cloud gaming than in console in the counterfactual, given the lower switching costs. Multi-homing might in principle reduce the ability to foreclose in cloud gaming if customers already use multiple platforms, eg to access exclusive content. However, the evidence on multi-homing specific to cloud gaming was mixed, mainly because the market is still developing. Furthermore, any foreclosure might prevent the emergence of multi-homing in the counterfactual, especially if such foreclosure prevented rival cloud gaming services from reaching sufficient critical mass that would allow them to succeed.

8.344 Therefore, as cloud gaming rivals are still negotiating to attract the larger publishers to their platforms in order to be successful, we consider that this is likely to be a crucial time. In such a moment for the cloud gaming market, we consider that not having access to Activision, and particularly CoD titles as a

result of foreclosure would have even more potential to significantly reduce the chance of these cloud gaming services to succeed.

8.345 For the reasons set out above, we do not consider that the NVIDIA, Boosteroid or Ubitus agreements have any material impact on the overall assessment of the Merged Entity's ability to foreclose cloud gaming service rivals.

8.346 We therefore consider that, absent the Merger:

(a) Activision content, in particular CoD WoW and Overwatch, would be a particularly important input to cloud gaming services.

(b) Any alternatives are likely not to be sufficient to offset the loss incurred to cloud gaming rivals by foreclosure of Activision content, nor to compensate for the reduction in range and choice for customers of those rivals.

(c) Multi-homing is unlikely to limit ability to foreclose in cloud gaming. In fact foreclosure could negatively impact the emergence of multi-homing itself in the future.

8.347 Therefore, we conclude that the Merged Entity has the ability to foreclose rivals in the cloud gaming market in the UK using Activision content.

Incentive to foreclose

8.348 In this section, we assess whether the Merged Entity would have the incentive to use Activision's content to foreclose downstream cloud gaming competitors. These rivals will include NVIDIA, Amazon Luna, and potential new entrants [✂].

8.349 The Merged Entity would have the incentive to engage in foreclosure strategies if the benefits of doing so exceed the costs.[1192] In assessing what constitutes a benefit or a cost, we consider not only the immediate financial implications of a foreclosure strategy, but also the longer-term consequences (the latter reflecting possible strategic costs and benefits that manifest over a longer time horizon or affect different parts of the business).

8.350 In this case, given that cloud gaming is a developing market, we would expect to place more weight on the long-run strategic objectives of the Merged Entity. As set out in the MAGs, 'in complex and dynamic markets, firms may not

[1192] CMA129, paragraph 7.16.

focus on short term margins but may pursue other objectives to maximise their long-run profitability, such as 'eliminating a possible long-term threat, increasing the stickiness of existing customers, positioning themselves strongly in high-growth markets, gaining customers to obtain direct or indirect network effects, obtaining access to customer data or enabling cross-selling within a broader ecosystem'.[1193]

8.351 The evidence that we use to assess these strategic objectives is primarily qualitative. As set out in the MAGs, 'the CMA may undertake more extensive quantitative analysis in simple markets with high quality data but focus on a qualitative assessment in complex and dynamic markets, where firms' current positions and margins may not be a good guide to the future, and strategic considerations may play a greater role.'[1194] Given that cloud gaming is still in its infancy, we do not believe that a quantitative analysis of short-run gains and losses from foreclosure would be informative.

8.352 As such, we have focused our analysis on two types of evidence: (i) Microsoft's past behaviour regarding first-party content on rival cloud gaming platforms, and (ii) Microsoft's business strategy as set out in its internal documents. As noted in the MAGs, the purpose of the incentives analysis is to predict the merged entity's behaviour, and it may be possible to understand this directly from its past conduct and business strategy.[1195]

8.353 We consider the evidence on Microsoft's current and potential strengths in cloud gaming to be relevant for the assessment of the incentives to foreclose. As per the MAGs, the 'gain in downstream sales' resulting from foreclosure 'will be greater if the merged entity has a more successful downstream offering'.[1196] Therefore, other things equal, the more successful Microsoft is in cloud gaming (now and in the future), the greater the incentives to foreclose cloud gaming rivals.

Parties' views

8.354 Microsoft submitted that it does [✂]. It expects downloads to continue to dominate the market, and it does not expect cloud gaming to replace native mobile games purchased through mobile app stores.[1197]

[1193] CMA129, paragraph 7.19(e).
[1194] CMA129, paragraph 7.18.
[1195] CMA129, paragraph 7.19 (a).
[1196] CMA129, paragraph 7.19 (b).
[1197] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.49.

8.355 Microsoft submitted that the [✂].[1198] In particular, Microsoft submitted that it has [✂].[1199] More generally Microsoft submitted that the CMA cannot conclude on the balance of probabilities that cloud gaming services will become profitable in the next five years.[1200]

8.356 Microsoft also submitted that the possibility that cloud gaming might become profitable in the long term is insufficient to find, on a balance of probability standard, that it could have an incentive to foreclose in the next five years. It also submitted that the CMA must first be confident that any such foreclosure strategy would be profitable.[1201]

8.357 Further Microsoft submitted that demand for cloud gaming has [✂], and that it's not in Microsoft's interest to harm the consumer experience of a rival cloud gaming provider.[1202]

Our assessment

8.358 As a preliminary point, we note that console providers, including Microsoft, place significant value in having exclusive content to differentiate their platform and attract more users. Most first-party Xbox and PlayStation games are exclusive to their respective platform, and almost every studio that Microsoft has bought now makes games exclusive to Xbox. We have seen no evidence to suggest that the importance that Microsoft places on having exclusive content on its console would not extend to having exclusive content on its cloud gaming service. Indeed, given Microsoft's much stronger position in cloud gaming services, we would expect its incentive to make its content exclusive to be even stronger than on console.

8.359 As discussed above, we believe that no cloud gaming rival can match Microsoft's cost advantage arising from its ownership of Windows, Azure, and the Xbox gaming catalogue combined. As such, we believe that Microsoft is already in a uniquely strong position in the market for cloud gaming services.

8.360 As discussed above, while we do not put a lot of weight on market shares, we do find them indicative of the current strength of different cloud gaming providers, and our global market shares estimates presented above support that Microsoft already holds a strong position in cloud gaming. These estimates show that Microsoft's share increased from [30-40]% in 2021 to [60-

---

[1198] Microsoft response to working papers.
[1199] Microsoft response to working papers.
[1200] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.86 (a).
[1201] Microsoft response to working papers.
[1202] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 5.49.

70]% in the UK in 2022, and that, in 2022, it had [✂] as many average MAUs as the next biggest service, NVIDIA GFN.

8.361 In the reminder of this section, we consider Microsoft's past behaviour in making games available to rival cloud gaming platforms, ie whether it has (i) placed recent first-party games on rival cloud platforms and (ii) taken games off rival cloud platforms when it has acquired a publisher (in particular, Zenimax). We also consider Microsoft's internal documents setting out its business strategy in cloud gaming.

Past behaviour

8.362 Microsoft submitted that it has no policy against including first-party games in rival multi-game subscription or cloud gaming services.[1203] It submitted that its titles were available on PS+ and Stadia.[1204] In particular, it submitted that Rage 2, Wolfenstein: Youngblood, Doom 64, Doom and Doom Eternal were available on Google Stadia, and that Elder Scrolls V: Skyrim Special Edition is available on PlayStation Plus Extra and Premium.[1205]

8.363 Microsoft also submitted a list of a further 23 games that it stated were available on PS+.[1206] We understand, however, that the only games on this list available on SIE's cloud gaming service are published by Bethesda.[1207]

8.364 To assess the extent to which Microsoft makes its AAA games (ie those more comparable to CoD) available on rival cloud gaming platforms, we have looked at a list of Microsoft's biggest games and franchises,[1208] excluding Bethesda games (which we discuss further below).[1209] Of seven games and franchises on this list, six were available on xCloud through Game Pass

---

[1203] Microsoft response to the CMA's RFI.
[1204] Microsoft response to working papers.
[1205] Microsoft response to working papers. Elder Scrolls V: Skyrim Special Edition is available on PlayStation cloud through PlayStation Plus Premium membership.
[1206] The games listed were: Brink, Deathloop, Dishonoured, Doom (2016), Fallout 3, Fallout 4, Fallout 76, Fallout New Vegas, Hunted, Hunted The Demons Forge, Prey, Rage, Rage 2, Rogue Warrior, The Elder Scrolls IV Oblivion, The Elder Scrolls Online, The Elder Scrolls V Skyrim, The Evil Within, The Evil Within 2, Wet, Wolfenstein II: The New Colossus, Wolfenstein: The New Order, and Wolfenstein: The Old Blood. See Microsoft response to the CMA's RFI.
[1207] In addition, some of these Bethesda games were available on SIE's cloud gaming service in the past, but no longer are (such as Dishonoured, Rage 2, the Evil Within, The Evil Within 2, Wet, Wolfenstein II: The New Colossus, and Wolfenstein: The Old Blood.)
[1208] We combined a list of games from the Xbox Game Studios website, accessed by the CMA on 17 January 2023, (which are highlighted as 'some of the biggest franchises in history') and Microsoft's top games and franchises by revenue in 2021. Parties Internal Document. Excluding the Bethesda games, these were: [✂].
[1209] We look at Bethesda games separately because firstly, Microsoft has only taken ownership of Bethesda since March 2021 and so there may have been contractual obligations in place between Bethesda and other cloud gaming platforms prior to the acquisition (Officially Welcoming Bethesda to Team Xbox - Xbox Wire, accessed by the CMA on 31/01/2023). For instance, [✂] (Microsoft response to RFI). Secondly, unlike Activision games, Bethesda games were available on Google Stadia, PlayStation cloud gaming and NVIDIA GFN prior to the acquisition.

Ultimate (only [✂] was not available on xCloud).[1210] When looking at rival cloud gaming platforms, however, we have found that none of these games were available.

8.365 We have also looked at Microsoft's past behaviour in relation to Bethesda's games. We identified five major Bethesda game franchises (Doom, Elder Scrolls, Fallout, Rage and Wolfenstein). As Microsoft submitted,[1211] the latest titles in all franchises are or were available on a rival cloud gaming platform (PS+ or Stadia). We note that all except two of these titles were released and available on one or both of these cloud platforms prior to Microsoft's acquisition of Bethesda.[1212] The titles released after the acquisition (notably Deathloop and Ghostwire) are not available on PS+ cloud as SIE's cloud offerings run on PS4 servers and these new titles were released on PS5 and do not offer backwards compatibility.

8.366 The Parties submitted that if Microsoft were incentivised to foreclose rival cloud gaming services, it would also have removed these Bethesda titles from rival platforms.[1213]

8.367 We note that many of the latest, but older, Bethesda games are on PlayStation's cloud gaming platform. Some Bethesda games were also available on Google Stadia prior to its closure. However, none continued to remain available on either GFN, Amazon Luna, or Boosteroid following Microsoft's acquisition of ZeniMax. As described elsewhere in this Chapter, we consider these competitors at least as close competitors to xCloud as PlayStation's cloud gaming offering. We also note that Microsoft would be aware that SIE cannot stream the latest games that only work on PS5.

8.368 More importantly, Bethesda games are only a small subset of Microsoft games, and as described in the analysis above, none of Microsoft's AAA games are available on rival cloud gaming platforms. We also consider it relevant that, unlike Bethesda games at the time of the ZeniMax acquisition, none of Activision's games are currently available on cloud gaming platforms. This is relevant because as noted in Chapter 7, in our view, while Microsoft strives to acquire and produce exclusive content, the financial and strategic calculation of creating new and exclusive games for Xbox may be different where Microsoft has to trade off certain quantifiable losses (from removing

---

[1210] Age of Empires II was released on xCloud in Jan 2023, while Age of Empires IV will be released on xCloud later in 2023, accessed by the CMA on 31/01/2023.
[1211] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.80.
[1212] Fallout 76 was added to PlayStation cloud in October 2021 (following its released in October 2018) and Elder Scrolls V: Skyrim Special Edition was added to PlayStation cloud in November 2022 (following its release in October 2016).
[1213] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.81.

from a rival) against uncertain gains (drawing more customers to Xbox). While we found this was relevant in our incentive analysis in relation to CoD on console,[1214] it does not apply to cloud gaming where there are no significant quantifiable costs from removing a game from a rival.

Internal documents discussing Bethesda games on GFN

8.369 We have also considered internal documentary evidence in relation to the previous acquisition of ZeniMax (which includes the publisher Bethesda). Bethesda had two games (Wolfenstein: Young Blood and Quake 2 RTX) on NVIDIA GFN at the time of Microsoft's acquisition of Zenimax. Following the acquisition, a Microsoft internal document shows [✂]:

(a) In an internal email in March 2021 to [✂] notes that [✂].[1215]

(b) In the same email chain, [✂] replies to [✂] suggesting they [✂].[1216]

(c) Ultimately Microsoft decides to remove these games from GFN. In another email, [✂] confirms that he has the 'OK' from [✂] to give [✂]. In this email thread, when discussing whether Microsoft should [✂].[1217] In discussing [✂] with another colleague, [✂] replies to [✂] to say [✂].[1218]

8.370 Microsoft submitted that it had a consistent policy not to allow a provider to stream its games without a license.[1219] Microsoft also submitted that while the Xbox Cloud Gaming team did not object to continuing to support these games on NVIDIA GFN, Microsoft ultimately removed the titles in 2021 because no valid licensing agreement was in place.[1220] Microsoft submitted that [✂].[1221]

8.371 Microsoft submitted that [✂].[1222]

8.372 Microsoft also submitted that one of these two titles, Wolfenstein: Young Blood, continued to remain on Google Stadia, which is also a competitor to Xbox Cloud Gaming, as a valid licence agreement was in place.[1223]

[1214] See Chapter 7 above.
[1215] [✂] See Microsoft Internal Document.
[1216] [✂] See Microsoft Internal Document.
[1217] Microsoft Internal Document.
[1218] Microsoft Internal Document.
[1219] Microsoft response to the CMA's RFI.
[1220] Microsoft response to the CMA's RFI; and Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.84.
[1221] [✂] Microsoft response to the CMA's RFI.
[1222] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.83; and Microsoft, Main Party Hearing transcript.
[1223] Microsoft response to the CMA's RFI.

8.373 We consider that the evidence presented by Microsoft shows that it cares about protecting IP. However, Microsoft's submissions do not address the fact that a Microsoft senior employee [✂]. We have also seen no evidence of [✂].[1224]

8.374 In any case, we consider that these motives ([✂] licensing) are not mutually exclusive and [✂] are likely to have contributed to Microsoft's decision to remove the two Bethesda games. Our reading of Microsoft's documents suggest that competition with rivals is likely to play a role in not concluding licensing agreements with them.

Microsoft's agreements with NVIDIA, Boosteroid and Ubitus

Parties' views

8.375 As noted above, Microsoft has made a variety of submissions regarding the agreements it has entered into with NVIDIA, Boosteroid and Ubitus.[1225] A number of these submissions relate to the impact of these agreements on the Merged Entity's incentives to foreclose post-Merger. Microsoft has submitted that, as a result of these agreements, our assessment of incentives 'has been radically altered'.[1226] Microsoft submitted that if Microsoft were to foreclose these three rivals, it would face [✂] claims from each of them.[1227]

8.376 Microsoft submitted that the NVIDIA agreement proves conclusively that Microsoft is incentivised to distribute Activision content widely.[1228] Microsoft added that the agreements with NVIDIA, Boosteroid and Ubitus show the strategy that Microsoft has maintained throughout that it wants to make its games available widely.[1229] Microsoft submitted that the CMA's analysis of its incentives to foreclose relies primarily on Microsoft's past conduct in making its first-party content available on rival cloud gaming services. Microsoft submitted that the NVIDIA Agreement provides more recent, and more relevant, evidence which undermines any suggestion Microsoft would seek to make Activision content exclusively available for streaming on Game Pass Ultimate post-Merger.[1230]

8.377 Microsoft submitted that the NVIDIA agreement comprehensively removes any incentive on Microsoft's part to withhold Activision content from NVIDIA.

[1224] Prior to the agreement entered into during the course of this inquiry.
[1225] In addition to the references cited in this section, see also Microsoft response to the Provisional Findings Addendum, 3 April 2023, paragraph 4.3.
[1226] Microsoft response to Remedies Working Paper.
[1227] Microsoft response to Remedies Working Paper.
[1228] Microsoft response to Provisional Findings, 2 March 2023, paragraph 1.2.
[1229] Microsoft response to Remedies Working Paper.
[1230] Microsoft response to Provisional Findings, 2 March 2023, paragraph 3.18.

Microsoft submitted that it shows that Microsoft's allegedly 'uniquely strong position in cloud gaming' has not incentivised it to foreclose its leading rival, NVIDIA, and that the opposite is in fact true. We assume these submissions apply equally to the Boosteroid and Ubitus agreements. Further, Microsoft submitted that it has agreed to make its first-party PC games available on NVIDIA GFN [✂] and that this reflects Microsoft's incentives to distribute its content widely, including through alternative cloud gaming business models (eg BYOG) to its own.[1231] We note Microsoft has agreed [✂].

8.378 Finally, Microsoft submitted that these agreements significantly reduce any incentive on Microsoft's part to withhold Activision content from other cloud gaming providers.[1232] Microsoft submitted that, in particular, the CMA's assessment of incentives relies heavily on the notion that Microsoft's strategy is driven by making its first-party content exclusively available on Game Pass Ultimate for cloud game streaming. Microsoft submitted that, having granted streaming rights to Activision content to other cloud gaming providers this alleged strategic driver is removed, ie Activision content will not be exclusively available for streaming through Game Pass Ultimate regardless of any foreclosure strategy.[1233] Microsoft further submitted that the potential gains from any hypothetical foreclosure strategy would be significantly reduced (ie as consumers would have at least one alternative choice).[1234]

Our assessment

8.379 We consider the evidence discussed above demonstrates that, absent the agreements, the Merged Entity would have an incentive to foreclose cloud gaming rivals in the UK. In this section, we are therefore considering whether the agreements with NVIDIA, Boosteroid and Ubitus impact this assessment.

8.380 As stated above in Chapter 7, the MAGs make clear that the CMA may consider any financial or reputational costs of terminating contracts in its assessment of foreclosure incentives. We consider it is possible in principle that the financial or reputational impacts of breaching these agreements could impact the Merged Entity's incentive to foreclose. However, we consider this depends on the likely consequences in the event the Merged Entity did adopt a foreclosure strategy and therefore breached the agreements, and the

---

[1231] Microsoft response to Provisional Findings, 2 March 2023, paragraph 3.21(b).
[1232] Microsoft response to Provisional Findings, 2 March 2023, paragraph 3.21(c); and Microsoft response to Remedies Working Paper.
[1233] Microsoft response to Provisional Findings, 2 March 2023, paragraph 3.21(c); and Microsoft response to Remedies Working Paper.
[1234] Microsoft response to Provisional Findings, 2 March 2023, paragraph 3.21(c). Microsoft also made similar submissions on incentive to foreclose in relation to all three agreements in its response to the CMA's Supplementary Evidence Paper.

materiality of those consequences in the context of an overall foreclosure strategy and the strength of the Merged Entity's market power.

8.381 In terms of the likely consequences of breaching the agreements, we acknowledge that breaching the agreements Microsoft has entered into with NVIDIA, Boosteroid and Ubitus would risk actions potentially being brought against Microsoft which could have financial and reputational impact. However, we have already discussed above that certain clauses within the agreements themselves introduce uncertainty, for example enabling [✂] in the event of [✂], which we consider is particularly relevant in a nascent and growing market like cloud gaming. In addition, for all three [✂]. Further, as already explained, contractual protections may more generally be renegotiated or terminated early or may not be enforced depending on the respective parties' bargaining positions (and Microsoft's overall strengths in cloud gaming discussed in this chapter is relevant in this regard). Accordingly, we consider there is considerable uncertainty as to what the consequences would be for Microsoft in relation to these agreements if it was to nevertheless engage in a strategy of total foreclosure and we have not received any evidence to indicate this would result in consequences that would outweigh the benefits we have identified above of pursuing a foreclosure strategy.

8.382 In respect of Microsoft's submission that the agreements prove conclusively that Microsoft is incentivised to distribute Activision content widely, we consider it is relevant that these agreements were entered into in the context of an ongoing merger review process. We consider that Microsoft entering into these agreements does not provide us with reliable evidence regarding its incentives in the same way as other past behaviour which is separate to the Merger and Merger review process, or our general analysis of the Merged Entity's incentives above. Accordingly, we do not consider the fact that Microsoft has entered into these agreements undermines our findings on its post-Merger incentives. Microsoft may have short-term incentives to enter into these agreements to seek to address the competition concerns arising from the Merger, but this is not informative of its longer-term commercial incentives.

8.383 Accordingly, we do not consider that these agreements materially impact the Merged Entity's incentive to foreclose cloud gaming rivals. In particular, we consider there is there is uncertainty as to any consequences of breaching these agreements. To the extent there were consequences, we have seen no evidence to suggest this would outweigh the incentives that we consider otherwise would exist to engage in a foreclosure strategy. Finally, we note that these agreements only cover three cloud gaming providers, whereas we are assessing whether the Merged Entity would have the incentive to use

Activision's games to foreclose cloud gaming service rivals in general, in what is an otherwise nascent and growing market.

Conclusion on the incentive to foreclose cloud gaming rivals

8.384 As set out above, we believe that cloud gaming will continue to grow and be profitable in the next five years. In a nascent market, particularly those characterised by some element of direct and/or indirect network effects, success is highly uncertain for new entrants, and there is a greater opportunity (and stronger incentive) for incumbents to engage in foreclosure strategies in a bid to acquire market power.

8.385 In this case, we believe Microsoft is already one of the strongest incumbents in cloud gaming services as evidenced by current market shares, and its multi-product ecosystem means that it is well positioned to compete in this market as it continues to grow and develop. As set out above in our TOH 2 framework, Microsoft will have a stronger incentive to foreclose given its uniquely strong position in cloud gaming.

8.386 These two factors suggest Microsoft would expect significant recapture, especially in the long run – something we put considerable weight on. We also consider, therefore, that even if Microsoft games were not entirely exclusive to xCloud, Microsoft would still recapture many sales when considering whether to foreclose further downstream competitors.

8.387 We also see that Microsoft's internal documents reveal a strategy of not making its first-party titles available on rival cloud gaming platforms. [✂].

8.388 With few exceptions (ie some Bethesda titles on some platforms), Microsoft's past behaviour shows that it has not made current AAA first-party content available on any cloud gaming service other than Game Pass Ultimate.

8.389 We do not consider the agreements which Microsoft has entered into with NVIDIA, Boosteroid and Ubitus materially alter our assessment.

8.390 As such, we find that Microsoft has the incentive to foreclose cloud gaming rivals, including the likes of NVIDIA GFN, Amazon Luna, Boosteroid, and potential new entrants [✂].[1235]

[1235] Therefore, we consider Microsoft has the incentive to foreclose all downstream rival cloud gaming services. However, we do not conclude that the incentive to foreclose each rival only holds if all other rivals are also foreclosed.

Effect of foreclosure

Introduction

8.391 This section considers the effect on competition in the market for cloud gaming services of a foreclosure strategy by the Merged Entity using Activision content. It considers whether any such strategy would result in substantial harm to overall competition in the downstream market.[1236] To assess this, we have considered the strength of Microsoft's cloud gaming service (including as a result of Microsoft's broader ecosystem set out above) and the strength of other cloud gaming service providers.

8.392 We have also considered barriers to entry and expansion. This includes the possibility of new providers entering the market, and the impact that a foreclosure strategy may have on their incentive to enter in the first place. Any negative effect on competition is likely to be larger if there are barriers to entry and expansion or if network effects are strong, as these may reinforce the Merged Entity's strength following a foreclosure strategy.[1237] Competition concerns may be particularly likely to arise if one of the merger firms has a degree of pre-existing market power in the downstream market, and already faced limited competitive constraints pre-merger.[1238]

Strength of different cloud gaming services

8.393 Understanding the strength of Microsoft and rival cloud gaming providers is important for two related reasons. First, it shows how concentrated the market is and how much competition Microsoft faces in cloud gaming. Second, it shows the likely impact that a foreclosure strategy could have in the competitive strength of rivals.

Parties' views

8.394 Microsoft submitted that it does not hold a uniquely strong position in cloud gaming services and noted that rivals have their own strengths and assets. As described above, Microsoft submitted that it does not use Azure or the Windows OS in its cloud gaming services today. It submitted that while Microsoft and other providers such as SIE and Amazon have first-party content, NVIDIA has become the leading cloud gaming provider without

[1236] CMA129, paragraph 7.20.
[1237] CMA129, paragraph 7.20.
[1238] CMA129, paragraph 7.21.

having any first-party content. It also submitted that Microsoft is behind both Amazon and Google on cloud infrastructure.[1239]

8.395 Microsoft submitted that its [✂] is evident from the fact that it has a [✂].[1240]

8.396 As discussed in detail above, Microsoft also submitted that cloud gaming reduces network effects as the cost of switching or multi-homing is less than for console gaming.

8.397 Microsoft submitted that with the NVIDIA agreement in place no cloud gaming SLC can arise from the merger, and that Merger will in fact enhance competition in cloud gaming services.[1241]

Our assessment

Internal documents

8.398 Internal documents describing Microsoft's competitors in cloud gaming and their respective strengths are discussed above in the section on Microsoft's potential strengths in cloud gaming. They show that Microsoft monitors and benchmarks itself primarily against [✂], although it also considers the potential competition from a wider group including [✂].

Shares of supply

8.399 As described above, the market for cloud gaming services is currently concentrated with the top three competitors having over 90% share of the market.[1242] It is, however, a developing market, and there has been recent entry and expansion by rivals. For example, Amazon Luna has recently entered the UK market and is only available in a small number of countries currently. [✂].

Evidence considered in Microsoft's potential strengths in cloud gaming section

8.400 As set out in the MAGs, 'Competition concerns may be particularly likely to arise if one of the merger firms has a degree of pre-existing market power in

[1239] Microsoft response to working papers; and Microsoft response to working papers.
[1240] Microsoft response to working papers.
[1241] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.21.
[1242] There are a small number of providers for whom we were not able to obtain MAU data to calculate shares of supply. However we expect that these providers are very small and would not meaningfully change the competitive assessment.

the downstream market, and already faced limited competitive constraints pre-merger.'[1243]

8.401 As described in detail above, we believe that Microsoft already has a strong position in cloud gaming services as a result of its multi-product ecosystem. This includes its strengths across PC OSs (Windows), cloud infrastructure (Azure), and first-party content (Xbox). Whilst rivals have their own strengths, for example Amazon on cloud infrastructure, NVIDIA on GPU technology, and SIE on first-party content, Microsoft appears to be in the strongest position as a result of its combined strength in these three key inputs for cloud gaming services.

8.402 Before considering the effect of a potential foreclosure strategy by the Merged Entity on the market for cloud gaming services, we consider the evidence we have seen on entry and expansion in the market.

Entry and expansion plans

8.403 The evolution of the cloud gaming services market is relevant to our assessment. Given our assessment is forward looking, entry and expansion plans absent the merger are helpful in assessing the extent to which competitive constraints are changing in this market, and also whether any foreclosure strategy is likely to have an effect on the market. We have set out the evidence we gathered on third parties' entry and expansion plans below.

- *Amazon Luna*

8.404 Amazon launched Amazon Luna in the UK (as well as in Germany and Canada) in March 2023, with the same game catalogue it has in the US.[1244]

8.405 Internal documents indicate that [✂].[1245] [✂].[1246]

8.406 [✂].[1247]

[1243] CMA129, paragraph 7.21.
[1244] 'Amazon Luna blog' accessed by the CMA on 29 March 2023.
[1245] [✂]Internal Document.
[1246] [✂] Internal Document.
[1247] [✂] Internal Document.

- *NVIDIA*

8.407 NVIDIA submitted that it continues to invest in technological innovations and adding the latest technology to its cloud gaming hardware and software to improve its service.[1248] An internal document from NVIDIA shows that [✂].[1249]

- *SIE*

8.408 An internal document from January 2021 describes [✂]. It shows that [✂]. It also shows [✂]. It shows [✂].[1250]

- *Nintendo*

8.409 Nintendo currently has a limited cloud gaming offer but in our view its history in gaming and strong first party content suggests it could expand. It noted that its [✂].[1251]

- *[✂]*

8.410 [✂].[1252] [✂].[1253]

- *Boosteroid*

8.411 Boosteroid submitted that it intends to reach 100 million MAUs[1254] by 2026. This is expected to be primarily due to [✂].[1255]

- *Others*

8.412 Other possible new entrants to cloud gaming services include Valve, Tencent, Netflix, [✂]. Valve and [✂] have not indicated current plans to enter or expand in cloud gaming.[1256] Tencent also stated that it does not have any specific expansion plans in cloud gaming.[1257] However, an internal document

---

[1248] [✂] response to the CMA's RFI.
[1249] [✂] Internal Document.
[1250] [✂] Internal Document.
[1251] [✂] response to the CMA's RFI.
[1252] [✂] call note.
[1253] [✂] call note.
[1254] MAUs defined as customers per month with active subscriptions. We consider this figure is likely over ambitious given other industry estimates described above eg the entire cloud gaming market is expected to have around 100 million revenue driving users in 2025. Nonetheless it demonstrates Boosteroid's plans for substantial growth.
[1255] Boosteroid response to the CMA's RFI.
[1256] Valve call note; [✂] response to the CMA's RFI.
[1257] Tencent response to the CMA's RFI.

from one potential competitor highlights the potential of these firms and how they might enter into cloud gaming.[1258]

8.413 Netflix is another potential entrant to cloud gaming. It indicated that it has publicly stated that it is exploring adding cloud gaming to its service. [✂].[1259]

8.414 We also note that some smaller current providers may have plans to expand, such as Blacknut as described above.

Conclusion on strength of different cloud gaming services

8.415 We believe that Microsoft already has a strong position in cloud gaming services. This can be seen from its current share of the market, and its short- and long-term advantages derived from its multi-product ecosystem. We consider we have seen ample evidence of Microsoft's strengths in its own documents, and in the assessment of third parties.

8.416 Besides Microsoft, the other key competitors appear to be Amazon, SIE, Boosteroid, and NVIDIA, [✂]. Whilst these competitors have their own respective strengths, none appears to have the full breadth of capabilities important to cloud gaming.

8.417 Amazon only recently launched in the UK, and is yet to launch in all other countries except the US, Canada and Germany. It currently has a very low market share worldwide [✂]. It is one of the few players with a strong existing cloud infrastructure. It lacks, however, first-party content or access to Windows on equal terms as Microsoft.

8.418 NVIDIA has a relatively high current market share and has a reasonably strong position in cloud infrastructure as a leading GPU manufacturer. Its market share of paid users however is much smaller. Although it does not have any first party content, it has been able to make a large library of third party content available.

8.419 SIE currently only offers cloud gaming as a way to play older games from its catalogue. It therefore does not currently offer a strong constraint, although this may change in the future if it expands its cloud gaming offer. It is likely to be weaker than other competitors such as Microsoft, Amazon, and NVIDIA on cloud infrastructure, as it does not have a large cloud infrastructure network or advantages in building one.

[1258] [✂] Internal Document.
[1259] Netflix response to the CMA's RFI.

8.420 Boosteroid has achieved a small market share since entering the market. It has developed its own cloud infrastructure and although it has no first party content, its BYOG model allows users to access a wide range of content. It also has plans for significant growth.

8.421 [✂] may also become a significant constraint [✂].

8.422 We consider that cloud gaming therefore appears likely to be a relatively concentrated market in the UK, with Microsoft enjoying a leading position and several advantages over its rivals. In a concentrated market, harm to rivals is likely to constitute harm to competition, unless there is some way to avoid that harm.[1260] We have considered which competitors might be affected by a foreclosure strategy, and to what extent, in the conclusion on effect section below.

8.423 In the section below, we assess barriers to entry and expansion in the market for cloud gaming.

Barriers to entry and expansion

8.424 This section considers the evidence on barriers to entry and expansion in cloud gaming. To the extent that barriers to entry and expansion increase the likelihood of a concentrated market for cloud gaming services, this increases the effect on competition of the foreclosure of any one individual potential competitor or group of potential competitors.

Parties' views

8.425 Microsoft submitted that cloud gaming reduces barriers to entry into gaming. It stated that, as cloud gaming is device agnostic and does not require the consumer to invest in hardware, gamers can easily switch and multi-home across services, reducing network effects. It submitted that evidence on the video streaming market suggests that many consumers multi-home thereby reducing barriers to entry as users are not 'captive' and are willing to try new services.[1261]

8.426 Microsoft further submitted that a large number of companies have entered cloud gaming in recent years indicating that barriers to entry are low, particularly for providers using a BYOG model.[1262] It also submitted that the

[1260] CMA129, paragraph 7.21.
[1261] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraphs 5.51-5.52.
[1262] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 3.92.

existence of cloud gaming infrastructure providers such as Ubitus, further reduces barriers to entry for new cloud gaming providers.[1263]

Our assessment

Third party views

8.427 One competitor [✂] stated that barriers to entry in cloud gaming were high, with the two most significant barriers being sourcing cloud infrastructure and acquiring content. It stated that for its service cloud infrastructure represents around [✂]% of the total cost of providing a cloud gaming service. It stated that content represents around [✂]% of the total cost, with the average price for licensing a AAA game being 10 million USD, often structured as minimum guarantees. It added that delivering high-quality content requires building a relationship of trust with game developers so that a platform can provide a comprehensive library to consumers. It also noted that as consolidation increases within the gaming sector, it will be difficult for any new or nascent cross cloud gaming service to establish a compelling library of content.[1264] The same competitor described how a large user base is necessary to attract developers to release games on a platform. It stated that game developers want assurance that their games will reach a certain group and number of users, and that if a cloud gaming platform already has an established user base, it would therefore be easier to reach an agreement with a game developer to license their games.[1265]

8.428 Another competitor [✂] submitted that new entrants face several challenges in providing a cloud gaming service, highlighting cloud infrastructure, OS licence costs, and acquiring content as the most significant. First, it stated that Microsoft and Amazon can leverage their large cloud infrastructure networks to gain a cost advantage over any other competitor. It added that a competitor using public cloud infrastructure eg Azure, AWS, or GCP, would face challenges with high costs, and not having control over maintaining and updating the infrastructure. Second, it stated that the requirement to pay a licence fee for Windows, or use a less suitable alternative OS, was another barrier. Third, it stated that cloud gaming services faced a challenge in obtaining ‘top games’ for their service. Whilst it noted that technical barriers to adding content to a service could be low, there were barriers on the business

[1263] Microsoft response to Supplementary Evidence paper.
[1264] [✂] response to the CMA’s RFI
[1265] [✂] response to the CMA’s RFI.

side in the form of exclusivity arrangements and requests for large upfront payments.[1266]

8.429 Internal documents from another competitor [✂]. They describe [✂]. It also describes [✂]. It further describes the [✂].[1267]

8.430 Another competitor [✂]submitted that barriers to entry in the wider gaming market (not restricted to cloud gaming) are generally low. It stated that the emergence of different business models in gaming had given developers more options to monetise and bring content to market in a way that makes sense to them and consumers. It submitted that this was reflected by the recent entry of competitors such as Amazon Luna, Netflix Games, Apple Arcade, and Epic Game Store. However, we note that of these, only Amazon has launched a cloud gaming service. This competitor also stated that restrictions that Apple imposes on gaming (including cloud gaming services) on its mobile OS have hindered the growth of cloud gaming.[1268]

Conclusion on barriers to entry and expansion

8.431 We believe that the evidence shows that there are significant barriers to entry and expansion in cloud gaming, including the cost of cloud infrastructure, the cost of acquiring content, and the need for economies of scale in order to drive down costs. Most entry to date has been by large companies with significant existing advantages in gaming or technology and the resources to overcome these barriers. Although there has been some entry by smaller companies, these have so far failed to gain any significant market share (with the possible exception of Boosteroid).

8.432 This increases the potential effect on competition of the foreclosure by an individual competitor. In a market characterised by network effects and a need for scale the barriers to expansion for new and emerging entrants are high. If entry and expansion barriers are already high, then any significant entry is harder. In these circumstances foreclosing any likely entrant will have a greater effect on competition.

8.433 The possibility of entry or expansion from game publishers to offset the possible loss of Activision content is considered in Chapter 9.

[1266] [✂]response to the CMA's RFI.
[1267] [✂] Internal Document.
[1268] [✂]response to the CMA's RFI.

Conclusion on effect

8.434 The evidence assessed on the effect of total input foreclosure using Activision content on competition in cloud gaming services suggests that Microsoft has significant strengths in the provision of cloud gaming services through its ownership of Windows and Xbox OSs, its cloud infrastructure capabilities, and its existing first party content. Whilst a few providers also have some capabilities relevant to cloud gaming, none is as strong across all important areas for cloud gaming as Microsoft.

8.435 Cloud gaming services are in their infancy, so current market shares do not provide the most accurate indication of the relevant strengths of different competitors. Nonetheless, current shares of supply also point in the direction of Microsoft being in a leading position in the market.

8.436 As for possible entry and expansion, we note that several providers are attempting or planning to enter or expand in cloud gaming. In particular Amazon has recently entered into the UK market, while new entrants [✂] are still at early stages and it is not clear what impact their entry may have. This suggests that, absent the Merger, the market may be poised to benefit from more competition.

8.437 There appear to be significant barriers to entry in the market, particularly the cost of cloud infrastructure, the cost of acquiring content, and the need to grow sufficiently to benefit from economies of scale. There are also material direct and indirect network effects, although these may be mitigated to some extent by the possibility of multi-homing.

8.438 The evidence therefore suggests that the market is relatively concentrated at present. The biggest constraints to Microsoft come from NVIDIA, and Amazon, both of which are significantly weaker than Microsoft. SIE could present a greater constraint in the future as it expands its cloud gaming service, although it has disadvantages on cloud infrastructure.

8.439 Given the small number of existing competitors and Microsoft's strength, loss of competition from any of these competitors would be concerning. A reduction in competitiveness in a market characterised by network effects can also raise the barriers to entry for others. Having concluded that, absent the Merger, Activision's content is likely to become available on cloud gaming services using a B2P or BYOG model, we believe that the immediate effects would be felt most strongly by players such as NVIDIA, Boosteroid, Amazon [✂]. As discussed in our ability assessment, we think that Activision content is sufficiently important for each of these competitors to such an extent that it would materially reduce each of their competitiveness. While we consider that

the case for all of these competitors, we note that not all competitors need to be foreclosed for foreclosure to result in substantial harm to overall competition in the downstream market. Furthermore, other competitors could also be adversely affected by foreclosure, and it could raise barriers to entry for potential new entrants, or smaller players wishing to expand into providing AAA games.

8.440 With regard to the Parties submission that the NVIDIA agreement addresses any concerns (which we understand also now extends to the Boosteroid and Ubitus agreements), as described above in the ability and incentive to foreclose sections, we do not consider it is appropriate to place material weight on these agreements and we do not consider these agreements materially alter the position as regards the Merged Entity's overall incentives. Further, we believe that the ability and incentive to foreclose other competitors such as Amazon and SIE, as well as smaller players looking to expand remains unaffected, as well as the ability and incentive to foreclose potential new entrants, [✂]. Even leaving aside the parties to these agreements with Microsoft, whilst Amazon has only recently entered the market and [✂], as described above both are large companies with advantages that could make them competitive in the market for cloud gaming, and able to impose a substantial constraint on Microsoft. Despite its expected disadvantages on cloud infrastructure, SIE could also provide a constraint given its first party content and reputation in gaming.

8.441 We have also concluded in the section on ability to foreclose, that in the counterfactual, Activision content would be a particularly important input to cloud gaming services, and that any alternatives are likely not to be sufficient to offset the loss incurred to cloud gaming rivals by foreclosure of Activision content. We therefore believe that Microsoft using Activision's content to foreclose rivals in cloud gaming services would distort the development of the cloud gaming market and result in substantial harm to overall competition in this market.

Conclusion on TOH2

8.442 We therefore believe that the Merger may be expected to result in a substantial lessening of competition in the market for the supply of cloud gaming services in the UK.

9. Countervailing factors

9.1 The CMA's MAGs indicate that, in some instances, there may be countervailing factors that prevent or mitigate any SLC arising from a merger.[1269]

9.2 There are two main ways in which this could happen:

(a) the entry and/or expansion of third parties in reaction to the effects of a merger; or

(b) merger efficiencies.[1270]

9.3 As we have found that an SLC may be expected to arise in the supply of cloud gaming services in the UK, we consider countervailing factors in relation to this SLC in this chapter. However, as we describe below, evidence on entry and expansion is also relevant to our assessment of the ability to foreclose in console gaming in Chapter 7.

Entry and expansion in game publishing

9.4 Entry, or expansion of existing firms, in response to a merger, can mitigate the initial effect of an acquisition on competition, and in some cases may mean that there is no SLC. In assessing whether entry or expansion might prevent an SLC, the CMA considers whether such entry or expansion would be timely, likely and sufficient to prevent an SLC.[1271]

9.5 In terms of timeliness, entry or expansion being effective within two years of an SLC arising would typically be considered by the CMA to be timely. However, depending on the nature of the market, the CMA may consider a period of time shorter or longer than this. In particular, a longer timeframe may be appropriate in dynamic markets.[1272] In assessing likelihood, we consider whether there are barriers to entry or expansion in game publishing services in the UK.

9.6 Although we have found that the Merger may not be expected to result in an SLC in console gaming services in the UK because the Merged Entity would not have the commercial incentive to withhold CoD from PlayStation, we

---

[1269] CMA129, March 2021, paragraph 8.1.
[1270] CMA129, March 2021, paragraph 8.1.
[1271] CMA129, March 2021, paragraph 8.31.
[1272] CMA129, March 2021, paragraph 8.33.

consider the evidence on entry and expansion in game publishing to be relevant for the assessment of the Merged Entity's ability to foreclose rivals in console gaming services.

Introduction

9.7 Before moving on to our assessment of any countervailing entry or expansion, we make some broad observations relevant to that assessment.

9.8 First, in assessing the likelihood of countervailing entry or expansion, it is important to consider what responses to foreclosure are more likely to effectively countervail an SLC. In response to foreclosure of Activision content from cloud gaming providers, game publishers may choose to make new games for foreclosed cloud gaming platforms. Users may also increase their gametime or spend on other existing games (to the extent they continue to use that service).

9.9 We consider that even if certain users were to increase their gametime or spend on other existing games, this would not prevent a platform's competitive offering from being harmed as a result of a lack of access to Activision's games. As set out in Chapter 7, with respect to consoles, Activision's games are already available on Xbox and PlayStation, and removing them from one console would harm that console's competitiveness. Some consumers would be expected to switch away, whilst those who decide to stay on that console would no longer be able to play Activision's games and would therefore be harmed by the reduction in game range.[1273] We consider that the same reasoning applies to cloud gaming services that would have had access to Activision's games in the counterfactual but would not have access to those games as a result of the Merger. Fewer consumers would be expected to choose the foreclosed cloud gaming provider, and there would be a reduction in game range for those that do choose to use that service.

9.10 Second, as per our counterfactual assessment, we also expect other major publishers to add their AAA games currently available on PC and/or console to cloud gaming platforms in the next five years absent the Merger, in a similar way to Activision games. Therefore, when assessing the importance of Activision's content to cloud gaming as part of our ability assessment in Chapter 8, as well as when assessing entry and expansion of rival publishers, we have assumed that these AAA games are already part of the competitive offering of rival cloud gaming platforms. As such, under countervailing factors

[1273] In other words, consumers would no longer have access to their first-choice of game(s), and would therefore move to playing another game(s) in circumstances where they would prefer to play an Activision game.

we are assessing the scope for new entry and expansion triggered by the Merger to countervail foreclosure.

9.11 Third, in our assessment of entry and expansion, the relevant question is not merely what action a rival 'could' theoretically take. It is also relevant to consider whether entering or expanding would be a profitable strategy. The cost to a rival publisher of developing a new franchise or improving an existing franchise may be prohibitive to the extent it faces high barriers to entry, and to the extent to which its likelihood of success is risky or uncertain (leading to lower 'expected' or 'probability-weighted' returns). Our focus in this assessment is on whether entry or expansion is likely to happen in response to the Merger.

9.12 Finally, we note that the market for cloud gaming services is nascent. As part of our counterfactual assessment, we found that this market is likely to continue to grow absent the Merger, and that Activision would likely have placed its content on cloud gaming services. In Chapter 8, however, we found that the Merger would bring about a structural change in the market that would give the Merged Entity the ability and incentive to foreclose rival cloud gaming platforms by withholding Activision's valuable content. We consider that the result of this structural change would be to inhibit these platforms from achieving the growth and scale that they may have reached absent the Merger. This would significantly reduce or eliminate any incentive for game publishers to develop new games for those platforms to countervail the effects of the Merger.

9.13 In any event, and as explored in detail below, we have found that there are significant barriers to entry and expansion in game publishing, which would affect the timeliness, likelihood, and sufficiency of any potential entry or expansion. Accordingly, for the reasons given below, we have found that it is unlikely that any entry or expansion in terms of new games (whether console, PC or cloud games) being made available for use on rival cloud gaming platforms, would prevent or mitigate the SLC that we have identified in cloud gaming services.

Barriers to entry and expansion

Parties' views

9.14 In relation to developing console games the Parties submitted:

(a) That barriers to entry in the supply of console games in digital form are low, reflecting the availability of mature software development tools, such as game engines and audio and video middleware which make the game

development process less burdensome. The Parties also submitted that it is increasingly easy to port games developed for PCs to consoles. These efficiencies allow for PC games to be adapted for consoles without the need to re-write the game from scratch.[1274]

(b) That the cost of developing and publishing console games varies, depending on the type of game(s) being developed. They stated that the development and publishing of console games may involve material investments in terms of costs, resources and marketing, as they are normally content heavy and offer an advanced gaming experience in terms of graphics, music, available options, gameplay mechanics, scope and depth of the storyline.[1275] The Parties also noted that some games that were developed as low-budget and low-resource games have also proven to be strong competitors (such as Minecraft and PUBG).[1276]

9.15 We do not assess here the submissions by Microsoft regarding whether Activision's content is 'irreplaceable' or whether there are alternative to it,[1277] as this is addressed in our assessment of ability in Chapter 8.

Our assessment

9.16 In the assessment that follows, we have considered a range of evidence. Some of that evidence is relevant directly to Activision's largest titles – CoD and WoW. Other evidence is related to entry and expansion to replace games more generally or is of relevance to Activision's broader library, including, but not limited to, those two titles.[1278]

Third party views

9.17 Third parties stated that it is difficult to develop an alternative to CoD because the costs and time taken to develop a game like CoD are significant. For example, one third party [✂] submitted that AAA titles take a long time to develop and involve significant production costs.[1279] This third party submitted that other publishers were unlikely to match CoD's annual release schedule and Activision's expertise and stated that other companies developing a CoD rival would have higher costs because they cannot build upon existing CoD game frameworks and experience.[1280] The third party also stated that other

[1274] Parties FMN.
[1275] Parties FMN.
[1276] Parties FMN.
[1277] Microsoft's response to the CMA's Supplementary Evidence Paper, 12 April 2023.
[1278] We note that Activision's largest franchises (excluding Candy Crush, which is a mobile game) are CoD, WoW, Overwatch and Diablo.
[1279] [✂] response to the CMA's RFI.
[1280] [✂], submission to the CMA.

experienced game developers like EA, who already have an incentive to improve their offering to match CoD, have failed in rivalling CoD's level of success.[1281]

9.18 A report by IDG submitted by a third party [✂] dated August 2021 notes that development budgets are reaching unprecedented ranges. The report observes that while 5 years ago most AAA console/PC releases had development budgets between $50-150 million, on average, games that are greenlit today, with a potential release in 2024-2025, are being approved for development budgets of $200 million or higher. Also, the report says that some AAA franchises like CoD have development budgets already exceeding $300 million, and the next GTA and other future tent-poles are also expected to hit $250 million or higher.[1282] Activision is also quoted in this report saying with reference to CoD: 'We have to make so much content for Call of Duty, that we can't even lean on one lead studio anymore. Now we need almost 1.5 lead studios for each annual CoD. That kind of bandwidth pressure is forcing us to use outsourcers more and more. I don't see that changing anytime soon.'[1283]

9.19 The above figures are consistent with submissions we received from other third parties. For instance:

(a) A publisher [✂] mentioned that the overall figures for development and marketing costs for major brands and their recent instalments are approximately Euro 150 million for pre-launch development costs and approximately Euro 50 million for launch marketing campaign costs.[1284]

(b) Another publisher [✂] reported development costs for its major AAA franchises ranging between more than $80 million to almost $350 million per title, and marketing costs reaching up to $310 million depending on the franchise.[1285]

(c) We received similar ranges from an additional publisher [✂]. Specifically, it reported a total of development and marketing costs between about $110 million and almost $380 million for some of its latest major releases.[1286]

(d) A fourth publisher [✂] submitted that the costs related to developing and regularly releasing new titles can vary significantly depending on the

---

[1281] [✂].
[1282] [✂] Internal Document.
[1283] [✂]Internal Document.
[1284] [✂] response to the CMA's RFI.
[1285] [✂] response to the CMA's RFI.
[1286] [✂] response to the CMA's RFI.

game type or business model of a particular studio. It provided an example that for one AAA game the development budget value could range between $90 million and $180 million, whereas the marketing budget could range between $50 million and $150 million. This publisher also submitted that for one of its major franchise's development costs reached $660 million and marketing costs peaked at almost $550 million.[1287]

(e) Finally, another publisher [✂] estimated that its development costs for seasonal updates for one of its first party titles range from approximately $50 million to $65 million.[1288]

Internal documents

9.20 The Parties' internal documents discuss the difficulty in replicating large franchises such as Activision's, around which demand coalesces due to network effects:

(a) One Activision document noted that demand continues to coalesce around major franchises, with each of the top-10 grossing games worldwide in the previous year being an established franchise that had been active for a decade (out of which Activision owns [✂] franchises). The document also added that there are [✂] in gaming, and highlights Activision's [✂] and the [✂].[1289]

(b) One Microsoft internal document explains that [✂], and that [✂]. However, the document goes on to note that [✂].[1290]

(c) An Activision presentation noted that 'while the concept of [✂] franchises has long been seen across media and entertainment, gaming franchises enjoy attributes that are unique to the sector, including [✂].[1291]

9.21 Along with strong network effects, the Parties' internal documents analyse various other barriers to entry and expansion in creating and sustaining a successful AAA franchise. One Activision document lists a range of factors that limit the threat from new entrants that attempt to build and sustain gaming franchises. It discusses the broad and deep capabilities required, especially as [✂] becomes more critical to [✂]; the fact that [✂] given [✂]; the [✂] of game platforms requiring [✂]; and challenges around [✂].[1292] The document

[1287] [✂] response to the CMA's RFI.
[1288] [✂] response to the CMA's RFI.
[1289] Activision Internal Document.
[1290] Microsoft Internal Document.
[1291] Activision Internal Document.
[1292] Activision Internal Document.

states that the durability of game franchises is driven by factors such as [✂].[1293]

9.22 Third party reports submitted by the Parties note that strong intellectual property make franchises successful and durable, with very few big successes being from new intellectual property:

(a) An analyst report prepared by a third party media and telecommunication research company noted that 'franchises are everything'; with the biggest franchises in video games dominating the industry and with 'longevity and relative strength that eclipse even the Hollywood analogue'. The report noted that these franchises can be built on owned and internally developed intellectual property, as is the case with most of Activision's IP, or leverage others' intellectual property, like Electronic Arts does with its respective sports franchises. The report stated that as the industry has evolved, the importance of franchises has steadily increased, as the biggest games year-to-year tend to come from established franchises. For example, of the top 20 best-selling games in the U.S. for 2020, only two could be labelled as new IP or unrelated to an existing franchise.[1294]

9.23 We have also seen evidence to suggest that the current state of the gaming industry is driven by established franchises and their enduring brand loyalty:

(a) One Activision document noted that concerns over the gaming industry being [✂] continue to [✂] as established franchises [✂]. The top-grossing game charts are dominated by established IP, with multiple factors driving the durability of game franchises. The document further noted that [✂] as Activision grows [✂].[1295]

(b) An analyst report prepared by a third party media and telecommunication research company also noted that, over the past decade, 'three mega-trends – digitization of distribution, in-game monetization, and franchise management – have transformed the video game business from what was a solid, albeit volatile, business, to what today is a very good, and much less volatile, business'. The document also notes that 'today's video game business is vastly better than the hit or miss driven industry of the past'.[1296] Whilst Activision submitted that this document was prepared by a third party research company, we consider that we can place weight on this evidence given that the document's purpose was to provide

[1293] Activision Internal Document.
[1294] Activision Internal Document.
[1295] Activision Internal Document.
[1296] Activision Internal Document.

information to institutional or professional clients considering investing in the video game industry.[1297]

Other evidence on barriers to entry and expansion

9.24 In this section, we first consider whether the presence of network effects at a game and/or platform level has an impact on the barriers to entry and expansion for games on cloud gaming and console services. Second, we consider the following additional barriers faced by a publisher to build a new game/franchise or reposition an existing game to make it better and more attractive to cloud and/or console gamers: (i) development costs; (ii) developer personnel; (iii) time taken for development; and (iv) other potential barriers such as existing content, brand awareness, and the likelihood of success.

- *Network effects*

9.25 As evidenced above, we consider there are strong direct network effects at a game level prevalent in both console and cloud gaming, particularly for multi-player games. This means that multi-player games create higher switching costs than single-player games because groups of gamers (eg friends) will have to coordinate their switch to a different franchise if they want to keep playing together. This therefore increases barriers to entry and expansion for new games. For instance, a report by IDG dated August 2021 and submitted by a third party [✂] mentioned that multiplayer sessions are more engaging and tend to retain players longer.[1298] Microsoft submitted that there is no evidence that network effects are a barrier to entry as some 1,500 multi-player PC games were published on Steam in 2022.[1299] In this context we note that Activision games, and particularly its largest franchises – CoD, WoW, Overwatch, and Diablo, are multiplayer games.

9.26 In consoles, there are also network effects at a platform level – some gamers might be keen to play with gamers on the same console. This implies that any hypothetical withdrawal or degradation of Activision games on rival platforms may generate an opportunity for other games to capture some of the players not willing to switch away from those platforms and increase their user base. The persistence of these network effects at a platform-level post-Merger would lower barriers to entry and expansion for new games.

[1297] Activision response to working paper.
[1298] [✂] Internal Document [✂].
[1299] Microsoft response to the CMA's Supplementary Evidence paper, based on Steam stats, accessed by the CMA on 17 April 2023.

9.27 Therefore, in consoles, assessing the impact of network effects on any barriers for games to expand would require a comparison of the strength of network effects at the platform level relative to those at a game level. The Parties submitted that network effects at a platform level are diluted by the presence of cross-play for large multi-player games and instead exist at a game level;[1300] however, we note that it is difficult to measure the effect of network effects on barriers to entry and expansion empirically. We consider network effects in conjunction with other barriers to entry in the assessment below.

9.28 In relation to cloud gaming, we consider platform-level network effects (ie network effects for a specific cloud gaming provider) to be less relevant (see further Chapter 8).

- *Development costs*

9.29 Data from the Parties and third parties shows that Activision games overall, and in particular CoD and WoW, had significantly higher development costs than other games, including SIE's games and third party publisher games (including shooters).

(a) Activision data showed that Activision spent more than [✂] in development costs on the CoD franchise in 2021, with an annual development cost of [✂] for each title. The annual development cost was similarly approximately [✂] in 2020, and [✂] in 2019. For WoW Activision spent [✂] in 2021, [✂] in 2020 and [✂] in 2019, while the sum of development costs for all top 12 Activision franchises was over [✂] in 2021.[1301]

(b) By comparison, [✂] data on the development costs of four of its AAA games – [✂] – indicates that each of these titles cost [✂] to develop overall, with annual costs of [✂].[1302] Similarly, the costs of other games and shooters have been lower than CoD as per game industry reports; for example, while we do not have annual spending figures, it has been reported that Battlefield 4, the game closest to CoD in terms of gameplay features, is reported to have cost $100 million in total.[1303]

9.30 As noted by the Parties, development costs vary significantly depending on various factors such as the type of game being created, the size and

---

[1300] Microsoft response to working papers.
[1301] Parties Internal Document.
[1302] [✂] Internal Document.
[1303] The 12 Most Expensive Games Ever Made & How Much It Cost To Make Them', accessed by the CMA on 23 January 2023.

experience of the development team, the length of the game development process, whether or not the game is offered as an ongoing live service, the amount of marketing and promoting, as well as the distribution channels.[1304]

9.31 We note that CoD in particular has various features noted by the Parties above that lead to it having significantly higher development and ongoing maintenance costs than most other games, such as:

(a) **Multi-player game with complex storyline**: CoD is a large multiplayer game, with high graphical intensity and complex storylines that take time and resources to develop. CoD is also offered as a live-service game.

(b) **Frequent (annual) releases**: Activision releases a CoD game every year. This contributes to CoD's success as it draws gamers to the franchise due to its familiarity.

(c) **Developers**: As evidenced further below, CoD has a large number of developers working on it to enable the frequent releases and offer the complex multi-player experience noted above.

(d) **Multiple rotating studios**: Each release in the CoD franchises takes 3-5 years to develop given the complexity of the game and frequency of release. Activision has four rotating lead studios (Sledgehammer, Infinity Ward, Treyarch and Raven Software), each supported by several other studios. For example, more than 11 studios reportedly contributed to developing Call of Duty: Modern Warfare 2.[1305] Evidence from Activision showed that in the UK alone, [✂] worked on 'development, localization, and tech' of CoD games.[1306]

(e) **Marketing and distribution**: CoD also has high marketing and promotional budgets relative to most other games to support its frequent releases, and is distributed through various channels.

9.32 A report by IDG submitted by a third party [✂] dated August 2021 also emphasised the increasing cost of developing games. For instance, the report mentioned AAA development is becoming more complex with more moving parts, including live operations and multiplayer feature sets. AAA development also requires a larger number of platforms to create content for, which also increases development budgets.[1307] As regards other factors that play a role in these increasing costs, the report listed increasing labour costs, gamers

---

[1304] Parties FMN.
[1305] 'Call of Duty Leaker Claims 11 Studios are Working on Modern Warfare 2', accessed by the CMA on 30 December 2022.
[1306] Activision site visit.
[1307] [✂] Internal Document.

asking for more content both at launch and through live operations later, talent shortages, rapid growth of the games market, and cross-platform development.[1308]

9.33 The evidence above indicates that developing a multi-player franchise with a complex storyline and frequent releases such as CoD would require significantly high development and promotional budgets.

- *Developer personnel*

9.34 The Parties stated at the site visit and the Main Party Hearing that [✂].[1309] The Parties' and third parties' data shows that CoD had more developers working on the game than most other titles, including Microsoft and SIE's first party titles.

(a) Activision data shows that CoD utilised more than 2000 full-time employees (**FTE**) in 2021.[1310] Activision's Annual Report states that, of its c. 9000 employees, over 3000 people are now working on the franchise.[1311]

(b) The Activision data also shows that WoW had over [✂] FTEs in 2021, Overwatch had over [✂] and Diablo had over [✂].[1312]

(c) Also, as noted above, a report by IDG submitted by a third party [✂] quoted Activision Blizzard as saying that it has so much content for CoD that it needs almost 1.5 lead studios for each annual CoD. Further, Activision is claimed in the report to have said that it typically uses about 15 outsourcing/co-development partners for a $100 million game, and 20-30 different partners for a larger game.[1313]

(d) By comparison, in 2021 Halo utilised [✂], Minecraft [✂] and Forza used [✂] developers only, which included both FTE and external developers.[1314]

(e) Similar figures were submitted by another third party [✂] for [✂] and [✂]. Specifically, roughly [✂] to [✂] FTEs were estimated to support the development and release of any given seasonal update of [✂]. [✂] is

[1308] [✂] Internal Document.
[1309] Activision, Main Party Hearing transcript.
[1310] Parties Internal Document.
[1311] Activision Annual Report 2021, page 2, accessed by the CMA on 30 January 2023.
[1312] Parties Internal Document.
[1313] [✂] Internal Document.
[1314] Parties response to the CMA's RFI.

currently supported by approximately [✂] to [✂] personnel (both FTEs and part time).[1315]

(f) Four of [✂] top first-party AAA titles by revenue from the past five years had a combined peak workforce of [✂] FTEs.[1316]

9.35 The same report by IDG dated August 2021 cited above and submitted by a third party [✂] also emphasised the importance and costs of developing personnel. Specifically, the report observes that in-house labour costs for game developers, artists, engineers are going up significantly because of talent shortages and the rapid growth of the games market.[1317]

9.36 We therefore consider that a new entrant or an existing publisher would require a significant number of developers to build a game that is equivalent to CoD. We consider that building a game equivalent to Activision's other major franchises (WoW, Overwatch, and Diablo) would also require a significant number of developers, given in 2021 the number used was [✂].

- *Development time*

9.37 We also note that large multiplayer games like CoD, WoW, and Overwatch takes significant time to develop. Evidence submitted by third parties and from public sources indicates that large AAA games take about 3 to 5 years to develop.[1318]

9.38 For instance, a report by IDG dated August 2021 and submitted by a third party [✂] reported that each CoD release has a 4 to 5 year development cycle that is compressed into 3 years.[1319]

9.39 Also, one publisher [✂] submitted that for the titles of its major franchises the duration of the pre-release development phase is typically 3 years, however it may take even longer (up to 8 years) in case of substantial changes to the game mandate in the course of the development.[1320]

9.40 We note that similar to development costs above, the time taken to develop a game can vary substantially depending on the type of game, its gameplay features, budget, etc. However, as above, given CoD is a multi-player game

---

[1315] [✂] response to the CMA's RFI.
[1316] [✂] Internal Document.
[1317] [✂] Internal Document.
[1318] See for example How Long Does It Take To Develop a Video Game? (geekygamingstuff.com), accessed by the CMA on 27 January 2023.
[1319] [✂] Internal Document.
[1320] [✂] response to the CMA's RFI.

with a complex storyline and extensive gameplay features, we are of the view that it takes longer to develop a game like CoD relative to many other games.

- *Content, brand awareness and likelihood of success*

9.41 The evidence above also indicates that, in addition to the costs, time and developer resources required to build large AAA franchises such as CoD, WoW, Overwatch, and Diablo, there are additional barriers to entry and expansion:

(a) **Existing content:** Internal documents and third party views mentioned above indicate that strong 'intellectual property' (which we understand to mean content in this context) makes franchises successful and durable, with very few big successes being from entirely new content/franchises.

(b) **Brand awareness:** We further note that large games such as many Activision franchises have a high level of gamer awareness and loyalty to the brand, which may be difficult to replicate for a new game. These barriers would be lower for existing games wanting to expand as they would already have an existing user base; however, specifically in relation to CoD the evidence in Chapter 7 shows that CoD's closest alternatives are significantly behind CoD in terms of their consumer spend and gameplay time on PlayStation, and are likely to still face some barriers to expansion in terms of their existing user base.

9.42 **Likelihood of success:** The evidence above also indicates that the probability of success is relatively low for a new game (or for the expansion of an existing small game). For example, as discussed in Chapter 7, our assessment of data submitted by the Parties shows that only [✂]% of titles have made it to the top 25 games over the past five years.[1321] While not Microsoft's own view, we have also seen an email from the [✂] mentioning [✂] difficulties in entering the gaming market. Specifically, the email notes '[✂].'[1322] This suggests that trying to emulate large AAA franchises is very risky and poses an additional barrier to entry and expansion in game publishing.

9.43 Games like Fortnite and PUBG have been successful with lower development costs and no existing brand recognition. However, while successes such as these do emerge, Activision's success and importance has been durable over time. Whilst some publishers may enjoy significant success, individual

[1321] Microsoft response to the phase 2 Issues Statement, 31 October 2022, paragraph 3.43f.
[1322] Microsoft internal document.

examples of such success are not sufficient to demonstrate that barriers to entry and expansion are 'low'.

Conclusion on barriers to entry and expansion

9.44 For cloud gaming the relevant question to our assessment here is whether new entry or expansion by rival games will occur to such an extent that the impact of making Activision content unavailable to rival cloud gaming service providers would be reduced to a level where any SLC is prevented or mitigated (relative to a scenario where Activision content had become available). It is in this context that we assessed barriers to entry and expansion. Based on the above evidence, our view is that there are some significant barriers to entry and expansion pre-Merger in publishing a large, successful, and enduring franchise such as CoD and other Activision content, particularly in terms of budget and skilled employees.

9.45 We consider the evidence presented above to be relevant for the assessment of the ability of the Merged Entity to foreclose in console gaming services as well. Based on the evidence above, we find that there are some significant barriers to entry and expansion pre-Merger in publishing a large, successful, and enduring franchise such as CoD for console.

9.46 Moreover, in both console and cloud gaming services, established games have a competitive advantage relative to newly conceptualised games. While there are examples of successful AAA games that were developed with a relatively low budget and in a short period of time (eg Fortnite, PUBG), we consider that this is not indicative of the barriers to entry and expansion for an exceptionally successful AAA game such as CoD (or other Activision games) more generally.

Recent entry or expansion and prospects of further entry and expansion

9.47 In this section, we consider whether there have been any examples of entry or expansion in the markets for game publishing (whether for PC or console) in recent years which may indicate whether this may also be likely post-Merger in the event of rival cloud gaming services being foreclosed from accessing Activision's content. We also consider the evidence relating to the prospects of entry or expansion following the Merger. We note that most of the evidence is relevant to console gaming as well, and therefore is relevant to our assessment of the Merged Entity's ability to foreclose in console gaming services discussed in Chapter 7 above.

Parties' views

9.48 Microsoft submitted that there have been various tech and entertainment entrants in recent times in game publishing, such as Amazon (which has published two games in the top 10 most-played games on Steam—Lost Ark and New World); Warner Bros. Games (Lego, Mortal Combat, Harry Potter); Netflix; and Facebook.[1323]

9.49 Microsoft also submitted that there has been consistent entry and a reduction in concentration in game publishing over the past decade, as the industry has expanded and become fragmented. It submitted that academic research shows that, while the combined revenues of the 10 largest game publishers has grown from $23 billion in 2002 to $150 billion in 2021, their total market share in the global games industry has dropped from 90% to 57% over that same period.[1324]

Our assessment

Third party views

9.50 In relation to our assessment of the potential foreclosure of SIE in the console gaming market, we asked publishers of other games on PlayStation whether their strategy and incentives would change in the event that CoD were to be no longer available on PlayStation.

9.51 Publishers stated that their strategy would likely remain unchanged. For example, one publisher [✂] told the CMA that it believes that its strategic incentives regarding video game development and publication would remain unchanged and that CoD no longer being available on PlayStation would be 'unlikely to materially affect the opportunities available to grow [their games'] user base.'[1325] Another publisher [✂] stated that it does not believe that it would present them with a meaningful opportunity to grow and expand.[1326] We note, however, that the CEO of one rival publisher stated that, if CoD were no longer available on certain platforms, it would provide a tremendous opportunity for their rival shooter franchise.[1327]

[1323] Microsoft response to working papers.
[1324] Microsoft response to working papers.
[1325] [✂] response to the CMA's RFI.
[1326] [✂] response to the CMA's RFI.
[1327] 'Electronic Arts, Inc. (EA) Goldman Sachs Communacopia + Technology Conference Call Transcript' accessed by the CMA on 18 January 2023.

9.52 We also asked SIE to provide internal documents that refer to or discuss plans, contingency plans, and/or strategies aimed at reacting to and/or reducing any perceived impact of the Merger.

(a) SIE emphasised the importance of CoD to PlayStation and the impact that losing it would have on PlayStation, [✂]. SIE also submitted that if the Transaction were allowed to proceed, [✂]. [1328]

(b) A review of SIE's internal documents was consistent with the above statements [✂], albeit the CMA considers limited weight should be placed on this given these strategies and documents were developed in the context of the ongoing merger review. In any event, given the evidence set out above regarding the importance of CoD to PlayStation, we consider that SIE would not be able to effectively mitigate any SLC that arises as a result of the Merger through expansion. Although we have not found an SLC in console gaming services, this evidence is nevertheless relevant to our assessment of countervailing entry or expansion in game publishing for cloud gaming services.

9.53 We consider that if SIE and other game publishers were unlikely to change their strategy if CoD were removed from PlayStation, they would be even less likely to do so as a result of Activision's content being unavailable on cloud gaming providers, given that the market for cloud gaming services is nascent, and most platforms currently lack the scale or user base necessary to incentivise game publishers to develop new games specifically for those platforms (which, we have found, will only be exacerbated by the Merger).

Internal documents

9.54 The Parties' internal documents discuss the failure of large [✂] companies previously not present in game publishing in building successful game software businesses.

(a) One Activision document notes how many new entrants in gaming, despite being [✂], have failed over the years. For example, it discusses how:[1329]

(i) Between 2005 and 2016, [✂], before exiting the game publishing business.

[1328] See, for instance, SIE response to the CMA's s109 notice; SIE response to the CMA's s109 notice; SIE response to the CMA's s109 notice; SIE, follow-up response to the CMA's s109 notice.
[1329] Activision Internal Document.

(ii) [✂] in the category in 2014.

(iii) [✂].

(b) Another Activision document notes that [✂] continue to get bigger, and invest in gaming [✂], while lacking [✂]. The document cited examples of [✂].[1330]

9.55 While we note that the documents also discuss [✂], we consider the evidence overall indicates the difficulty in creating high-quality successful content [✂].

Conclusion on recent entry of expansion and prospect of further entry or expansion

9.56 Overall, while there has been entry and expansion of games published on PC and console, the above evidence suggests that even large companies can struggle to make large, successful games. In particular, we note that, with the exception of Fortnite, there are few games that (i) are at a similar size and scale to CoD; and (ii) are sufficiently similar to CoD to demonstrate the feasibility of developing an effective alternative to CoD.

9.57 Additionally, we have not seen evidence to suggest that SIE or third party publishers would enter or expand by creating a new game that can replace CoD, or other significant Activision content. As such, as discussed in above, we consider they would be even less likely to do so as a result of Activision's content being unavailable on cloud gaming providers. Overall, this suggests it would be unlikely publishers would develop or expand games to a sufficient extent to replace Activision's major franchises such as CoD and WoW.

Conclusion on entry and expansion in game publishing

9.58 We have considered the timeliness, likelihood and sufficiency of any entry or expansion from existing players and third parties in game publishing on cloud gaming services, and the extent to which this could prevent or reduce the impact of any SLC from arising as a result of the Merger.

9.59 Our assessment has focused on the extent that games will be developed or expanded that can replace Activision major franchises, such as CoD and WoW. We have given careful consideration to the range of games currently available, the evidence that demand coalesces around big, familiar franchises, and that those franchises (particularly CoD and WoW along with other such as Overwatch and Diablo) have demonstrated significant staying

[1330] Activision Internal Document.

power. We also note that the skills, assets, and resources that have given rise to Activision's position across its games are the same factors that will determine its ability to come up with new successful content in future. While we realise that the list of games is not static and publishers frequently release new games, some of which go on to be very successful, it is in this context that we consider whether developed or expanded games will be timely, likely and sufficient to replace Activision content.

(a) In relation to likelihood, we consider the evidence above (in particular on third parties' plans to expand and the significant barriers to entry) shows that it is unlikely that publishers would create a new game or expand an existing game that becomes a close substitute for Activision's major franchises such as CoD and WoW, to mitigate the impact of any SLC in cloud gaming services.

(b) Given the evidence above on the time taken to develop a major franchise such as CoD or WoW, we consider unlikely that an effective alternative to Activision's content, would emerge in the near future on cloud gaming services.

(c) In relation to sufficiency, the evidence shows that, whilst it is likely that there will be new games that are developed, they are not likely to be an effective alternative to Activision's major franchises such as CoD or WoW.

9.60 Therefore, our view is that it is not likely that entry or expansion of sufficient scale would occur in a timely manner in order to prevent or reduce the impact of the SLC in cloud gaming services in the UK from arising as a result of the Merger.

Entry and expansion due to cloud gaming agreements

9.61 We also note that Microsoft submitted that, to the extent that the CMA takes the view that the NVIDIA Agreement does not represent an efficiency (which is discussed further below), the CMA must take into account the agreement as a countervailing factor offsetting any lessening of competition identified. Microsoft referred to paragraphs 8.28-8.30 of the MAGs when making this point, so we take this as a submission on entry and expansion. Microsoft presented this on the basis that, by making additional popular content available on the NVIDIA platform, the Merger will result in NVIDIA expanding its offering and exerting a stronger competitive constraint on the Merged

Entity.[1331] We assume the same submission applies to the Boosteroid and Ubitus agreements.

9.62 We have already considered these agreements in the context of the Merged Entity's ability and incentive to engage in foreclosure in the cloud gaming market in the UK in Chapter 8, and we consider the same points apply here. In particular, contracts may be of limited duration and, over time, may be renegotiated or terminated and firms may waive their rights to enforce any breaches in light of their overall bargaining position. There is also specific uncertainty as a result of certain clauses in those agreements, as discussed in Chapter 8 and below in Chapter 11. We consider this is further exacerbated by our findings that Microsoft more generally would have the incentive to foreclose cloud gaming rivals. We consider, as a result of these limitations, that these agreements are insufficient to demonstrate that they will result in expansion as a result of the Merger that will be timely, likely and sufficient to prevent an SLC from arising.

Efficiencies

9.63 Efficiencies arising from a merger may enhance rivalry with the result that the merger does not give rise to an SLC. In order for us to take efficiencies into account, they must:

(a) enhance rivalry in the supply of those products where an SLC may otherwise arise;

(b) be timely, likely and sufficient to prevent an SLC from arising;

(c) be merger-specific; and

(d) benefit customers in the UK.[1332]

9.64 The MAGs make it clear that merger firms who wish to make efficiency claims are encouraged to provide verifiable evidence to support their claims in line with the CMA's framework.[1333] The MAGs note that it is for the merger firms to demonstrate that the merger will result in efficiencies.[1334]

9.65 In its response to the Provisional Findings, Microsoft put forward efficiencies in relation to both the supply of console gaming and in the supply of cloud gaming services.[1335] As we have found that an SLC may not be expected to

---

[1331] Microsoft response to the provisional findings, 2 March 2023, paragraph 4.21.
[1332] CMA129, paragraph 8.8.
[1333] CMA129, paragraph 8.7.
[1334] CMA129, paragraph 8.15.
[1335] Microsoft response to the Provisional Findings, 2 March 2023, section 4.

arise in the supply of console gaming services in the UK, we do not consider efficiencies relating to that market further.

Parties' views

9.66 Microsoft submitted that its agreement with NVIDIA constituted a rivalry-enhancing efficiency in cloud gaming. Microsoft explained that currently Activision content is not available on any cloud gaming service and that, as a result of the NVIDIA Agreement, Activision content will be made available on NVIDIA GFN post-Merger.[1336] Microsoft submitted that this would enhance competition in cloud gaming and result in a greater choice of goods and services.[1337]

9.67 Microsoft submitted that the benefit was timely and likely, as under the NVIDIA agreement, should the merger proceed, Activision content will be made available on multiple cloud gaming services. Microsoft added that [✂].[1338]

9.68 Microsoft further submitted that the benefits of the efficiency would be substantial. Microsoft explained that by making this content available for streaming, customers will face a lower cost of accessing Activision's high-performance games as they will no longer need to purchase a console or high-performance PC. Microsoft explained that it estimated that there were over 1 billion PC gamers globally and 18 million UK gamers that could not currently play CoD as they owned a low-performance PC, but would be able to do so post-Merger.[1339]

9.69 Microsoft also claimed that the efficiency was Merger-specific. Microsoft explained that the Parties disagreed with the CMA's provisional conclusion that, absent the Merger, [✂]. Microsoft also explained that even if this provisional conclusion was correct, there is [✂]. Microsoft submitted that following the signing of the NVIDIA agreement, the Merger will ensure that Activision content is available on multiple cloud gaming providers, thereby enhancing rivalry compared to the counterfactual and delivering significant benefits to consumers.[1340]

9.70 Microsoft further submitted that the benefits of the efficiency will offset the SLC identified by the CMA. Microsoft submitted this was because the cloud gaming segment is *de minimis* and is expected to remain so and that, as a

---

[1336] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 4.11.
[1337] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 4.12.
[1338] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 4.12(b).
[1339] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 4.12(c).
[1340] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 4.12(d).

result, any SLC will be limited. Microsoft submitted this was even more so given that in reality the SLC [✂].[1341]

9.71 In addition to its efficiency claim, in its response to the Remedies Notice, Microsoft submitted that the NVIDIA agreement qualified as an RCB, to be taken into account as part of our remedies assessment. We consider the question of the claimed Cloud Gaming RCB in Chapter 11 (Remedies) below.

Our assessment

9.72 We consider below the claimed efficiency arising from the NVIDIA agreement in relation to the factors set out above in line with our published guidance.

9.73 We note that, subsequent to its response to the Provisional Findings, Microsoft also signed agreements with Boosteroid and Ubitus. While we did not receive specific efficiencies submissions on these agreements, we have also included these in our assessment for completeness, as we consider that similar considerations apply.

Merger-specificity

9.74 In line with our guidance, we consider here whether the claimed efficiency is reliant on the Merger, or whether it would be brought about by other means.[1342]

9.75 In Chapter 8 above, we concluded that Activision would likely have made its games – including day and date releases – available on cloud gaming services in the next five years. This is not [✂], nor is it limited to Activision only making its content available to a single cloud gaming service, as Microsoft has suggested.

9.76 In this context, we therefore consider it likely that any benefits that may arise as a result of Activision content being made available to rival cloud gaming service providers under the NVIDIA, Boosteroid and Ubitus agreements would accrue absent the Merger. Further, the evidence does not suggest the Merged Entity would have a greater incentive to enter into these agreements than Activision would absent the Merger.[1343] Rather, we consider Activision's incentives to make its content available on cloud gaming services absent the Merger are greater than Microsoft's incentives post-Merger. We note also our assessment of merger-specificity in relation to the Cloud Gaming RCB in

[1341] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 4.13.
[1342] CMA129, paragraph 8.16.
[1343] CMA129, paragraph 8.17.

Chapter 11 (Remedies) below, which we consider equally applies here. As a result, we consider that any efficiency arising from the NVIDIA, Boosteroid or Ubitus agreements cannot be considered to be Merger-specific.

9.77 As any efficiencies relating to the agreements with NVIDIA, Boosteroid and Ubitus are not Merger-specific, we do not consider that they constitute efficiencies that may prevent an SLC by offsetting any anti-competitive effects. However, even if these agreements were Merger-specific, they would not have a material impact on the SLC for the reasons given below.

Timeliness/likelihood

9.78 We note Microsoft's claim referenced above that [✂]. Should this claim be realised, the claimed efficiency would be felt within the timeframe covered by the CMA's competitive assessment. If similar timeframes could be achieved in relation to the agreements with Boosteroid and Ubitus, any efficiencies arising from those agreements may also be felt within the timeframe covered by the CMA's competitive assessment.

9.79 However, in terms of likelihood, our guidance is clear that the merger efficiencies must be likely to be realised.[1344] We note that contracts in general contain an inherent degree of uncertainty. For instance, over time contracts may be renegotiated or terminated, and firms may waive their rights to enforce any breaches in light of their overall bargaining position. Further, in relation to these specific contracts, there are certain clauses which we consider introduce further uncertainty, which we have already discussed above in Chapter 8 (and we also refer to our analysis below of the agreements in Chapter 11, which is also relevant here). As such, we consider there is considerable uncertainty as to whether these agreements are likely to result in rivalry-enhancing benefits within a reasonable timeframe.

Rivalry-enhancing/sufficiency and benefits to UK customers

9.80 We accept that any efficiencies resulting from the agreements with NVIDIA, Boosteroid and Ubitus would be capable at least in principle of benefiting some customers in the UK, in the sense that they may bring Activision's content to these rival cloud gaming providers. However, we have already discussed above the uncertainties which exist in relation to these agreements and the analysis in this regard in Chapter 8 and Chapter 11 is also relevant here.

[1344] CMA129, paragraph 8.13.

9.81 In Chapter 8 above, we identified an SLC in relation to the supply of cloud gaming services in the UK. The SLC arises due to vertical effects resulting from input foreclosure. As our concern relates to the withholding of Activision content generally by Microsoft, and the impact this would have on competition in the market, provision of this content that is limited to certain providers (who are all either BYOG or B2B providers) would not enhance rivalry across the market and would rather put select market participants at an advantage compared to the rest of the market. Even if these participants were to account for a large portion of the market, an advantage given to certain market participants alone would not in our view be rivalry enhancing, particular in the context of a nascent market with other participants using a variety of business models (also not always involving Windows OS) and where future entry/expansion and changes in the competitive landscape are to be expected.

9.82 Further, any efficiency benefit must be considered in the context of our conclusion that the Merged Entity would have the ability and incentive to pursue a foreclosure strategy in the supply of cloud gaming services in the UK where Microsoft has a strong position, reducing the constraint from a range of actual and potential competitors. We have concluded that Activision content, including day and date releases, would likely have been made available on cloud gaming services absent the Merger. As such, and in the context of a nascent and growing market,[1345] we find that any additional benefit of Activision content being available on NVIDIA, Boosteroid, and Ubitus' cloud gaming services under the terms of these agreements would be small and transitory, and is likely to be considerably less significant in magnitude than the harm of it being withheld from the rest of the market more generally.

Conclusion on efficiencies

9.83 Taking into account the available evidence and the considerations set out above, our view is that it is not likely that any efficiencies arising from the Merger will be of sufficient magnitude and benefit to UK consumers to prevent the SLC we have found in the supply of cloud gaming services in the UK.

[1345] See further Chapter 8 for our assessment of the growth prospects of the cloud gaming services market which we consider contradict Microsoft's submission that the market is expected to remain de minimis in future.

10. Conclusion on SLC

10.1 As a result of our assessment, we conclude that the anticipated acquisition of Activision by Microsoft constitutes arrangements in progress or in contemplation which, if carried into effect, will result in the creation of an RMS.

10.2 We also conclude that the creation of that situation may be expected to result in an SLC in the supply of cloud gaming services in the UK, due to vertical effects resulting from input foreclosure.

11. Remedies

Introduction

11.1 Having found that the Merger may be expected to give rise to an SLC in the market for cloud gaming services in the UK, we must decide whether, and if so what, action should be taken to remedy, mitigate or prevent that SLC or any adverse effects resulting from the SLC.[1346]

11.2 This chapter sets out our assessment of, and final decision on, the appropriate remedy to the SLC and resulting adverse effects we have found. In particular, this chapter discusses:

(a) our remedy consideration process;

(b) framework for the assessment of remedies;

(c) overview of remedy options;

(d) effectiveness of prohibition of the Merger;

(e) effectiveness of partial divestiture;

(f) effectiveness of behavioural remedies;

(g) consideration of the proportionality of effective remedies, including assessment of potential RCBs put forward by Microsoft; and

(h) our final decision on remedies.

Our remedy consideration process

11.3 On 8 February 2023, we notified the Parties that we had provisionally identified an SLC in two markets in our Provisional Findings: the market for console gaming services in the UK and the market for cloud gaming services in the UK. Alongside the Provisional Findings, we published a Notice of Possible Remedies (the **Remedies Notice**). In the Remedies Notice, we sought views on possible remedies to these SLCs. In particular, we sought views on prohibition of the Merger, partial divestiture of the Activision business, and behavioural remedies. The Parties responded to our Remedies Notice on 22 February 2023, and separate response hearings were held with Microsoft on 27 February 2023, and with Activision on 1 March 2023. The

[1346] Section 36(2) of the Act.

Parties provided further submissions following their response hearings (on 6 March 2023 in the case of Microsoft and 7 March 2023 in the case of Activision).

11.4 On 24 March 2023, we notified the Parties of the Addendum to the Provisional Findings in which we set out our provisional view that additional evidence received since the publication of our Provisional Findings meant that we considered there to be only one provisional SLC, ie in cloud gaming services in the UK. On the same date, we shared a working paper with the Parties (the **Remedies Working Paper**), which set out our provisional decision that prohibition of the Merger would be the only effective and proportionate remedy to the provisional SLC in cloud gaming services based on our consideration of the written and oral responses received from Microsoft, Activision and third parties following the Remedies Notice.

11.5 On 31 March 2023, we received a response to the Remedies Working Paper from Microsoft, and held a call with the Parties on 4 April 2023 to discuss its response to the Remedies Working Paper.

11.6 In addition, we contacted a number of third parties to discuss potential remedy options. We held calls with seven third parties and received questionnaire responses from eight third parties.[1347] On 30 March 2023, we received a submission from SIE setting out its observations on Microsoft's published responses to the Remedies Notice, and a further submission from SIE on 11 April 2023 setting out its views on Microsoft's revised remedy proposal of 3 April 2023.

11.7 As the Addendum to the Provisional Findings was not issued until 24 March 2023, many of the earlier submissions, responses and discussions refer to both the provisional SLC in the supply of cloud gaming services in the UK, and the provisional SLC in the supply of console gaming services in the UK (which was subsequently provisionally cleared). On the basis that we have

[1347] We received written responses to our Remedies Notice from Market participant B [✂] (20 February 2023; noting this was a response to both the Remedies Notice and the Provisional Findings) and SIE (22 February 2023). We held calls with the following third parties: [✂], [✂], [✂], [✂], [✂], [✂] and [✂]. We also held a hearing with [✂]. We received responses to our remedies questionnaire from: [✂], [✂], [✂], [✂], [✂], [✂], [✂] and [✂]. We also received responses from members of the public to our Remedies Notice. It was necessary for us to apply caution in interpreting these responses from the public. There is no practical way for us to verify that views provided through an open channel are submitted by genuine consumers, nor that those submitting views are representative of all relevant consumers (and in particular, UK consumers). In relation to representativeness in particular, open calls for comment may attract greater attention from particular cohorts of the market than others, either through random chance, or as a result of varying degrees of awareness across different cohorts (which can be affected by press coverage, internet commentary and social media coverage—including coverage by interested parties). As a result, we were unable to place any particular weight on these email submissions, or to use them to make inferences about 'average views' of consumers. However, we note that many respondents raised issues and concerns that were aligned with those under consideration in this chapter.

only found an SLC in the supply of cloud gaming services in the UK in this Final Report, this chapter considers the evidence and views that are relevant to this SLC finding.

CMA remedies assessment framework

11.8 Pursuant to section 36(2) of the Act, where the CMA decides that an anticipated merger may be expected to result in an SLC, we must decide the following:

(a) whether the CMA should itself take action under section 41(2) of the Act for the purpose of remedying, mitigating or preventing the SLC concerned or any adverse effect which may be expected to result from the SLC;

(b) whether the CMA should recommend the taking of action by others for the purpose of remedying, mitigating or preventing the SLC concerned or any adverse effect which may be expected to result from the SLC; and

(c) in either case, if action should be taken, what action should be taken and what is to be remedied, mitigated or prevented.

11.9 The Act requires that the CMA, when considering possible remedial action, 'shall, in particular, have regard to the need to achieve as comprehensive a solution as is reasonable and practicable to the substantial lessening of competition and any adverse effects resulting from it'.[1348]

11.10 To fulfil this requirement, the CMA will seek remedies that are effective in addressing the SLC and any resulting adverse effects. The effectiveness of a remedy is assessed by reference to its:[1349]

(a) impact on the SLC and the resulting adverse effects – the CMA views competition as a dynamic process of rivalry between firms seeking to win customers' business over time – restoring the process of rivalry is a key aim of a remedy;

(b) duration and timing – remedies need to be capable of timely implementation and address the SLC effectively throughout its expected duration;

(c) practicality in terms of implementation, monitoring and enforcement; and

[1348] Section 36(3) of the Act.
[1349] Merger remedies guidance (CMA87), December 2018, paragraph 3.5.

(d) risk profile, relating in particular to the risk that the remedy will not achieve its intended effect.

11.11 We note that Microsoft has made submissions regarding the appropriate legal framework that the CMA should apply in assessing remedies. In particular, Microsoft submitted that the Act does not require full prevention of any SLC identified and instead recognises that mitigation may be sufficient. Microsoft also submitted that the CMA need only 'have regard' to achieving as comprehensive a solution to the SLC and any adverse effects arising as is 'reasonable and practicable', and that the CMA is therefore not bound by an obligation to fulfil the requirement.[1350]

11.12 As explained above, the Act requires the CMA to have regard to the need to achieve 'as comprehensive a solution as is reasonable and practicable' to an SLC and any adverse effects. In assessing this, the CMA first assesses whether a remedy will be effective. The CMA considers that a remedy will only be effective (ie a comprehensive solution) if it fully remedies or prevents the SLC and its adverse effects (not just mitigates them). This approach, and the '*high duty*' imposed on the CMA by the statute,[1351] has been endorsed by the Courts. In particular, the Court of Appeal has explained that, once the CMA has reached a conclusion on the SLC question, "*then the action which it has to take must be such as to remedy or prevent the SLC concerned. It is not at that stage in the exercise concerned with weighing up probabilities against possibilities but rather with deciding what will ensure that no SLC either continues or occurs*".[1352] The Competition Appeal Tribunal (**CAT**) has also found that it is reasonable for the CMA to not favour a remedy for which it could not feel a "*high degree of confidence of success*".[1353]

11.13 As explained in the CMA's Merger Remedies Guidance, having decided which of the remedy options would be effective in addressing the SLC and resulting adverse effects, the CMA will then consider the costs of those remedies. The CMA may have regard, in accordance with the Act,[1354] to the effect of any remedial action on any RCBs arising from the merger. In order to ensure that any remedy is proportionate (ie reasonable), the CMA will seek to select the least costly remedy, or package of remedies, of those remedy options that it considers will be effective.[1355] The CMA will also seek to ensure that it does not select a remedy that is disproportionate in relation to the SLC and its

---

[1350] Microsoft response to the Notice of possible remedies (Remedies Notice), 22 February 2023, paragraph 5.2.
[1351] *Ecolab Inc. v CMA* [2020] CAT 12, at [74].
[1352] *Ryanair Holdings PLC v CMA* [2015] EWCA Civ 83, at [57]. See also *Ecolab Inc. v CMA* [2020] CAT 12, at [74-75].
[1353] *Ecolab Inc. v CMA* [2020] CAT 12, at [83].
[1354] Section 36(4) of the Act.
[1355] CMA87, paragraphs 3.4 and 3.6.

adverse effects.[1356] In the event that the CMA considers fully remedying or preventing an SLC and any adverse effects is not possible, or where no effective remedy would be proportionate, the CMA will consider whether it is nonetheless possible and proportionate to mitigate the SLC and its adverse effects.

11.14 Accordingly, we agree with Microsoft that, in certain circumstances, it may be appropriate for the CMA to take action which only mitigates an SLC and its resulting adverse effects. However, we consider the appropriate first step in our assessment is to determine what, if any, remedies are available which would remedy or prevent the SLC and its resulting adverse effects, and then to assess the proportionality of any such effective remedy.

Overview of remedy options

11.15 As set out in the CMA's Merger Remedies Guidance,[1357] remedies are conventionally classified as either structural or behavioural:

(a) Structural remedies, such as divestiture or prohibition, are generally one-off measures that seek to restore or maintain the competitive structure of the market by addressing the market participants and/or their shares of the market.

(b) Behavioural remedies are normally ongoing measures that are designed to regulate or constrain the behaviour of merger parties with the aim of restoring or maintaining the process of rivalry absent the merger.

11.16 The choice of remedy will reflect the particular circumstances of each case, though the CMA generally prefers structural remedies over behavioural remedies, because:[1358]

(a) structural remedies are more likely to deal with an SLC and its resulting adverse effects directly and comprehensively at source by restoring rivalry;

(b) behavioural remedies are less likely to have an effective impact on the SLC and its resulting adverse effects, and are more likely to create significant costly distortions in market outcomes; and

[1356] CMA87, paragraph 3.6.
[1357] CMA87, paragraph 3.34.
[1358] CMA87, paragraphs 3.46 and 3.34.

(c) structural remedies rarely require monitoring and enforcement once implemented.

11.17 In the Remedies Notice, we set out the following structural remedy options:

(a) prohibition of the Merger; and

(b) requiring a partial divestiture of Activision Blizzard, Inc. We noted that this could involve:

(i) Divestiture of the business associated with CoD (*Call of Duty*);

(ii) Divestiture of the Activision segment of Activision Blizzard, Inc. (the **Activision segment**), which would include the business associated with CoD; or

(iii) Divestiture of the Activision segment and the Blizzard segment (the **Blizzard segment**) of Activision Blizzard, Inc., which would include the business associated with CoD and WoW (*World of Warcraft*), among other titles.

11.18 We also invited views on aspects of remedy design which might be needed to make a divestiture remedy effective and ensure that no new competition concerns would arise. These could include requirements relating to the scope of any divestiture package, the process of selecting the assets to be divested, the identification of suitable potential purchaser(s), and the divestiture process including the timing of divestiture.

11.19 In the Remedies Notice, we explained that the CMA will generally only select behavioural remedies as the primary source of remedial action where:[1359]

(a) divestiture and/or prohibition is not feasible, or the relevant costs of any feasible structural remedy far exceed the scale of the adverse effects of the SLC;

(b) the SLC is expected to have a short duration; or

(c) behavioural measures will preserve substantial RCBs that would be largely removed by structural remedies.

11.20 In the Remedies Notice, we set out a preliminary view that certain divestitures and/or prohibition are, in principle, feasible remedies in this case. We noted that the provisional SLC was not time-limited, and while RCBs had not yet

[1359] CMA87, paragraphs 3.48, 7.1, and 7.2.

been assessed in detail, evidence on efficiencies received up to that point did not suggest that RCBs might be substantial.

11.21 We also noted in the Remedies Notice that, while none of the circumstances in which the CMA would typically select a behavioural remedy as the primary source of remedial action in a merger investigation appeared to be present, we would nonetheless consider a behavioural access remedy as a possible remedy.

The Parties' responses to the Remedies Notice and Remedies Working Paper

11.22 In response to the Remedies Notice, Microsoft submitted its view that the criteria for consideration of behavioural remedies were met in this case. It submitted that the relevant costs of a structural remedy exceeded the scale of the adverse effects of the provisional SLCs, and that RCBs were likely to be substantial compared with any adverse effect of the Merger. It noted that the claimed RCBs would be largely preserved by behavioural remedies but not by structural remedies.[1360] Microsoft submitted that structural remedies – both prohibition of the Merger and a partial divestiture of (part of) Activision – would not be appropriate remedies and would result in lost benefits to customers (the detail of these submissions is set out below).[1361] Instead, Microsoft proposed that a behavioural remedy would be the most appropriate remedy to the provisional SLCs identified, noting a number of RCBs which it submitted would otherwise be lost as a result of a structural remedy. Microsoft proposed two licensing remedies: *(a)* a content licensing remedy for console gaming (the **Console Remedy**);[1362] and *(b)* a content licensing remedy for cloud gaming (the **Microsoft Cloud Remedy**).[1363]

11.23 As explained in this Report, we believe that an SLC may not be expected to arise in the console gaming market in the UK as a result of the Merger. Accordingly, we do not consider the proposed Console Remedy further in this chapter. We consider that Microsoft's representations on the relevant costs of a structural remedy and RCBs remain relevant in the context of the SLC in cloud gaming services in the UK and are considered further below. We consider the proportionality of effective remedy options later in this chapter.

11.24 Activision did not provide a written response to the Remedies Notice or the Remedies Working Paper, but echoed Microsoft's view on structural remedies and a preference for a behavioural remedy during its response hearing.

[1360] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 1.5.
[1361] Microsoft response to the Remedies Notice, 22 February 2023, paragraphs 5.1-5.23.
[1362] Microsoft response to the Remedies Notice, 22 February 2023, paragraphs 3.1-3.12.
[1363] Microsoft response to the Remedies Notice, 22 February 2023, paragraphs 4.1-4.10.

11.25 Microsoft provided a response to the Remedies Working Paper, as part of which it made a number of amendments to the proposed Microsoft Cloud Remedy with the aim of addressing the concerns set out in the Remedies Working Paper. We summarise Microsoft's views and our assessment of those in the relevant sections below.

11.26 In following section, we discuss the effectiveness of different remedy options, and conclude on those which we consider would represent an effective remedy to the SLC and/or any of its adverse effects which we have identified. In doing so, we consider the effectiveness of:

(a) Prohibition (see paragraphs 11.27 to 11.38);

(b) Partial divestiture (see paragraphs 11.39 to 11.42); and

(c) Behavioural remedies, in particular the Microsoft Cloud Remedy (see paragraphs 11.43 to 11.132).

Effectiveness of prohibition

11.27 First, we consider the effectiveness of a prohibition remedy.

Description of remedy

11.28 This remedy option would involve prohibiting the Parties from completing the Transaction. The Merger between Microsoft and Activision would thus not take place and the current competitive dynamics in the market would not change.

11.29 Prohibition would be effected by accepting undertakings under section 82 of the Act or making an order under section 84 of the Act, prohibiting the Merger and preventing the Parties from attempting to merge for a further period: our normal practice would be to prevent a future merger between the Parties for the next ten years, absent a change of circumstances.

Views of Parties and third parties

Views of the Parties

11.30 Microsoft submitted that this is a case in which prohibition of the Merger does not preserve the market structure absent the Merger and prevent the SLC and/or any of its adverse effects from arising in the way that might be expected of a standard merger. It told us that Activision [✂] and that Activision content is not available on any cloud gaming service today, and that

the counterfactual finds that [✂]. Microsoft submitted that based on the CMA findings, prohibition would only result in Activision content becoming available, at best, [✂]. It told us that if prohibition could be considered an effective remedy in that context, then the Microsoft Cloud Remedy must be equally effective to remedy the SLC as it will result in Activision content becoming available to a much larger range of cloud gaming providers, [✂].[1364]

11.31 Microsoft submitted that weight should be placed on a third party's ([✂]) view that prohibition would be detrimental for the growth of cloud gaming (as noted at paragraph 11.35 below). It told us that [✂].[1365]

11.32 Further, Microsoft submitted that the 'two key complainants' against the deal (SIE and Google) have many reasons to preserve the status quo or undermine the Merger in order to extract higher profits to the detriment of game developers and gamers. It submitted that, on this basis, the Microsoft Cloud Remedy protects competition in a way that prohibition will not. Microsoft submitted that 'through prohibition, the CMA is ensuring the ongoing success of entrenched competitors who have no incentive to expand competition'.[1366]

Views of third parties

11.33 SIE told us that prohibition would be 'clear-cut' and 'would safeguard against the foreclosure strategies Microsoft could employ to withhold or degrade access to Activision content'.[1367] In response to our remedies questionnaire, an additional four third parties ([✂], [✂], [✂] and [✂]) told us that they view prohibition as an effective remedy.[1368]

11.34 Another third party ([✂]) told us that prohibition of the Merger could be effective in the case of a behavioural remedy not applying. However, it told us that prohibition would not ensure the availability of games with respect to cloud gaming in the same way as a behavioural remedy.[1369]

11.35 One third party ([✂]) told us that prohibition would not be an effective remedy because it disagreed with the SLC finding, and that blocking the Merger could risk Activision entering into long-term exclusivity deals with Microsoft which would have the same effect, in its view, as divestiture of the CoD franchise.[1370] Another third party ([✂]) commented that prohibition would be

---

[1364] Microsoft response to the Remedies Working Paper.
[1365] Microsoft response to the Remedies Working Paper.
[1366] Microsoft response to the Remedies Working Paper.
[1367] SIE response to the Remedies Notice, 22 February 2023, paragraph 9.
[1368] Third party responses to the remedies questionnaire: [✂]; [✂]; [✂]; [✂]; and [✂].
[1369] [✂] call note.
[1370] [✂] response to remedies questionnaire.

'detrimental' for the growth of cloud gaming and [✂] players as they would not have access to the CoD title.[1371]

Effectiveness of prohibition

11.36 Our Merger Remedies Guidance states that prohibition of an anticipated merger is an effective remedy as it necessarily maintains the competitive structure of a market that would have otherwise been changed by the merger.[1372] This remedy option therefore preserves the market structure absent the merger and prevents the SLC and/or any of its adverse effects from arising.

11.37 In relation to Microsoft's submission above that the Microsoft Cloud Remedy would result in Activision content becoming available to a much larger range of cloud gaming providers, when compared to prohibition, we consider that:

(a) in seeking to remedy the SLC, our starting point is to return the market to the *status quo ante*, which prohibition would achieve – we are not seeking to intervene to go beyond that requirement, which itself could have a distortive impact on the market;

(b) in assessing the effectiveness of a remedy, we do not seek to recreate an expected counterfactual outcome at a particular point in time but rather seek to recreate the conditions of competition present in the counterfactual.[1373] In this respect, Microsoft mischaracterises our findings on the competitive conditions absent the Merger. We have found that the cloud gaming market is nascent and dynamic and would continue to grow absent the Merger, with providers testing a range of different business models. We have also found that whilst Activision content has only been available to cloud gaming platforms to limited extent so far, it would likely become increasingly available within the next five years absent the Merger (including day and date releases). As such, in assessing the effectiveness of a remedy in addressing the SLC and its resulting adverse effects, it is important to consider the impact of any remedy on preserving that dynamic process in the market, taken as a whole; and

(c) Microsoft's submission is predicated on the Microsoft Cloud Remedy being effective in addressing the SLC we have identified – we consider the effectiveness of the Microsoft Cloud Remedy later in this chapter.

[1371] [✂] call note.
[1372] CMA87, paragraph 3.35.
[1373] See eg CMA87, paragraph 3.5.

11.38 In summary, if Microsoft and Activision are not brought under common ownership or control, the competitive structure of the market (that would have otherwise been changed by the Merger) would be maintained. As a consequence, the vertical effects that we anticipate arising in the supply of cloud gaming services in the UK would not arise. We therefore conclude that prohibition would be an effective remedy which would comprehensively address the SLC that we have identified, by preventing it and consequently preventing any of its adverse effects from arising.

Effectiveness of partial divestiture

11.39 In the Remedies Notice, we set out a potential remedy option involving the divestiture of the Activision business associated with CoD, or divestiture of one or two of Activision's operating segments. We investigated this option further, consulting with the Parties and third parties.

Effectiveness of partial divestiture

11.40 Some third parties told us that a partial divestiture option had the potential to be effective.[1374] Other third parties told us that partial divestiture would involve effectiveness risks relating to scope and composition of the divestiture package, availability of a suitable purchaser, shared intellectual property (**IP**) assets and other development resources.[1375] One third party told us that it could not see how partial divestiture could be better for competition and for gamers than the Merger completing.[1376] SIE told us that a partial divestiture remedy would be effective if the divested entity was able to compete viably, on a standalone basis, and without the support of those parts of Activision's business that remain with Microsoft (eg the King business).[1377]

11.41 However, Microsoft told us that any partial divestiture scenario would be [✂].[1378] Activision acknowledged Microsoft's position on partial divestiture, noting its understanding that [✂].[1379]

11.42 We are of the view that a partial divestiture could, in principle, represent an effective remedy to the SLC we have found. However, a number of

---

[1374] Third party response to the remedies questionnaire: [✂]; [✂]; and [✂].
[1375] Third party response to the remedies questionnaire: [✂]; and [✂].
[1376] [✂] call note.
[1377] SIE response to the Remedies Notice, paragraphs 10 and 11. See also third party call notes: [✂]; [✂]; [✂]; and [✂].
[1378] Microsoft response hearing transcript.
[1379] Activision response hearing transcript.

composition and purchaser risks[1380] would be associated with such a divestiture. These risks include identification of the assets and operations necessary to effectively remedy the SLC; separation of assets and operations common to the divested and retained parts of Activision; and the availability of suitable purchasers for a divestiture package of this size. Given our initial risk assessment, we consider that substantial additional evidence would be required from the Parties to enable us to assess whether the divestiture of part of Activision would, in practice, represent an effective remedy. We explained to the Parties that, without additional evidence from them, we would be unlikely to be able to conclude whether a partial divestiture is an effective remedy. [✂],[1381] [✂].[1382] [✂]. Accordingly, we do not assess the effectiveness of any partial divestiture remedy further in circumstances where [✂]. However, we have considered the possibility of this alternative remedy option in the proportionality assessment, where relevant, below.

Effectiveness of behavioural remedies

Description of remedy

11.43 The Microsoft Cloud Remedy was initially submitted in Microsoft's response to the Remedies Notice on 22 February 2023. Further detail was provided during Microsoft's response hearing on 27 February 2023. Following this, Microsoft presented a follow-up submission on 6 March 2023 which clarified some points set out in the original version of the Microsoft Cloud Remedy and revised other elements of the remedy. The Parties discussed the Microsoft Cloud Remedy with the CMA staff team on 14 March 2023, with Microsoft providing a response to the CMA's questions on 15 March 2023, and a further response to clarificatory questions on 17 March 2023. Microsoft provided a summary of its Microsoft Cloud Remedy proposal on 22 March 2023.[1383]

11.44 Microsoft subsequently made further amendments to the Microsoft Cloud Remedy in its response to our Remedies Working Paper on 31 March 2023. The CMA staff team discussed these amendments with the Parties on a call

---

[1380] Composition risks are risks that the scope of the divestiture package may be too constrained or not appropriately configured to attract a suitable purchaser or may not allow a purchaser to operate as an effective competitor in the market. Purchaser risks are risks that a suitable purchaser is not available or that the merger parties will dispose to a weak or otherwise inappropriate purchaser. See also CMA87, paragraph 5.3.
[1381] Microsoft response hearing transcript; and
Activision response hearing transcript.
[1382] We note that in its response to the Remedies Notice, Microsoft submitted its view that it [✂]. It also noted that it would extinguish RCBs and not be proportionate (Microsoft response to the Remedies Notice, 22 February 2023, section 5). We note these high-level comments, but take the view that the submissions from Microsoft are not sufficient in themselves to allow for a detailed assessment of the effectiveness of a partial divestiture. We would need significant additional evidence, for example on the practicalities of splitting up the Activision business.
[1383] Microsoft response to the Remedies Working Paper.

on 4 April 2023, and Microsoft provided responses to our follow-up questions on 6 April 2023. In relation to Microsoft's proposed remedy commitments to the European Commission, on [✂] April 2023, Microsoft told us that it [✂], and that [✂]. On [✂] April 2023, the Parties [✂]. We have reviewed Microsoft's amendments and consider that these extra elements (if they were to be incorporated into the Microsoft Cloud Remedy to address the SLC we have identified) do not change our assessment of the Microsoft Cloud Remedy set out in this chapter.

The Microsoft Cloud Remedy

11.45 Under the Microsoft Cloud Remedy, Microsoft would commit to license Activision games, including CoD and WoW, royalty-free to certain cloud gaming providers with a B2P or BYOG offering for a period of ten years. Microsoft has proposed that the Microsoft Cloud Remedy would incorporate the following features:

(a) Scope: The remedy will apply to all current and future PC and console franchises, titles in these PC and console franchises, and any other PC and console games that: (i) have been developed in the past or will be developed in the future, either in part or in full, by any of the 'Activision Blizzard Studios' (defined in the footnote);[1384] or (ii) are based, either in part or in full, on IP rights of any PC or console franchises, titles in these PC or console franchises, and any other PC or console games that Activision Blizzard Studios have developed in the past or will develop in the future (the **Eligible Games**).[1385] Microsoft submitted that PC games do not include only Windows OS games, but any games published by the Activision Blizzard Studios for any PC OS and that it will not seek to frustrate the use of compatibility layers to play Activision games on non-Windows OS.[1386] In particular, Microsoft clarified that it was prepared to commit that the [✂], [✂] and other PC OS versions of the Eligible Games will be included in the Microsoft Cloud Remedy.[1387] We understand that this remedy will apply globally, and not just to consumers in the UK.[1388]

[1384] Microsoft defines Activision Blizzard Studios as: [✂]. Source: Microsoft response to the Remedies Working Paper.

[1385] Microsoft response to the Remedies Working Paper.
[1386] Microsoft response to the Remedies Working Paper.
[1387] Microsoft response to the Remedies Working Paper.

[1388] As discussed with the Parties' advisers on the call with the CMA staff team on [✂].

(b) Term: the remedy will apply for a period of ten years from the commencement date of the final undertakings.[1389,1390]

(c) Consumer Licence: Microsoft will unilaterally grant a licence to any consumer who has purchased or obtained a free licence to play a PC game from an authorised third-party PC digital storefront (**Consumer Licence**).[1391] Microsoft submitted that consumers will have the right to play Eligible Games on Eligible Streaming Services (defined below) regardless of whether the Consumer Licence was obtained prior to, or after, the Merger. It submitted that the updated Consumer Licences will be published on Microsoft's website, and that the streaming right is therefore 'portable' in that it can be used to access a game which the consumer has acquired on any Eligible Streaming Service.[1392] Microsoft submitted that the Consumer Licence will be perpetual, meaning that consumers will have a perpetual right to stream the Eligible Games for so long as such games are available.[1393]

(d) Streaming Provider Licence: Microsoft will grant a royalty-free licence to Eligible Streaming Services (defined below) to stream Eligible Games (**Streaming Provider Licence**). The Streaming Provider Licences will be granted [✂]. Streaming Provider Licences will also be made perpetual to match the Consumer Licence.[1394]

(e) Eligible Streaming Service: A cloud game streaming service that allows consumers to play from the service provider's cloud-based servers, PC or console games for which the consumers have already obtained a licence for download of the game (including through either B2P, free-to-play, or subscription), which either: (i) is permitted by an Authorised Game Store (defined below) to provide access to Eligible Games; or (ii) offers access to Eligible Games through applications which do not require integration with an Authorised Game Store (**Eligible Streaming Service**).[1395]

(f) Authorised Game Stores: **Authorised Game Stores** will be: [✂].[1396] Microsoft also offered to authorise [✂] PC storefronts to distribute the PC

[1389] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 4.5(b).
[1390] Microsoft response to the Remedies Working Paper.
[1391] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 4.5(c).
[1392] Microsoft supplemental response to the Remedies Notice, 6 March 2023, paragraph 3.6.
[1393] Microsoft response to the Remedies Working Paper.
[1394] Microsoft response to the Remedies Working Paper.
[1395] Microsoft response to the Remedies Working Paper.
[1396] Microsoft response to the Remedies Working Paper.

versions of Eligible Games available on Battle.net [✂]. This solution would involve [✂].[1397]

(g) Access to the [✂][1398] [✂]. Microsoft submitted that the CMA will have the ability to amend and/or expand the definition of Major Game Publisher during the term of the remedy, following a report of the Monitoring Trustee setting out a comparison of the Major Game Publishers as of the 'Commencement Date' and a list of other publishers that the Monitoring Trustee considers suitable to be included in the definition of Major Game Publisher. It noted that Microsoft would have the opportunity to comment on the Monitoring Trustee's report before the CMA takes a decision.[1399]

(h) Pricing: The Consumer Licence and the Streaming Provider Licence will be [✂].[1400]

(i) Parity: For new releases, the Streaming Provider Licence covers Eligible Games, including publicly available beta versions and early access releases[✂].[1401]

(j) Terms: Licences granted under the Streaming Provider Licence commitment will be available on Microsoft's website and subject to the following terms:

(i) Unless otherwise agreed with Authorised Game Stores, [✂].[1402] In response to the CMA's question on how this provision would operate in relation to a console game sold, eg by SIE through the PlayStation Store or a MGS, Microsoft clarified that [✂].[1403]

(ii) Eligible Streaming Services will be responsible for: (a) securing any third-party public performance or similar licences that are not owned by Microsoft to the extent necessary to support the Eligible Streaming Service; and (b) compliance with relevant laws, including consumer, data protection and online safety legislation, and privacy standards.[1404]

[1397] Microsoft submission to the CMA.
[1398] Microsoft defines the Major Game Publishers as Tencent, Valve Corporation, Nexon, NetEase, EA, SMileGate, Embracer (THQ) – Perfect World, Roblox Corporation, Take Two, Epic Games, and Ubisoft.
[1399] Microsoft response to the Remedies Working Paper.
[1400] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 4.5(e).
[1401] Microsoft response to the Remedies Working Paper.
[1402] Microsoft response to the Remedies Working Paper.
[1403] Microsoft submission to the CMA.
[1404] Microsoft response to the Remedies Working Paper.

(iii) Microsoft will not invoke the existence of third-party IP rights, if any, as a reason to revoke the Streaming Provider Licence.[1405]

11.46 Microsoft submitted that the Microsoft Cloud Remedy would include the following mechanisms for monitoring compliance and dispute resolution:

(a) Monitoring Trustee: a Monitoring Trustee will be appointed to, primarily: (i) monitor and seek to ensure Microsoft's compliance with the remedy and to report to the CMA on a periodic basis; (ii) under the fast-track dispute resolution procedure, present proposals for resolving disputes before they are referred to binding arbitration; and (iii) issue opinions in the event that Microsoft wishes to terminate a Streaming Provider Licence.[1406] The identity of the Monitoring Trustee will be agreed with the CMA and remunerated by Microsoft. The Monitoring Trustee may appoint advisers as it and the CMA consider reasonably necessary for the performance of the Monitoring Trustee's functions, with any such advisers remunerated by Microsoft.[1407]

(b) Dispute Resolution Mechanism: A fast-track dispute resolution carried out under the International Chamber of Commerce Rules of Arbitration. The identity of the Arbitral Tribunal would be agreed between and remunerated by the 'Requesting Party' and Microsoft.[1408] The CMA will be enabled to participate in any arbitration process, and shall retain the power to direct changes to the dispute resolution process where necessary to ensure the effective operation of the remedy.[1409]

11.47 Microsoft will appoint [✂] to be responsible for monitoring and certifying the company's ongoing compliance with the undertakings (the Compliance Director) under the Microsoft Cloud Remedy.[1410] The Compliance Director will be responsible for preparing an annual report certifying the company's compliance with the undertakings and will be responsible for monitoring compliance with the terms of the undertakings, facilitating requests for information, identifying and rectifying any instances of non-compliance, and maintaining staff awareness of the requirements of the undertakings.[1411]

[1405] Microsoft response to the Remedies Working Paper.
[1406] Microsoft response to the Remedies Working Paper.
[1407] Microsoft, Annex 1 to the response to the Remedies Working Paper.
[1408] Microsoft, Annex 1 to the response to the Remedies Working Paper.
[1409] Microsoft, Annex 1 to the response to the Remedies Working Paper.
[1410] Microsoft, Annex 1 to the response to the Remedies Working Paper; and Microsoft response to the Remedies Working Paper.
[1411] Microsoft, Annex 1 to the response to the Remedies Working Paper.

Views of the Parties and third parties

Views of the Parties – the Microsoft Cloud Remedy

11.48 Microsoft submitted that the Microsoft Cloud Remedy would address the CMA's concerns in relation to the SLC. In particular, Microsoft submitted that:

(a) The Eligible Games will not be exclusive to Xbox Cloud Gaming: Microsoft submitted that this goes beyond what would occur if [✂] (as noted in the assessment of the counterfactual in the Provisional Findings). Microsoft submitted that the Microsoft Cloud Remedy goes 'significantly beyond' this scenario by enabling any Eligible Provider to stream the Eligible Games, [✂].[1412]

(b) The Eligible Games will not be timed exclusive to Xbox Cloud Gaming: Microsoft submitted that the Eligible Games will be made available to other cloud gaming providers at the same time as they are released for sale on PC and [✂].[1413]

11.49 Microsoft submitted that the Microsoft Cloud Remedy is a clear and self-executing solution. It told us that it is self-executing because it authorises cloud gaming providers to stream the game from their services, and consumers to play the game on their devices. Further, Microsoft submitted that because of the remedy's simplicity, it is agnostic to how cloud gaming providers may develop and innovate in the future.[1414] Microsoft submitted that it considers the openness of the remedy to be a key strength of its proposal and submitted that by granting a non-exclusive royalty-free, perpetual licence to any Eligible Streaming Service, it is comprehensively addressing the SLC in a manner which minimises implementation risks, particularly as there are no payments from the Eligible Streaming Service to Microsoft. It told us that the Microsoft Cloud Remedy is based on existing commercial practices.[1415]

11.50 In its response to our Remedies Working Paper, Microsoft told us that the assessment of the SLC which underpinned the Remedies Working Paper was flawed and that the Remedies Working Paper continued to work on the basis of various assertions or assumptions which were wrong. In particular, Microsoft told us that it used a counterfactual that Activision would have placed its games on cloud gaming services absent the Merger, which Microsoft told us was wrong and contrary to the available evidence; and that it ignored the agreements Microsoft had reached with NVIDIA, Boosteroid and

---

[1412] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 4.8(a).
[1413] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 4.8(b).
[1414] Microsoft response to the Remedies Working Paper.
[1415] Microsoft response to the Remedies Working Paper.

Ubitus under which the distribution of Activision content on multiple cloud gaming services was provided for, should the Merger proceed. Microsoft told us that these errors meant that the SLC finding was unsustainable.[1416] Our consideration of, and conclusions on, Microsoft's arguments in relation to the counterfactual and Microsoft's post-Merger agreements are covered in Chapter 8.[1417] We also consider these agreements further in Chapter 9 and when we consider RCBs later in this chapter.

11.51 Microsoft told us that, in its view, the cloud gaming market is *de minimis* and will remain so and therefore any SLC will be limited. On this basis, Microsoft submitted that the Microsoft Cloud Remedy is proportionate to the size of the SLC while also preserving and enhancing RCBs.[1418] We set out more detail on the Parties' views on, and our assessment of, RCBs and proportionality from paragraph 11.135 below.

11.52 Microsoft submitted that accepting the Microsoft Cloud Remedy would signal the CMA's ability to design and implement remedies that recognise the specific features of the digital economy and afford it the ability to foster emerging market segments like cloud gaming. It submitted that the UK Government had been clear that the new merger control rules overseen by the CMA's Digital Markets Unit (**DMU**) must avoid disproportionate burdens on businesses, and that rejecting the Microsoft Cloud Remedy would call the practicability of the new regime into question, harm consumers and have a negative impact on innovation and investment in the UK.[1419]

11.53 Microsoft submitted that the ten-year timeframe is driven by the standard period for remedies that the European Commission has adopted.[1420] It submitted that it is not aware of any streaming agreements in the market with a longer duration and that the period is sufficiently long for cloud gaming to establish itself as a consumer service and for providers to secure a range of popular games.[1421] Microsoft submitted that the Microsoft Cloud Remedy will immediately address the competitive concerns and that a period of ten years allows sufficient time for the market to mature and for alternative sources of content to emerge. Further, Microsoft submitted that a ten-year timeframe is in line with CMA guidance, noting some previous CMA cases. Microsoft referred

[1416] Microsoft response to the Remedies Working Paper.
[1417] Chapter 8, paragraphs 8.278 to 8.280; and 8.332 to 8.337.
[1418] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 4.10(a-b).
[1419] Microsoft response to the Remedies Working Paper.
[1420] Microsoft response hearing transcript.
[1421] Microsoft supplemental response to the Remedies Notice, 6 March 2023, paragraph 3.3.

to the perpetual nature of the Consumer Licence, which would continue for so long as games are available.[1422]

11.54 In relation to the design of the Microsoft Cloud Remedy, we set out below Microsoft's views on how it addresses the four main risks normally associated with behavioural remedies (as set out in our Merger Remedies Guidance), namely: specification, circumvention, distortion and monitoring and enforcement risks[1423] (see footnote for details and also paragraph 11.90 below).

11.55 On the specification of the remedy, Microsoft submitted that the structure of the Microsoft Cloud Remedy is based on industry practice, commonly used by publishers, whereby licences are granted to each consumer and cloud gaming streaming provider on PC, referring to its recent agreement with NVIDIA[1424] as an example. On this basis, it submitted that the remedy does not require complex implementation or technical adaptation, or any significant monitoring or supervision.[1425]

11.56 On circumvention, Microsoft submitted that it currently distributes its PC games through a number of third-party PC digital storefronts and will commit to distribute Eligible Games through at least one third-party PC digital storefront throughout the term of the remedy. Microsoft submitted that this eliminates any risk of circumvention of the remedy by ensuring that Microsoft distributes Eligible Games outside its owned and operated PC digital storefronts. Microsoft also subsequently offered to [✂]. Further, Microsoft submitted that it commits to make the games available [✂].[1426] On circumvention via third-party IP rights, Microsoft submitted that it is prepared to commit not to invoke third-party IP rights as a reason for seeking to invalidate or revoke a Streaming Provider Licence to manage the risk of Microsoft including IP in its games which could undermine the purpose of the remedy. It told us that the monitoring provisions put in place will assist in managing this risk. Further, Microsoft submitted that the list of titles within Eligible Games cannot be used to circumvent the remedy. It told us that the remedy is broad in scope and captures all current and future titles developed in part or full by the Activision Blizzard Studios or using the IP in the games

---

[1422] Microsoft response to the Remedies Working Paper.
[1423] The four main risks associated with behavioural remedies as set out in our guidance are: *(a)* specification risks, which arise if the form of conduct required to address the SLC or its adverse effects cannot be specified with sufficient clarity to provide an effective basis for monitoring and compliance; *(b)* circumvention risks, which arise if other adverse forms of behaviour arise when particular forms of behaviour are restricted; *(c)* distortion risks, which arise where behavioural remedies create market distortions that reduce the effectiveness of these measures and/or increase their effective costs; and *(d)* monitoring and enforcement risks, which arise if there are risks of ineffective monitoring and enforcement. Source: CMA87, paragraph 7.4.
[1424] Microsoft, Annex 2 to the response to the Remedies Notice, 22 February 2023.
[1425] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 4.9(a).
[1426] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 4.9(b).

they created and that it has a consistent track record of operating the studios it acquires as separate entities.[1427] It submitted that an anti-circumvention measure – ie involving the Monitoring Trustee in overseeing the Eligible Games – will ensure that all Eligible Games that have been developed in the past or would have been developed in the future by Activision Blizzard Studios absent the Merger would be available.[1428]

11.57 Further, Microsoft submitted that it is prepared to commit to not implement any features or functions in the Eligible Games after the undertakings commencement date with the deliberate purpose of preventing or negatively affecting the operation or performance of any compatibility layer or of the Eligible Games running on a compatibility layer. However, Microsoft noted that the suggestion that a remedy should ensure future versions of Eligible Games would be able to run on other OSs through compatibility layers is not a reasonable requirement as Microsoft cannot ensure that a game operates through a compatibility layer as compatibility layers are software interfaces developed by third parties. It noted that if Windows develops a new feature, the developer of the compatibility layer needs to update its own software, which Microsoft cannot be responsible for. Microsoft noted that Activision does not officially support compatibility layers for this reason (ie Activision cannot guarantee that its games will run on a compatibility layer developed and maintained by a third party). Further, Microsoft noted the complexities that can arise from anti-cheat software meaning that some game titles cannot run on certain open-source OS and compatibility layers because of security concerns.[1429]

11.58 In its response to our Remedies Working Paper, in relation to the CMA's broader concern that, under the Microsoft Cloud Remedy, there may be a variety of ways in which user experience might worsen on competing platforms even with some form of licensing remedy in place, Microsoft told us that there was no basis for this concern as the titles which would be available for streaming would be the same which are available to purchase from the Microsoft Game Store or another Authorised Game Store on a royalty-free basis. Moreover, it told us that Microsoft was offering streaming rights in relation to titles irrespective of whether Microsoft itself decides to stream the titles. It added that the CMA relied on evidence from one third party ([✂]) that had consistently refused to hold any discussions with Microsoft in order to address its concerns, and noted that the concerns raised have been rejected

---

[1427] Microsoft submitted that none of the studios acquired by Microsoft since 2010 have been absorbed by another Microsoft studio. It told us that one studio was later sold to the original team (Twisted Pixel Games) and another studio (Press Play) was closed, and the remainder continue to be distinct entities.
[1428] Microsoft response to the Remedies Working Paper.
[1429] Microsoft response to the Remedies Working Paper.

by the CMA in relation to console gaming. It told us that the Provisional Findings also presented no evidence to suggest that partial foreclosure of Activision content could foreclose cloud gaming rivals.[1430]

11.59 Microsoft submitted that the Microsoft Cloud Remedy does not give rise to any market distortion because it will remain in place for a targeted period and is based on existing market-based terms commonly used by publishers. Microsoft submitted that BYOG is the most successful business model on cloud gaming and has the lowest barriers to entry, and that its remedy addresses the concerns raised in relation to this model. It submitted that the Microsoft Cloud Remedy also addresses the B2P business model to avoid distortion of the market – ie to avoid favouring only the BYOG model and potentially contributing to its growth by not capturing B2P. Further, Microsoft submitted that cloud providers do not require an extensive catalogue of content to launch, and many offer a range of different payment options.[1431]

11.60 Microsoft submitted that the Microsoft Cloud Remedy is not limited in scope to BYOG and B2P. It told us that the definition of Streaming Service includes all business models, including MGS. It submitted that it is sufficient that MGS is treated in the same way as other potential business models and submitted its view that we have presented no evidence to suggest that Activision would have contemplated placing its content on a MGS cloud gaming service. It submitted that we have not found Activision content to be an important input for MGS. Microsoft submitted that the evidence is limited to CoD and that WoW is only 'notable'. It told us that the fact that future games may have been placed on cloud services in the future does not mean that they would be an important input. Microsoft submitted that the Provisional Findings are consistent with MGS growing without access to Activision titles and that the CMA ruled out the concept of Activision content playing a role in the growth of cloud gaming MGS. On this basis, Microsoft submitted that this cannot be seen as a distortion. Further, Microsoft submitted that it would be disproportionate and unnecessary for the scope of the remedy to include a commitment to make Eligible Games available via MGS in order to address the SLC identified by the CMA.[1432]

11.61 In terms of monitoring and enforcement, Microsoft submitted that the Microsoft Cloud Remedy is 'self-executing' and its implementation does not require significant monitoring or supervision by the CMA.[1433] However, it noted that it has included specific mechanisms to allow for monitoring and

---

[1430] Microsoft response to the Remedies Working Paper.
[1431] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 4.9(c)
[1432] Microsoft response to the Remedies Working Paper.
[1433] Microsoft response to the Remedies Working Paper.

dispute resolution. Microsoft submitted that the Eligible Streaming Services would have all of the information they need to: *(a)* request a licence; and *(b)* detect potential breaches of Microsoft's obligations and bring a dispute under the disputes resolution procedure. Further, Microsoft submitted that it will provide the Monitoring Trustee with full and complete access to the information required to certify compliance with the remedy,[1434] and that monitoring and enforcement costs should be modest due to the simplicity of the remedy and its transparency to customers.[1435]

11.62 Activision told us that it thought the Microsoft Cloud Remedy would be effective. It noted its view that the bar to qualify as an Eligible Provider is low – Activision said it was simple and easy to monitor. It told us that the remedy 'gives a lot of flexibility, but it also ensures that there is an enormous amount of competition'.[1436]

Views of third parties – the Microsoft Cloud Remedy

11.63 In relation to the effectiveness of a behavioural remedy, the evidence from third parties was mixed, with some telling us that a behavioural remedy for cloud gaming could be an effective remedy,[1437] and others submitting that it would not be effective.

11.64 A third party ([✂]) told us that the behavioural commitments in the Microsoft Cloud Remedy would result in 'positive outcomes to the market and that the end-users who will have more choice as to where they play the games'. The same third party also told us that it thinks a behavioural remedy in cloud will also create a number of additional benefits for the industry and end-customers that would not otherwise have existed – it told us that Activision content will become widely available across the cloud, which means end-customers will have access to this content on almost any device, platform and OS via cloud gaming services.[1438] Another third party ([✂]) referred to the agreement that it has entered into with Microsoft (which it considers to be very similar to the Microsoft Cloud Remedy) and told us that it resolves its concerns around the SLC.[1439]

11.65 One third party ([✂]) told us that a behavioural remedy would need to overcome 'effectiveness challenges', as Microsoft could use tools for full or

---

[1434] Microsoft response to the Remedies Working Paper.
[1435] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 4.9(d)
[1436] Activision response hearing transcript.
[1437] For example, [✂] ([✂] call note). Third party responses to the remedies questionnaire: ([✂]; [✂]; [✂]; [✂]; and [✂]. See also third party call notes: [✂]; [✂]; and [✂].
[1438] [✂] response to the remedies questionnaire.
[1439] [✂] call note.

partial foreclosure, which may vary with market developments and changes in consumer preferences. This third party told us that the user experience for Activision Blizzard content could be degraded by:[1440]

(a) Microsoft limiting the availability of Activision Blizzard content on consoles and cloud gaming services platforms (particularly for new types of consoles and cloud gaming services platforms);

(b) content exclusivity by offering lower quality options (such as not having access to features, upgrades, expansion packs, bonus content, or in-game content such as skins or weapons) for Activision Blizzard content on other consoles and cloud gaming service platforms;

(c) timed exclusivity by delaying new versions, updates, content packages, or in-game content for Activision Blizzard titles from appearing on other consoles and cloud gaming platforms at the same time as on Microsoft devices;

(d) experience degradation on rival platforms by delaying and failing to complete bug testing and remediation; having lower quality customer responses; degrading key gaming qualities such as high-end graphics and auto-saving reliability; increasing gameplay latency or deprioritising latency issues; ignoring or deprioritising form factor and other user experience changes needed to optimise game content; and impeding gameplay matchmaking services; and

(e) discriminatory pricing and terms by raising prices for Activision Blizzard content on other console or cloud gaming platforms or otherwise applying less favourable terms and conditions to users accessing that content on non-Microsoft platforms.

11.66 Another third party ([✂]) made a submission setting out its views on the latest iteration of the Microsoft Cloud Remedy (of 3 April 2023, based on Microsoft's proposed commitments to the European Commission, which largely track Microsoft's modified Microsoft Cloud Remedy proposal made to the CMA in its response to our Remedies Working Paper with subsequent amendments made to it since then).[1441] This third party told us that the modified Microsoft Cloud Remedy was designed to remedy shortcomings in the original Microsoft Cloud Remedy, but that these changes were limited to 'correcting' prior

---

[1440] [✂]. [✂] response to the remedies questionnaire.
[1441] Microsoft told us that the revised details of the Microsoft Cloud Remedy set out in its response to the Remedies Working Paper were consistent with the revised remedy proposal which had been put forward to the European Commission, but that Microsoft's proposal to the CMA went beyond the proposed commitments to the European Commission in certain respects in order to address the CMA's specific concerns set out in the Remedies Working Paper. Source: Microsoft response to the Remedies Working Paper, paragraph 1.4.

oversights to allow gamers that obtained a licence to Activision games to use a cloud game streaming service in order to play those games on a console as well as a PC. This third party told us that the revised Microsoft Cloud Remedy was 'inadequate and insufficient' for the following reasons:[1442]

(a) the modified Microsoft Cloud Remedy does not contain an obligation on Microsoft to license the Activision games – in order to remedy the concern that Microsoft has an incentive to withhold Activision content from distributors of games via cloud game streaming services, Microsoft should be required to ensure that all such distributors of games, including stores that sell games to be streamed via the cloud, such as PlayStation Plus, Amazon Luna, and (before it closed) Stadia, have access to such content on fair, reasonable, and non- discriminatory terms;

(b) the modified Microsoft Cloud Remedy does not require Microsoft to license Activision content to distributors of games via cloud gaming streaming services – this third party told us that Microsoft's obligations arise only where a consumer has secured a licence to play Activision games and wants to stream that game on a third-party cloud streaming service. It added that operators that do not secure a licence to Activision games would be foreclosed. This third party told us that, accordingly, should Microsoft decide not to license Activision games, the only cloud streaming services that would benefit from the modified Microsoft Cloud Remedy would be BYOG services, such as NVIDIA, which rely on consumers buying games elsewhere. It added that even then, the way in which the modified Microsoft Cloud Remedy had been structured, make it highly unlikely that even BYOG operators would benefit;

(c) the modified Microsoft Cloud Remedy does not remedy other 'significant defects' in the original Microsoft Cloud Remedy, in particular:

(i) first, the modified Microsoft Cloud Remedy would entitle Microsoft to retain all revenue from sales of Activision games, in-app purchases, and any other future game-related transactional revenues – as a result, cloud game streaming services would not become rivals to Microsoft's Game Pass Ultimate, but rather, they would become Microsoft's customers, with only the ability to stream Activision games and send all the associated revenues to Microsoft. This third party told us that this would be unattractive for any cloud game streaming service, including BYOG operators like NVIDIA, which are the only

[1442] [✂] submission to the CMA.

operators that would benefit from the modified Microsoft Cloud Remedy should Microsoft decide not to license Activision games;

(ii) second, the modified Microsoft Cloud Remedy does not include any quality, content, or technical parity obligations, and therefore, Microsoft could release Activision content to rival cloud streaming service at a lower level of quality or with features or upgrades only available to its own service;

(iii) third, the duration of the modified Microsoft Cloud Remedy is too short – given the nascency of cloud game streaming, a ten-year duration is insufficient to enable alternative cloud game streaming services to establish themselves as credible competitors to Microsoft in this nascent space; and

(iv) fourth, the modified Microsoft Cloud Remedy still does not allow for swift redress. In this regard, this third party told us that the 'Fast-Track Dispute Resolution' mechanism is long and burdensome and would, at best, enable redress around one year after a licensee had become aware of a potential breach. It added that in the meantime, the licensee would have suffered irreparable harm, 'as the market would tip further to Microsoft'. Therefore, this third party considered that swift and effective redress was essential for any access commitment of this kind.

11.67 This third party ([✂]) also told us that the modified Microsoft Cloud Remedy would ensure that Microsoft was the only cloud game streaming service able to distribute irreplaceable Activision content to cloud gaming streaming services. It told us that Microsoft could choose not to license Activision games to cloud rivals or to license degraded versions without sanction or constraint. Further, this third party told us that Microsoft's rivals would be required to give Microsoft all revenues generated from Activision games. Therefore, this third party considered that the modified Microsoft Cloud Remedy would not remedy the concerns it is intended to address, but instead, it would strengthen Microsoft.[1443]

11.68 Other third parties told us that they did not think the Microsoft Cloud Remedy would be an effective remedy to the SLC. SIE and one other third party ([✂]) told us that behavioural remedies are not suited to this case.[1444] In particular, SIE told us that the gaming industry is a 'dynamic and evolving market',

[1443] [✂] submission to the CMA.
[1444] [✂] response to the remedies questionnaire; and SIE response to the Remedies Notice, 22 February 2023, paragraph 5.

particularly in MGS services and cloud gaming, and any access commitment that Microsoft might make to competitors is unlikely to capture these developments with sufficient specificity to ensure competition in the future.[1445]

11.69 On the timing and duration of the remedy, a number of third parties told us that a ten-year timeframe would be appropriate for the Microsoft Cloud Remedy.[1446] For example, one third party ([✂]) told us that [✂].[1447] However, another third party ([✂]) told us that it is unclear how and when cloud gaming services will evolve and that this uncertainty means a significantly longer duration of a remedy needs to be factored in.[1448]

11.70 On specification risks, two third parties ([✂] and [✂]) told us that the remedy package should consist of all Activision Blizzard content, including future releases during the timeframe of the remedy.[1449] [✂] noted that [✂], which it believes is a strong additional commitment from Microsoft. One third party ([✂]) told us that it was satisfied with the scope of its own agreement with Microsoft, which covers [✂].[1450] We note, however, [✂] (and therefore that this third party's views are of more limited relevance to the assessment of the scope of the Microsoft Cloud Remedy).

11.71 Another third party ([✂]) told us that specification risks would arise in this case given that cloud gaming's development was at a 'nascent stage'. This third party told us that it was difficult to predict the future of cloud gaming, including because cloud gaming service providers were testing a range of different business models to monetise their service with no fixed business models yet, and therefore, Microsoft's Microsoft Cloud Remedy was unlikely to capture these developments with sufficient specificity to ensure competition in the future. The same third party also told us that cloud gaming required a technically complex infrastructure whose requirements could not be specified with enough certainty to construct a remedy. It added that allowing games to be accessed on remote servers and streamed on various devices at a satisfactory quality would pose challenges including the construction of data centres, and system requirements such as bandwidth and latency. It told us that these challenges were 'inflated for highly reactive, fast-paced shooter games' like CoD, making it 'nearly impossible' to define those requirements precisely.[1451]

[1445] SIE response to the Remedies Notice, 22 February 2023, paragraph 16.
[1446] Third-party responses to the remedies questionnaire: [✂]; [✂]; and [✂].
[1447] [✂] call note.
[1448] [✂] response to the remedies questionnaire.
[1449] Third-party response to the remedies questionnaire: [✂]; and [✂].
[1450] [✂] call note.
[1451] [✂] submission to the CMA.

11.72 Third parties also commented on Microsoft's proposal to make available the PC version of the game (running on Windows OS). Some third parties noted that this may not be sufficient to capture future developments in the market. For example, one third party ([✂]) noted that while PC hardware is generally used to stream cloud games now, it is not certain that this will always be the case; therefore, it may be the case that different versions of games (eg other than PC versions) become more important in future.[1452] Similarly, another third party ([✂]) told us that it does not think the Windows version of Activision games would be appropriate to remedy the SLC as it forecloses other business models by forcing cloud gaming providers to use Windows OS and making gaming providers reliant on Windows Virtual Machines. This third party ([✂]) told us that a potential solution could be Microsoft ensuring that it will provide equivalency for game play features and experience through a Windows version of the game that is compatible with Proton (a compatibility layer which allows Windows games to run on non-Windows (eg Linux) OSs) providing support for their open-source review. However, this third party ([✂]) noted that this also raises a number of parity concerns.[1453] Another third party ([✂]) told us that it [✂].[1454]

11.73 With regard to circumvention risk:

(a) Some of the third parties we spoke to told us that behavioural remedies would need to be appropriately specified so as not to create circumvention risks.[1455]

(b) One third party ([✂]) told us that it did not think that it would be likely that Microsoft would want to circumvent the remedy. It told us that Microsoft has made a public commitment to this, and that it was 'highly unlikely that they would turn their back on the player community'.[1456]

(c) Another third party ([✂]) told us that Microsoft could foreclose access to Activision content in multiple ways, including partial foreclosure of rival cloud gaming services by degrading the quality of games on those services, or simply not releasing the games on PC, circumventing any obligation under the Microsoft Cloud Remedy to provide the game to rival cloud gaming services. This third party told us that it would be 'nearly impossible to tailor a remedy that would address each option available to

[1452] [✂]response to remedies questionnaire.
[1453] [✂] call note.
[1454] [✂] call note.
[1455] Third party response to the remedies questionnaire: [✂]; [✂]; and [✂].
[1456] [✂] call note.

Microsoft', and added that Microsoft's Microsoft Cloud Remedy did not provide any 'technical or content parity' for cloud gaming.[1457]

(d) Another third party ([✂]) told us that to ensure that under a behavioural remedy, third parties received the same quality of game as that used by Microsoft, the merging parties should ensure that built-in functionality in the game is not tied to specific Microsoft products (such as Azure cloud functionality) that are not publicly available.[1458]

11.74 With regard to distortion risks, in response to our question of how a behavioural remedy could remain relevant and appropriate as MGS and cloud-gaming services continue to develop (eg ensuring that new entrants would be captured by the behavioural remedy), one third party ([✂]) told us that the remedy could apply to an existing or potential competitor in a broadly defined market, allowing new entrants (including those with alternative business models) to take advantage of the remedy. It told us that content can be broadly defined, ensuring competitors have access to that content, and that access rights can apply before public release to allow the third parties time to perform quality assurance and launch on equal footing as the merging parties. The same third party told us that the remedy could apply to all current or future products, and that it could require periodic checkpoints to allow adjustments to fit new market dynamics.[1459]

11.75 Another third party ([✂]) told us that there was a risk that information sharing that would be required between Microsoft and any potential new entrant could distort the market. It told us that the new entrant would need to either disclose to Microsoft the details of its console or cloud game streaming service or would have to launch its service without CoD. It told us that neither option would be attractive as it could damage the new entrant's prospects and further strengthen Microsoft.[1460] This third party also told us that the Microsoft Cloud Remedy risked creating distortions that reduce competitors' effectiveness and increase costs in the market. It added that the Microsoft Cloud Remedy was silent on the revenue share split between Microsoft and eligible providers of cloud gaming services, and that if Microsoft proposed to keep all revenues, eligible providers of cloud gaming services could not recoup costs associated with including Activision content on their services, still less generate any margin from distributing Activision content. Moreover, this third party told us that the Microsoft Cloud Remedy risked forcing the market to develop via PC game storefronts as opposed to other types of

[1457] [✂] submission to the CMA.
[1458] [✂] response to the remedies questionnaire.
[1459] [✂] response to remedies questionnaire.
[1460] [✂] submission to the CMA.

business models that cloud gaming service providers might have otherwise developed, given that they were 'open to exploring different ways of monetising their services' and their 'current business models were not fixed'.[1461]

11.76 Another third party ([✂]) submitted that the obligation to make CoD available to other platforms and consoles should also extend to other subscription services and cloud gaming services. It told us that this obligation to release in parity and simultaneously should apply to subscription services and not just buy to play only.[1462]

11.77 On the monitoring and enforcing of the Microsoft Cloud Remedy, one third party ([✂]) told us that behavioural remedies could be enforced with an 'effective monitoring program'.[1463] However, another third party ([✂]) told us that while behavioural remedies were generally difficult to appropriately monitor and enforce, this was 'even more so in an industry like cloud gaming', which was evolving at a fast pace, towards an unpredictable direction. It told us that these factors, coupled with the range of foreclosure strategies available to Microsoft, made it challenging to monitor Microsoft's compliance with its proposed access remedy. It told us that Microsoft's statement that the Microsoft Cloud Remedy was 'self-executing and its implementation does not require significant monitoring or supervision' significantly understated the complexities of its enforcement. This third party added that it was clear that while no significant monitoring of the Microsoft Cloud Remedy was in Microsoft's interest, it would not serve the wider interests of competition or consumers.[1464]

Assessment of the effectiveness of a behavioural remedy

11.78 We have assessed the effectiveness of the Microsoft Cloud Remedy in comprehensively addressing the SLC that we have found. We consider this remedy proposal to be predominantly behavioural in nature as, while it involves a licence (which CMA guidance notes may be viewed under certain limited circumstances as a specialised form of asset divestiture[1465]), the most significant aspects of the remedy involve ongoing measures designed to regulate or constrain the behaviour of the merger parties.[1466]

[1461] [✂] submission to the CMA.
[1462] [✂] response to remedies questionnaire.
[1463] [✂] response to remedies questionnaire.
[1464] [✂] submission to the CMA.
[1465] CMA87, paragraph 6.2.
[1466] CMA87, paragraph 3.34.

11.79 We have considered the suitability, in principle, of a behavioural remedy in this case to address the competition concerns that have been identified, taking into account the nature of competition in the relevant market. We then looked in more detail at risks to effectiveness concerning specification, circumvention, market distortion and monitoring of the proposed remedy. We set out our assessment of these risks below.

Appropriateness in principle of a behavioural remedy in this case

Application of CMA's Merger Remedies Guidance

11.80 The CMA's Merger Remedies Guidance sets out the established position that behavioural remedies are, due to their overall risk profile, unlikely to deal with an SLC and its adverse effects as comprehensively as structural remedies.[1467] However, the Merger Remedies Guidance[1468] also states that '[b]ehavioural remedies can operate satisfactorily in limited circumstances, especially where the company operates in a regulated environment and where there are expert monitors'. As noted above, our Merger Remedies Guidance states that we will generally only select behavioural remedies as the primary source of remedial action in a phase 2 merger investigation where:

(a) structural remedies are not feasible[1469] or the relevant costs of any feasible structural remedy far exceed the scale of the adverse effects of the SLC;[1470]

(b) the SLC is expected to have a short duration;[1471] or

(c) behavioural measures will preserve substantial RCBs that would be largely removed by structural measures.[1472]

11.81 In the present case, cloud gaming is a nascent, rather than technologically mature, market. The market is not regulated, so no expert sectoral regulator is present to monitor and enforce a behavioural remedy. Instead, the Microsoft Cloud Remedy includes provisions for monitoring and arbitration by independent third parties (overseen by, or involving the participation of, the CMA). We consider this further from paragraph 11.126 below. In relation to

[1467] CMA87, paragraph 3.5.
[1468] CMA87, paragraph 3.48.
[1469] CMA87, paragraph 7.2.
[1470] CMA87, paragraph 3.48.
[1471] CMA87, paragraph 7.2.
[1472] CMA87, paragraph 7.2.

the other general factors set out in our guidance about the use of behavioural remedies in merger control, we note that:

(a) As this is an anticipated merger, the structural remedy of prohibition is clearly feasible and partial divestiture may also be feasible, although (as explained in paragraph 11.41 above) we have not been able to consider this in the depth needed to form a definitive view. This is because Microsoft told us [✂].

(b) The SLC is not time-limited, and there is no reason to expect it will have a short duration.

(c) The Parties have submitted that there are substantial RCBs that would be lost if the Merger was prohibited but could be preserved with behavioural remedies.

11.82 Our analysis of the RCBs claimed by the Parties is set out as part of our proportionality assessment at paragraphs 11.135 to 11.307 below. The remainder of this section considers the effectiveness of the Microsoft Cloud Remedy. As explained in this chapter, we have engaged in detail with the Parties and third parties to inform our assessment of the effectiveness of the Microsoft Cloud Remedy.

Experience of the application of behavioural remedies in previous cases

11.83 The CMA's 2019 update to its programme of evaluations of merger remedies[1473] found that 'the circumstances in which behavioural remedies are the right outcome of merger control are rare', and that 'where there is no expectation that the need for the remedy is itself in some way time-limited, the case for behavioural remedies is weaker still, as there is a greater likelihood that the remedy will either become ineffective or start to distort outcomes'.[1474]

11.84 While the CMA's 2019 evaluation report found that 'if sufficient care is taken over the design and implementation of behavioural remedies, and if active and informed monitoring arrangements are put in place, behavioural remedies can be at least partially effective for a limited period of time in narrowly defined circumstances',[1475] it also found that behavioural remedies 'are more complex and carry significantly higher risks than structural remedies and generally require more work both in upfront design and implementation'.[1476]

[1473] Merger Remedy Evaluations – report on case study research (CMA109), June 2019.
[1474] CMA109, paragraph 5.27.
[1475] CMA109, paragraph 5.27.
[1476] CMA109, paragraph 5.26.

11.85 Although the CMA will assess whether any proposed behavioural remedies may be effective in each individual case, by reference to the specific circumstances of that case, the CMA's past experience of using behavioural remedies is informative in highlighting the risks that can arise and how those risks can impact the effectiveness of a remedy. This experience is also reflected in the CMA's Merger Remedies Guidance. We have therefore taken account of this experience in informing our assessment of the remedies proposed by Microsoft in this case. We nevertheless carefully considered the possibility of the Cloud Remedy being potentially effective in this case, as reflected by our in-depth assessment and engagement with the Parties and third parties.

The nature of competition in the relevant market and of the SLC

11.86 Cloud gaming is a nascent market, which we have found will likely continue to grow significantly in terms of revenues and users and become profitable in the next five years.[1477] The market is currently characterised by incumbent firms such as SIE and Microsoft offering cloud gaming as an extension to their existing services, and new entrants seeking to gain market share through innovative business models. We expect competition in this market to continue to be dynamic and unpredictable, with significant uncertainty in the way that the market may develop in the future.

11.87 Behavioural remedies are, by their nature, static rules restricting the conduct of firms and are correspondingly limited in the extent to which they can adjust effectively to changes in competitive conditions. They rely on obligations on firms that are predominantly framed by the current conditions of competition. While a behavioural remedy may be capable, at least in theory, of being designed to be flexible to foreseeable changes in market and competitive conditions (for example, the enactment of proposed legislation), it cannot be drafted to take into account unforeseen and in some cases unforeseeable changes in market and competitive conditions. The market we are concerned with is dynamic and fast developing, which makes it particularly difficult to accommodate the changes that may occur in the market within the specification of a behavioural remedy. The CMA's Merger Remedies Guidance makes reference to this situation, stating '[w]here a market is likely to be subject to frequent technological change or other wide-ranging market developments, there is likely to be a significant risk that an access remedy [ie

[1477] Chapter 8, paragraphs 8.14 to 8.52.

a specific form of behavioural remedy] will become ineffective if the terms of the access commitment do not accommodate these changes'.[1478]

Assessment of the specific risks relating to the Microsoft Cloud Remedy

11.88 As well as having regard to the general considerations set out above regarding the likely suitability of behavioural remedies in the circumstances of this case, we have also considered in detail the specific risks arising from the Microsoft Cloud Remedy and its potential effectiveness in addressing the SLC that we have found.

11.89 We first look at the extent to which the design of the remedy would enable it to be an effective remedy to the SLC. In line with CMA guidance,[1479] this assessment includes the extent to which the remedy addresses the SLC, the duration and timing of the remedy, and its practicality.

11.90 We also consider its risk profile and look at the four main risks associated with behavioural remedies as set out in our guidance:[1480]

(a) Specification risks: these risks arise if the form of conduct required to address the SLC or its adverse effects cannot be specified with sufficient clarity to provide an effective basis for monitoring and compliance.

(b) Circumvention risk: as behavioural remedies generally do not deal with the source of an SLC, it is possible that other adverse forms of behaviour may arise if particular forms of behaviour are restricted. Therefore, to avoid or reduce these risks, behavioural measures need to deal with all the likely substantial forms in which enhanced market power may be applied.

(c) Distortion risks: these are risks that behavioural remedies may create market distortions that reduce the effectiveness of these measures and/or increase their effective costs. Distortion risks may result from remedies overriding market signals or encouraging circumvention behaviour.

(d) Monitoring and enforcement risks: even clearly specified remedies may be subject to significant risks of ineffective monitoring and enforcement. This may be due to a variety of causes, such as the volume and complexity of information required to monitor compliance; limitations in monitoring resources; asymmetry of information between the monitoring agency and

[1478] CMA87, paragraph 7.19.
[1479] CMA87, paragraph 3.5.
[1480] CMA87, paragraph 7.4.

the business concerned; and the long timescale of enforcement relative to a rapidly moving market.

Effectiveness of the design of the Microsoft Cloud Remedy

- *Does the remedy address all aspects of the SLC?*

11.91 We have identified two significant limitations in scope for the Microsoft Cloud Remedy. These relate to the extent to which the remedy is able to address concerns relating to certain existing and future business models, and the extent to which the remedy would be effective in supporting cloud gaming services using non-Windows OSs.

11.92 In assessing the effectiveness of a remedy, we do not seek to recreate an expected counterfactual outcome at a particular point in time but to recreate the dynamic conditions of competition present in the counterfactual. The CMA views competition as a dynamic process of rivalry between firms seeking to win customers' business over time.[1481] As such, in assessing the effectiveness of a remedy in addressing the SLC and resulting adverse effects, it is important to consider the impact of any remedy on preserving that dynamic process in the market, taken as a whole.

- *Does the remedy cover alternative business models?*

11.93 We have found that Activision would be likely to have made its games available – including day and date releases – on cloud gaming services in the next five years. We considered that this was more likely for cloud gaming services which do not have an MGS-based model, ie those with a B2P or BYOG model.[1482] However, we did not rule out that cloud gaming services with different business models would arise absent the Merger, and we note that it is difficult to predict with any certainty how an emerging and dynamic market will continue to evolve.

11.94 The Microsoft Cloud Remedy offers a licence to stream Eligible Games to consumers who have bought a copy of the game. It also licenses certain cloud gaming services to stream Eligible Games, for which 'consumers have already obtained a licence for download of the game'.[1483]

11.95 The design of the remedy does not make any provision for a direct commercial relationship between the cloud gaming service and the publisher

[1481] See eg CMA87, paragraph 3.5.
[1482] Chapter 8, paragraph 8.278.
[1483] Microsoft response to the Remedies Working Paper.

of the Eligible Games (ie Activision). This limitation of the remedy restricts the ability of the cloud gaming service to employ competitive strategies and business models that we currently observe in the cloud gaming market, and other strategies which might also be seen in the future in the absence of the Merger. Such strategies and business models include, but are not limited to, joint marketing arrangements, negotiation with games publishers to provide exclusive or early access content (both of which are current features of Activision's commercial relationship with SIE) or to provide competitive differentiation around game access or content, and MGS deals (such as Amazon's deal with Ubisoft).

11.96 The strategies listed in the paragraph above are only a few examples. Given the dynamic nature of the market, we consider that there may be further innovative competitive strategies that could be employed in the future that cannot currently be predicted. This reflects our broad concern that, by seeking to control outcomes in a market for a long period of time, the Microsoft Cloud Remedy would be unable to adequately replace normal market-driven incentives and strategies.

11.97 In its response to the Remedies Working Paper, Microsoft told us that there was no requirement for the Consumer Licence to be paid for, and that the definition of the licence does not specify the type of payment. It gave an example, that 'if a player is entitled to play an Eligible Game via a subscription service that player is paying for, that player also has the right to play that game via an Eligible Streaming Service'.[1484]

11.98 We do not consider that this example demonstrates how the remedy effectively addresses alternative business models to BYOG, such as subscription services. In particular, it is not clear how a consumer would gain the entitlement to play an Eligible Game via a subscription service. In this example, the consumer would not necessarily have obtained a Consumer Licence to stream, as they would not have purchased a copy of the game. This would suggest that the consumer's entitlement would derive from their relationship with the cloud gaming service providing the subscription. In turn, this would mean that the cloud gaming service would need to have a licence from, or some other contract with, Microsoft to allow it to include the Eligible Games in its subscription service. However, there is no provision for this in the Streaming Provider Licence. The Streaming Provider Licence permits streaming of Eligible Games 'for the sole benefit of Consumers in accordance with the Consumer Licence'.[1485] As we have observed earlier in this

[1484] Microsoft response to the Remedies Working Paper.
[1485] Microsoft, Annex 1 to the response to the Remedies Working Paper.

paragraph, the subscription service consumer would not necessarily have a Consumer Licence.

11.99 The Streaming Provider Licence also says that [✂].[1486] This appears [✂]. It suggests that there would be no financial incentive for a cloud gaming service to [✂]. It also prevents cloud gaming services from [✂], which we found to be a feature of the console market and may become a feature of monetisation in cloud gaming.

11.100 The Streaming Provider Licence also provides that [✂].[1487]

11.101 In our view, this provision further demonstrates the limitations in scope of the Microsoft Cloud Remedy. If Eligible Streaming Providers wish to offer Eligible Games directly to their customers, our understanding is that they would need to enter into a separate agreement with Microsoft, outside the terms of the remedy. Our analysis in Chapter 8 has shown that, as a result of the Merger, Microsoft would have the ability and incentive to foreclose rival cloud gaming services in relation to Activision's games. It follows from this that Microsoft may not have the incentive to enter into such agreements (either at all or on terms commercially acceptable to the third party provider). Given this, we find that the Microsoft Cloud Remedy does not have a sufficiently broad scope to cover these agreements, leaving this aspect of the SLC without an effective solution.

11.102 We concluded that the Microsoft Cloud Remedy would not fully address the adverse effects of the SLC on providers of cloud gaming services wishing to use alternative business models, and to gamers who would benefit from the availability of such models.

- *Does the remedy cover non-Windows operating systems?*

11.103 The Microsoft Cloud Remedy applies only to the PC and console versions of a defined list of games (the Eligible Games). The PC versions are those which are developed to run on a Windows OS.

11.104 This means that any cloud gaming service wishing to stream these games would have to use, or be compatible with, the Windows OS version of those games. This would exclude or restrict providers that may wish to provide cloud gaming services using other OSs, either now or in the future. This could exclude, for example, Apple, which has its own proprietary OS, as well as Linux OS-based cloud gaming services and potential new entrants

[1486] Microsoft, Annex 1 to the response to the Remedies Working Paper.
[1487] Microsoft, Annex 1 to the response to the Remedies Working Paper.

using a different OS. We have found that Microsoft would have the ability and incentive to foreclose rival cloud gaming service providers post-Merger. This means that cloud gaming services using other OSs would either need to switch to Windows (and incur Windows licensing fees, which we found to be a high proportion of overall costs for cloud gaming providers) or seek to adapt the Windows version of the game to run on their alternative OS (eg through the use of a compatibility layer such as Proton, which we have already found is not sufficiently effective to overcome Microsoft's advantage through Windows).[1488] This has the potential to make it significantly more difficult for such providers to enter, grow and compete against Microsoft.

11.105 In response to these concerns, Microsoft told us that it would grant streaming rights for MacOS and other PC OS versions of the Eligible Games 'as may be released during the term of the Microsoft Cloud Remedy'. It noted that Activision had previously released MacOS versions of a small number of games.[1489]

11.106 While this commitment brings non-Windows PC versions within the scope of the Microsoft Cloud Remedy, it only covers games for which Microsoft chooses to make alternative versions. In the absence of the Merger, Activision would seek to maximise the value that it was able to derive from these games, which would have involved consideration of making non-Windows PC versions of its games (as it already has done in some cases). In our view, it is likely that Activision would continue to develop non-Windows PC versions of at least some of its games absent the Merger, and the incentives to do so would increase if demand for cloud gaming services that use PC operating systems other than Windows were to grow. However, after the Merger, Microsoft's incentives to make these games compatible with rival OS would be significantly lower, as this would both increase the attractiveness of rival cloud gaming services and divert demand away from Windows OS. Given this, the proposed remedy would put non-Windows based cloud gaming services at a disadvantage, and potentially distort the choice of OSs for new entrants.

11.107 In the Remedies Working Paper, we stated that an effective remedy should ensure that future versions of Eligible Games would be able to run on non-Windows OSs through compatibility layers.[1490] In its response, Microsoft told us that this was not a reasonable requirement because it could not ensure that a game could operate through a compatibility layer, that only the third-party developer of the compatibility layer could update, when Microsoft

---

[1488] Chapter 8, paragraph 8.221.
[1489] Microsoft response to the Remedies Working Paper.
[1490] CMA, Remedies Working Paper.

updated Windows, and that some titles could not run on open-source OS because of security concerns regarding cheating. Instead, it proposed a commitment within the Cloud Remedy that it 'shall not implement any features or functions in the Eligible Games after the Commencement Date with the deliberate purpose of preventing or negatively affecting the operation or performance of any compatibility layer or of the Eligible Games running on a compatibility layer'.[1491]

11.108 We acknowledge that it may not be practical for Microsoft to ensure that the Eligible Games would be able to run through compatibility layers. However, while this commitment aims to provide some reassurance that Microsoft will not deliberately seek to circumvent the intent of the remedy by preventing or negatively affecting the Eligible Games from being played on non-Windows OSs via compatibility layers, we consider the effect of any such reassurance to be limited. It relies on an assessment of the motivation behind any action or inaction by Microsoft, which is likely to be difficult for any party other than Microsoft to assess in a sufficiently robust manner for the purposes of implementing the remedy. Moreover the remedy includes circumstances where the commitment would not apply – 'where such measures are required for an objective reason (eg to prevent hacking) and Microsoft has obtained the prior consent of the Monitoring Trustee'.[1492] In our view, the reference to 'objective reasons' makes this exception both extremely broad, ambiguous and very difficult for a Monitoring Trustee to oversee and adjudicate on.

11.109 The Cloud Remedy also covers PlayStation versions of the Eligible Games. We considered whether Microsoft could foreclose SIE's cloud gaming service by making the PlayStation version of the game less attractive than the Xbox or PC streamed versions.

11.110 Based on the above, we have concluded that the Microsoft Cloud Remedy does not comprehensively address the SLC and would afford only limited protection from the adverse effects of the SLC to providers of cloud gaming services wishing to use a non-Windows OS, and to gamers who would benefit from the availability of such services.

- *Conclusion on scope of the Microsoft Cloud Remedy*

11.111 In summary, the Microsoft Cloud Remedy seeks to standardise the terms and conditions on which the Eligible Games are available, as opposed to them being determined by the dynamism and creativity of competition in the market, as would be expected in the absence of the Merger. The design of the

[1491] Microsoft, Annex 1 to the response to the Remedies Working Paper.
[1492] Microsoft, Annex 1 to the response to the Remedies Working Paper.

Microsoft Cloud Remedy, and in particular its restriction to copies of the Eligible Games purchased by consumers, and its restriction to PC and console versions, present significant limitations to the scope of the remedy and its ability to comprehensively address the SLC we have found, particularly in relation to different business models and PC OSs other than Windows.

11.112 These limitations lead us to consider that the Microsoft Cloud Remedy would not provide a comprehensive solution to the SLC. In addition, we consider that the limitations are inherent in the design of the remedy. Given the dynamic and rapidly changing nature of the market, and the likely entry and development of cloud gaming services using different OSs and business models, we do not consider that the remedy could be modified to accommodate these developments to a sufficient extent to replicate the competitive conditions that would have prevailed absent the Merger.

11.113 We have identified other limitations and effectiveness issues relating to the scope, timeliness, practicality and risk profile of the remedy, which we set out in the sections below. These issues reinforce our concerns that the Microsoft Cloud Remedy is not an effective remedy, and mean that we would not have a high degree of confidence as to the success of the remedy even if it could be appropriately scoped. However, even absent the significant additional risks below, we consider the fundamental limitations in scope set out in paragraphs 11.91 to 11.112 above would by themselves render the remedy ineffective in terms of providing a comprehensive solution to the SLC.

- *Timing and duration*

11.114 The Microsoft Cloud Remedy has a duration of ten years. We note that some third parties told us that this was a sufficient duration to remedy the SLC. However, the SLC in cloud gaming services that we have found arises from a structural change in the market. As a result, the SLC and the adverse effects arising from it are not time limited and could endure beyond ten years. Although we recognise the possibility that the changing nature of the market might result in circumstances where the SLC may no longer apply, we do not have a high degree of confidence in such an outcome. While the Consumer and Streaming Provider Licences are perpetual, the other protections and commitments of the remedy, including monitoring and enforcement, would expire after ten years, leaving it materially weaker.

11.115 Our view is that the time-limited nature of the Microsoft Cloud Remedy is a clear and further weakness in terms of its effectiveness as a comprehensive solution to the SLC. While the duration of the remedy could be extended, or the end-date removed, this would create additional risks in terms

of specification in the context of obsolescence and/or distortion of the market, and in terms of effective monitoring.

- *Practicality*

11.116 The Microsoft Cloud Remedy does not affect a single party, but instead represents a set of commitments that would be open to any eligible cloud gaming service.

11.117 However, it is a complex remedy involving Microsoft committing to develop and maintain commercial and technological relationships with competing cloud gaming services and game storefronts. Furthermore, it requires third-party arbitration, monitoring and enforcement, with the functions of these third parties and the CMA needing to be fully defined and established. We examine the difficulty of specifying a remedy in this evolving context below, as well as other implementation risks in the section on monitoring and enforcement risks starting at paragraph 11.126 below.

Risk profile of the Microsoft Cloud Remedy

- *Specification risks*

11.118 Cloud gaming is an early-stage and growing dynamic market, and there is considerable uncertainty as to how it will develop and what competing business models will emerge. We believe, for the reasons set out in detail in Chapter 8, that foreclosure of Microsoft's rivals in cloud gaming services may be expected to result in substantial harm to competition in this market. We recognise that we cannot predict with any certainty how exactly the market might evolve absent the Merger (or if the Merger is allowed to proceed on the basis of the Microsoft Cloud Remedy). Neither, in our view, can the Parties or third parties. We consider this represents an inherent specification risk in the Microsoft Cloud Remedy – even if the remedy could be well-specified to cover the current status of the market, it may not be suited to future changes. This means that we cannot have a high degree of confidence that the terms of the remedy would be sufficiently well-specified to address these unpredictable market changes.

11.119 We consider that this additional specification risk contributes to the overall risk profile of the remedy.

- *Circumvention risks*

11.120 Given Microsoft's ability and incentive post-Merger to foreclose other cloud gaming providers, and the complexity of offering a high-specification

gaming experience to customers, there are a variety of ways in which user experience might worsen on competing platforms (see, for example, the factors set out in paragraph 11.65). While the Microsoft Cloud Remedy is intended to restrict Microsoft's ability to pursue such a strategy, the range of means by which it could worsen user experience on other platforms, and the asymmetry of information between Microsoft and other parties, represent a source of circumvention risk.

11.121 In this context we note that Microsoft's agreement with NVIDIA [✂]. Similar provisions are in Microsoft's agreements with other cloud gaming services.

11.122 We note that the inclusion of these terms in the NVIDIA agreement illustrates that even when there is a greater parity of bargaining power and information between the parties, the [✂]. This indicates that the parties are not able to anticipate or capture all of their needs in advance. We anticipate that any other cloud gaming provider is likely to have analogous needs to NVIDIA to access Activision content.

11.123 Furthermore, the NVIDIA agreement itself recognises that its terms cannot accurately specify future market conditions. The [✂] clause states: [✂].[1493] [✂], giving rise to the specification, circumvention and monitoring risks set out in the previous paragraph. The presence of this clause demonstrates clearly that it is inherently difficult to accurately specify the scope and detailed terms of a remedy *ex ante* in a rapidly evolving market such as cloud gaming.

11.124 We note, in addition, that the obligations set out in Microsoft's agreement with NVIDIA are [✂],[1494] [✂].[1495] The remedy does not include such provisions, which would in any case be difficult to specify comprehensively and precisely, and impracticable to monitor and enforce effectively. This limitation in its specification represents a risk that Microsoft would be able to deteriorate the service of its cloud gaming rivals.

- *Distortion risks*

11.125 As discussed above in paragraphs 11.91 to 11.112, the limitations in scope of the Microsoft Cloud Remedy give rise to substantial distortion risks relating to the business models and OSs employed by rival cloud gaming providers. For example, it risks limiting innovation and competition in the B2P

[1493] Microsoft, Annex 2 to the response to the Remedies Notice.
[1494] Microsoft, Annex 2 to the response to the Remedies Notice.
[1495] Microsoft, Annex 2 to the response to the Remedies Notice.

and BYOG segments, as there would be extremely limited scope for content exclusives, which are a current feature of the console market and one we would expect, in the absence of the Merger, to be part of the cloud gaming market.

- *Monitoring and enforcement risks*

11.126 As part of our consideration of this remedy option and taking into account the CMA's experience of the difficulties that can arise, in practice, when overseeing complex behavioural remedies as captured in the CMA's Mergers Remedies Guidance,[1496] we have assessed the risks and challenges associated with the monitoring and enforcement of the Microsoft Cloud Remedy.

11.127 In addition to the specification, circumvention and distortion risks set out above, we have identified five main areas of concern in relation to monitoring and enforcement:

(a) The fact that this is a new, dynamic, and growing market means that the scope of the core definitions (such as Eligible Game, Authorised PC Game Store and Eligible Streaming Service) is likely to evolve substantially over the lifetime of the Microsoft Cloud Remedy. This will make it harder for the CMA and Monitoring Trustee to assess whether or not Microsoft is meeting its obligations at any point in time.

(b) The remedy essentially proposes that the CMA would oversee various arrangements that seek to regulate the behaviour of global firms in a complex technological sector that is subject to rapid growth, evolving business models and changing commercial practices. Notwithstanding the appointment of a Monitoring Trustee, the Microsoft Cloud Remedy is likely to place significant demands on CMA resources for the duration of its proposed term, principally through the CMA's extensive monitoring and enforcement responsibilities across the broad scope of the remedy, its oversight and governance of the Monitoring Trustee and any of its advisers, and its participation in any dispute resolution process.

(c) The Microsoft Cloud Remedy requires the interaction of a number of third parties and processes (eg Microsoft's Compliance Director, reporting requirements, Monitoring Trustee, third party dispute resolution), each contributing to the monitoring and enforcement of the remedy. While there is a need for the involvement of these different parties, the resulting

[1496] For example, see CMA87, paragraphs 3.42, 3.52, 7.4 and 7.18.

organisational complexity creates an additional challenge in ensuring that the Microsoft Cloud Remedy is monitored and enforced effectively in the longer-term.[1497]

(d) The proposed compliance reporting processes are insufficient, with no responsibility for Microsoft to proactively report non-compliance, and insufficient provision for the Monitoring Trustee to audit Microsoft's compliance. In addition, the Monitoring Trustee's analytical duties are broad and complex, giving rise to risks that it would not have the capability to monitor and enforce the remedy effectively.

(e) The dispute resolution process, while described as 'fast-track', may take several months, risking potential harm that could be caused to Eligible Streaming Services through a protracted process. Notwithstanding the possible extent of the demands that implementing the remedy is likely to place on the CMA (as noted in sub-paragraph (b) above), the CMA's role in the process, which is primarily one of oversight, gives rise to a risk that it will not have adequate control over the practical application of the remedy (which would instead largely be determined by the Monitoring Trustee).

Conclusions on the effectiveness of the Microsoft Cloud Remedy

11.128 The Microsoft Cloud Remedy seeks to regulate a complex set of arrangements between Microsoft, competitor cloud gaming services, competitor PC game storefronts, and consumers.

11.129 The task of specifying these arrangements and Microsoft's behaviour in such a way that we can be confident that the SLC is comprehensively remedied is made more difficult by the developing and dynamic nature of the cloud gaming market, and our expectation that the future will see novel and innovative business models and competitive strategies from both current cloud gaming providers and new entrants.

11.130 In our view, the Microsoft Cloud Remedy suffers from material limitations in scope. It is confined to a model based around customers buying the Eligible Games before streaming them. It therefore risks excluding alternative business models, such as inclusion of games within subscriptions, that competing cloud gaming services may wish to pursue. It also risks limiting innovation and competition in the B2P and BYOG segments, as there would be extremely limited scope for content exclusives, which are a current feature

[1497] See, the Open Banking Lessons Learned Review, 27 May 2022, paragraphs 112-115.

of the console market and one we would expect, in the absence of the Merger, to be part of the cloud gaming market.

11.131 In addition, although the remedy is in theory scoped to include versions of the Eligible Games for non-Windows PC OSs, in practice, we consider that Microsoft would have limited incentives to produce such versions, and lower incentives than Activision has in the pre-Merger conditions of competition. This could be expected to lead to distortions in the cloud gaming market and a reinforcement of Microsoft's advantages in OSs.

11.132 In addition to these fundamental limitations in scope, we have found that the Microsoft Cloud Remedy gives rise to several significant risks to its effective design and implementation, such that we do not have a high degree of confidence as to the success of the remedy – ie that it will achieve its intended effect – regardless of its limitations in scope. Specification of such a complex remedy in an early-stage, growing, and dynamic market brings inherent risks that future market developments cannot be effectively captured. These specification risks in turn give rise to risks of circumvention by the Parties and of market distortions. Furthermore, a complex remedy involving third parties such as the Monitoring Trustee and those involved in dispute resolution, and operating for a long duration, presents risks to the ability of those third parties and the CMA to effectively monitor and enforce its provisions.

Conclusions on remedy effectiveness

11.133 Based on the evidence provided to us and assessed above, we have concluded that only a prohibition remedy would be effective in remedying the SLC and adverse effects that we have found.

11.134 We have reached the following conclusions about two other remedy options:

(a) Partial divestiture might in principle be an effective remedy, but [✂]; and

(b) The Microsoft Cloud Remedy would not be effective in remedying the SLC and adverse effects that we have found.

Proportionality

11.135 In order to be reasonable and proportionate, the CMA will seek to select the least costly remedy, or package of remedies, of those remedy options that it considers will be effective. In addition, the CMA will seek to

ensure that no remedy is disproportionate in relation to the SLC and its adverse effects.[1498]

11.136 In conducting this proportionality assessment, we first consider whether there are any RCBs which would be preserved or foregone under our preferred remedy, before considering the other factors relevant to proportionality.

Relevant customer benefits

11.137 When deciding on remedies, the CMA may have regard to the effects of remedial action on any RCBs.[1499] In this section, we consider whether there are any RCBs (within the meaning of the Act[1500]) that should be taken into account in our remedy assessment.

11.138 RCBs that will be foregone due to the implementation of a particular remedy may be considered as costs of that remedy. The CMA may modify a remedy to ensure retention of an RCB or it may change its remedy selection. For instance, it may decide to implement an alternative remedy, or in rare cases, it may decide that no remedy is appropriate.[1501]

Framework for assessment of RCBs

11.139 The Act defines RCBs as a benefit to relevant customers in the form of lower prices, higher quality, or greater choice of goods or services in any market in the UK, or greater innovation in relation to those goods or services.[1502] For these purposes, relevant customers are direct and indirect customers (including future customers) of the merger parties at any point in the chain of production and distribution – they are not limited to final consumers.[1503]

11.140 In addition, in the case of anticipated mergers, to be properly considered as an RCB under the statutory definition, the CMA must believe that:[1504]

(a) the benefit may be expected to accrue within a reasonable period as a result of the creation of the relevant merger situation concerned; and

---

[1498] CMA87, paragraph 3.6.
[1499] Section 36(4) of the Act.
[1500] Section 30 of the Act.
[1501] CMA87, paragraph 3.16.
[1502] Section 30(1)(a) of the Act.
[1503] Section 30(4) of the Act; and CMA87, paragraph 3.18.
[1504] Section 30(3) of the Act.

(b) the benefit is unlikely to accrue without the creation of that situation or a similar lessening of competition.

11.141 Our Merger Remedies Guidance states that the merger parties will be expected to provide 'convincing evidence' regarding the nature and scale of RCBs that they claim to result from the merger and to demonstrate that these fall within the Act's definition of such benefits.[1505] The merging parties' incentives to implement and pass on to customers the benefits post-merger will also be relevant to the likelihood of RCBs being realised in practice.

RCBs claimed by Microsoft

11.142 In our Remedies Notice, we invited views on the nature of any RCBs and on the scale and likelihood of such benefits and the extent (if any) to which these were affected by different remedy options.[1506]

11.143 Microsoft claimed that five RCBs would arise as a result of the Merger:

(a) Benefits from CoD and other Activision games being available on cloud gaming services (the **claimed Cloud Gaming RCB**);

(b) Benefits from future versions of CoD being available on Nintendo consoles (the **claimed Nintendo RCB**);

(c) Benefits from Microsoft's expansion into mobile gaming (the **claimed Mobile Gaming RCB**); and

(d) Benefits from placing Activision content on Game Pass (Xbox and PC), including day and date releases of future CoD titles (the **claimed Game Pass RCB**).

11.144 The claimed RCBs were presented to the CMA staff team orally by Microsoft and its advisers at a meeting on 20 February 2023. Further detail was provided in Microsoft's response to the Remedies Notice (received on 22 February 2023), and at Microsoft's response hearing on 27 February 2023. An updated estimate of the value of RCBs was included in Microsoft's response to the Provisional Findings (received on 2 March 2023), and a new version of the Microsoft Cloud Remedy was received on 6 March 2023. RCBs were also discussed at a meeting with CMA staff on 14 March 2023. Microsoft also made further submissions on RCBs in its response to our Remedies Working

---

[1505] CMA87, paragraph 3.20. For example, in a previous phase 2 case in which RCBs were accepted, the type of evidence provided included implementation plans which were detailed and advanced. See the CMA's investigation into the anticipated merger between Central Manchester University Hospitals NHS Foundation Trust and University Hospital of South Manchester NHS Foundation Trust (2017).
[1506] CMA, notice of possible remedies (Remedies Notice), 8 February 2023, paragraph 52(b).

Paper. This was followed up by a call between the CMA staff team and Microsoft on 4 April 2023, which included a discussion on certain aspects of Microsoft's submission on RCBs in its response to our Remedies Working Paper, and a further submission from Microsoft on 6 April 2023 containing Microsoft's response to the CMA staff team's questions.

11.145 In the remainder of this section, we first summarise the views of third parties. We then assess each claimed RCB in turn. Finally, we conclude on the scale of any of the claimed RCBs that we consider meet the statutory threshold.

Views of third parties

11.146 Third parties provided the following evidence on RCBs:

(a) Three third parties ([✂], [✂] and [✂]) told us that there are no potential customer benefits arising from the Transaction.[1507]

(b) Two other third parties ([✂] and [✂]) told us that the remedies involving open distribution across cloud gaming and the offers to console players would be a good outcome for the franchises.[1508]

(c) Another third party ([✂]) told us that Microsoft's commitment to make Activision-Blizzard games widely available via the cloud would provide gamers with a fair choice as to where they play games, that other industry players will explore multiple ways they can compete with each other (eg gameplay quality, [✂], support of new platforms, etc), and could potentially result in lower prices.[1509]

(d) One third party ([✂]) told us that any behavioural commitment from Microsoft to grant rivals access to CoD could pose a risk for consumers, as there are numerous ways Microsoft could withhold or degrade access which would be 'extremely difficult to monitor and police'.[1510] The same third party also told us that adding CoD to Game Pass would be a 'good thing' for existing Game Pass subscribers who play CoD, but that a larger population of [✂] gamers would suffer due to the foreclosure strategies Microsoft could engage in. This third party told us that it would have to consider adding its own first-party content day and date on its subscription platform if Microsoft were to offer CoD day and date on Game Pass, but that doing so would diminish its incentives to invest in its first-party

[1507] [✂] and third party responses to the remedies questionnaire: [✂]; [✂]; and [✂].
[1508] [✂] call note. [✂] response to the remedies questionnaire.
[1509] [✂] response to the remedies questionnaire.
[1510] [✂].

content and would not be good for its gamers.[1511] Overall, the same third party submitted that bringing CoD to Game Pass would not enhance customer welfare and result in Merger-specific RCBs:[1512]

(i) First, the third party submitted that Microsoft has explained that in the future it expects the vast majority of gaming revenues to come from gamers purchasing individual games rather than MGS. It noted that in this scenario any RCBs resulting from the Transaction would be limited and insufficient to outweigh the harm to competition.

(i) Second, it told us that, in the alternative scenario in which MGSs do take off, Activision would make CoD available on PlayStation Plus and Game Pass on similar terms and therefore, against this counterfactual, the Transaction would reduce consumer choice and foreclose rivals.[1513]

11.147 We received one third-party submission on Microsoft's published response to the Remedies Notice. This third party ([✂]) told us that there was no evidence that there were substantial customer benefits that would be preserved by a behavioural remedy but not a structural one – in this regard, it told us that:[1514]

(a) First, in relation to Microsoft's claims that day and date release of Activision content on Game Pass would bring RCBs, even if such benefits did exist, they would be 'at best, short-term and limited', and moreover, any such benefits would be insufficient to outweigh the harm the SLC will cause to cloud gaming – an entirely new form of game distribution that may be 'an important disruptive force in the gaming industry', where 'harm to competition is particularly significant' because the market 'has the potential to introduce more competition into a context where it has previously only been possible for a small number of suppliers to compete'.

(b) Second, this third party told us that while Microsoft claimed that its partnership with NVIDIA and Nintendo would bring CoD to 'an additional 150 million gamers worldwide', it told us that to derive the 150 million figure, Microsoft had summed Nintendo's entire installed base (around 123 million) and all existing GeForce Now subscribers (around 20 million). However, this third party told us that according to Ampere Analysis, only 2 million of GeForce Now's 20 million subscribers were paid members, and Microsoft was silent on whether CoD would become available to the 18

[1511] [✂].
[1512] [✂] submission to the CMA.
[1513] [✂] submission to the CMA.
[1514] [✂] submission to the CMA.

million free members. This third party also told us that it would not be 'economically sound' for Microsoft to make CoD available to trial subscribers with free accounts when tens of millions of avid fans were willing to pay $70 to buy the latest game.

(c) Third, even if the entire GeForce Now subscriber base were to have access to CoD, the customer benefits that may be derived from Microsoft's agreement with NVIDIA were 'hypothetical at best and unlikely' to materialise – in this regard, a user who could access CoD on both B2P and streaming by subscribing to Game Pass Ultimate would not buy an additional subscription to GeForce Now, ie Microsoft's partnership with NVIDIA would neither change the anticompetitive effects of the Transaction on cloud gaming services market, nor disprove Microsoft's incentives to establish Game Pass dominance.

Our assessment

11.148 For each claimed RCB, we first assess whether it qualifies as an RCB under the definition in the Act.[1515] This requires an assessment of whether it meets the criteria in section 30(1) of the Act – which relate to the nature of the claimed benefit – and section 30(3), which require that:

(a) the benefit may be expected to accrue within a reasonable period as a result of the creation of the RMS; and

(b) the benefit is unlikely to accrue without the creation of the RMS or a similar lessening of competition.

11.149 For any RCBs that are found to meet these statutory criteria, we then assess the likely scale of that RCB.

11.150 Before going into our detailed assessment of the five claimed RCBs, we first consider some broader points raised by Microsoft about the correct application of the relevant statutory framework.

- *The application of the statutory framework governing RCBs*

11.151 In its response to our Remedies Working Paper, Microsoft argued that the CMA had erroneously applied the relevant sections of the Act in its assessment of the claimed Cloud Gaming RCB and claimed Nintendo RCB, and that this ultimately resulted in an 'irrational choice of remedy

[1515] Section 30(3) of the Act.

selection'.[1516] Microsoft submitted that, under the Act, a benefit may qualify as an RCB where two cumulative tests are met: *(a) the benefit may be expected to accrue within a reasonable period as a result of the creation of the relevant merger situation concerned; and (b) the benefit is unlikely to accrue without the creation of that situation or a similar lessening of competition*. Microsoft submitted that the CMA had confused the analysis of section 30(3)(a) of the Act by effectively asking two questions relating to the same causation issue and imposing additional requirements on the RCB qualification that did not exist in the Act or CMA guidance. For example, Microsoft argued that in relation to the claimed Cloud Gaming RCB, while the Remedies Working Paper had provisionally concluded that it would occur within a reasonable period (ie the 'timing element'), it (wrongly) sought further and separately to consider under section 30(3)(a) whether the benefits might be expected to accrue as a result of the creation of the RMS. Thus, Microsoft told us that the Remedies Working Paper wrongly treated section 30(3)(a) of the Act as having two separate tests, ie one on the timing of the RCB and the other on the causation of the RCB.[1517]

11.152 Microsoft argued that when considering the correct legal approach to section 30(3)(a), it was simpler first to focus on section 30(3)(b) as the relevant causation test (which asks whether the benefits are unlikely to accrue without the RMS), and that if they are unlikely to accrue without an RMS, then section 30(3)(b) is met, ie the relevant 'causal threshold' is passed. Microsoft submitted that it was not appropriate for the CMA then to impose a further causation threshold by reference to the language of section 30(3)(a): the use of the words 'as a result of the creation' of an RMS in section 30(3)(a) cannot impose a higher threshold for causation – if they did, section 30(3)(b) would serve no practical purpose. Microsoft submitted that it was a basic principle of statutory interpretation that an interpretation which gives meaning to all of the relevant provisions is to be preferred.[1518] Microsoft also submitted that '[the] CMA's approach would perversely remove any incentive for companies to take proactive steps to address regulatory concerns during a merger review process, since under the [CMA's] logic, such steps can simply be ignored […]'.[1519]

11.153 We disagree with Microsoft's interpretation of the statutory framework for the assessment of RCBs. Microsoft's proposed approach would fail to comply with a key element of section 30(3)(a): the requirement for the benefit to be causally connected to the RMS. Whilst we agree with Microsoft that

---

[1516] Microsoft response to the Remedies Working Paper.
[1517] Microsoft response to the Remedies Working Paper.
[1518] Microsoft response to the Remedies Working Paper.
[1519] Microsoft response to the Remedies Working Paper.

there is a temporal element under section 30(3)(a): "**within a reasonable period**", there is also a causal element: "**as a result of**". This is separate from the requirement under section 30(3)(b) for the CMA to believe that the benefit is unlikely to accrue without the creation of the RMS or a similar lessening of competition. Under this limb, the CMA must consider what was likely to happen **in the absence of** the RMS.

11.154 "Relevant merger situation" is defined in section 23 of the Act and incorporates the concept of two or more enterprises ceasing to be distinct (along with conditions as to turnover or share of supply). To satisfy the causal requirement under section 30(3)(a), the CMA must therefore believe that the benefit may be expected to accrue as a result of the enterprises ceasing to be distinct.

11.155 The Merger Remedies Guidance gives examples of when this condition may be satisfied: it notes that the merger may lead to economies of scale or efficiencies that lead to lower prices, improved quality or greater innovation.[1520] These are examples of how the merger might change the merging parties' marginal costs or commercial incentives, which in turn may result in a benefit for customers.

11.156 Claimed benefits that are linked to reduced marginal costs or changes in commercial incentives can be distinguished from a situation in which a claimed benefit is conditional on completion of a merger but does not arise as a result of the enterprises ceasing to be distinct. For example, an acquirer could unilaterally pledge or contractually commit to make a charitable donation to an organisation (of which relevant customers are beneficiaries) on completion of the merger. Whilst any benefit arising from the donation will only materialise in the event that the merger completes, it does not arise as a result of any changes (eg in commercial incentives) flowing from the creation of the RMS. Since the claimed benefit does not flow from the creation of the RMS, the condition in section 30(3)(a) would not be satisfied.

11.157 As for section 30(3)(b), by asking whether the claimed benefit is 'unlikely to accrue' without the creation of the RMS, this section focuses on what might occur absent the creation of the RMS. It asks whether the benefit might be achieved by some means other than the creation of the RMS or a similar lessening of competition. This condition therefore requires separate consideration from the conditions in section 30(3)(a).

[1520] CMA87, paragraphs 3.22 to 3.24.

11.158 We note that it is possible for a benefit to accrue within a reasonable period as a result of the creation of an RMS (and thus satisfy the requirements of section 30(3)(a)) but for it to have been likely to accrue in any event even without the creation of that RMS or a similar lessening of competition (and thus fail the requirements of section 30(3)(b)). Similarly, it is possible fora benefit to be unlikely to accrue without the creation of an RMS or a similar lessening of competition (and thus satisfy the requirements of section 30(3)(b)) but not have a causal link with the RMS (and thus fail the requirements of section 30(3)(a)).

11.159 The natural interpretation of these statutory provisions is consistent with the explanatory notes accompanying the statutory provision, which provide that RCBs are "narrowly defined [and]are not expected to arise often" and that the definition is "further narrowed" by the requirement that "the authority has to have an expectation that the benefits will be realised within a reasonable time-frame as a result of the merger" and that "the benefits are unlikely to arise without the merger (unless the only other ways of realising the customer benefit would have a similarly detrimental effect on competition)".

11.160 We also disagree with Microsoft's view that the CMA's approach would perversely remove any incentive for companies to take proactive steps to address regulatory concerns during a merger review process. In addition to the possibility of offering undertakings in lieu of a reference to phase 2,[1521] merging parties also have the option to engage in discussions with the CMA about potential remedies at any stage of the phase 2 process, including before the provisional findings ('without prejudice' to the question of whether the merger gives rise to an SLC).[1522] There are further opportunities to engage with possible remedies where the CMA provisionally finds an SLC at phase 2, as the Merging Parties have done so in this case.

11.161 We therefore assess the requirements of each of sections 30(1), 30(3)(a) and 30(3)(b) separately in our assessment below.

- *The claimed Cloud Gaming RCB*

11.162 On [✂] February 2023, Microsoft signed an agreement with NVIDIA to include Microsoft first-party content on its GFN cloud gaming service, including Activision post-Merger.[1523] Under the terms of this agreement,

[1521] Section 73 of the Act.
[1522] CMA2, paragraph 12.14.
[1523] GeForce NOW Listing Agreement, [✂] February 2023.

Microsoft and NVIDIA will [✂] make Activision games available on GFN [✂]. The duration of the agreement is 10 years, [✂]. [✂].

11.163 On [✂] March 2023, Microsoft signed an agreement with Boosteroid to make Microsoft games (and Activision games from completion of the Merger) available on Boosteroid's clouding gaming service [✂].[1524] The duration of the agreement is 10 years, [✂].

11.164 On [✂] March 2023, Microsoft signed an agreement with Ubitus to make Microsoft games (and Activision games from completion of the Merger) available on Ubitus' GameNow clouding gaming service [✂].[1525] The duration of the agreement is 10 years, [✂].

- *Views of the Parties*

11.165 In its response to the Provisional Findings, Microsoft told us that 'the availability of Activision content, including CoD, on NVIDIA GFN will enhance competition in cloud gaming and result in a greater choice of goods and services.'[1526] Microsoft did not seek to quantify the benefits. Microsoft submitted that customers will benefit from CoD and other Activision games being made available on cloud gaming services. Microsoft referred to its understanding of the CMA's provisional view that [✂] and noted that the Provisional Findings also found that strong indirect network effects mean that publishers will not license their content to small providers given the costs involved. Microsoft submitted that Activision has been clear [✂]. Microsoft submitted that even if [✂].[1527]

11.166 Microsoft's agreements with Boosteroid and Ubitus were signed after Microsoft's response to the Provisional Findings (and subsequent remedy submissions as summarised in paragraph 11.144 above), and were not therefore included in these submissions.

11.167 In its response to our Remedies Working Paper, Microsoft submitted that the analysis put forward in the Remedies Working Paper as to whether the benefits resulted from the Merger was flawed, and that:[1528]

(a) The fact that the agreements were only entered into post-Transaction announcement and in the course of regulatory investigation was not

[1524] Cloud Gaming License Agreement, 9 March 2023.
[1525] Cloud Gaming License Agreement, 11 March 2023.
[1526] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 4.12.
[1527] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.9.
[1528] Microsoft response to the Remedies Working Paper.

relevant – Microsoft submitted that there was no specific timing requirement for when an RCB must arise.

(b) It was wrong to say that the benefits do not arise from the Merger on the basis that there might (on the CMA's analysis) be countervailing incentives not to enter into the Agreements on completion of the Merger. It told us that the simple fact remained that those benefits would be unlikely to accrue absent the Merger and therefore do arise as a result of the Merger.

11.168 Based on the above, Microsoft told us that the position taken in the Remedies Working Paper on the claimed Cloud Gaming RCB was unsound and imposed stricter standards for the assessment of RCBs than required by the Act and the CMA's own guidance, and added that the CMA's approach would 'perversely remove any incentive for companies to take proactive steps to address regulatory concerns during a merger review process, since under the Remedies Working Paper's logic, such steps could simply be ignored on this basis alone'.[1529] We have already addressed Microsoft's submissions on the statutory criteria in sections 30(3)(a) and (b) of the Act above.

11.169 In its response to our Remedies Working Paper, Microsoft told us that *(a)* any cloud streaming [✂] would be certain and much more immediate and therefore benefit more consumers over a longer period; and *(b)* more cloud streaming providers would be able to access the content than would have been the case absent the Merger.[1530]

11.170 On the merger-specificity of this claimed RCB and the potential for Activision content to be put on a cloud gaming streaming service [✂], Activision told us that it has a limited amount of resources and tries to allocate those resources to the opportunities that are going to provide the greatest return to its shareholders, or are aligned with its skills and capabilities. [✂]. On this basis, it considered Microsoft's plans to put Activision content on cloud as a result of the Merger to be both a benefit and merger-specific.[1531]

11.171 Microsoft told us that the 'criticism' in the Remedies Working Paper that the Parties had not quantified these benefits was 'unfair', and added that the primary benefit of the claimed Cloud Gaming RCB was the expansion of choice and wider accessibility of Activision content, which by its nature was hard to quantify. However, it told us that it was undeniable that such features would be clear benefits to gamers and that more gamers who did not have a

[1529] Microsoft response to the Remedies Working Paper.
[1530] Microsoft response to the Remedies Working Paper.
[1531] Activision response hearing transcript.

device suited to playing Activision content natively would have the option to access it via cloud streaming on devices they already owned.[1532]

11.172 Finally, Microsoft told us that once the claimed Cloud Gaming RCB was accepted, the only possible conclusion was that prohibition would be a disproportionate response to the SLC.[1533]

- *Our assessment of the claimed Cloud Gaming RCB*

11.173 We have considered whether the claimed Cloud Gaming RCB qualifies as an RCB under the Act.

11.174 First, we have considered whether the claimed Cloud Gaming RCB satisfies the condition in section 30(1)(a) of the Act. As described above, Microsoft's agreements with NVIDIA, Boosteroid and Ubitus provide for cooperation between the parties to allow customers of these cloud gaming providers, including in the UK, to access Activision's content. As such, to the extent that any benefit arises (which is considered below), this would be in the form of greater choice of goods or services in the market for cloud gaming services in the UK, and would therefore satisfy the requirement under section 30(1)(a) of the Act.

11.175 Second, we have considered whether the claimed Cloud Gaming RCB may be expected to accrue within a reasonable period as a result of the creation of the RMS, as required under section 30(3)(a) of the Act.

11.176 We note that the agreements between Microsoft and NVIDIA, Boosteroid and Ubitus all take effect with respect to Activision content following completion of the Merger [✂]. However, as explained above, the fact that the relevant provisions in these agreements are conditional on completion of the Merger does not necessarily mean that the claimed benefits may be expected to arise from the creation of the RMS.

11.177 We note Microsoft's submission in response to the Remedies Working Paper that the agreements arise from changes to commercial incentives as a result of the Merger. However, we have not seen any evidence to support this. On the contrary, the evidence considered in the competitive assessment in Chapter 8 supports our finding that Microsoft would have the incentive to make Activision's content exclusive to Microsoft's cloud gaming service post-Merger. The fact that Microsoft has entered into these agreements does not undermine our findings on its post-Merger incentives. Microsoft may have

[1532] Microsoft response to the Remedies Working Paper.
[1533] Microsoft response to the Remedies Working Paper.

short-term incentives to enter into these agreements to seek to address the competition concerns arising from the Merger, but this is not informative of its longer-term commercial incentives.

11.178 Accordingly, we do not believe that the claimed Cloud Gaming RCB would arise from the creation of the RMS for the purposes of section 30(3)(a) of the Act. However, even if the claimed Cloud Gaming RCB did not fail to satisfy the condition in section 30(3)(a) on this basis, we are not satisfied that any material benefits to relevant customers would accrue in any case for the reasons given below.

11.179 As part of our SLC assessment, we have found that Microsoft will have the incentive to foreclose its cloud gaming rivals. It is within this context that we need to consider whether the claimed benefit may be expected to accrue. As noted above, we have found a tension between the terms of the agreements, which seek to provide rival cloud gaming services with Activision games, and Microsoft's post-Merger commercial incentives to make Activision content exclusive.

11.180 As set out in our assessment in Chapter 8,[1534] we consider that Microsoft's overall strength in cloud gaming is relevant in this regard, as we would expect it to hold considerable leverage in relation to any subsequent negotiation or contractual dispute. In addition, these agreements contain specific terms which introduce further uncertainty – for example:

(a) The NVIDIA agreement only requires [✂].[1535] This allows Microsoft to [✂]. However, as noted above, we have found that Microsoft's commercial incentives are not to provide Activision's content. In these circumstances, we consider that [✂] may not lead to the Activision's content becoming available on NVIDIA GFN.

(b) The Boosteroid and Ubitus agreements each contain a provision allowing Microsoft to [✂].[1536] It is not clear the extent to which such [✂] may arise, although the fact that this provision has been included in these agreements indicates that Microsoft sees this as a material risk. The claimed benefit will not arise from these agreements to the extent that [✂].

[1534] See paragraphs 8.415-8.432.
[1535] Preamble to the GeForce NOW Listing Agreement, [✂] February 2023.
[1536] Clause 4.4 of the Cloud Gaming License Agreement, [✂] March 2023; Clause 4.4 of the Cloud Gaming License Agreement, 11 March 2023.

(c) The agreements with NVIDIA, Boosteroid and Ubitus all contain an [✂] clause (as discussed in paragraph 11.123 above). Under this clause, the parties expressly recognise that [✂].

(d) For each of the agreements with NVIDIA, Boosteroid and Ubitus, [✂].

11.181 In light of the tension between the agreements and Microsoft's post-Merger commercial incentives, together with the material limitations on the contractual obligations and protections referred to above, we consider that there is significant uncertainty as to whether any material benefits, in particular relating to the expansion of choice and wider accessibility of Activision content on cloud gaming services, would accrue in practice.

11.182 We therefore do not consider that the condition in section 30(3)(a) is satisfied in relation to the claimed Cloud Gaming RCB (at least in any material respect). However, even to the extent that any benefit may arise, we consider that this benefit is likely to have arisen anyway in the absence of the Merger, and would not in any case be material, for the reasons given below.

11.183 Third, we have considered whether the claimed benefit was unlikely to accrue without the RMS or a similar lessening of competition, so as to meet the condition in section 30(3)(b) of the Act.

11.184 We have found in Chapter 8 that we expect the cloud gaming market to continue to grow and that Activision would likely have made its games – including day and date releases – available for cloud gaming in the next five years. We found it likely, in particular, that Activision would have [✂] in the near future absent the Merger.

11.185 We therefore consider that it is likely that the claimed benefit, in particular the expansion of choice and wider accessibility of Activision content on cloud gaming services, would accrue without the RMS. Given that Activision's incentives to make its content available on cloud gaming services absent the Merger are greater than Microsoft's incentives post-Merger (for the reasons given above), any such benefit would likely be greater in the absence of the Merger. We note that this benefit may have accrued over a slightly longer period than any benefit arising under the claimed Cloud Gaming RCB. However, any short-term additional benefit resulting from earlier access to the Activision content on these cloud gaming services has not been quantified by the Parties and in our view would not be material.

11.186 We therefore do not consider that the condition in section 30(3)(b) of the Act is satisfied for the claimed Cloud Gaming RCB.

11.187 Finally, we note that even to the extent that any of the claimed Cloud Gaming RCB were to satisfy the conditions in section 30(3)(a) and section 30(3)(b) of the Act to qualify as an RCB, we do not consider that the size of the RCB would have a material impact on the costs of the prohibition remedy.

11.188 We note in this respect that Microsoft has not attempted to quantify the benefit arising from the claimed Cloud Gaming RCB. Given the likelihood of Activision content becoming available on cloud gaming services absent the Merger, and the significant uncertainty in relation to the claimed benefits arising from Microsoft's agreements with NVIDIA, Boosteroid and Ubitus, we find that any residual benefit that may arise as a result of the Merger (and would not otherwise have arisen) would not be material.

11.189 In summary, we find that the claimed Cloud Gaming RCB does not qualify as an RCB because it does not satisfy the conditions in sections 30(3)(a) and (b) of the Act. Even to the extent that any of the claimed benefit does meet these conditions, we consider that any such benefit would be small and transitory and would not have a material impact on the costs of the prohibition remedy.

- *The claimed Nintendo RCB*

11.190 On [✂] February 2023, Microsoft and Nintendo entered into an agreement in relation to the development and publishing of CoD titles on Nintendo platforms.[1537] This agreement took the form of [✂] (which was signed on [✂]).[1538] Under the terms of the [✂], Microsoft will [✂] develop and publish future native console versions of the CoD titles for Nintendo platforms for at least 10 years [✂].[1539] The [✂] specifies that [✂]. Except as provided for in the [✂], Microsoft agrees to publish the CoD titles pursuant to [✂].[1540]

  - *Views of the Parties*

11.191 Microsoft submitted that the agreement will be for [✂] ten years, [✂].[1541] Microsoft further submitted that both Microsoft and Activision are confident that the relevant games can be optimised to run on the Nintendo Switch using standard techniques within a time period of around [✂]

[1537] [✂].
[1538] [✂].
[1539] [✂].
[1540] [✂].
[1541] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.3.

months.[1542] Microsoft also noted [✂].[1543] Microsoft estimated the net present value to Nintendo customers of having access to CoD over ten years to be at least (£[✂] million). Further, Microsoft submitted that widening access to CoD via Nintendo will increase the pool of gamers able to play CoD, thereby improving the cross-play functionality of the game. It submitted that this efficiency will arise from [✂].[1544]

11.192 In its response to our Remedies Working Paper, Microsoft told us that the claimed Nintendo RCB would accrue within a reasonable period, and that:[1545]

(a) The Remedies Working Paper had applied an 'inconsistent time horizon' in its assessment of the claimed Nintendo RCB compared to other aspects of the CMA's analysis of the Merger[1546] – it told us that if those key aspects of the CMA's case were to be judged against longer time horizons, it followed that the RCB analysis should be as well, especially as the claimed Nintendo RCB would accrue in a much shorter time period.

(b) Microsoft entered into a legally binding agreement to bring CoD to Nintendo, [✂], and that the starting date of the agreement (ie [✂]) was intended to be the earliest date after which the next upcoming version of CoD would be released on the Nintendo platform, taking into account the required time to develop and test the game.

(c) The Remedies Working Paper's position that the Nintendo agreement contained an element of uncertainty (as to whether CoD would be available on Nintendo at all) mischaracterised the contract, and that the [✂] would fully apply to Microsoft [✂]. Microsoft told us that there was no uncertainty that CoD would be made available on Nintendo, since: (i) [✂]; and (ii) [✂].

11.193 In relation to whether the claimed Nintendo RCB is specific to the Merger, Microsoft submitted in its response to our Remedies Working Paper that:[1547]

[1542] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.3(b).
[1543] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.3(b).
[1544] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.3(c).
[1545] Microsoft response to the Remedies Working Paper.
[1546] In this regard, Microsoft cited that the counterfactual on which the Remedies Working Paper relied only considered that Activision would put its content on cloud streaming services at some unspecified point in the future and, likewise, the CMA placed limited weight on the fact that there was no evidence to suggest that cloud game streaming would be profitable in the next five years. Source: Microsoft response to the Remedies Working Paper.
[1547] Microsoft response to the Remedies Working Paper.

(a) From the very outset, shortly after the deal was announced in January 2022, Microsoft had expressed a clear intention and commitment to bring CoD to Nintendo in future.[1548]

(b) Microsoft has submitted that the reason it has a different strategy to Activision in relation to making CoD available on Nintendo is because large publishers with popular franchises have [✂]. By contrast, as a platform [✂]. Accordingly, Microsoft submitted that [✂].[1549]

11.194 Finally, Microsoft told us that Nintendo was a strong competitor in consoles, with a [✂]% share of UK console hardware in 2021. It also told us that the available evidence did not support a view that, due to the demographics of its customers, Nintendo would attract less demand for games like CoD. As such, Microsoft submitted that there was no plausible basis to conclude that the impact and size of the claimed Nintendo RCB would be small.[1550]

- *Our assessment of the claimed Nintendo RCB*

11.195 We have considered whether the claimed Nintendo RCB qualifies as an RCB under the Act.

11.196 First, we have considered whether the claimed Nintendo RCB satisfies the condition in section 30(1)(a) of the Act. Under the terms of the Nintendo agreement, Microsoft will [✂] develop and publish future native console versions of the CoD titles for Nintendo platforms. As such, to the extent that any benefit arises (which is considered below), this would be in the form of greater choice of goods or services in the market for console gaming services in the UK, and would therefore satisfy the requirement under section 30(1)(a) of the Act.

11.197 Second, we have considered whether the claimed Nintendo RCB may be expected to accrue within a reasonable period as a result of the creation of the RMS, as required under section 30(3)(a) of the Act.

11.198 We note that the relevant obligations under the Nintendo agreement only take effect from [✂]. In the event that the Merger does not complete, these obligations will therefore not arise. However, as explained above, the fact that the relevant obligations are conditional on completion of the Merger

[1548] Microsoft response to the Remedies Working Paper.
[1549] Microsoft submission to the CMA.
[1550] Microsoft response to the Remedies Working Paper.

does not necessarily mean that the claimed benefits may be expected to arise from the creation of the RMS.

11.199 We have concluded in Chapter 7 that Microsoft would not have the incentive to foreclose rival console gaming services in the UK. However, this is not determinative of whether Microsoft has a commercial incentive to develop and publish native CoD titles for Nintendo. This would involve substantial costs that would need to be recouped through additional sales of native versions of CoD on Nintendo. In addition, placing valuable CoD content on Nintendo would in principle increase diversion away from Xbox and towards Nintendo. While this effect may be relatively limited given our findings in Chapter 7 that Nintendo competes less closely with Xbox, making CoD on Nintendo could make it a closer competitor to Xbox, which we consider would not be in Microsoft's interest. The Parties have not provided us with convincing evidence of the expected costs, revenues and profitability that might inform an assessment of Microsoft's commercial incentives in this respect.

11.200 Microsoft also submitted that it has greater incentives to make CoD available on Nintendo than Activision, for the reasons described in paragraph 11.193 above. However, Microsoft has provided no evidence in support of this submission (for example, in terms of [✂]). [✂]). Microsoft has also not provided any additional evidence demonstrating why the Merged Entity would have stronger incentives to place CoD on Nintendo, as compared to Activision alone pre-Merger. We note that Microsoft may have short-term incentives to enter into this agreement to seek to address the competition concerns arising from the Merger, but this is not informative of its longer-term commercial incentives.

11.201 Accordingly, we do not believe that the claimed Nintendo RCB would arise from the creation of the RMS for the purposes of section 30(3)(a) of the Act. However, even if the claimed Nintendo RCB did not fail to satisfy the condition in section 30(3)(a) on this basis, we are not satisfied that any material benefits to relevant customers would accrue in any case for the reasons given below.

11.202 As noted above, Microsoft's obligations under the Nintendo agreement with Nintendo only arise from [✂]. As such, Microsoft would not be obliged to start work on development of CoD titles for Nintendo platforms until [✂]. Microsoft has submitted that Microsoft and Activision consider that CoD games can be optimised for Nintendo Switch in around [✂] months. However, we have not been provided with any detailed plan or supporting evidence for this estimate. Even on an [✂]-month timeframe, any benefits for consumers

may not accrue until [✂] at the earliest, and [✂] if Microsoft starts work in line with its obligations.

11.203 We also note that there is significant uncertainty as to whether this claimed benefit will arise at all (or, to the extent it does, that it will have a material impact). While we note Microsoft's submissions [✂],[1551] the fact that Activision estimates optimisation for Nintendo Switch will take [✂] months demonstrates the challenges that may be involved in this. The Parties have not provided us with any detailed plans for how this optimisation is intended to be achieved. There is therefore limited evidence for us to determine the risks that these efforts may not be successful.

11.204 Further, Microsoft has provided no submissions or evidence on the possible timeframe or risks involved in developing a CoD title [✂]. Furthermore, to the extent that [✂]. As such, we are not satisfied that any benefit would arise within a reasonable timeframe [✂].

11.205 We also note that whilst [✂]. Given that [✂]. The Nintendo agreement itself acknowledges that [✂]. There is therefore considerable uncertainty as to the terms on which Microsoft may develop CoD titles for Nintendo platforms.

11.206 Accordingly, we are not satisfied that any such benefits would accrue within a reasonable period (or would endure so as to provide a material benefit for consumers in the market for console gaming services in the UK). We therefore do not consider that the condition in section 30(3)(a) of the Act is satisfied for the claimed Nintendo RCB.

11.207 Third – although not strictly necessary given our conclusion that the claimed Nintendo RCB does not meet the condition in section 30(3)(a) – we have considered whether the claimed benefit was unlikely to accrue without the RMS or a similar lessening of competition, so as to meet the condition in section 30(3)(b) of the Act.

11.208 In particular, we have considered whether the benefit might be achieved through a commercial agreement between Activision and Nintendo. The Nintendo Switch has a different technical specification to the Xbox X/S and PS5. We also note that Activision does not consider [✂]. However, [✂]. As noted above, [✂]. We also note Microsoft's submission that its financial case for producing Nintendo versions of CoD may be different to Activision's, although as noted above we have not seen significant evidence to support this claim.

[1551] Microsoft response to the CMA's RFI.

11.209 As such, we consider that the evidence is mixed regarding whether the claimed Nintendo RCB is unlikely to accrue without the RMS or a similar lessening of competition within the meaning of section 30(3)(b) of the Act. However, it is not necessary for us to conclude on whether this criterion is met, since we have already found that the claimed Nintendo RCB does not meet the condition in section 30(3)(a) of the Act.

11.210 Finally, we note that even if the claimed Nintendo RCB were to satisfy the condition in section 30(3)(a) of the Act to qualify as an RCB (which for reasons given above, we do not consider to be the case), we do not consider that the size of the RCB would have a material impact on the costs of the prohibition remedy.

11.211 Microsoft has submitted that the claimed Nintendo RCB results in an annual benefit of £[✂]m (average benefit of £[✂] per customer), which corresponds to a 10-year NPV of £[✂]m.[1552] However, this calculation is based on a number of assumptions which we do not consider to be justified.

(a) It is not clear how Microsoft has assessed the average annual 'consumer value enhancement' to be £[✂] per customer. We have not seen any evidence to support this assumption. Customers would still need to purchase CoD on Nintendo, so there is no obvious pricing benefit. To the extent that Nintendo console owners would benefit from increased choice due to the availability of CoD, it is not clear why this would have a £[✂] average annual value.

(b) Microsoft has also assumed a [✂]% penetration rate of CoD on Nintendo. We have seen limited evidence to support this assumption. The fact that Activision does not consider that [✂] suggests that there is limited demand for CoD titles on the current Nintendo Switch. As such, the extent to which providing CoD on Nintendo Switch would benefit consumers is likely to be limited.

(c) The agreement has a ten-year term. We consider that account must be made for the inherent uncertainty over the scale of the benefits over time. The likelihood of the assumptions remaining constant will decrease over time, and the changing nature of the console market makes it harder to make any predictions about how a particular retail product (for example, CoD [✂]) might evolve, or how customer behaviour might develop. As such, it is not a reasonable assumption that any annual benefit would remain constant over the term of the agreement. Instead, in our view the

[1552] Microsoft Annex to the response to the Remedies Notice.

benefits are likely to decline significantly (and certainly at a rate greater than the 'risk-free' rate used in Microsoft's NPV calculation) over time, reducing our confidence that they can be expected to be realised.

11.212 In summary, we find that the claimed Nintendo RCB does not qualify as an RCB because it does not satisfy the condition in section 30(3)(a) of the Act. Even if the claimed Nintendo RCB were to qualify as an RCB, we consider that any expected benefit arising would likely be limited and would not have a material impact on the costs of the prohibition remedy.

- *The claimed Mobile Gaming RCB*

11.213 Microsoft submitted that, as a result of the Merger, it will expand into mobile gaming and 'challenge the existing duopoly over mobile app distribution'. It submitted that the Merger will result in benefits to customers in mobile game distribution in the form of lower prices, higher quality, greater choice and greater innovation. It submitted that benefits apply to end consumers and developers of native mobile games, each of which are relevant customers of mobile app stores.[1553] Microsoft estimated this claimed RCB to have a value of £[✂] in the UK.[1554]

- *Views of the Parties*

11.214 Microsoft submitted that while the Remedies Working Paper dismissed this claimed RCB as being too speculative to occur within a reasonable period:[1555]

(a) Phil Spencer (Xbox's CEO), in a recent interview with the Financial Times, again confirmed Microsoft's intention to launch a new mobile game distribution platform 'as soon as next year'. Microsoft told us that this was consistent with Microsoft's deal model launching an Xbox model platform [✂] and provided further evidence of Microsoft's intention to pursue this within a 'reasonable period'.

(b) The Remedies Working Paper failed to acknowledge that the regulatory environment would further facilitate Xbox's entry, and added that implementation of the EU's Digital Market Act in March 2024 (as Phil Spencer noted in his interview) was expected to require Apple and Google to open up their mobile app stores.

[1553] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.10.
[1554] Microsoft Annex [✂] to the response to the Remedies Notice.
[1555] Microsoft response to the Remedies Working Paper.

(c) As with the claimed Nintendo RCB, the CMA should be consistent in its application of the relevant time periods when assessing the potential benefits of the claimed Mobile Gaming RCB. Microsoft submitted that if the CMA was willing to apply longer time periods as part of its analysis in relation to the counterfactual and the growth of cloud gaming, these should apply equally to the claimed Mobile Gaming RCB.

11.215 Microsoft also submitted in its response to our Remedies Working Paper that the Remedies Working Paper, by focusing on the possibility of alternative acquisitions, failed to acknowledge the 'significant strength' that Activision currently had in the mobile gaming sector.[1556]

11.216 Activision noted that it could not imagine a situation where [✂].[1557]

- *Our assessment of the claimed Mobile Gaming RCB*

11.217 We have considered whether the claimed Mobile Gaming RCB qualifies as an RCB under the Act.

11.218 First, we have considered whether the claimed Mobile Gaming RCB satisfies the condition in section 30(1)(a) of the Act. To the extent that any benefit arises (which is considered below), this would be in the form of greater choice of goods or services in the market for mobile gaming services in the UK, and would therefore satisfy the requirement under section 30(1)(a) of the Act.

11.219 Second, we have considered whether the claimed Mobile Gaming RCB may be expected to accrue within a reasonable period as a result of the creation of the RMS, as required under section 30(3)(a) of the Act.

11.220 Microsoft's deal model suggests that it would launch an Xbox mobile platform [✂].[1558] However, Microsoft also acknowledges there is no guarantee of this platform succeeding,[1559] and the timing for Xbox to launch its mobile platform is [✂] to the timing for any associated RCB to accrue. While we have not seen evidence of technical barriers to creating such a platform within this timescale, we understand that Apple and Google currently control access to their platforms from third-party app stores, and they either currently prohibit rival mobile gaming app stores or impose strict limits on their ability to monetise content. We also note that Microsoft said that its plans

---

[1556] Microsoft response to the Remedies Working Paper.
[1557] Activision response hearing transcript.
[1558] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.10.
[1559] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.10.

[✂].[1560] As a result, we cannot have confidence that benefits from the claimed Mobile Gaming RCB can be expected to accrue within a reasonable period or even at all.

11.221 In its response to the Remedies Notice, Microsoft submitted that the process of dynamic competition had economic value in the present, and that its entry attempt constitutes an RCB. Microsoft cited CMA guidance, saying that in response to its entry attempt, existing providers such as Google and Apple may 'invest in order to protect future sales from dynamic competitors, and the removal of the threat of entry may lead to a significant reduction in innovation or efforts from other firms'.[1561]

11.222 We agree with Microsoft's view that its entry plans, if credible, might trigger a pro-competitive response from incumbent firms which, in principle, might give rise to a consumer benefit. However, the Parties have not provided any evidence to the CMA to substantiate these claims. Our Merger Remedies Guidance is clear that merger parties will be expected to provide convincing evidence regarding the nature and scale of RCBs that they claim to result from the merger and to demonstrate that these fall within the Act's definition of such benefits.[1562] In our view, the claimed Mobile Gaming RCB is too speculative to qualify as an RCB.

11.223 Third – although not strictly necessary given our conclusion that the claimed Mobile Gaming RCB does not meet the condition in section 30(3)(a) – we have considered whether the claimed benefit was unlikely to accrue without the RMS or a similar lessening of competition, so as to meet the condition in section 30(3)(b) of the Act.

11.224 We note Microsoft's submission that Activision has significant strength in mobile gaming, and consider that the presence of Activision's games on any mobile gaming store would enhance its competitiveness. However, we also consider that this could be achieved by less anti-competitive means than the Merger, and Microsoft could acquire 'attractive content and experience with player engagement and acquisition'[1563] by buying a different mobile games publisher. This appears to have been Microsoft's strategy – it attempted to buy [✂] in [✂], and said [✂].[1564]

[1560] Microsoft response to the Issues Statement, 31 October 2022, paragraph 2.12
[1561] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.10, citing CMA129, paragraph 5.20.
[1562] CMA87, paragraph 3.20.
[1563] Microsoft response to the Provisional Findings, 2 March 2023, paragraph 4.20(a)
[1564] Microsoft Main Party Hearing transcript.

11.225 We also consider that to launch a competitive mobile platform, Microsoft would need a significant quantity and variety of games. This would be likely to involve making agreements with third party publishers in a similar way as it does currently with console and PC games; Microsoft has not provided evidence that its entry attempt would be sufficient relying on Activision's games alone. For this reason, we disagree with Activision's contention that a competing mobile games store could only be achieved if the content was from a single organisation. We therefore do not consider that any such benefit would be unlikely to accrue absent the RMS or a similar situation. We therefore do not consider that the condition in section 30(3)(b) of the Act is satisfied for the claimed Mobile Gaming RCB.

11.226 In summary, we find that the claimed Mobile Gaming RCB does not qualify as an RCB because it does not satisfy the conditions in sections 30(3)(a) and (b) of the Act.

- *The claimed Game Pass RCB*

11.227 Microsoft submitted that it plans to make Activision content available day and date in Game Pass, which will increase customer choice and lower the cost of access.

  - *Views of the Parties*

11.228 Microsoft submitted that Activision would not place new releases in subscription services day and date (referring to the Provisional Findings counterfactual) [✂]. Microsoft therefore told us that it considers any benefit arising from Activision content being available on Game Pass to be Merger-specific. Microsoft told us that it will make future Activision releases available on Game Pass on the day of release, and that this will benefit consumers.[1565]

11.229 Microsoft submitted that the addition of Activision content to Game Pass will, in effect, reduce prices, as customers will receive a broader catalogue of games for the same price – ie the quality adjusted price of Game Pass would fall post-Merger. Microsoft estimated the benefit of bringing day and date Activision content to Game Pass to have a net present value over ten years of around £[✂] million for UK Game Pass subscribers on Xbox and around £[✂] million for UK Game Pass subscribers on PC.[1566] [✂], the benefits are estimated to be £[✂] billion for UK Xbox customers and £[✂]

[1565] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.4(a)-(d).
[1566] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.4(e).

million for UK PC customers. Globally, the claimed benefits are £[✂]billion and £[✂] billion respectively.[1567]

11.230 Microsoft submitted that '[✂], and certainly will not increase to a point that offsets the substantial benefits of Activision titles coming to Game Pass on a day and date basis'.[1568] Further, it submitted that inclusion of Activision content on Game Pass will spur SIE to invest in its subscription offering.[1569]

11.231 Microsoft submitted that the availability of existing CoD exclusive content on Xbox and PC will result in a higher quality of goods and services. Microsoft submitted that CoD is not currently available on equal terms on PlayStation, Xbox and PC due to the agreements that SIE has in place with Activision. It noted that SIE has CoD content and timed exclusives and that following the Merger these will be available to Xbox and PC gamers.[1570]

11.232 In its response to our Remedies Working Paper, Microsoft told us that it had refined its estimate of the claimed Game Pass RCB following the Remedies Notice and subsequent discussions with the CMA, and estimated that the RCB per year was around £[✂] worldwide and £[✂] in the UK. It added that limiting this RCB to a yearly figure did not accurately reflect the 'true value to customers' that might accrue over a ten-year period, and that these were 'significant and expected to generate benefits of approximately £[✂] billion worldwide and £[✂] million in the UK'.[1571] It added that Microsoft's refined estimated continued to show a 'substantial benefit' from the Merger that would be eliminated with a prohibition remedy, but which would preserved under the Microsoft Cloud Remedy.[1572]

- *Our assessment of the claimed Game Pass RCB*

11.233 We have considered whether the claimed Game Pass RCB qualifies as an RCB under the Act.

11.234 First, we have considered whether the claimed Game Pass RCB satisfies the condition in section 30(1)(a) of the Act. Microsoft is proposing to make Activision content available day and date in Game Pass. As such, to the extent that any benefit arises (which is considered below), this would be in the form of higher quality or greater choice of goods or services in the markets for

[1567] Microsoft, Annex 1 to the response to the Remedies Notice.
[1568] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.4(f).
[1569] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.4(g).
[1570] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.6.
[1571] Microsoft response to the Remedies Working Paper.
[1572] Microsoft response to the Remedies Working Paper.

console gaming services and cloud gaming services in the UK, and would therefore satisfy the requirement under section 30(1)(a) of the Act.

11.235 Second, we have considered whether the claimed Game Pass RCB may be expected to accrue within a reasonable period as a result of the creation of the RMS, as required under section 30(3)(a) of the Act.

11.236 We considered whether the claimed benefits would accrue from the creation of the RMS. The Merger brings Microsoft's Game Pass product under common ownership with Activision's content, creating an incentive to exploit synergies between the two. This is a form of elimination of double marginalisation, that we consider would arise as a result of the Microsoft and Activision businesses ceasing to be distinct. We therefore consider that any benefits arising from the claimed Game Pass RCB would accrue from the creation of the RMS. It is plausible that to the extent Activision content is added to Game Pass, the price of Game Pass subscriptions may increase commensurately and therefore the purported benefit from the Merger may not ultimately accrue to UK consumers to the extent claimed, or even at all. We consider this potential outcome below in our assessment of the likely scale of the claimed Game Pass RCB.

11.237 Microsoft submitted that [✂].[1573] The benefits from other Activision games could accrue earlier than this, [✂]. We also note that the benefit from other games has not been included in Microsoft's model.

11.238 On this basis, we would expect that the benefits would start to accrue within a reasonable period (although there would, in practice, likely be some delay between completion of the Merger and CoD arriving on Game Pass in 2025). We therefore find that at least some benefit from the claimed Game Pass RCB may be expected to accrue within a reasonable period, such that the condition in section 30(3)(a) of the Act is satisfied.

11.239 Microsoft has assumed that the benefits from the claimed Game Pass RCB would continue forever. Our view is that this is not likely in a dynamic and evolving market, which would decrease the likelihood over time that these benefits would accrue. This has been taken into account in the assessment of the scale of the RCB below.

11.240 We also considered Microsoft's contention at paragraph 11.230 that the inclusion of Activision content in Game Pass would spur SIE to invest in

[1573] Microsoft, Annex 1 to the response to the Remedies Notice.

its subscription offering to qualify as an RCB. SIE told us that it would [✂].[1574] Based on the available evidence, we cannot predict what SIE's reaction would be with sufficient confidence or accuracy to be able to take any benefit into account as an RCB.

11.241 Third, we have considered whether the claimed benefit was unlikely to accrue without the RMS or a similar lessening of competition, so as to meet the condition in section 30(3)(b) of the Act. In particular, we considered the likelihood of Microsoft reaching a commercial agreement with an independent Activision to put its content on Game Pass, unlocking the wider benefits to Microsoft such as greater uptake of Game Pass.

11.242 Activision's stated and past policy was not to put its titles on subscription services on a day and date basis. In Chapter 7, we explain that 'we consider it unlikely that Activision would make its most valuable games – such as CoD – available on MGS services on the date of release in the foreseeable future absent the Merger. We believe the evidence indicates, however, that Activision would be likely to place increasingly valuable parts of its gaming catalogue on MGS services as these services continue to grow. This would be likely to include back-catalogue games, as well as Activision's latest releases, although some time after they are released (ie, not on the date of release)'.[1575]

11.243 In line with this assessment, we consider that in order for Activision to change its policy, it would need a sufficient share of the value that Microsoft would attach to acquiring rights to add Activision content to its MGS to compensate it for the lost revenue from [✂]. In principle, we consider this agreement could be possible to construct – it is a similar negotiation to the one Microsoft had with Activision's shareholders when it made its offer to buy Activision.[1576] However, we note that structuring such a deal as a commercial contract with Activision, rather than the outright purchase of Activision, introduces additional risks relating to each counterparty, specification of the terms of the contract and potential circumvention by one or other of the parties. Given the likely commercial value of the agreement and the premium that would need to be paid to Activision, we consider these risks are likely to be material. We therefore consider, on balance, that such an agreement would be unlikely to occur absent the Merger. We have not seen any

---

[1575] Chapter 7, paragraph 7.132.
[1576] Microsoft's valuation of Activision, including the benefits it could achieve after the Merger, was $[✂] billion. This represented a premium of $[✂] billion over Activision's standalone value of $[✂] billion. Microsoft shared these benefits with Activision's shareholders by paying $[✂] billion of the $[✂] billion benefits over to Activision's shareholders, resulting in a purchase price of $[✂] billion.

evidence to suggest that this claimed RCB would be likely to accrue as a result of any other less anti-competitive arrangement, such as an alternative acquisition.

11.244 We therefore find that at least some benefit from the claimed Game Pass RCB – insofar as it relates to Activision content being made available day and date on Game Pass – satisfies the condition in section 30(3)(b) of the Act.

11.245 In summary, we have found that at least some of the benefit of the claimed Game Pass RCB qualifies as an RCB under the Act. The claimed Game Pass RCB may be expected to result in higher quality and greater choice of goods or services in the markets for console gaming services in the UK. To the extent that Game Pass customers utilise cloud streaming, there would also be a benefit arising in the market for cloud gaming services in the UK. We have found that at least some of the benefit of the claimed Game Pass RCB may be expected to accrue within a reasonable period as a result of the creation of the RMS. We also believe, on balance, that this benefit is unlikely to accrue without the creation of the RMS or a similar lessening of competition.

- *Likely scale of the claimed Game Pass RCB*

11.246 We have considered the likely scale of the claimed Game Pass RCB. Microsoft provided an analytical model (the **Game Pass model**) setting out the likely benefits. In this section we summarise the model and our view of it.

11.247 The Game Pass model splits Microsoft's customers into different cohorts based on current purchasing behaviour, with separate calculations for Xbox and PC customers. The cohorts are:

(a) [✂];

(b) [✂];

(c) [✂];

(d) [✂];

(e) [✂].

11.248 The Game Pass model assumes that, [✂]:

(a) [✂];

(b) [✂];

(c) [✂];

(d) [✂];

(e) [✂].

11.249 Microsoft submitted that each of these cohorts would benefit in different ways. Multiplying the number of customers in each cohort that would change their behaviour by the estimated benefit gives an annual benefit. For all cohorts this was estimated to be £[✂] million per year on Xbox and £[✂] million per year on PC.

11.250 We considered the extent to which all of these benefits were likely to arise. We found that there are uncertainties regarding the likelihood of these benefits being realised due to three factors:

(a) assumptions in the model;

(b) potential post-Merger actions by Microsoft; and

(c) general uncertainty that the future turns out differently to that predicted in the model.

11.251 We considered the assumptions in the model. Predicting and modelling future behavioural changes in response to a hypothetical action is inherently difficult, and any model would require a number of simplifying assumptions. The Game Pass model estimates the proportion of gamers in each cohort that would change their behaviour. However, these proportions are only a 'best estimate', without detailed supporting evidence and may be overstating the benefit.[1577] In addition, [✂]. Furthermore, the model [✂]. Again, we have not seen detailed evidence to support this figure, which appears to be inherently uncertain.

11.252 We also considered whether actions by Microsoft after the Merger completes would reduce the scale of the benefits. In particular, the Game Pass model assumes [✂].

11.253 We note that part of Microsoft's stated rationale for the Merger was to bring Activision games to Game Pass on a day and date basis, and also that an increase in the price of a product is generally likely to lead to a reduction in demand. While a reduction in demand serves as a disincentive to increase prices, the higher earnings on customers that do not switch away serves as

[1577] For example, the Game Pass model assumes that [✂]% of [✂] would start playing CoD (and therefore gain a benefit from it) as a result of if appearing on Game Pass. While this may be a plausible figure, other lower figures may also be plausible.

an incentive acting in the opposite direction. Pre-Merger, we would expect those disincentives and incentives to be balanced. However, post-Merger, adding content of the importance of Call of Duty to Game Pass introduces a new economic cost (ie an opportunity cost) associated with the supply of Game Pass to Microsoft customers, because – in line with the Parties' submissions – [✂].[1578] A higher economic cost of a product will therefore, all else being equal, tend to induce a profit-maximising firm to increase its price. In addition, alongside this increase in the economic cost of providing Game Pass, the quality of the Game Pass subscription would be higher which will, all else being equal, tend to increase the willingness of subscribers to pay a higher price and reduce the proportion that would switch away in response to any given price increase. Consequently, these factors will have the tendency to increase the profit-maximising price of Game Pass in the post-Merger scenario relative to the pre-Merger scenario, whether for all subscribers or for a subset of subscribers through differentiated pricing.

11.254 Microsoft itself has indicated that it expects to [✂] (Microsoft said that any [✂]).[1579] More broadly, we would expect Microsoft to behave in a way that maximises its returns on the $69 billion it paid for Activision, and therefore to act on the incentives described in the previous paragraph. Microsoft's [✂]would reduce the value of the relevant customer benefit relative to the Parties' estimates. Any [✂] price increases accounting for the addition of Activision content to Game Pass—in line with the incentives described above—would further reduce that benefit relative to the Parties' estimates.

11.255 We also note that the post-Merger constraint from B2P would be likely to change as Microsoft would set both the wholesale B2P and subscription prices for Activision content, allowing it to have some control over the extent to which B2P will constrain the price of Game Pass. While Microsoft could potentially choose to forego otherwise profitable price increases in the short run in order to establish a stronger position of market power in cloud gaming services, the incentive to price Game Pass more highly post-Merger in the medium term would remain.

11.256 Even a small price increase would have a significant effect on the scale of benefits. This is both because the value to customers of switching to Game Pass from B2P would decrease, and also because those customers in [✂] that do not play CoD would suffer a price rise without any corresponding benefit. For example, taking the benefits figures claimed by Microsoft as a starting point, a £1 per month or 9% increase in the cost of Game Pass would

[1578] Microsoft response to the Remedies Notice, 22 February 2023.
[1579] Microsoft response hearing transcript.

reduce the annual benefit for Xbox customers to £[✂] million, and reduce the annual benefit for PC customers to £[✂] million.[1580] These figures assume no loss of customers, which would further reduce the size of the benefit.

11.257 In its response to the Remedies Notice, Microsoft said '[✂]'.[1581] However, Microsoft also said that [✂]. In the response hearing, it said [✂][1582] [✂].[1583] It said further that [✂].'[1584]

11.258 As a result, our view is that, given the economic costs arising from putting Activision games on Game Pass, [✂] and the likely future desire to make a return on the acquisition of Activision, the assumption in the Parties' analysis that CoD would be added to Game Pass and that prices would not increase from their current level is unlikely to be long lasting, which leads the Parties' analysis of RCBs to significantly overstate the value of those benefits to consumers.

11.259 We also consider that account must be made for the inherent uncertainty over the scale of the benefits over time. The likelihood of the assumptions (for example, as discussed above, that prices will not rise) remaining valid will decrease over time, and the dynamic and evolving nature of the market makes it harder to make any predictions about how a particular retail product (for example, CoD or Game Pass) might evolve, or how customer behaviour might develop. Other factors include a change in the relative competitiveness of Microsoft's current or future consoles, a particular release of CoD being less well-received, the relative competitiveness of CoD with other games, or issues beyond Microsoft's control. These are some examples of how the scale of benefits may change over time, rather than an exhaustive list.

11.260 The extent of these uncertainties increases over time. In its original submission in response to the Remedies Notice, Microsoft claimed benefits for ten years from completion of the Merger. In its subsequent response to the Provisional Findings it added a "terminal value" – the present value of the sum of the benefits after year ten in perpetuity. This terminal value increases the total present value of the benefits threefold.

[1580] A price increase of £12 per year is applied as: (a) Xbox customers – for [✂], the price increase is applied to the number of subscribers that will switch, and for [✂], it is applied to the total number of subscribers; (b) For PC customers – for [✂], the price increase is applied to the number of subscribers that will switch, and for [✂], it is applied to the total number of subscribers. There is no [✂] for PC customers.
[1581] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 2.4(f).
[1582] Microsoft response hearing transcript.
[1583] Microsoft response hearing transcript.
[1584] Microsoft response hearing transcript.

11.261 The benefits of the claimed Game Pass RCB might, in theory, endure beyond ten years. However, given the uncertainties referred to above, we cannot have any confidence that in practice these benefits can be expected to accrue after ten years. As a result, we consider that the terminal value element of the claimed Game Pass RCB should not be given material weight in our consideration of the expected scale of this RCB. Furthermore, the extent of these uncertainties increases over time, reducing our confidence as to the total scale of the benefits may be expected to be realised.

11.262 We considered how we should reflect the uncertainties summarised above in our assessment of the scale of benefits. We considered applying a discount rate and discounting the annual benefits by greater amounts over time. The Game Pass model adopts this approach, using a 'risk-free' discount rate based on ten-year UK Gilts. We also considered trying to estimate a discount rate based on a consumer's weighted average cost of capital. However, this is a complex exercise which would involve sensitive assumptions, and would risk suggesting a degree of spurious accuracy on our assessment. This approach would also not capture the uncertainties arising from Microsoft's behaviour, or caused by the assumptions in the Game Pass model.

11.263 Estimation of the likely scale of the claimed Game Pass RCB will inevitably involve a degree of judgement. However, we considered it possible to put some boundaries on the scale of the claimed Game Pass RCB in order to support our consideration of proportionality below. Bearing this in mind, and having regard to the uncertainties concerning realisation of the claimed benefits set out in paragraphs 11.250 to 11.260 above, we consider that the claimed Game Pass RCB is likely to be materially below Microsoft's claim of £[✂] million per year from 2025, and likely to decline over time, such that we do not place material weight on any claimed benefits after ten years.

Conclusion on RCBs

11.264 We have found that the following benefits claimed by Microsoft do not constitute RCBs (and, even if they did meet the necessary conditions, would be small and would not have a material impact on the costs of the prohibition remedy):

(a) The claimed Cloud Gaming RCB;

(b) The claimed Nintendo RCB; and

(c) The claimed Mobile Gaming RCB.

11.265 We have found that the claimed Game Pass RCB qualifies as an RCB, and can be expected to have annual benefits materially below the £[✂] million per year figures presented by Microsoft. We have also found that the benefits are likely to decline over time. We have not found it necessary (or possible) to estimate the precise amount of the benefit that may be expected to accrue from the claimed Game Pass RCB, given the inherent uncertainties with this exercise. This is in any case not necessary for us to conduct the proportionality assessment as set out below. We have also found that even if the claimed Cloud Gaming RCB and claimed Nintendo RCB did constitute RCBs, the scale of the benefits would not be material to our assessment.

Proportionality assessment

11.266 In paragraphs 11.133 and 11.134, we summarised our conclusions on which remedies would be effective in addressing the SLC and the resulting adverse effects. We concluded that prohibition of the Merger would be effective, while the Microsoft Cloud Remedy would not be effective. While partial divestiture might in principle be an effective remedy, the Parties have stated that they would not proceed on this basis and not provided us with the information we would need to reach a conclusion on this.

11.267 We set out below our assessment of, and conclusions on, the proportionality of prohibition as a remedy.

Framework for the assessment of proportionality of merger remedies

11.268 The CMA will seek to select the least costly remedy, or package of remedies, of those remedy options that it considers will be effective (we call this the 'least onerous effective remedy'). In addition, the CMA will seek to ensure that no remedy is disproportionate in relation to the SLC and its adverse effects.[1585]

11.269 In this case, as explained above, our view is that only prohibition would be an effective remedy. Accordingly, we are not choosing between multiple remedies that we consider will be effective, and our proportionality assessment is therefore focused on considering whether this remedy would be disproportionate in relation to the SLC and its adverse effects. In doing so, we compare the extent of harm associated with the SLC with the relevant costs of the proposed remedy.[1586]

[1585] CMA87, paragraph 3.6.
[1586] CMA87, paragraph 3.6.

11.270 We first consider whether there are any relevant costs associated with the effective remedy option identified. When considering relevant costs, the CMA's considerations may include (but are not limited to):[1587]

(a) distortions in market outcomes;

(b) compliance and monitoring costs incurred by the Parties, third parties, or the CMA; and

(c) the loss of any RCBs that may accrue from the Merger which are foregone as a result of the remedy (see paragraphs 11.137 and 11.138 above).

11.271 However, the CMA will generally attribute less significance to the costs of a remedy that will be incurred by the merger parties than the costs that will be imposed by a remedy on third parties, the CMA or other monitoring agencies.[1588] The merger parties have the choice of whether or not to enter into a merger agreement, and on what terms. It is for the merger parties to assess whether there is a risk that the merger may be subject to an SLC finding and prohibited – any costs for the merger parties resulting from this outcome are, in essence, avoidable.

Views of the Parties and third parties

Views of the Parties

11.272 Microsoft told us that prohibition would result in the loss of RCBs, risk raising concerns around extraterritoriality, and would be disproportionate. Microsoft told us that prohibition would be 'taking us in the opposite direction' to the goal of 'trying to increase customer access, customer choice, on competition in the market'.[1589] Similarly, Activision told us that it disagreed with prohibition as a remedy and considered that it would be disproportionate and unnecessary, highlighting that RCBs would be lost as a result.[1590]

11.273 Microsoft told us that to the extent that the CMA has concerns about the impact of the Merger on cloud gaming services as a nascent technology, it is not a proportionate response to default to prohibiting the Merger. Microsoft submitted that not only would this require reliance on an 'insufficient body of evidence, it would also forego the benefits which it considers to be certain to arise from the Merger.' It told us that prohibiting the Merger on this basis

---

[1587] CMA87, paragraph 3.10.
[1588] CMA87, paragraph 3.8.
[1589] Microsoft response hearing transcript.
[1590] Activision response hearing transcript.

would be tantamount to lowering the evidentiary bar required to block a transaction because it is in a digital market. Microsoft submitted that the UK Government has recently concluded that lowering the evidentiary bar in phase 2 is not appropriate – even for digital mergers involving companies with 'Strategic Market Status' – due to the potential impacts on innovation and investment. Microsoft submitted that refusing to consider behavioural remedies in new digital markets simply because such markets are 'dynamic' or 'evolving' has the same effect, making it harder to obtain merger clearances in digital mergers. Microsoft submitted that the UK Government has been clear that the new merger control rules overseen by the CMA's DMU must avoid disproportionate burdens on businesses, and that the CMA can only hope to achieve this aim if it is prepared to impose behavioural remedies in dynamic and evolving digital markets.[1591]

11.274 Microsoft also told us that prohibition would be disproportionate to the size of the Cloud Gaming SLC identified. It submitted that the cloud gaming market is *de minimis* and will remain so. On this basis, it considers prohibition to be a disproportionate remedy and considers that a divestment remedy will deliver minimal benefits.[1592] It told us that the 'supposed adverse effects' were therefore 'vastly overstated in the Remedies Working Paper', and that these adverse effects were 'not only remote and of limited magnitude' but even those were uncertain.[1593]

11.275 In its response to our Remedies Working Paper, Microsoft told us that the CMA had 'substantially understated the costs of prohibition', and that other than the RCBs, prohibition would have 'huge collateral effects on the way in which Microsoft is able to carry on its business as it wishes to outside the realm of cloud gaming'. It added that prohibition would limit Microsoft as to how it would be able to operate in all non-cloud gaming activities where it would be able to use Activision content to pursue its strategic goals. It told us that as the Addendum to the Provisional Findings recognised, there was no basis for competition concerns in relation to these activities and yet Microsoft would be precluded from pursuing legitimate business opportunities. It therefore told us that the proportionality concern could not simply be seen through the prism of provable RCBs: the impact on Microsoft's business freedom was 'very extensive and not justifiable'.[1594]

[1591] Microsoft response to the Remedies Working Paper. Microsoft also referenced the Furman Report, which notes that a *"presumption against all acquisitions by large digital companies is not a proportionate response to the challenges posed by the digital economy"* (Furman Report, March 2019, paragraph 3.103).
[1592] Microsoft response to the Remedies Notice, 22 February 2023, paragraph 4.10(a).
[1593] Microsoft response to the Remedies Working Paper.
[1594] Microsoft response to the Remedies Working Paper.

11.276 In addition, Microsoft submitted that the legal framework and jurisdiction of the CMA should be considered in assessing the proportionality of any remedy. Microsoft submitted that the language of the statute does not require full prevention of any SLC identified and instead recognises that mitigation may be sufficient. It told us that to exclude taking action which is reasonable and practicable to 'mitigate' the SLC or any adverse effects would be wrong. Microsoft referred to the Ryanair judgment, as referred to in footnote 13521352 above, and submitted that the judgment does not suggest that mitigation was no part of the statutory assessment test.[1595] Microsoft submitted that the view that a remedy is only effective if it 'fully remedies or prevents' the SLC and its adverse effects (not just mitigating them) is wrong in law. It told us that the reference to a remedy being effective is a shorthand for the remedy fulfilling the statutory criteria, which, it submitted, include mitigation.[1596]

11.277 Microsoft also submitted that the CMA need only 'have regard' to achieving as comprehensive solution to the SLC and any adverse effects arising as is 'reasonable and practicable', and that the CMA is therefore not bound by an obligation to fulfil the requirement.[1597] It told us that this is not an 'absolute obligation' but is conditioned by the qualification that the solution should be as comprehensive as is 'reasonable and practicable', which it told us also means proportionate. Microsoft submitted that the reference to an effective remedy only being one which is comprehensive – as set out at paragraph 11.12 above – is wrong in law.[1598] On this basis, Microsoft submitted that so long as the CMA has regard to achieving as comprehensive a solution as is reasonable and practicable, it is open to it to discharge its obligations through a remedy which mitigates the effects of any SLC and adverse effects. It told us that even if the CMA were to have concerns that a behavioural remedy might not necessarily deal with every hypothetical concern, it would still be a legitimate exercise of the CMA's functions since it would (at least) be as comprehensive as was reasonable and practicable and would substantially mitigate any SLC and adverse effects. Microsoft noted that the assessment of what is reasonable and practicable would need to take into account the proportionality of any remedy.[1599]

11.278 Microsoft submitted that the extra-territorial nature of any remedy should be taken into account, noting that the greater the effects of any remedy outside of the UK, the 'less reasonable proportionate and practicable' the

---

[1595] Microsoft response to the Remedies Working Paper.
[1596] Microsoft response to the Remedies Working Paper.
[1597] Microsoft response to the Remedies Notice, 22 February 2023, paragraphs 5.2.
[1598] Microsoft response to the Remedies Working Paper.
[1599] Microsoft response to the Remedies Working Paper.

remedy will be.'[1600] Microsoft also told us that worldwide prohibition would be disproportionate because it would have an extra-territorial impact.[1601]

11.279 In its response to our Remedies Working Paper, Microsoft told us that any prohibition remedy would not be limited to the UK and would undermine the deal worldwide, and as such 'the effect of the CMA's conclusion in relation to a tiny part of the gaming world (cloud gaming) would have a grossly disproportionate and extensively extra-territorial effect', including 'denying a non-UK company, Microsoft, the freedom to conduct its business as it wishes outside the UK (denying substantial benefits to gamers outside the UK, estimated to amount to at least USD [✂] billion)'.[1602]

11.280 Microsoft told us that it was a well-accepted principle of English law that every statute is interpreted 'so far as its language permits, so as not to be inconsistent with the comity of nations or the established rules of international law'.[1603] It added that whilst it was 'recognised that Parliament in the Enterprise Act 2002 did not preclude the CMA from adopting remedies which may have impacts outside the UK, equally it did not permit the CMA simply to ignore the extra-territorial consequences of its actions'. It told us that in the assessment of the proportionality of any remedy, the CMA must recognise that having extra-territorial effects is an 'undesirable outcome', and that to do otherwise would be to apply the Act in an 'aggressively' extra-territorial manner which would be unjustified.[1604] Microsoft told us that the Merger had already been approved unconditionally in several jurisdictions while the European Commission was engaging extensively with a behavioural remedy. It added that by imposing a prohibition remedy, the CMA would in practice be cutting across the regulatory assessments and remedial solutions of other regulators in other jurisdictions.[1605]

11.281 Activision told us that this is a case where a behavioural remedy would be workable and there is no practicable divestiture solution. It submitted that it would be disproportionate to discard a behavioural remedy in favour of prohibition or divestiture.[1606]

[1600] Microsoft response to the Remedies Notice, 22 February 2023, paragraphs 5.4-5.5.
[1601] Microsoft response hearing transcript, and Microsoft response to the Remedies Working Paper.
[1602] Microsoft response to the Remedies Working Paper.
[1603] *R (Al-Skeini) v. Secretary of State for Defence* [2007] UKHL 26 per Lord Rodger at [45]. Source: Microsoft response to the Remedies Working Paper.
[1604] Microsoft response to the Remedies Working Paper.
[1605] Microsoft response to the Remedies Working Paper.
[1606] Activision response hearing transcript.

Views of third parties

11.282 As already discussed at paragraphs 11.33 to 11.35 above, some of the third parties we heard from ([✂], [✂], [✂], [✂], [✂] and [✂]) told us that they viewed prohibition as excessive.[1607] Some noted that prohibition would be disproportionate if there were alternative, effective remedies available, while others noted that they did not consider there to be an SLC in the first place. Other third parties ([✂] and SIE) told us that prohibition of the Merger would be a proportionate remedy.[1608]

Our assessment of proportionality

11.283 We have considered whether prohibition of the Merger would be disproportionate to the SLC and its adverse effects.

The harm arising from the SLC

11.284 We have found that the scale of harm to consumers likely to arise from the Merger and the resulting SLC would be substantial. The SLC arises from a major, permanent structural change in the market, and as such cannot be expected to fall away over time. Harm arising from the SLC is therefore likely to endure. Moreover, as demand for cloud gaming is growing rapidly in the UK, reflecting increasing global take-up, we would expect the harm from SLC to similarly continue to grow over time.

11.285 We have found that Activision's titles are likely to be an important input for the success of cloud gaming services. Microsoft already holds a strong position in this growing market by virtue of its high market share of [60-70]%, unparalleled advantages through its ownership of Windows OS, its cloud infrastructure, and its catalogue of first party titles.[1609] There are a few emerging rivals with their own respective strengths, such as Amazon, SIE, and NVIDIA, but none are currently as well positioned as Microsoft. In a concentrated market, harm to smaller rivals is likely to constitute harm to competition, unless there is some way to avoid that harm.[1610] We have also found significant barriers to entry and expansion in cloud gaming, increasing the adverse effect on competition.

[1607] Third party responses to the remedies questionnaire: ([✂]; [✂]; [✂]; [✂]; [✂]; and [✂]. See also [✂] call note.
[1608] [✂] response to the Remedies questionnaire, and SIE response to the Remedies Notice, 22 February 2023, paragraph 9.
[1609] Microsoft's strengths in cloud gaming are discussed further in paragraphs 8.96 to 8.224.
[1610] CMA129, paragraph 7.21.

11.286 By distorting and stifling competition in the growing and dynamic market for cloud gaming services, the Merger could alter the future of gaming for the worse. UK cloud gaming monthly active users more than tripled from the start of 2021 to the end of 2022. The market for cloud gaming seems, based on the evidence, poised to grow rapidly and significantly. Market reports suggest that the UK market will be worth $0.6 to $1.1 billion (£0.5 to £0.9 billion) by 2025, growing to $1.2 billion to $1.3 billion (£1 to £1.1 billion) by 2026.[1611] These forecasts also suggest continued growth beyond the short- to medium-term. Correspondingly, this means that the harm arising from the SLC will continue to increase over time.

11.287 Furthermore, cloud streaming is an increasingly important conduit for playing games, both for new users who are unable or unwilling to buy an expensive console solely for the purposes of gaming, and for existing gamers looking for an alternative to consoles. Absent the Merger, strong competition in this market could make cloud gaming better and more affordable for consumers. By contrast, we are of the view that the Merger would make Microsoft – which is an already strong incumbent in this market – even stronger, retaining a big share of the market and facing limited competition from current and potential rivals.

11.288 This reduction in competition is likely to substantially harm consumers in the long run. The evidence we found suggests that cloud gaming could be transformative for the gaming industry in the next few years, helping to reach new customers and improve choice for existing customers (potentially replacing consoles altogether for some of them).[1612] The relative immaturity of the market, its potential for growth, and exogenous factors such as technology advances all lead us to consider that rivalry in this market is likely to be intense, dynamic and characterised by innovative competitive strategies absent the Merger. This dynamic competition would be harmed by the Merger, resulting in substantial adverse effects for consumers.

11.289 In summary, we consider that there would be substantial adverse effects arising from the Merger. These adverse effects are likely to endure and grow over time as the market for cloud gaming services develops.

Costs of the remedy

11.290 We also considered the costs of the remedy, taking account of the considerations set out in paragraph 11.270. Prohibition leaves the market

---

[1611] A summary of market forecasts and monthly active users can be found at paragraphs 8.54 to 8.56. Currency has been converted at $1.25 = £1.
[1612] CMA, Provisional Findings, 8 February 2023, paragraph 59.

structure unchanged and therefore does not cause distortions in outcomes. The implementation of the remedy (see section below) would lead to no compliance and monitoring costs.

11.291 We acknowledge that the Parties may incur costs as a result of prohibition. However, in line with the CMA guidance set out above, we do not attribute material weight to these costs. Further, we have found no other effective remedy which would give rise to lower costs for the Parties in this regard.

11.292 As set out above, we have found that the claimed Game Pass RCB satisfies the relevant conditions under section 30 of the Act to be taken into account in our assessment. We recognise that this RCB would be foregone as a result of prohibition, and this therefore represents a relevant cost of prohibition as a remedy. As explained above, we consider the claimed Game Pass RCB would amount to a materially lower benefit than Microsoft's claimed estimate of benefits to UK customers of £[✂] million per year. We also expect the extent of the benefit to fall over time. However, it has not been necessary (or possible) to estimate the precise benefit that may be expected to accrue from this RCB.

Balancing exercise

11.293 We have weighed the relevant costs of prohibition against the SLC and the adverse effects that prohibition would effectively remedy.

11.294 We consider that in the circumstances of this case a precise mathematical weighing exercise is neither necessary nor possible. We recognise that whist the relevant costs (including the claimed Game Pass RCB) are more readily quantifiable, the adverse effects arising from the SLC cannot be accurately quantified, particularly given the dynamic and fast-moving nature of the affected market. In carrying out this assessment, we have therefore had regard to all the available evidence in the round – both quantitative and qualitative – that informed our findings on both the SLC and the relevant costs, in order to make an informed judgement on the proportionality of prohibition.

11.295 We consider the main relevant cost of prohibition to be the loss of benefits from the claimed Game Pass RCB. In this regard, while the foregone RCB is likely to represent a material sum (even if this is materially lower than £[✂] million per year), we consider this is likely to decline over time. On the other hand, the harm arising from the SLC is substantial and may be expected to increase over time as the cloud gaming services market in the UK grows. In addition, we note that the claimed Game Pass RCB would not start to accrue

until 2025, whereas the harm from the Merger may be expected to start to arise from completion.

11.296 Considering our views on the likely growth and importance of the cloud gaming market and the negative impact that the Merger may be expected to have on competition within this market, we consider that the costs of the remedy by foregoing the claimed Game Pass RCB are significantly outweighed by the scale of the harm expected to arise from the SLC. Moreover, we would expect the balance between the scale of the harm and the lost RCB benefits to tip further towards the harm over time.

International context

11.297 As part of our proportionality assessment, we have also had regard to the international context of the Merger. We note in this respect the CAT's view that 'the demands of comity do require the CMA to be at least conscious of the international dimension' and that 'in international cases, regard needs to be had (even if it is not determinative or even immaterial) to the wider context'.[1613]

11.298 The Merger is a transaction between two global businesses that will have effects across multiple jurisdictions. As noted in Chapter 2, the Merger is the subject of review by competition authorities across the world. Some of these reviews are still pending – including those in the EU and US – whilst others have already concluded.

11.299 Following an in-depth investigation, we have concluded that we have jurisdiction to review the Merger, and that the Merger gives rise to an SLC in the supply of cloud gaming services in the UK. As explained above, this is a growing and dynamic market that is expected to be worth more than £1 billion in the UK by 2026. We expect the SLC we have found to result in substantial adverse effects for UK consumers, which may take the form of higher prices, worse quality or lower innovation in cloud gaming.

11.300 When considering remedies, we have similarly sought to identify as comprehensive a solution to the SLC and resulting adverse effects in the UK as is reasonable and practicable. In circumstances where we have found that the only effective remedy to address the SLC and its adverse effects in the UK is prohibition, the fact that this will necessarily have an impact outside the UK does not conflict with the principles of international comity.

[1613] *Meta Platforms Inc. v CMA* [2022] CAT 26, 14 June 2022, at [127(1)] and [129].

11.301 Under section 86(1) of the Act, the CMA is permitted to impose remedies that extend to a person's conduct outside the UK if that person is carrying out business in the UK (as is the case for both Microsoft and Activision).[1614] The Parties themselves accept that the Act allows the CMA to adopt remedies which may have impacts outside the UK.[1615] In this case, we have not identified any effective remedy that would avoid extra-territorial effects. We note in this respect that the Microsoft Cloud Remedy (which we have found to be ineffective) would also have had extra-territorial effects, as it would have involved the imposition of regulatory restrictions on the Parties' conduct on a global basis.

11.302 Our Merger Remedies Guidance notes that: "Where competition authorities in other jurisdictions are considering a merger which the CMA is also investigating, the CMA will consult with some or all of these authorities to seek consistency and effectiveness in the approach to remedies where relevant."[1616] In this case, we have consulted with other competition authorities, including in the EU and US. However, nothing arising from this consultation changes our view on the appropriate remedy in accordance with our obligations under the Act.

11.303 In light of the above, we are satisfied in this case that prohibition is a proportionate remedy that respects the principles of international comity, notwithstanding its extra-territorial effects.

Microsoft's other submissions

11.304 We note Microsoft's submission that to exclude taking action which is reasonable and practicable to 'mitigate' the SLC or any adverse effects would be wrong. We agree with Microsoft that it may be open to the CMA to take action which only mitigates and does not fully remedy or prevent an SLC and resulting adverse effects in certain circumstances, and that the *Ryanair* judgment does not suggest that mitigation is not part of the statutory test. However, we consider this might be a relevant and appropriate course of action to consider in circumstances where any effective remedy which prevents or remedies the SLC and its resulting adverse effects is either not practicable or disproportionate. This is consistent with the "*high duty*" the Act imposes on the CMA[1617] to try to achieve as comprehensive a solution to the SLC and resulting adverse effects as is reasonable and practicable.[1618] For

---

[1614] CMA87, paragraph 3.55.
[1615] Microsoft response to the Remedies Working Paper.
[1616] CMA87, paragraph 3.56.
[1617] *Ecolab Inc. v CMA* [2020] CAT 12, at [74-75], citing the Court of Appeal in Ryanair Holdings PLC v CMA [2015] EWCA Civ 83, at [57].
[1618] Section 36(3) of the Act.

the reasons explained in this Chapter, we do not believe those circumstances arise here.

11.305 As set out above, the CMA has assessed the Microsoft Cloud Remedy and found that it would not be effective in remedying the SLC and its adverse effects in material respects. In these circumstances, the existence of this ineffective alternative remedy does not render prohibition disproportionate. Even if the behavioural remedy would mitigate the adverse effects to some extent, it would not be consistent with the CMA's high duty under the Act to accept this remedy in place of prohibition in circumstances where the CMA has found that prohibition is both effective and proportionate.

11.306 Finally, we note our disagreement with Microsoft's submissions regarding the evidentiary bar required to prohibit transactions in digital markets, and the relevance of potential legislative changes concerning companies with 'Strategic Market Status'. We have carried out this inquiry in accordance with existing legislation and guidance and have not applied a different standard or approach. We do not consider that any potential legislative changes are relevant to our determination of the statutory questions set out in the Act in relation to the Merger. We have explained in this Chapter the framework we have applied for the assessment of remedies, along with the reasons for our conclusions.

Conclusion on proportionality

11.307 On the basis of the above assessment, and our conclusion that the Merger is likely to lead to significant and sustained adverse effects, which outweigh by a significant and growing margin the RCBs that would be lost as a result of prohibition, we conclude that prohibition of the Merger is the only effective remedy and is not disproportionate in relation to the SLC and its adverse effects.

Remedy Implementation

11.308 Having identified the appropriate remedy, we now consider how it should be implemented.

11.309 The CMA has the choice of implementing any final remedy decision either by accepting final undertakings if the Parties wish to offer them, or by making a final order.[1619] Either the final undertakings or the final order must be implemented within 12 weeks of publication of our final report (or extended

[1619] Section 82 (final undertakings) and section 84 (final order) of the Act.

once by up to 6 weeks),[1620] including the period for any formal public consultation on the draft undertakings or order as specified in Schedule 10 of the Act.

11.310 In line with our Merger Remedies Guidance, Microsoft would be prohibited from subsequently acquiring the assets or shares of Activision or acquiring any material influence over them. Our Merger Remedies Guidance states that the CMA will normally limit this prohibition to a period of ten years.[1621] We find no compelling reason to depart from the Merger Remedies Guidance in this case by seeking a shorter or longer prohibition period.

Final decision on remedies

11.311 We have decided that prohibition of the Merger would be an effective and proportionate remedy to address the SLC in the market for cloud gaming services in the UK and its resulting adverse effects.

[1620] CMA87, paragraph 4.68. An extension may be made if the CMA considers there are 'special reasons' for doing so (section 41A(2) of the Act).
[1621] CMA87, paragraph 5.10.