NortonLifeLock / Avast provisional findings report

Appendices

Appendix A: Terms of reference

1. In exercise of its duty under section 33(1) of the Enterprise Act 2002 (the Act) the Competition and Markets Authority (CMA) believes that it is or may be the case that:

   (a) arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation in that;

      (i) enterprises carried on by NortonLifeLock Inc will cease to be distinct from enterprises carried on by Avast plc; and

      (ii) the condition specified in section 23(2)(b) of the Act is satisfied; and

   (b) the creation of that situation may be expected to result in a substantial lessening of competition within a market or markets in the United Kingdom for goods or services.

2. Therefore, in exercise of its duty under section 33(1) of the Act, the CMA hereby makes a reference to its chair for the constitution of a group under Schedule 4 to the Enterprise and Regulatory Reform Act 2013 in order that the group may investigate and report, within a period ending on 8 September 2022, on the following questions in accordance with section 36(1) of the Act:

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

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

David Stewart
Executive Director, Markets and Mergers
Competition and Markets Authority
25 March 2022

Appendix B: Conduct of inquiry

1. On 25 March 2022, the CMA referred the proposed acquisition by NortonLifeLock of Avast for an in-depth phase 2 investigation by a group of CMA panel members, the Inquiry Group.

2. We published the biographies of the members of the Inquiry Group conducting the phase 2 investigation on the inquiry webpage on 25 March 2022 and the administrative timetable for the inquiry was published on the inquiry webpage on 1 April 2022.

3. We issued requests for information to various third parties including competitors of NortonLifeLock and Avast and industry experts. We supplemented the responses to these requests with a number of telephone calls as well as supplementary written questions. Evidence submitted during phase 1 was also considered in phase 2.

4. We received written evidence from the Parties in the form of submissions and responses to information requests.

5. On 5 May 2022, we published an Issues Statement setting out the issues on which the phase 2 inquiry would focus. The Parties' response to our Issues Statement was published on 14 June 2022. We also received three responses from third parties to our Issues Statement which were published on 17 June 2022 and 29 July 2022.

6. Members of the Inquiry Group, accompanied by CMA staff attended site visit presentations from NortonLifeLock and Avast on 27 and 28 April 2022 respectively.

7. A non-confidential version of our provisional findings report has been published on the inquiry webpage.

8. We would like to thank all those who have assisted in our inquiry so far.

Appendix C: Third party evidence

1. The CMA has collected a range of third party evidence through calls and written requests for information and the use of our statutory evidence-gathering powers.

2. This appendix sets out:

   (a) Third party views on competition in the supply of CCS solutions;

   (b) A summary of third party internal documents which monitor competitors and consumer research; and

   (c) Evidence from Microsoft and other suppliers of CCS solutions on Microsoft's CCS solutions, including since its launch of Defender for Individuals, and its future plans.

Third party views

Closeness of competition between the Parties and other CCS providers

3. Third parties commented on the closeness of competition between the Parties and between the Parties and other CCS providers.

4. Responses are consistent with there being a broad set of competitors in the UK, with a small core set of competitors competing more closely which includes NortonLifeLock, McAfee and Avast. Kaspersky was also mentioned by more than one third party:

   (a) A competitor [✂] said that NortonLifeLock's closest competitor in CCS in the UK is McAfee. In addition, Kaspersky is a competitor. To a lesser extent Avast is also a competitor and so are the other smaller CCS providers.[1] It said it did not consider Avast to be a major competitor in the UK, given its more limited consumer offering (but noted that recently it has done a better job competing in the UK).[2]

   (b) Another competitor [✂] said that in the UK, NortonLifeLock and McAfee are the two big antivirus software companies with large market share. Other antivirus software providers, such as it, are competing with NortonLifeLock and McAfee to gain market share.[3]

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[1] [✂], phase 1 call note.
[2] [✂], phase 1 call note.
[3] [✂], phase 1 call note.

(c) Another competitor [✂] said that NortonLifeLock and Avast are similar to one another. It also added that it, McAfee and credit bureaux are also similar, but noted that NortonLifeLock and Avast may not consider it to be a competitor due to its smaller market share[4] and that it is more difficult for it to win antivirus customers from larger competitors such NortonLifeLock, Avast and McAfee.[5] It said that customers that were unhappy with a service product by NortonLifeLock would most likely switch to McAfee because it is another well-known big brand. It said that customers would go directly to a McAfee site or they might type in 'best digital security provider', 'best AV' etc and follow through a variety of links or click on one brand.[6]

(d) Another competitor [✂] said that NortonLifeLock and Avast 'exert the most pressure' in endpoint security and identity protection categories.[7]

(e) Another competitor [✂] described NortonLifeLock and Avast as 'two major competitors'.[8]

5. McAfee said that NortonLifeLock, Avast and McAfee are the only scale rivals in paid-for antivirus in the UK today.[9] It also said that [✂].[10]

6. Some third parties noted differences in the Parties' business models:

(a) A competitor [✂] said that Avast had a 'freemium' business model, whereby it creates a large base of customers by offering the product for free and then tries to upgrade customers to the paid-for product. On the other hand, NortonLifeLock, McAfee, it [✂], Kaspersky, etc have a paid-for business model. It believed that the user bases of Avast and NortonLifeLock are quite different. It said that Avast's userbase consists of a large number of customers seeking a free antivirus product and want to pay as little as possible for protection.[11]

(b) Another competitor [✂] noted differences between the Avast freemium model and NortonLifeLock's purchase and subscription model, and their different 'regional relevance'.[12]

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[4] [✂], phase 2 call note.
[5] [✂], phase 2 call note. It also noted that the antivirus solution is likely to be 'important' to NortonLifeLock, Avast and McAfee ([✂], phase 2 call note).
[6] [✂], phase 2 call note.
[7] [✂], response to the phase 2 competitor questionnaire.
[8] [✂], response to the phase 1 competitor questionnaire.
[9] McAfee, phase 2 call note.
[10] [✂], phase 1 call note.
[11] [✂], phase 1 call note.
[12] [✂], phase 2 call note.

7. A competitor [✂] said that the Merger will result in Avast obtaining additional products which NortonLifeLock currently has (eg identity protection). It said that there is therefore a possibility that Avast users will be able to receive additional offerings from NortonLifeLock and vice versa.[13]

8. Providers of reviews and tests for CCS solutions gave a range of views on competition between CCS providers, although all considered that the Parties have a few key competitors. Some also provided evidence that the Parties are close competitors in the supply of free CCS solutions as NortonLifeLock owns Avira. For example:

   (a) AV-TEST said that, in the US, NortonLifeLock's closest competitor in the consumer space is McAfee. It said that, in Germany, Avast's closest competitors are G DATA, ESET and Kaspersky.[14] It said that Avast is very strong in the supply of free consumer antivirus products, but G DATA, ESET and Kaspersky are usually bigger in paid-for antivirus products in retail stores and online sales. It also noted that NortonLifeLock and Avast have different business strategies: NortonLifeLock has a paid-for business model and Avast has a freemium business model.[15]

   (b) Which said that Avast's closest competitor in the UK is Microsoft Defender. It said that if Avast substantially raised its price or degraded the quality of its products, its users are likely to switch to Bitdefender's free antivirus package or to Microsoft Defender.[16] It said that NortonLifeLock, McAfee and Kaspersky have been around in this market for a long time and brand recognition really matters to consumers. It said that, unlike NortonLifeLock and McAfee, the likes of Bitdefender are not as well known. It said that Avast and AVG have been known for many years as 'solid' free antivirus options whereas consumers might not know that Bitdefender has a good package. It said its top free packages currently are Kaspersky, Avast, AVG and Avira.[17] It also said that it is currently not giving 'Best Buys' to Kaspersky due to it being a Russian provider and this has narrowed the market.[18]

   (c) A freelance reviewer said that Avast, AVG and Avira had good reputations for providing good defence at no cost. They all had strong word of mouth campaigns and if you searched 'antivirus', for years the result would bring

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[13] [✂], phase 1 call note.
[14] We note that this does not necessarily mean that these are close competitors to NortonLifeLock and Avast in the UK, nevertheless, as AV-TEST did not comment on NortonLifeLock and Avast's closest competitors in the UK, we consider that this is at least tells us something about the global competitor set.
[15] AV-TEST, phase 1 call note.
[16] Which, phase 1 call note.
[17] Which, phase 2 call note.
[18] Which, phase 2 call note.

up one of those three. They said that Avast still is the first to come up. They said that consumers still type 'free antivirus' into Google and click on the first result.[19] They also said that they do not consider F-Secure to be a small provider; in addition, ESET is starting to make more of a name for itself in the consumer antivirus space and K7 Security is an example of a less well-known brand that is also doing well.[20]

9. Credit bureaux did not consider themselves to compete closely with the Parties to provide CCS solutions:

   (a) One credit bureau [✂] said that it does not offer 'typical' CCS solutions, such as device security (eg antivirus protection), privacy protection (eg VPN), or web browser plug-ins.[21] Regarding its identity protection products, it said that, in the next five to ten years, it expects that consumers will become more aware of identity fraud and will potentially be more inclined to act upon it. However, it said that [✂].[22] It also did not consider itself to compete with providers of dark web monitoring (like NortonLifeLock) because this is a relatively small part of its business.[23]

   (b) Another bureau [✂] said that it does not directly compete in the CCS space in the UK.[24]

   (c) Another bureau [✂] said that it did not consider that it operated in the antivirus sector and that activities relevant to CCS solutions are strictly limited and ancillary to its principal business.[25]

10. Which said that Experian and Equifax are not well-known in the CCS space but are well resourced companies and could emerge in the CCS space in the coming years. However, it said that they are not currently within the 'market which matters' for consumers, as defined by Which's market coverage strategy for testing providers.[26]

Third party expansion plans

11. Some competitors told us of their plans for the UK:

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[19] Freelance reviewer, phase 2 call note.
[20] Freelance reviewer, phase 2 call note.
[21] [✂], phase 1 call note.
[22] [✂], phase 1 call note.
[23] [✂], phase 1 call note.
[24] [✂], response to the phase 1 competitor questionnaire.
[25] [✂], response to the phase 1 competitor questionnaire.
[26] Which, phase 2 call note.

(a) A competitor [✂] told us that it is planning to release a password management and ID protection solution in 2022 which will be available as a standalone product and as part of other bundles.[27]

(b) Another competitor [✂] told us that it was investing in sales and marketing development.[28] It also stated that, should the Merged Entity seek to increase its prices, then that would present an opportunity for it to expand in the UK.[29] However, it also noted the nascent stage of its development in the UK, stating that its market share and awareness is low in the UK compared to NortonLifeLock and that it was not willing to commit the investment required to displace NortonLifeLock or Avast.

(c) Another competitor [✂] told us that it plans to 'develop' the sales on its UK website by driving more traffic its affiliate programmes and advertising via search engine marketing and display advertising, while it does not have any plans to withdraw any products.[30] It also told us that, [✂].[31]

(d) Another competitor [✂] told us that it is aiming to invest significantly in its new service launch in its focus countries, including the UK. It also told us that it is looking to expand into new channels including banking and insurance.[32]

(e) Another competitor [✂] told us that it continually assesses its CCS solution, and will plan to release the next version when possible but at this time there is no announced timeline or details of this product.[33]

12. Several providers ([✂]) have told us that they do not have any upcoming product launches or substantial investment plans in the UK and have no planned changes in their business focus.[34]

(a) One provider [✂] told us that its 'main focus is the US as this is still a largely untapped market. It added that it does have plans to be a worldwide company but it does not have UK specific growth plans. It said that the UK would be a priority market when growing globally as it is English speaking'.[35]

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[27] [✂], response to the phase 2 RFI 1.
[28] [✂], response to the phase 2 RFI 1.
[29] [✂], phase 1 call note.
[30] [✂], response to the phase 2 RFI 1.
[31] [✂], response to the phase 2 RFI 1.
[32] [✂], response to the phase 2 RFI 1.
[33] [✂], response to the phase 2 RFI 1.
[34] [✂], response to the phase 2 RFI 1. [✂], response to the phase 2 RFI 1. [✂], response to the phase 2 RFI 1. [✂], response to the phase 2 RFI 1.
[35] [✂], phase 2 call note.

(b) A credit bureau [✂] that offers some identity solutions told us that it is 'incredibly difficult for an identity protection company to start offering antivirus or privacy products successfully'.[36] It stated that: 'A company needs to specialise in cyber security protection in order to effectively offer cyber security products. It is an area that is continually evolving with a lot of research and development required. In addition, the cost to promote brand awareness is extremely high. Therefore, the level of return on investment does not make it attractive to enter the antivirus or privacy space, if a company was not in that space to begin with'.[37]

Diversion from Avast

13. We asked third parties to list the top five competitors (unprompted) that consumer customers would switch to if Avast charged materially higher prices for its CCS solutions in the UK. We also asked them to state the number of customers that Avast would lose to each competitor ('many', 'some', or 'few'). Nine third parties responded.[38]

14. NortonLifeLock, Kaspersky and McAfee were most frequently mentioned, see Table 1. We note that respondents more frequently considered that 'many' customers would divert to NortonLifeLock and McAfee than to Kaspersky. Microsoft and Bitdefender were mentioned relatively frequently (albeit less than NortonLifeLock, Kaspersky and McAfee), with most respondents considering that 'some' customers would divert to them.

Table 1: Diversion from Avast

Avast competitor	*Overall mentions*	*N. of 'Many'*	*N. of 'Some'*	*N. of 'Few'*
NortonLifeLock (incl. Avira)	**9**	**3 plus 1 (many/some)**	**4**	**1**
Kaspersky	8	1 (many/some)	5	1
McAfee	7	3	3	1
Microsoft	5	1	3	
Bitdefender	4		3	
ESET	3		1	1
Trend Micro	2		2	
ExpressVPN	1		1	
F-Secure	1		1	
Malwarebytes	1			
Move to premium offering	1	1 (many/some)		
Others e.g. Check Point, Trend Micro, F-secure	1			1
Total	**43**	**9**	**24**	**5**

Source: CMA analysis. Note one respondent did not specify whether many, some or few customers would switch, so the columns do not sum to the overall mentions.

[36] [✂], phase 1 call note.
[37] [✂], phase 1 call note.
[38] [✂], [✂], [✂], [✂], [✂], [✂], [✂], [✂] and [✂].

15. Third parties were asked to give reasons for their choices. The reasons given by the three out nine third parties who listed NortonLifeLock or one of its brands as an alternative to which 'many' or 'many/some' Avast customers would switch were:

(a) NortonLifeLock is 'in all likelihood Avast's biggest competitor'.[39]

(b) NortonLifeLock's 'brand' and 'value for money'.[40]

(c) Reviewers view Avira's free offering 'favourably' and its capabilities are 'very close' to those of Avast.[41]

(d) NortonLifeLock is a 'market leader' and would be the 'main' company to win lost customers.[42]

16. The reasons the three out of nine third parties who listed McAfee as an alternative to which 'many' Avast customers would switch were:

(a) McAfee is a very big competitor and one of the biggest competitors of Avast.[43]

(b) McAfee's 'brand' and 'value for money'.[44]

(c) McAfee is a 'market leader' and has high share, as well as brand awareness numbers.[45]

17. The reasons given by the two out nine third parties who listed other competitors as alternatives to which 'many' Avast customers would switch were:

(a) With respect to Microsoft, it is a 'free product'.[46]

(b) With respect to Kaspersky's free product 'Reviewers often rate [it] high[ly] as "great protection results in independent tests"'.[47]

18. In addition, one provider [✂] noted 'possible high migration' towards Microsoft security products such as Microsoft Defender, but it said that Microsoft is not an 'actual player in the security market itself'. It also said that Avira is an 'interesting competitor' which 'could benefit from Avast lost customers, given

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[39] [✂], response to the phase 1 competitor questionnaire.
[40] [✂], response to the phase 1 competitor questionnaire.
[41] [✂], response to the phase 1 competitor questionnaire.
[42] [✂], response to the phase 2 competitor questionnaire.
[43] [✂], response to the phase 1 competitor questionnaire.
[44] [✂], response to the phase 1 competitor questionnaire.
[45] [✂], response to the phase 2 competitor questionnaire.
[46] [✂], response to the phase 1 competitor questionnaire.
[47] [✂], response to the phase 1 competitor questionnaire.

its current visibility and presence in the market'. With regard to Kaspersky it noted that 'although its share is among top five to seven players, current customers' evolution prove that it is losing customers rather than winning.'[48]

Diversion from NortonLifeLock

19. We asked third parties to list the top five competitors (unprompted) that consumer customers would switch to if NortonLifeLock charged materially higher prices for its CCS solutions in the UK. As part of this question, we asked them to state the number of customers that NortonLifeLock would lose to each competitor ('many', 'some', or 'few'). Nine third parties responded.[49]

20. As can be seen in Table 2, McAfee, Avast and Kaspersky were most frequently mentioned, though we note that more respondents considered that 'many' customers would divert to McAfee and Avast than to Kaspersky. Bitdefender and Microsoft were mentioned relatively frequently (albeit less than NortonLifeLock, Kaspersky and McAfee), with most respondents considering that 'some' customers would divert to them.

Table 2: Diversion from NortonLifeLock

NortonLifeLock competitor	*Overall mentions*	*N. of 'Many'*	*N. of 'Some'*	*N. of 'Few'*
Avast (incl. AVG)	**8**	**4**	**3**	**1**
McAfee	8	4	4	
Kaspersky	8		4	2
Bitdefender	5		3	1
Microsoft	4	1	2	
Trend Micro	3		3	
ESET	3		1	1
ExpressVPN	2		1 plus 1 (some/few)	
F-Secure	1		1	
Nord	1		1 (some/few)	
Malwarebytes	1			
Others e.g. Check Point, Trend Micro, F-secure	1			1
Total	**44**	**8**	**25**	**6**

Source: CMA analysis. Note one respondent did not specify whether many, some or few customers would switch, so the columns do not sum to the overall mentions.

21. The reasons given by the four out nine third parties who listed Avast or one of Avast's brands as an alternative to which 'many' or 'many/some' NortonLifeLock customers would switch were:

(a) Avast is 'likely the biggest competitor' of NortonLifeLock.[50]

[48] [✂], response to the phase 2 competitor questionnaire. It also made similar comments in response to the equivalent question regarding NortonLifeLock's customers.
[49] [✂], [✂], [✂], [✂], [✂], [✂], [✂], [✂] and [✂].
[50] [✂], response to the phase 1 competitor questionnaire.

(b) Avast's 'brand' and 'value for money'.[51]

(c) Avast and AVG are 'well known' and free of charge.[52]

(d) Avast would gain the second largest number of customers after McAfee.[53]

22. The reasons the four out of nine third parties who listed McAfee as an alternative to which 'many' NortonLifeLock customers would switch were:

(a) McAfee is a very big competitor and one of the biggest competitors of NortonLifeLock.[54]

(b) McAfee's 'brand' and 'value for money'.[55]

(c) McAfee is a 'market leader' and has high share, as well as brand awareness numbers.[56]

(d) McAfee has a 'strong position in the UK, a leading position globally with sizable marketing capabilities.' Its portfolio is 'very close' to that of NortonLifeLock.[57]

23. The reasons given by the one third party who listed Microsoft as an alternative to which 'many' NortonLifeLock customers would switch was that it is a 'free product'.[58,59]

24. In addition, one competitor who did not provide a ranking of competitors to whom NortonLifeLock customers would switch said that, generally, it believed that consumers would switch to McAfee as 'it is a well-known brand'.[60]

Third party views on Microsoft Defender

25. Microsoft Defender's technical capability (in terms of how well it performs on independent technical tests, which assess protection, performance and usability) has been high for the last few years, based on performance in AV-TEST and SE Labs tests.[61]

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[51] [✂], response to the phase 1 competitor questionnaire.
[52] [✂], response to the phase 1 competitor questionnaire.
[53] [✂], response to the phase 2 competitor questionnaire.
[54] [✂], response to the phase 1 competitor questionnaire.
[55] [✂], response to the phase 1 competitor questionnaire.
[56] [✂], response to the phase 2 competitor questionnaire.
[57] [✂], response to the phase 1 competitor questionnaire.
[58] [✂], response to the phase 1 competitor questionnaire.
[59] Bitdefender was never mentioned as one to which 'many' customers would divert.
[60] [✂], response to the phase 2 competitor questionnaire.
[61] AV-TEST Seal of Approval | AV-TEST Institute and SE Labs.

26. We asked third parties for their views of the competitive landscape, including the extent to which security features offered as part of the operating systems provided by Microsoft, Apple and Google compete with NortonLifeLock and Avast. Several (but not all) third parties told us that Microsoft competes in the supply of CCS solutions although some noted that Microsoft Defender does not have all features offered by other CCS providers or that it does not compete as strongly for paid-for products compared with free.[62]

27. Microsoft launched Microsoft Defender for Individuals in June 2022.[63] Microsoft told us that Microsoft Defender for Individuals will enable consumers to 'view [their] existing antivirus protection (such as Norton or McAfee)' and 'Defender recognizes these protections within the dashboard' which may mean that Microsoft does not expect its customers to stop using (or purchasing) other CCS solutions.[64]

Views on the Merger

28. Some third parties were unconcerned about the Merger due to the number of competitors in the market:[65]

    (a) One competitor [✂] told us that it does not foresee the Merger significantly impacting on competition the UK as the market is still very competitive with many strong players[66] However, it also said that 'in theory' the Merger could decrease product innovation in the CCS space as well as the detection and processing of cyber threats. This is because there will no longer be four separate R&D teams (Avira, AVG, NortonLifeLock and Avast), but one consolidated team.[67]

    (b) Another competitor [✂] told us that the CCS market is of a sufficient size that it does not expect the Merger to have a material impact on the market share or pricing of CCS solutions.[68]

29. Some third parties were concerned about a loss of choice for consumers and/or a loss of innovation following the Merger:

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[62] [✂], phase 1 call note. [✂], response to the phase 2 RFI 1. [✂], response to the phase 2 RFI 1. [✂], response to the phase 2 RFI 1. [✂], response to the phase 2 RFI 1. [✂], response to the phase 2 RFI 1. [✂], response to the phase 2 RFI 1. [✂], phase 2 call note.
[63] See Microsoft Defender for Individuals | Microsoft Security.
[64] Making the world a safer place with Microsoft Defender for individuals - Microsoft Security Blog. Also, Microsoft response to the phase 2 RFI 3.
[65] In addition, we note that [✂], [✂] and [✂] did not have any views on the Merger, whilst [✂] did not respond to the question. [✂], response to the phase 2 RFI 1. [✂], response to the phase 2 RFI 1. [✂], response to the phase 2 RFI 1. [✂], response to the phase 2 RFI 1.
[66] [✂], response to the phase 2 RFI 1.
[67] [✂], phase 1 call note.
[68] [✂], response to the phase 2 RFI 1.

(a) A freelance reviewer said that even if the services provided are not directly merged after purchase, they will be very similar which reduces choice.[69] The freelance reviewer said they would not want Microsoft to be the only player in this market as the fewer malware companies there are, the fewer researchers are there to analyse threats.[70]

(b) Which noted that the Merged Entity's market shares post-Merger will be 'high' and was concerned that that a potential reduction in antivirus engines may result in a reduction of choice. It also noted that NortonLifeLock has not traditionally made free antivirus products available, beyond limited free trials and it was therefore unclear about the future of Avast's free antivirus offering.[71] It also said that, if the Merger goes through NortonLifeLock would own three of the four best free antivirus options (Kaspersky, Avast, AVG and Avira).[72]

(c) A competitor [✂] told us that the acquisition could limit real options available for UK consumers and could result in fewer real choices in the future. This would be the case if: (i) the protection technologies across the different brands were standardised in favour of M&A synergies, and (ii) one brand offering were terminated or the services sold under different brands became materially similar.[73]

(d) Another competitor [✂] said that the market will be less competitive after the Merger because there will be fewer key players. It said NortonLifeLock and Avast both have a significant position.[74]

(e) [✂].[75]

30. Another competitor [✂] suggested that the synergies from the Merger would be used to invest in customer acquisition. It told us that:

(a) [✂];

(b) [✂];

(c) [✂];

(d) [✂]; and

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[69] Freelance reviewer, phase 2 call note.
[70] Freelance reviewer, phase 2 call note.
[71] Which, phase 1 call note.
[72] Which, phase 2 call note.
[73] [✂], response to the phase 2 RFI 1.
[74] [✂], phase 2 call note.
[75] [✂], phase 1 call note.

(e) [✂].[76]

31. Some competitors said that the Merger would allow NortonLifeLock to increase its customer base or consolidate its position in the market:

(a) A competitor [✂] said that [✂]. [✂].[77]

(b) Another competitor [✂] said that 'it appears Norton and Avast are expanding their footprint through the Merger and that they are doing it by sheer numbers with the brands they have'.[78]

(c) Another competitor [✂] said that it considers that NortonLifeLock has a strategy of acquiring its competition to consolidate its position in the market.[79]

(d) A freelance reviewer said that they were not at all happy about the Merger as they have seen consolidation of the market into increasingly few players.[80]

Evidence from third parties' internal documents

32. In this section we summarise evidence from internal documents which we received from competitors on their competitor monitoring and consumer research.

Competitor monitoring

Introduction

33. We received internal documents from several third parties, and we reviewed the extent to which these documents contain any evidence of whether CCS providers perceive themselves as close competitors to the Parties and/or whether they see the Parties and other CCS providers as close competitors.[81]

34. The documents we received show that third parties monitor a broader set of CCS providers, though a smaller set of providers (which includes NortonLifeLock and Avast) are monitored in greater detail, including in comparisons of prices and product features.

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[76] [✂], phase 2 call note.
[77] [✂], phase 1 call note.
[78] [✂], phase 2 call note.
[79] [✂], phase 1 call note.
[80] Freelance reviewer, phase 2 call note.
[81] These were [✂], [✂], [✂] and [✂].

35. Across all the documents provided by third parties, Microsoft Defender is not monitored to the same extent as NortonLifeLock, Avast and other providers of CCS. There is also only limited monitoring of Apple and Google.

Our assessment

36. [✂] internal documents show that it monitors NortonLifeLock, Avast, other CCS providers, as well as Microsoft, Apple and Google. [✂]:

(a) [✂];[82]

(b) [✂];[83]

(c) [✂];[84]

(d) [✂];[85]

(e) [✂].[86]

37. [✂]:

(a) [✂];[87]

(b) [✂];[88]

(c) [✂].[89,90]

38. [✂]:

(a) [✂].[91]

(b) [✂].[92]

(c) [✂].[93]

(d) [✂].[94]

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[82] [✂], follow-up response to the phase 2 RFI 1.
[83] [✂], follow-up response to the phase 2 RFI 1.
[84] [✂], follow-up response to the phase 2 RFI 1.
[85] [✂], follow-up response to the phase 2 RFI 1.
[86] [✂], follow-up response to the phase 2 RFI 1.
[87] [✂], follow-up response to the phase 2 RFI 1.
[88] [✂], follow-up response to the phase 2 RFI 1.
[89] [✂], follow-up response to the phase 2 RFI 1.
[90] [✂].
[91] [✂], follow-up response to the phase 2 RFI 1.
[92] [✂], follow-up response to the phase 2 RFI 1.
[93] [✂], follow-up response to the phase 2 RFI 1.
[94] [✂], follow-up response to the phase 2 RFI 1.

(e) [✂].[95]

(f) [✂].[96]

39. We have received several internal documents from CCS providers which were prepared for their boards of directors or senior management, and which contain evidence of competitor monitoring.

40. [✂]:

(a) [✂].

(b) [✂]:

(i) [✂];

(ii) [✂]; and

(iii) [✂].[97]

(c) [✂].[98]

(d) [✂].

(e) [✂].

(f) [✂].

41. [✂]:[99]

(a) [✂];[100]

(b) [✂].[101]

42. [✂]:

(a) [✂];

(b) [✂].[102]

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[95] [✂], follow-up response to the phase 2 RFI 1.
[96] [✂], follow-up response to the phase 2 RFI 1.
[97] [✂] response to the phase 2 RFI 1.
[98] [✂].
[99] [✂].
[100] [✂] follow-up documents to phase 2 call.
[101] [✂] follow-up documents to phase 2 call.
[102] [✂], follow-up response to the phase 2 RFI 1.

Consumer research

43. We asked third parties for any consumer research, market research or surveys on CCS solutions which were prepared by or for, or received by, any member of the board of directors (or equivalent body) or senior management since January 2021.

44. The documents we received refer to:

(a) A move to offering bundled products and growing adoption of bundled products;

(b) Estimates of willingness to pay;

(c) Customer segmentation, noting that there are not many significant differences between the specified customer segments;

(d) Customer acquisition channels, including that pre-installation is an important channel; and

(e) The importance of brand awareness.

45. Most third parties have conducted research (either regular, or ad hoc) in the period in question, and have provided summaries of these surveys.

46. [✂].

(a) [✂]:

(i) [✂];

(ii) [✂];

(iii) [✂].[103]

(b) [✂]:

(i) [✂];[104]

(ii) [✂].[105]

47. [✂]:

[103] [✂], response to the phase 2 RFI.
[104] [✂], response to the phase 2 RFI.
[105] [✂], response to the phase 2 RFI.

(a) [✂];

(b) [✂].[106]

48. Kaspersky provided an 'IT Security Risks Report 2021' examining attitudes towards online privacy, and found that the majority of respondents (65%) agree with a statement that antivirus software is required for good 'digital hygiene' and more than half (58%) of the respondents are currently using an internet security software (excluding built-in software) on the devices (computer or mobile) they use personally.[107]

49. [✂]:[108]

(a) [✂];

(b) [✂];

(c) [✂];

(d) [✂];

(e) [✂];[109,110,111,112]

(f) [✂].

50. [✂]:

(a) [✂];

(b) [✂];

(c) [✂];

(d) [✂].[113]

51. [✂]:[114]

(a) [✂];

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[106] [✂], response to the phase 2 RFI 1.
[107] See: consumer-appetite-versus-action-report.pdf (kasperskydaily.com), page 8. [public document]
[108] [✂], response to the phase 2 RFI 1.
[109] [✂].
[110] [✂].
[111] [✂], response to the phase 2 RFI 1.
[112] [✂], response to the phase 2 RFI 1.
[113] [✂], response to the phase 2 RFI 1.
[114] [✂]. response to the phase 2 RFI 1.

(b) [✂];

(c) [✂].

52. [✂]:

(a) [✂];[115]

(b) [✂].[116]

Microsoft's current offering and future plans

53. This section sets out evidence on Microsoft's offerings and future plans, as well as evidence from third parties on their monitoring of Microsoft.

Third party views of Microsoft Defender's quality

54. Microsoft Defender's technical capability (in terms of how well it performs on independent technical tests, which assess protection, performance and usability)[117] has been high for the last few years:

(a) In the most recent AV-TEST review results of antivirus software for Windows 10 home users (April 2022) Microsoft is one of 15 providers to receive 'Top product' certification (though it did not receive full marks, unlike Avast, NortonLifeLock and several other providers).[118, 119]

(b) Microsoft Defender has had the 'Top product' certification consistently since June 2020, and in several tests prior to this.[120]

(c) Microsoft Defender also scored highly in the latest SE Labs' review results of endpoint security for consumers; Microsoft Defender achieved 100% in Total Accuracy rating alongside Avast, Kaspersky, Sophos and AVG, while NortonLifeLock received 99% (along with Avira, McAfee and Webroot).[121] However, each of NortonLifeLock, Avast, AVG, Avira, Microsoft, Kaspersky, Sophos, McAfee and Webroot achieved SE Labs AAA awards in Home Endpoint Security.[122] Microsoft Defender has scored 99% or 100% in all quarterly tests since Q4 2020.

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[115] [✂].
[116] [✂].
[117] AV-TEST Seal of Approval | AV-TEST Institute.
[118] Test antivirus software for Windows 10 - April 2022 | AV-TEST.
[119] Test Microsoft Defender 4.18 for Windows 10 (221213) | AV-TEST.
[120] Test antivirus software Microsoft | AV-TEST.
[121] See: endpoint-security-eps-home-2022-04.pdf. page 5 [public document].
[122] See: endpoint-security-eps-home-2022-04.pdf, page 7 [public document].

55. Third party comparison and review sites usually include Microsoft Defender (although the reviews cover all features within Windows Security rather than just the antivirus), although it is not always covered in 'best buys'.[123] For example:

(a) TechRadar includes Microsoft Defender in its 'Best antivirus software 2022' comparison, alongside Bitdefender, NortonLifeLock, Trend Micro, Avast, Avira, McAfee, Webroot and Sophos.[124] Microsoft Defender is ranked 5 with 3.5 stars awarded (ranking below NortonLifeLock and Avast, but above McAfee). The description states that Microsoft Defender is 'a solid product that gives capable mid-range protection', the features additional to antivirus 'are all pretty basic and aren't up the standard of those offered by most of the security suites' also reviewed and 'is only available on Windows PCs';

(b) PC Mag UK does not include Microsoft Defender in its 'Best Antivirus for 2022' review, but does include it in 'Best Free Antivirus for 2022' with a statement saying 'Microsoft Defender is improving, but you still shouldn't rely on it by itself'[125] and 'Defender does a decent job, too, but the best competitors, including free ones, do even better';[126]

(c) The latest antivirus software buying advice by Which does not include Microsoft Defender (referred to as Microsoft Windows Security and Windows built-in security) in the list of best buys.[127] However, Which has a separate description of Microsoft Defender stating that 'in many ways, it is a very effective tool' and 'reliable to blocking malware from running' but that it 'doesn't score brilliantly in [Which] web test' and 'rates poorly for false positives in [Which] tests'.

(d) MoneySavingExpert includes Microsoft Defender in its 'Free antivirus software' review (PC software downloads), alongside Avast, AVG, Avira, Kaspersky and Panda Security.[128] Pros of Microsoft Defender are that it i) is built in, ii) won't slow the PC down and iii) has strong parental controls, while cons are i) 'middling performance in independent detection tests', ii) doesn't include a password manager and iii) doesn't include a VPN;

(e) The Independent does not include Microsoft Defender in its best buys (which are awarded to NortonLifeLock, McAfee, Avira, Sophos, F-Secure

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[123] Except for Which, who refer to Windows Security rather than Microsoft Defender.
[124] The best antivirus software 2022 | TechRadar.
[125] The Best Free Antivirus for 2022 (pcmag.com).
[126] Microsoft Defender Antivirus - Review 2021 - PCMag UK.
[127] Which, Best free and paid antivirus software 2022, Which Best Buys and expert buying advice, 12 May 2022.
[128] Free Antivirus Software: top legal PC and Mac protection – MSE (moneysavingexpert.com).

and BullGuard) but it does include mentions of Microsoft Defender in the FAQs stating that 'Windows has effective built-in virus protection that runs quietly in the background, updates automatically and doesn't slow down your machine or require any configuration' but 'for added security against new viruses and other types of attack, antivirus software can give your machine an extra layer of defences';[129] and

(f) The Daily Telegraph includes Microsoft Defender in its 'The best antivirus software of 2022, tried and tested to keep your family's devices protected' review, alongside McAfee, Bitdefender, NortonLifeLock, AVG and Malwarebytes.[130] Microsoft Defender is described as 'free, simple to use, and comes bundled with every new and new-ish Windows PC, although it's not the overall best antivirus for Windows 10'.

56. A freelance reviewer told us that, until Windows 10, Microsoft Defender was among the worst performing malware protection tools. However, they said that, since the introduction of Windows 8 and especially Windows 10, when consumers install Windows, they agree to send data to Microsoft and the more threats that users send back for analysis, the larger a provider's dataset is. This means that the provider gets to see and analyse more different examples of malware, obfuscation techniques for and variants of malicious software, potentially unwanted programs and legitimate software (for fewer false positive identifications), all of which contributes to the accuracy of their detection engines.[131]

57. The freelance reviewer also told us that there are no big differences between the security solutions built into operating systems and those offered by providers like NortonLifeLock and McAfee.

58. They said Microsoft Defender provides everything important that anti-malware providers offer, with the exception of some 'bells and whistles' such as webcam protection and system optimisation.[132]

59. Further, they said that, if Microsoft improved its firewall, it could pose a threat to other providers. The freelance reviewer said that the firewall currently is smart but configuring it is an unpleasant experience. They said that if Microsoft added quality of life features like webcam protection that could also

[129] Best antivirus software 2022: Free and paid protection from Norton, McAfee and more | The Independent.
[130] The best antivirus software of 2022, tried and tested to keep your family's devices protected (telegraph.co.uk).
[131] Freelance reviewer, phase 2 call note.
[132] Freelance reviewer, phase 2 call note.

pose a threat. They said that as awareness increases, there are no killer features that Microsoft Defender needs.[133]

Third parties' views on Microsoft's competitiveness in the supply of CCS solutions

60. We asked third parties for their views of the competitive landscape, including the extent to which security features offered as party of the operating systems provided by Microsoft, Apple and Google compete with NortonLifeLock and Avast. We also had calls with several providers where we asked questions on the constraint posed by Microsoft Defender. The evidence we received is summarised below.

61. Several third parties told us that Microsoft competes in the supply of CCS solutions, though some noted that Microsoft Defender does not have all features offered by other CCS providers or that it does not compete as strongly for paid-for products compared with free. In particular:

(a) One competitor [✂] told us that it considers the 'Big Tech' companies (such as Microsoft, Google and Apple) as its competitors, but that their solutions are not compatible with more than one platform and that they do not have long-standing expertise in cybersecurity like it.[134] It told us that Big Tech companies invest in embedding security features in their ecosystems, extending sets and types of protection (such as security features, parental controls, password managers) and these features may be considered as competition to standalone solutions offering similar features. It also said that the fact that it and its competitors exist in the CCS market demonstrates that customers do not perceive Microsoft Defender as sufficient protection and are still purchasing third party CCS software;[135]

(b) Another competitor [✂] told us that Microsoft, Apple, and Google each offer various features that overlap with endpoint solutions in this market, but that they are not considered to be competitors for suite, identity protection, and/or VPN products. It said that Microsoft's antivirus solution competes directly with NortonLifeLock and Avast, and that Microsoft, Apple, and Google are all making investments in the security space (eg Microsoft Edge browser with VPN feature, VPN by Google One) and could increase their competitiveness in the near future;[136]

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[133] Freelance reviewer, phase 2 call note.
[134] [✂], response to the phase 2 RFI 1.
[135] [✂], phase 1 call note.
[136] [✂], response to the phase 2 RFI 1.

(c) Another competitor [✂] told us that Microsoft Defender is 'a threat for the endpoint security business, at least for the antivirus part', and that the freemium market is likely to be more affected by Microsoft Defender than the paid-for market;[137]

(d) Another competitor [✂] told us that Microsoft and Google compete with it and the Parties in the provision of CCS solutions;[138]

(e) Another competitor [✂] told us that, as all Windows machines are equipped with Windows Defender, it could be seen as a competitor to it along with Avast and NortonLifeLock as Windows Defender needs to be disabled prior to enabling an alternative solution;[139]

(f) Another competitor [✂] told us that 'Both Microsoft and Google offer free CCS solutions, such as antivirus software, URL filtering and family protection, among other products, that compete directly with its [✂] CCS solutions';[140]

(g) Another competitor [✂] told us that Microsoft competes effectively with everyone in the security industry in respect of desktop security, including itself, NortonLifeLock and Avast;[141]

(h) Another competitor [✂] told us that:

(i) Microsoft, Apple and Google each offer native security features on their OS meaning that they compete with it, NortonLifeLock and Avast. Although, it considered that it offered better security than native OS protection of these OS providers;[142]

(ii) it understands that Microsoft is focussed on developing its operating system and that developing security is a secondary aim;[143]

(iii) it has taken it over 25 years to develop its current product offering and it believes that, even with its resources, it will take Microsoft some time to offer a similar suite;[144] and

(iv) [✂].[145]

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[137] [✂], response to the phase 2 RFI 1
[138] [✂], response to the phase 2 RFI 1.
[139] [✂], response to the phase 2 RFI 1.
[140] [✂], response to the phase 2 RFI 1.
[141] [✂], response to the phase 2 RFI 1.
[142] [✂], response to the phase 2 RFI 1.
[143] [✂], phase 2 call note.
[144] [✂], phase 2 call note.
[145] [✂], phase 2 call note.

62. Another competitor, McAfee told us that [✂].[146] [✂].

63. McAfee told us that:

(a) [✂]; and

(b) [✂].[147]

64. McAfee also told us that Microsoft Defender [✂]. McAfee told us that [✂], though McAfee noted that [✂].[148]

65. In relation to product development, McAfee told us that [✂].[149]

66. Another competitor [✂] told us that Microsoft Defender is a competitor that exerts pressure on the entire security industry through its control of the operating system.[150]

Third parties' monitoring of Microsoft Defender

67. We have received internal documents from several CCS solution providers which contain evidence of a lower level of competitor monitoring of Microsoft than of other CCS solution providers.

(a) [✂];[151] and

(b) [✂].[152]

68. [✂].[153]

69. [✂].[154]

70. Three internal documents from [✂] show that it monitors Microsoft, but to a lesser degree than endpoint security providers:

(a) [✂].[155] [✂].[156]

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[146] McAfee, response to the phase 2 RFI 1.
[147] McAfee, phase 2 call note.
[148] McAfee, phase 2 call note.
[149] McAfee, phase 2 call note.
[150] [✂], response to the phase 2 RFI 1.
[151] [✂] and [✂].
[152] [✂].
[153] [✂],
[154] [✂].
[155] [✂].
[156] [✂].

(b) [✂].[157]

(c) [✂].[158]

(d) [✂].[159]

(e) [✂].[160]

(f) [✂].[161]

71. Another competitor [✂].[162]

72. [✂]:

(a) [✂];[163]

(b) [✂].[164]

Microsoft Defender for Individuals

73. We reviewed published information and sought evidence, including using our statutory evidence-gathering powers, from Microsoft on its plans to develop Microsoft Defender and on the launch of Microsoft Defender for Individuals.

74. We sought to understand Microsoft plans for its CCS solutions in the UK, including gathering evidence from it after the launch of Microsoft Defender for Individuals, on expected timescales for its development and forecasts of its uptake.

75. Microsoft told us that Microsoft Defender [✂].[165]

76. Microsoft Defender for Individuals launched in the UK in June 2022. In submissions before and after its launch, Microsoft told us that it [✂].[166]

77. An internal document provided by Microsoft [✂]:

(a) [✂]; and

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[157] [✂].
[158] [✂].
[159] [✂].
[160] [✂].
[161] [✂].
[162] [✂] told us that the documents have results from testing and reviews of business products as well as consumer ([✂] follow-up documents to phase 2 call).
[163] [✂].
[164] [✂].
[165] Microsoft, response to the phase 2 RFI 2. Also Microsoft response to the phase 2 RFI 3.
[166] Microsoft, phase 2 call note and Microsoft response to the phase 2 RFI 3.

(b) [✂].[167]

78. Microsoft Defender for Individuals includes features which are comparable to bundles offered by NortonLifeLock, Avast and other CCS providers.

79. Microsoft told us that [✂].[168]

80. Prior to its launch, Microsoft [✂]. [✂].[169]

81. [✂].[170] [✂].[171]

82. [✂].[172]

[167] [✂].
[168] [✂].
[169] [✂].
[170] [✂].
[171] [✂].
[172] [✂].

Appendix D: CMA estimates of shares of supply for CCS in the UK and market trends

Introduction

1. In this Appendix we summarise our approach to estimating shares of supply, discuss our estimates of shares of supply, and outline the limitations to our approach that determine how they can be interpreted. Finally, to provide context for our estimates of shares of supply, we complement our analysis with a discussion of the current coverage of Microsoft Defender and of recent trends in the Parties' customer volumes.

Our approach

2. Using the basis outlined in our Market Definition (Chapter 5), we estimated shares of supply using submissions from the Parties and competitors on their:

   (a) UK revenues from:

      (i) all **paid-for** CCS solutions; and

      (ii) **paid-for** consumer endpoint security products (including those that are bundled together with other CCS solutions, for example where an antivirus product is sold together with a VPN or identity protection product); and

   (b) the number of customers (hereafter '**volume**') for **paid-for** consumer endpoint security products (again including any products that are bundled).[1]

3. We focussed on obtaining this data from suppliers of CCS solutions with an endpoint security offering. This means we do not capture shares of supply of, for example, suppliers of standalone VPN or identity protection products. However, we consider the set of CCS providers with an endpoint security offering to exert a stronger competitive constraint on the Parties (see Chapter 7). In addition, we consider that including revenues from, for example, VPN suppliers does not change the conclusions we would draw from estimates of the shares of supply given their revenues are significantly lower than the Parties' (and McAfee's) revenues.[2]

[1] We did not collect information on volumes for CCS solutions which do not include endpoint security.
[2] CMA, phase 1 Decision, 16 May 2022, Annex A. Table 7 [public document]

4. Due to limitations in the comparability of data submitted to us by the Parties and third parties, we were only able to reliably estimate shares of supply by volume for paid-for products. Similarly, Microsoft submitted telemetry data on the known usage of Microsoft Defender – and endpoint security software more broadly – on Windows devices.[3] However, we were not able to estimate comparable shares of supply from this data due to due to differences in the recording of active customers.

5. The Parties submitted that the above limitations mean very limited weight can be placed on our estimates of the shares or supply, given Avast's reliance on a freemium model as its primary go-to-market strategy and Microsoft Defender's expansion in the CCS market.[4] However, in our analysis we have used the telemetry data to infer the present coverage and growth in use of Microsoft Defender in recent years, and analysed trends in the Parties' customer volumes to understand how Microsoft Defender might be affecting their businesses.

6. Some competitors did not (or were not able to) submit the data in paragraphs 2(a) and 2(b). In these cases, we used a share of supply analysis submitted by the Parties, which relied on data from IDC and Gartner market reports, to estimate revenues for these competitors.[5] The aim in doing so was to be as comprehensive as possible in our estimates of shares of supply. It was not possible to do this for missing third party paid-for volume data because IDC and Gartner do not report on volumes.

7. The Parties submitted that although the IDC and Gartner data is focussed on suppliers that offer a paid-for endpoint security product, figures include revenue from non-endpoint security products, for example VPNs, for those that offer them.[6] We therefore view the revenues from these reports as estimates of third parties' revenues across all CCS solutions.

8. Both NortonLifeLock and Avast submitted product level revenues and volumes with products allocated to IDC categories. Where a product is part of a bundled offering, the Parties allocated IDC categories based on the product consumers were likely to value most.[7] This enabled us to calculate their

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[3] Microsoft Internal Document.
[4] Parties, response to the Working Papers; and Parties, response to the Annotated Issues Statement.
[5] NortonLifeLock, Internal Document.
[6] Parties, Final Merger Notice, paragraphs 205 and 207.
[7] Parties, Final Merger Notice, paragraph 216. IDC segments CCS solutions into the following categories: (i) endpoint security, (ii) VPNs, (iii) identity protection, (iv) device care, (v) connected home security, (vi) cloud back up, (vii) parental controls, and (viii) password management. [✂].

revenues and volumes across all their paid-for CCS solutions and separately for their consumer endpoint security products. [8]

Shares of supply by revenue

9. Table 1 shows our estimates of shares of supply by revenue for CCS solutions in the UK in each year from 2018 to 2021.[9] Although the Parties submitted data for 2017, we did not receive sufficient 2017 data from third parties to estimate shares for this year. The estimates in Table 1 suggest that the largest three suppliers have accounted for around three quarters or more of the supply in each year:

   (a) McAfee (with a share of supply ranging from [30-40]% to [30-40]%) remained the largest supplier from 2018 to 2021;

   (b) NortonLifeLock ([20-30]% to [30-40]% including BullGuard and Avira[10]) and Avast ([10-20]% to [10-20]% including AVG) were the second and third largest suppliers in each year respectively.

   (c) Combined, NortonLifeLock (including BullGuard and Avira) and Avast have accounted for between [40-50]% and [50-60]% share of supply; and

   (d) All of the remaining paid-for CCS providers have shares of supply below 5%, with the vast majority being below [0-5]%.

10. Our shares of supply differ to those submitted by the Parties.[11] However, these differences are predominantly small and do not result in different qualitative conclusions across the two sources. Our estimates draw directly on revenue reported to us by the Parties and third party suppliers as far as possible, whereas the Parties' analysis of revenues and shares of supply relies on revenue as reported in the IDC and Gartner market reports.[12]

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[8] Because products were categorised into a single IDC category, revenues (and customer volumes) for consumer endpoint security products included the sale of bundles that included an endpoint security component. All except two ([✂] and [✂]) of the suppliers from which we obtained revenue and volume data also offer bundled products, however they do not necessarily offer the same breadth of products as the Parties.
[9] In Table 1 the [✂], NortonLifeLock, Internal Document. See paragraph 3 for an explanation of the limitations to this data.
[10] We note that NortonLifeLock did not acquire the Avira and BullGuard brands until January 2021: Parties, Final Merger Notice, paragraph 66.
[11] NortonLifeLock, Internal Document.
[12] We use revenues from the Parties' submission for some third-party suppliers who did not provide data. However, because of differences in revenues across the two sources, we impute revenues for third parties in this way only when they did not provide a response for any year between 2017 and 2021. If a third party did not provide a response for only a subset of the years (eg they omitted only 2017), we do not impute their revenues for the omitted years. Instead we leave these values as missing data. This means we use a consistent source for revenue across all years for each party.

Table 1: Estimated shares of supply by revenue in the UK for paid-for CCS solutions, 2018 to 2021

%

Provider	Calendar year				Revenue Growth
	2018	2019	2020	2021	
NortonLifeLock Total	[30-40]	[30-40]	[20-30]	[20-30]	[✂]
Norton & LifeLock	[30-40]	[20-30]	[20-30]	[20-30]	[✂]
BullGuard	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Avira	-	[0-5]	[0-5]	[0-5]	[✂]
Avast (inc. AVG)	[10-20]	[10-20]	[10-20]	[10-20]	[✂]
Parties Combined	**[50-60]**	**[50-60]**	**[40-50]**	**[40-50]**	[✂]
McAfee	[30-40]	[30-40]	[30-40]	[30-40]	[✂]
Aura	-	-	[0-5]	[0-5]	[✂]
Bitdefender	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
ESET	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
F-secure	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
J2 Global	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Kape Technologies	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Kaspersky	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Malwarebytes	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
OpenText	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Panda	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Sophos	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
TotalAV	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
TrendMicro	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Total supply by revenue (£000s)	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis of data submitted by the Parties' and third parties' (third parties: responses to the phase 2 RFI 1; NortonLifeLock: NortonLifeLock, Internal Document. BullGuard: NortonLifeLock, Internal Document. Avira: Internal Document; Avast: Avast, Internal Document). Aura did not provide data for 2018 or 2019 and [✂]: NortonLifeLock, Internal Document. There were insufficient third party responses to estimate comparable shares of supply for 2017. We note that NortonLifeLock did not acquire the Avira and BullGuard brands until January 2021: Parties, Final Merger Notice, paragraph 66.

11. We note that the Parties have submitted that the shares of supply we estimate capture current customers, the majority of whom might have been acquired by the Parties and third-party suppliers in previous years.[13] Further, the Parties have submitted that shares of supply do not capture differences in competitive pressure that arise from different customer acquisition models.[14] However, as we have outlined in Chapter 7 and paragraph 5 above, we have considered the shares of supply alongside other evidence on closeness of competition and market trends.

12. During the period 2018 to 2021, almost all CCS providers' revenues grew. However only one CCS provider ([✂]) saw a substantial increase in its share

[13] Parties, response to the Working Papers; and Parties, response to the Annotated Issues Statement.
[14] Parties, response to the Working Papers; and Parties, response to the Annotated Issues Statement.

of supply. Its share grew from [0-5]% in 2018 to [0-5]% in 2021, surpassing Kaspersky – historically the fourth largest UK CCS provider after the Parties and McAfee. ([✂]) told us that a large portion of this growth was attributable to a significant investment in marketing, and that consumers' increased use of devices during the Coronavirus (COVID-19) pandemic complemented this investment to accelerate their expansion.[15] The collective share of the tail competitors (ie all competitors excluding the Parties and McAfee) grew between 2018 and 2021 and accounts in 2021 for [10-20]% of paid-for CCS.

13. Over the same period, the Parties' shares of supply (individually and combined) decreased, primarily because NortonLifeLock's total share (including Avira and BullGuard) shrank by around [0-5] percentage points. This contrasts with Avast (including AVG) whose share increased from [10-20]% in 2018 to [10-20]% 2019, then declined back to roughly 2018 levels at [10-20]% in 2021. This difference in trajectory across the Parties is due to [✂] (see Table 4 in the accompanying annex). At the same time, ([✂]) share of supply increased. Table 1 also shows that overall revenues in the supply of CCS solutions grew by [✂]% between 2018 and 2021.

14. We note that NortonLifeLock's total revenues from CCS solutions [✂] (the period covered in Table 1). [✂] in the data submitted by NortonLifeLock, shown in Figure 4 in the annex accompanying this working paper. Avast's total revenues from CCS solutions, on the other hand, [✂] (annex Figure 5). The Parties submitted that this is because [✂] in customer numbers take some time to become apparent in revenue data.[16]

15. We further note that we found that shares of supply by revenue across CCS providers differ globally (annex Table 7). For example, we found that [✂] has a significantly larger share of supply globally than in the UK, and that several other competitors such as [✂] and [✂] also have larger shares outside the UK than in the UK, although their differences are smaller (see annex Table 7). However, considering shares of supply globally would not materially change the conclusions we draw from our analysis of shares of supply in the UK.

16. Table 2 shows our estimates of shares of supply by revenue for consumer endpoint security products (including those sold together with other CCS solutions in a bundle) in the UK in each year from 2018 to 2021.[17] The qualitative conclusions from this table are broadly similar to those drawn from Table 1. However, Avast has a relatively lower share of supply for consumer

[15] [✂], call note.
[16] Parties, response to the Annotated Issues Statement.
[17] These exclude the sales of standalone products such as VPN or identity protection, but include all sales of bundled products with an endpoint security component.

endpoint security products ([5-10]% in 2021 versus [10-20]% for CCS solutions, see Table 1) and consequently the Parties' combined share of supply for endpoint security products is [✂] ([40-50]% in 2021).

17. As in Table 1, Table 2 shows that the Parties' shares of supply (individually and combined) decreased between 2018 to 2021. Again this decrease was more pronounced for NortonLifeLock than Avast [✂] (see Table 5 in the annex). Similar to the overall supply of CCS, our analysis suggests total revenues in the supply of consumer endpoint security solutions expanded by [✂]%. Our analysis (see paragraphs 29 to 33) and evidence received suggest an increasing proportion of this revenue is attributable to bundling.

18. We note that revenues from the supply of consumer endpoint security products (again, including bundles) first [✂] from 2017 to 2019 for NortonLifeLock and from 2017 to 2018 for Avast (including AVG), then [✂] up to 2021 (see annex Table 5). Again, this is consistent with trends in additional data submitted by the Parties (see annex Figure 4 and Figure 5). Again, the Parties submitted that this is because [✂].[18]

[18] Parties, response to the Annotated Issues Statement.

Table 2: Estimated shares of supply by revenue in the UK for consumer endpoint security products, 2018 to 2021

%

Provider	Calendar year				Revenue Growth
	2018	2019	2020	2021	
NortonLifeLock Total	[30-40]	[30-40]	[30-40]	[30-40]	[✂]
Norton & LifeLock	[30-40]	[30-40]	[30-40]	[20-30]	[✂]
BullGuard	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Avira	-	-	-	[0-5]	[✂]
Avast	[10-20]	[10-20]	[10-20]	[10-20]	[✂]
Parties combined	**[40-50]**	**[40-50]**	**[40-50]**	**[40-50]**	[✂]
McAfee	[✂]	[✂]	[✂]	[✂]	[✂]
Aura	-	-	-	[0-5]	[✂]
Bitdefender	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Eset	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
F-Secure	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
J2 Global	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Kape	-	-	[0-5]	[0-5]	[✂]
Kaspersky	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Malwarebytes	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
OpenText	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Panda	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Sophos	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
TotalAV	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
TrendMicro	[0-5]	[0-5]	[0-5]	[0-5]	[✂]
Total supply by revenue (£000s)	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis of data submitted by the Parties' and third parties' (third parties: responses to the phase 2 RFI 1; NortonLifeLock: NortonLifeLock, Internal Document. BullGuard: NortonLifeLock, Internal Document. Avira: Internal Document. Avast: Avast, Internal Document. Aura did not provide data for before 2021, Kape did not provide data for 2018 and 2019, [✂]: NortonLifeLock, Internal Document. Because they include revenue from non-endpoint security products (see paragraph 7) we view them as an overestimate. There were insufficient third party responses to estimate comparable shares of supply for 2017. We note that NortonLifeLock did not acquire the Avira and BullGuard brands until January 2021: Parties, Final Merger Notice, paragraph 66.

Shares of supply by volume

19. Table 3 shows our estimates of shares of supply by volume (in terms of number of paying customers) for consumer endpoint security products in the UK. This table includes fewer suppliers due to non-response but does include eleven of the fourteen suppliers in Table 1 and Table 2. In particular, the group includes suppliers of consumer endpoint security products who had a combined share of supply of [90-100]% by revenue in 2021. We also have sufficient data available to include comparable estimates of volume shares in 2017. For comparability with Table 1 and Table 2, we therefore include columns showing volume growth from both 2017 and 2018.

20. Table 3 suggests that the findings on the Parties' position in the supply of paid consumer endpoint security products, individually and in combination, is [✂] when looking at volume and revenue shares. The Parties are, again, the second and third largest suppliers after McAfee, and together account for [30-40]% of the supply by volume in 2021. However, NortonLifeLock's volume share of supply is [✂]. [✂].

21. With a share of [5-10]% Kaspersky accounts for a larger proportion of customer volumes in endpoint security than revenue (in Table 2), although we note that this is down from [10-20]% in 2017.[19]

22. All remaining competitors have a share below [0-5]%, with two-thirds falling below [0-5]%. [✂], whose revenues grew substantially between 2018 and 2021, has a lower share of supply by volume ([0-5]% in 2021) due to its relatively lower growth by this metric. [✂] told us that the differences in its revenue and volumes growth was due to its pricing model. In particular in many cases, it offers new customers an introductory discount on their initial subscription term. Upon successful renewal, it then charges the (higher) regular rate.

23. Unlike with revenues (see paragraph 14), we find that, based on the data we collected, the overall volume of customers using paid consumer endpoint security has decreased by [✂]% between 2018 and 2021.[20] When comparing volumes in 2017 with 2021, this decrease is even larger at [✂]%, a difference that arises primarily from large drops in customer numbers from [✂] and [✂] between 2017 and 2018 (see annex Table 6).

[19] Some third party evidence implies that Kaspersky's Russian ownership may affect its future position in the market.
[20] On possible explanation could be increases in number of devices covered by a single subscription. However, we do not currently consider there to be any strong evidence that this is the case.

Table 3: Estimated shares of supply by volume (paying customers) in the UK for consumer endpoint security products, 2017 to 2021

(%)

	Calendar year					*Volume growth*	
Provider	*2017*	*2018*	*2019*	*2020*	*2021*	*2017-2021*	*2018-2021*
NortonLifeLock Total	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[✂]	[✂]
Norton & LifeLock	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[✂]	[✂]
BullGuard	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[✂]	[✂]
Avira	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[✂]	[✂]
Avast	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[✂]	[✂]
Combined	**[30-40]**	**[40-50]**	**[40-50]**	**[30-40]**	**[30-40]**	[✂]	[✂]
McAfee	[40-50]	[40-50]	[40-50]	[40-50]	[40-50]	[✂]	[✂]
Kaspersky	[10-20]	[5-10]	[5-10]	[5-10]	[5-10]	[✂]	[✂]
Aura	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[✂]	[✂]
Bitdefender	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[✂]	[✂]
Eset	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[✂]	[✂]
F-Secure	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[✂]	[✂]
Kape	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[✂]	[✂]
Panda	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[✂]	[✂]
Sophos	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[✂]	[✂]
TotalAV	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[✂]	[✂]
TrendMicro	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[✂]	[✂]
Total supply by volume	**[✂]**	**[✂]**	**[✂]**	**[✂]**	**[✂]**	**[✂]**	**[✂]**

Source: CMA analysis of data submitted by the Parties' and third parties' (third parties: responses to the phase 2 RFI 1). NortonLifeLock: NortonLifeLock, Internal Document. BullGuard: Internal Document. Avira: Internal Document. Avast: Avast Internal Document). There were sufficient third party responses on customer volumes to estimate comparable shares of supply for 2017. We note that NortonLifeLock did not acquire the Avira and BullGuard brands until January 2021: Parties, Final Merger Notice, paragraph 66.

Microsoft Defender

24. The tables above do not include estimates of Microsoft Defender's shares of supply because Microsoft Defender is free and therefore will not appear in shares of supply for paid products (by revenue or volume).

25. Microsoft told us that its analysis suggests that Microsoft Defender was the sole endpoint security solution on [✂]% of Windows 10 and 11 devices globally from 1 February 2021 to 31 March 2022.[21]

26. In addition, telemetry data was submitted to us by Microsoft. This allowed us to estimate alternative shares of supply by volume based on active CCS solutions on Windows devices in 2019, 2020 and 2021.[22] However, we cannot reconcile the estimates of shares of supply using this data with the shares calculated on the basis of the Parties' and third-party revenue and volume data (Table 1 to Table 3), which are consistent with other evidence we have received on the relative prominence of CCS providers.[23] We consider data submitted by the Parties and third parties a more reliable source of information on supply given they comprise key information that is used to

[21] Microsoft, call note.
[22] Microsoft, response to the s109 notice.
[23] See Chapter 7 for our Competitive Assessment.

track company performance in the ordinary course of business. As a result, we do not deem the telemetry data sufficiently reliable to produce an accurate estimate of volume shares of supply.

27. We do, however, believe that the telemetry data provide a sufficiently accurate count of the number of Windows 10 and 11 devices on which Microsoft Defender was the sole CCS solution. Our analysis suggests that, by this measure, the number of devices on which Microsoft Defender was active increased markedly in recent years – between March 2019 and March 2022 the average number of monthly devices for which Microsoft Defender was the sole CCS solution increased by [✂]%, from [✂] to [✂] devices in the UK, suggesting Microsoft's reach with Microsoft Defender is large and growing strongly.

28. However, because it is recorded differently across parties, data on volumes for free products across the Parties, third parties and Microsoft is not generally comparable. As a result, we do not use this telemetry data to calculate volume shares of supply for free products. In addition, Microsoft's telemetry data includes both:

    (a) Those customers who have decided to use Microsoft Defender as their CCS solution; and

    (b) those customers who use Microsoft Defender 'by default' but who would not have used any CCS solution at all had Microsoft Defender not been installed on their device.

29. In other words, the telemetry data includes a count of persons who are not potential customers of the Parties or other CCS providers. Thus, we do not consider that it would provide a reliable comparison to volume data submitted by the Parties' and third parties if it was reported consistently.[24]

Limitations in the revenue/volume data available

30. We note that there are a few limitations in the revenue/volume data available for paid products (some of which have been noted above), as follows:

    (a) We do not know whether all parties submitted their revenue in an identical way. In particular, given the blurred lines between product categories and

[24] We consider this same limitation to apply to any ad-hoc comparison of Microsoft Defender's volumes based on telemetry data, and the data submitted to the CMA by the Parties and third parties on paid-for customer volumes (used in Table 3: CMA estimates of shares of supply by volume (paying customers) in the UK for consumer endpoint security products, 2017 to 2021).

differences in the way providers categorise CCS solutions, we cannot be certain that all third parties:

(i) categorised their products in the same way; and

(ii) for the shares of supply based on consumer endpoint security products (Table 2 and Table 3), reported revenue in a way that includes but is not restricted to bundled products.

(b) Some suppliers have submitted revenue, whereas others have submitted billings.[25] We do not think this is likely to affect our broad conclusions, however it does mean shares within years might be marginally different than if all sales were reported in the same way. Revenues and billings data are particularly likely to diverge for competitors whose billings are substantially increasing or decreasing. In this case, their billings data will reflect the change before their revenues.

(c) We did not receive responses from all relevant CCS providers in the UK with an endpoint security offering. As described in paragraph 6, for three suppliers (out of a total of fourteen) we used revenues data from the Parties' submission analysing shares of supply. However, the same exercise was not possible for these three suppliers when calculating volume shares given there is no available source of information on third party volumes.

31. Although these factors affect somewhat the precision of our share of supply estimates for paid products, we currently view the shares of supply set out in this paper as indicative of the relative positions of the Parties' and other suppliers in the supply of paid-for CCS solutions in the UK.

32. As explained above in paragraphs 25 and 26, we do not have comparable data for Microsoft Defender and across suppliers of free CCS solutions more generally with which to estimate volume shares of supply for free products. As regards Microsoft Defender, however, we have sufficiently accurate information about its general reach and growth in its use in recent years.

33. The shares we have estimated have been interpreted alongside other evidence, including on the role of Microsoft Defender, to assess competitive constraints between the Parties and other suppliers of CCS solutions.

[25] In a calendar year, billings represent the total revenue attributable to entire subscriptions active in that year, irrespective of whether some of that subscription is paid for in the following year. Revenue on the other hand represents that actual payments made towards subscriptions in that year.

Bundled versus standalone

34. In paragraph 2 we discussed how the Parties supply 'total security' products, which bundle together CCS solutions that provide different functionalities. We have considered two types of bundled products:

    (a) multi-category bundles that combine products from separate IDC categories;[26] and

    (b) single-category bundles that combine products within the same IDC category, but with different functionalities.

35. For example, NortonLifeLock's N360 includes, among other things, antivirus, VPN, and cloud backup products. Similarly, Avast's paid-for Avast One product includes, among other things, antivirus, identity protection, and device care features. These are what we refer to as multi-category bundled products. On the other hand, products like NortonLifeLock's Online Family package includes several constituent products, all of which provide parental controls and therefore we consider to be 'single-category bundles'.

36. Figure 1 below shows that multi-category bundled products have made up [✂] of NortonLifeLock's customer base over time. In 2016, these products accounted for [✂]% of its customer volumes, compared with [✂]% in 2021.

37. This is in line with NortonLifeLock's [✂] – for example, its Norton AntiVirus product was rebranded as Norton AntiVirus Plus to include additional functionalities like cloud backup, and its Norton 360 products were introduced. [✂]. Avast also has Avast Ultimate which is a multi-category bundle, and launched Avast One in the second half of 2021, [✂].

38. We consider this evidence of the [✂] importance to the Parties of offering total security solutions in the supply of CCS.

Figure 1: Percentage of NortonLifeLock's customers subscribed to a multi-category bundle as a percentage of total customers, 2016-2021

[✂]

Source: CMA analysis of NortonLifeLock, Internal Document.

[26] IDC segments CCS solutions into the following categories: (i) endpoint security, (ii) VPNs, (iii) identity protection, (iv) device care, (v) connected home security, (vi) cloud back up, (vii) parental controls, and (viii) password management.

Have AV sales [✂]

39. The Parties have submitted that their customer numbers have [✂].[27]

40. Figure 2 shows that total customer volumes for antivirus products [✂] for NortonLifeLock between January 2016 and March 2022 (dark blue line) based on data it submitted. This includes all products that include an antivirus component, including multi-category bundles (see paragraph 29(a)), and so makes up the [✂] of all NortonLifeLock's UK customer base – between [✂]% and [✂]% across the period. As a result, this [✂].

41. The remaining lines in Figure 2 show how customer volumes have evolved across multi-category bundles (purple line), single-category bundles (light blue line) and standalone antivirus products (yellow line).[28]

Figure 2: NortonLifeLock's volume of paying antivirus subscriptions, January 2016 to January 2022

[✂]

Source: CMA analysis of NLOK Phase 2 s109 Notice 1 Annex 004-1 UK Monthly Volume Figures.xlsx, NortonLifeLock response dated 25 April 2022 to the phase 2 s.109 notice 1, question 4

42. Volumes of Norton's single-category bundles [✂] until 2020. At this point there was a [✂] in customer numbers for single-category bundles. From the data submitted, this is primarily due to a [✂] in the number of customers purchasing Norton Internet Security. As Figure 2 shows, [✂] corresponded to a [✂] in customer numbers for multi-category bundles with an antivirus component. In particular, the data shows an [✂] number of customers with subscriptions to Norton 360 products. As suggested in paragraph 37, [✂] customer migration from other Norton products (for example, Norton Internet Security).

43. Although not clear in the graph, the volume of single-category antivirus customers [✂] over the period, in large part because of the rebranding and expanded functionality of Norton Antivirus to Norton Antivirus Plus, which became a multi-category bundle (paragraph 34).

44. Despite the [✂] in subscriptions for mixed-category bundles in 2020, the total volumes of antivirus products [✂] in 2021 and early 2022. We note that the numbers of devices covered by subscriptions for multi-category bundles has [✂] since 2020. This could lead to [✂] customer numbers because

[27] Parties, response to the phase 2 Issues Statement, 24 May 2022, paragraph 3.15 [public document].
[28] Categories are defined by the CMA, not the Parties. See paragraphs 25 and 26 for a discussion of these categories.

customers only require one subscription for multiple devices whereas previously they may have had multiple subscriptions.

45. [✂] of NortonLifeLock's customers are subscribed to multi-category bundles that include antivirus alongside other CCS, such as VPN. As a result, [✂] NortonLifeLock's volumes due to [✂] for antivirus could be [✂] demand for the other products in its bundles.

46. Avast offers fewer multi-category bundles. From our analysis of similar data covering the same period submitted by Avast, shown in Figure 3, we also find volumes for its paid online antivirus products (including all bundles) [✂]. Although not shown here, [✂] antivirus customers is more [✂] for both Avast and AVG when considering their free products, [✂] respectively between 2018 and 2021.[29]

Figure 3: Avast and AVG paid online antivirus software subscriptions

[✂]

Source: CMA analysis of Avast, Internal Document, Avast response dated 25 April 2022 to the phase 2 s.109 notice 1, question 2.

47. We currently consider that this shows [✂] Parties' customer numbers, both overall and in the sale of antivirus, over recent years. However, as we noted in paragraphs 14 and 18 above, despite [✂] prior to 2018/19, the Parties' revenues have [✂] over the same period, suggesting that [✂] customer numbers have not led to [✂]. It is possible that [✂], for example, [✂] launches of products offering new functionality or that are higher-priced (eg that cover more devices and/or have more features), or changing pricing strategies for existing products.

48. We also note that the number of new paying customers annually, which represents how [✂] the Parties are acquiring customers, has [✂] for both NortonLifeLock and Avast from 2016 to 2021.[30] This is despite [✂] customer bases in 2020, which the Parties have submitted was a result of [✂].[31] Again, the [✂].[32]

Summary

49. In summary, we consider the analysis of shares of supply for paid-for products to be sufficiently reliable evidence that:

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[29] [✂].
[30] Norton: Source: CMA analysis of NortonLifeLock, Internal Document. Avast: Source: CMA analysis of Avast Internal Document.
[31] NortonLifeLock, Main Party Hearing transcript and Avast, Main Party Hearing transcript.
[32] Source: CMA analysis of Avast, Internal Document.

(a) NortonLifeLock (including Avira and BullGuard) and Avast were the second and third largest suppliers of paid-for CCS solutions in the UK respectively (behind McAfee), both in terms of revenue and volume, in each year from 2018 to 2021. This is consistent with analysis submitted by the Parties.[33]

(b) The supply of paid-for CCS solutions in the UK is primarily concentrated among these three suppliers, with a combined share of between [70-80]% and [80-90]% across years and whether considered on a revenue or volume basis. Almost all remaining suppliers have shares of paid-for CCS solutions below [0-5]%, and the vast majority below [0-5]% by revenue and below [0-5]% by volume.

(c) One supplier, ([✂]), achieved substantial growth between 2018 and 2021, increasing its share of supply by revenue from [0-5]% to [0-5]%, surpassing Kaspersky – historically the fourth largest supplier of paid-for CCS solutions in the UK after the Parties and McAfee. However, its share of supply remains far smaller than the Parties' and McAfee's.

(d) The total revenue generated through the supply of paid-for CCS and endpoint security products has grown between 2018 and 2021, however volumes appear to have contracted slightly.[34]

(e) The Parties' total customer volumes for paid products that are, or include, antivirus have [✂] in recent years, as has the number of new customers they have been acquiring. [✂].

(f) The use of Microsoft Defender as a free, in-built CCS solution is large and has increased markedly in the past three years, although due to data limitations we have not been able to estimate reliable shares of supply for free products, including Microsoft Defender.

[33] NortonLifeLock, Internal Document.
[34] On possible explanation could be increases in number of devices covered by a single subscription. If so, we would observe fewer subscriptions in the Parties' data without comparable decreases in revenue. However, we do not currently consider there to be any strong evidence that this is the case.

Annex 1: Additional tables on the levels of revenues and customer volumes

Table 4: Revenues of CCS providers with an endpoint security offering in the UK, 2017 to 2021

	Revenue (£000s)				
Provider	**Calendar year**				
	2017	**2018**	**2019**	**2020**	**2021**
Norton LifeLock Total	[✂]	[✂]	[✂]	[✂]	[✂]
Norton & LifeLock	[✂]	[✂]	[✂]	[✂]	[✂]
Bullguard	[✂]	[✂]	[✂]	[✂]	[✂]
Avira	[✂]	[✂]	[✂]	[✂]	[✂]
Avast	[✂]	[✂]	[✂]	[✂]	[✂]
Combined	[✂]	[✂]	[✂]	[✂]	[✂]
McAfee	[✂]	[✂]	[✂]	[✂]	[✂]
Aura	[✂]	[✂]	[✂]	[✂]	[✂]
Bitdefender	[✂]	[✂]	[✂]	[✂]	[✂]
Eset	[✂]	[✂]	[✂]	[✂]	[✂]
F-secure	[✂]	[✂]	[✂]	[✂]	[✂]
J2 Global	[✂]	[✂]	[✂]	[✂]	[✂]
Kape	[✂]	[✂]	[✂]	[✂]	[✂]
Kaspersky	[✂]	[✂]	[✂]	[✂]	[✂]
Malwarebytes	[✂]	[✂]	[✂]	[✂]	[✂]
OpenText	[✂]	[✂]	[✂]	[✂]	[✂]
Panda	[✂]	[✂]	[✂]	[✂]	[✂]
Sophos	[✂]	[✂]	[✂]	[✂]	[✂]
TotalAV	[✂]	[✂]	[✂]	[✂]	[✂]
TrendMicro	[✂]	[✂]	[✂]	[✂]	[✂]
Market total	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis of data submitted by the Parties' and third parties' (third parties: responses to the phase 2 RFI 1; NortonLifeLock: Internal Document; BullGuard: Internal Document; Avira: Internal Document; Avast: Internal Document). Aura did not provide data for 2018 or 2019, McAfee and F-Secure did not provide data for 2017, and data for Avira was only available from 2019. Revenue for Malwarebytes, OpenText, and J2 Global were taken from the Parties' estimates of shares of supply: NortonLifeLock Internal Document. We note that NortonLifeLock did not acquire the Avira and BullGuard brands until January 2021: Parties, Final Merger Notice, paragraph 66.

Table 5: Revenues of suppliers of consumer endpoint security solutions in the UK, 2017 to 2021

	Revenue (£000s)				
Provider	**Calendar year**				
	2017	**2018**	**2019**	**2020**	**2021**
Norton LifeLock Total	[✂]	[✂]	[✂]	[✂]	[✂]
Norton & LifeLock	[✂]	[✂]	[✂]	[✂]	[✂]
Bullguard	[✂]	[✂]	[✂]	[✂]	[✂]
Avira	[✂]	[✂]	[✂]	[✂]	[✂]
Avast	[✂]	[✂]	[✂]	[✂]	[✂]
Combined	[✂]	[✂]	[✂]	[✂]	[✂]
McAfee	[✂]	[✂]	[✂]	[✂]	[✂]
Aura	[✂]	[✂]	[✂]	[✂]	[✂]
Bitdefender	[✂]	[✂]	[✂]	[✂]	[✂]
Eset	[✂]	[✂]	[✂]	[✂]	[✂]
F-secure	[✂]	[✂]	[✂]	[✂]	[✂]
J2 Global	[✂]	[✂]	[✂]	[✂]	[✂]
Kape	[✂]	[✂]	[✂]	[✂]	[✂]
Kaspersky	[✂]	[✂]	[✂]	[✂]	[✂]
Malwarebytes	[✂]	[✂]	[✂]	[✂]	[✂]
OpenText	[✂]	[✂]	[✂]	[✂]	[✂]
Panda	[✂]	[✂]	[✂]	[✂]	[✂]
Sophos	[✂]	[✂]	[✂]	[✂]	[✂]
TotalAV	[✂]	[✂]	[✂]	[✂]	[✂]
TrendMicro	[✂]	[✂]	[✂]	[✂]	[✂]
Market total	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis of data submitted by the Parties' and third parties' (third parties: responses to the phase 2 RFI 1; NortonLifeLock: NortonLifeLock, Internal Document; BullGuard: NortonLifeLock Internal Document; Avira: NortonLifeLock, Internal Document; Avast: Avast, Internal Document). Aura did not provide data for before 2021, Kape did not provide data before 2019, McAfee and F-Secure did not provide data for 2017, and data for Avira was not available before 2021. Revenue for Malwarebytes, OpenText, and J2 Global were taken from the Parties' estimates of shares of supply: NortonLifeLock, Internal Document. Because they include revenue from non-endpoint security products (see paragraph 7) we view them as an overestimate. There were insufficient third party responses to estimate comparable shares of supply for 2017. We note that NortonLifeLock did not acquire the Avira and BullGuard brands until January 2021: Parties, Final Merger Notice, Internal Document, paragraph 66.

Table 6: Customer volumes for suppliers of consumer endpoint security solutions in the UK, 2017 to 2021

Provider	Calendar year				
	2017	2018	2019	2020	2021
Norton LifeLock Total	[✂]	[✂]	[✂]	[✂]	[✂]
Norton & LifeLock	[✂]	[✂]	[✂]	[✂]	[✂]
Bullguard	[✂]	[✂]	[✂]	[✂]	[✂]
Avira	[✂]	[✂]	[✂]	[✂]	[✂]
Avast	[✂]	[✂]	[✂]	[✂]	[✂]
Combined	[✂]	[✂]	[✂]	[✂]	[✂]
McAfee	[✂]	[✂]	[✂]	[✂]	[✂]
Kaspersky	[✂]	[✂]	[✂]	[✂]	[✂]
Aura	[✂]	[✂]	[✂]	[✂]	[✂]
Bitdefender	[✂]	[✂]	[✂]	[✂]	[✂]
Eset	[✂]	[✂]	[✂]	[✂]	[✂]
F-secure	[✂]	[✂]	[✂]	[✂]	[✂]
Kape	[✂]	[✂]	[✂]	[✂]	[✂]
Panda	[✂]	[✂]	[✂]	[✂]	[✂]
Sophos	[✂]	[✂]	[✂]	[✂]	[✂]
TotalAV	[✂]	[✂]	[✂]	[✂]	[✂]
TrendMicro	[✂]	[✂]	[✂]	[✂]	[✂]
Market total	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis of data submitted by the Parties' and third parties' (third parties: responses to the phase 2 RFI 1; NortonLifeLock: NortonLifeLock, Internal Document; BullGuard: NortonLifeLock, Internal Document; Avira: NortonLifeLock, Internal Document; Avast: Avast, Internal Document). Data was not available for Avira before 2019. We note that NortonLifeLock did not acquire the Avira and BullGuard brands until January 2021: Parties, Final Merger Notice, paragraph 66.

Table 7: Estimated shares of supply by revenue for CCS solutions globally, 2018 to 2021

	Revenue (£000s)			
Provider	**Calendar year**			
	2018	**2019**	**2020**	**2021**
Norton LifeLock Total	[40-50]	[40-50]	[30-40]	[30-40]
Norton & LifeLock	[30-40]	[30-40]	[30-40]	[30-40]
Bullguard	[0-5]	[0-5]	[0-5]	[0-5]
Avira	-	[0-5]	[0-5]	[0-5]
Avast	[10-20]	[10-20]	[10-20]	[10-20]
Combined	[40-50]	[50-60]	[40-50]	[40-50]
McAfee	[10-20]	[10-20]	[10-20]	[10-20]
Aura	-	-	[0-5]	[0-5]
Bitdefender	[0-5]	[0-5]	[0-5]	[0-5]
Eset	[0-5]	[0-5]	[0-5]	[0-5]
F-secure	[0-5]	[0-5]	[0-5]	[0-5]
J2 Global	[0-5]	[0-5]	[0-5]	[0-5]
Kape	[0-5]	[0-5]	[0-5]	[0-5]
Kaspersky	[5-10]	[5-10]	[5-10]	[5-10]
Malwarebytes	[0-5]	[0-5]	[0-5]	[0-5]
OpenText	[0-5]	[0-5]	[0-5]	[0-5]
Panda	[0-5]	[0-5]	[0-5]	[0-5]
Sophos	[0-5]	[0-5]	[0-5]	[0-5]
TotalAV	[0-5]	[0-5]	[0-5]	[0-5]
TrendMicro	[5-10]	[5-10]	[5-10]	[5-10]
Market total (£000s)	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis of data submitted by the Parties' and third parties' (third parties: responses to the phase 2 RFI 1; NortonLifeLock: NortonLifeLock, Internal Document; BullGuard: NortonLifeLock, Internal Document; Avira: NortonLifeLock, Internal Document; Avast: Avast, Internal Document). Aura did not provide data for 2018 or 2019 and data for Avira was only available from 2019. Revenue for Malwarebytes, OpenText, and J2 Global were taken from the Parties' estimates of shares of supply: NortonLifeLock, Internal Document. There were insufficient third party responses to estimate comparable shares of supply for 2017. We note that NortonLifeLock did not acquire the Avira and BullGuard brands until January 2021: Parties, Final Merger Notice, paragraph 66.

Figure 4: NortonLifeLock revenues (£) from the supply of CCS and consumer endpoint security solutions, 2016 to 2021

Source: NortonLifeLock: NortonLifeLock, Internal Document.

Figure 5: Avast (including AVG) revenues (£) from the supply of CCS and consumer endpoint security solutions, 2016 to 2021

Source: Avast: Avast, Internal Document.

Appendix E: NortonLifeLock internal documents

Introduction

1. This appendix provides more detail on our review of the internal documents provided by NortonLifeLock at phase 1 and 2. It details the evidence relating to several of our provisional findings and is supplementary to Chapters 6 and 7.

2. Our internal documents requests at phase 2 primarily targeted documents that relate to Microsoft and, to a lesser extent, Apple, and Google. In this respect, the wider body of documents is likely to be over-representative of documents that mention Microsoft, Apple, or Google.

3. This appendix first sets out our approach to reviewing the internal documents provided by NortonLifeLock and then sets out the Parties' views in relation to NortonLifeLock's documents.

4. We then set out our assessment of what the Parties' internal documents show about: (a) competition between the Parties and other suppliers of CCS solutions; (b) NortonLifeLock's product development and expansion plans; and (c) consumer behaviour.

Approach to internal documents

5. NortonLifeLock provided approximately 180 documents at phase 1 and a further 1,100 responsive documents at phase 2, dating from January 2019 to April 2022. Most of the documents were prepared for (or by) NortonLifeLock's senior management and some were prepared for the NortonLifeLock board.

6. We have reviewed all documents provided by NortonLifeLock at phase 1 and 2, with the exception of the large volume of documents responsive to some questions,[1] which were reviewed using targeted keyword searches.

7. In assessing the content and the evidential weight of an internal document, we have taken into account the purpose for which it was prepared and the context in which it appears. In particular, we typically have placed greater weight on documents prepared to inform the NortonLifeLock board as these are likely to be most reflective of the Parties' strategic thinking.

[1] These were questions 8, 16, and 17 of the phase 2 s.109 notice dated 8 April 2022

Parties' views

8. In relation to NortonLifeLock's documents that discuss [✂] the Parties submitted that:

   (a) '[✂] are in part tracked as they are [✂]';

   (b) 'in any event the vast majority of documents tracking [✂]also track other competitors even in endpoint security';

   (c) 'the monitoring of competitors' [✂] is an operational activity conducted in the ordinary course of business (typically by [✂]';

   (d) 'when read properly in context the documents show that [✂] is viewed as a [✂]'.[2]

9. In relation to NortonLifeLock's documents that discuss other CCS providers, the Parties submitted that:

   (a) 'Microsoft is a key competitor' and that 'Microsoft's development of Microsoft Defender is [✂]'.[3]

   (b) 'Other OS suppliers [Apple and Google] are competitive constraints' and are '[✂]'.[4]

   (c) 'Suppliers of CCS excluding endpoint security present strong competition'.

10. The Parties also submitted that 'it is important not to place undue weight on older documents which may no longer reflect market reality and company strategy'.[5]

11. We have considered these submissions from the Parties, and their submissions about individual documents, when we have assessed the evidence that can be drawn from the Parties' documents and the weight that can be put on them.

Competition between the Parties and third parties

12. This section discusses NortonLifeLock's internal documents which relate to competition between Norton and:

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[2] NortonLifeLock, response to the Working Papers.
[3] NortonLifeLock, response to the Working Papers.
[4] NortonLifeLock, response to the Working Papers.
[5] NortonLifeLock, response to the Working Papers.

(a) [✂];

(b) Microsoft (in particular Microsoft Defender);

(c) Other independent suppliers of endpoint security;

(d) Other suppliers of CCS solutions; and

(e) Other suppliers of OS (Apple and Google)

[✂]

Product strategy

13. A number of NortonLifeLock's documents refer to a [✂].[6]

14. We found that NortonLifeLock [✂] monitors [✂], and in particular suppliers of [✂] (see paragraph 30 onwards). Notwithstanding, it appears from NortonLifeLock documents that its monitoring activity is focused on [✂]. Consequently, NortonLifeLock's monitoring is focussed on [✂] (see paragraph 15).

Monitoring and benchmarking

15. [✂] NortonLifeLock's internal documents regularly assess and monitor [✂]. This monitoring appears to have a particular focus [✂]:

(a) A board level document, dated [✂]. [7]

(b) A board level document, dated [✂].[8] On the basis of the product features listed in the slide across security, identity and privacy, [✂] product offering appears to be [✂] to Norton's, followed by [✂] offering ([✂]) and then by MD (which is [✂]). [✂].[9]

(c) A document, dated [✂], [✂]. This explicitly monitors the [✂]. This slide is included in a section that assesses competition in respect of [✂]. We note that this document also assesses the competitive landscape [✂].[10,11]

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[6] NortonLifeLock, Internal Documents.
[7] The document notes [✂]. We note that [✂].
[8] The document also includes the following slides: (i) a slide titled [✂]; and (ii) a slide titled [✂]. NortonLifeLock, Internal Document.
[9] NortonLifeLock, Internal Document.
[10] NortonLifeLock, Internal Document.
[11] In relation to this document the Parties submitted that [✂]. NortonLifeLock response to the Working Papers.

(d) A document, [✂].[12] A comparable competitive assessment document monitors [✂].[13,14]

(e) A NortonLifeLock survey question asked consumers [✂].[15]

(f) A document, [✂]. The slide compares the bundling strategies of [✂] and notes that they are [✂]. The slide also assess [✂] and [✂].[16]

(g) A document, [✂] are shown as competitors [✂]. This document refers explicitly to the [✂].[17,18]

16. [✂] NortonLifeLock's documents monitor the [✂]. For example:

(a) Some of NortonLifeLock's documents present the [✂]. These documents assess a [✂] range of competitors [✂]. Where a narrow group of competitors is assessed, this typically includes [✂], [✂], and [✂].[19]

(b) [✂] document assesses the distribution channels of [✂], [✂], [✂], [✂], [✂] and [✂].[20]

17. Some documents indicate that [✂].[21] In addition, some other documents monitor [✂] in respect of certain standalone CCS solutions.[22]

18. Some of NortonLifeLock's internal documents [✂] and, to a far lesser extent, [✂]:

(a) One document includes a detailed price history of [✂], and indicates that their [✂].[23]

(b) [✂] NortonLifeLock's documents monitor the [✂]).[24] Only one document monitors [✂].[25]

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[12] NortonLifeLock, Internal Document.
[13] [✂], [✂], features in a dedicated detailed competitive assessment document. Other [✂] are also monitored in comparable dedicated competitive assessments (see paragraph 34). (NortonLifeLock, Internal Document).
[14] The Parties submitted that these are 'operational document[s] created in the ordinary course of business [✂], not seen by [✂] and as such not informing [✂]'. NortonLifeLock, response to the Working Papers.
[15] NortonLifeLock, Internal Document.
[16] NortonLifeLock, Internal Document
[17] In addition it [✂]. NortonLifeLock, Internal Document.
[18] In relation to this document the Parties submitted that this slide: (i) [✂]; and (ii) [✂]. NortonLifeLock, response to the Working Papers.
[19] NortonLifeLock, Internal Document. See also: NortonLifeLock, Internal Documents.
[20] NortonLifeLock, Internal Document.
[21] NortonLifeLock, Internal Documents. See also: NortonLifeLock, Internal Documents.
[22] NortonLifeLock, Internal Documents.
[23] NortonLifeLock, Internal Documents.
[24] For example: NortonLifeLock, Internal Documents.
[25] NortonLifeLock, Internal Document.

(c) Other documents monitor [✂].[26]

19. Overall, NortonLifeLock's internal documents that monitor and benchmark against competitors, indicate that [✂], [✂], are NortonLifeLock's closest competitors, particularly in respect of their bundled CCS solutions. In particular we note that:

(a) NortonLifeLock closely monitors [✂] and [✂], and in particular extensively monitors [✂]of [✂] CCS bundles (to a greater extent than any other supplier).

(b) Some of NortonLifeLock's documents indicate that [✂] is NortonLifeLock's closest competitor. For example, a document notes that [✂].[27]

(c) Across NortonLifeLock's documents that monitor the product portfolio and product strategy of competitors, [✂] and [✂] are monitored to a greater extent than other suppliers (and in particular other suppliers of endpoint security).[28] Some documents imply that NortonLifeLock's offering is most similar to [✂], [✂] and [✂].[29]

(d) [✂] and [✂] are described as NortonLifeLock's [✂].[30] Additionally, [✂], [✂] and [✂] are described as '[✂].[31]

20. Notwithstanding, we note that some other CCS providers (see paragraph 30) have a similar offering and product strategy to NortonLifeLock and are monitored, albeit to a lesser extent, by NortonLifeLock in the same context as [✂] and [✂]. In particular we note that NortonLifeLock monitors the prices of [✂], [✂], and [✂] to a greater extent than [✂]. In addition, we recognise that a number of the monitoring and benchmarking documents at paragraph 15 above may be outdated and may not reflect the current product portfolio of third party CCS providers.

Competitive pressure faced and competitive strategies

21. [✂] NortonLifeLock's documents directly discuss [✂]. For example:

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[26] For instance, a document monitors [✂] (NortonLifeLock, Internal Document). Another document compares [✂] (NortonLifeLock, Internal Document). The following documents indicate that NortonLifeLock [✂]: NortonLifeLock, Internal Documents.
[27] Another document notes that '[✂]' (NortonLifeLock, Internal Document).
[28] See paragraph 15.
[29] NortonLifeLock, Internal Documents.
[30] NortonLifeLock, Internal Document.
[31] NortonLifeLock, Internal Document.

(a) A document, [✂]. [✂].[32]

(b) Another document [✂].[33]

22. [✂] NortonLifeLock's documents indicate that it is facing competitive pressure [✂].[34] One document notes [✂].[35] In view of this, we infer from [✂] of NortonLifeLock's documents that it [✂]. [36]

23. [✂] NortonLifeLock's documents show its [✂]. For example, one document indicates that NortonLifeLock [✂].[37]

Microsoft

Microsoft Defender

24. [✂] NortonLifeLock's documents [✂] and describe it as a [✂]:

(a) [✂] documents that monitor [✂] and [✂] in the context of their portfolio of security, privacy and identity solutions (as discussed at paragraph 15), [✂]. These documents assess [✂]. We note that Microsoft's privacy and identity offering may have expanded since these documents were created.

(b) As noted in paragraph 16, [✂] NortonLifeLock's documents [✂]. These documents assess [✂].[38]

(c) One Avira internal document, [✂], includes a slide that [✂]. The slide shows [✂], although we note that Microsoft's privacy and identity offering may have expanded since the document was created.[39]

(d) [✂] documents indicate that [✂], with one document, dated January 2020, noting [✂].[40]

(e) [✂] other documents discuss [✂].[41] Another document notes that [✂].[42]

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[32] NortonLifeLock, Internal Document.
[33] NortonLifeLock, Internal Document.
[34] For instance, a document, dated March 2021, [✂] (NortonLifeLock, Internal Document). Another document, dated May 2020, includes a slide titled '[✂]'. One risk is noted to be [✂] (NortonLifeLock, Internal Document). See also: NortonLifeLock, Internal Document.
[35] NortonLifeLock, Internal Document.
[36] The document, dated March 2021, includes a series of slides that [✂]. [✂] (NortonLifeLock, Internal Document). Another document, including a similar series of slides, [✂] (NortonLifeLock, Internal Document).
[37] NortonLifeLock, Internal Document.
[38] NortonLifeLock, Internal Document.
[39] NortonLifeLock, Internal Document.
[40] NortonLifeLock, Internal Document. See also: NortonLifeLock, Internal Documents.
[41] NortonLifeLock, Internal Documents.
[42] NortonLifeLock, Internal Document.

(f) Some documents monitor the [✂].[43]

25. We infer that Microsoft Defender is [✂]. We note that, since the date of many of these documents, Microsoft has developed its offering. In particular we note that:

(a) NortonLifeLock [✂] monitors competitors that [✂]. In these documents, the slides that discuss the [✂], sometimes include [✂], but [✂] (see paragraph 15).

(b) NortonLifeLock's documents that monitor [✂], indicate that Microsoft [✂] (see paragraph 15(b)).

(c) The document presented at paragraph 24(d) notes that [✂].

26. Notwithstanding the above, [✂] NortonLifeLock's documents imply that [✂]:

(a) One document dated [✂] indicates that [✂]. The document explains [✂].[44]

(b) In the context of [✂], one document notes that [✂].[45]

Microsoft's expansion and new products

27. [✂] NortonLifeLock's documents express [✂]. In particular the following NortonLifeLock documents [✂]:

(a) A NortonLifeLock board level document [✂] states that [✂].[46]

(b) A NortonLifeLock document dated [✂] includes a slide that describes [✂] The slide notes that [✂].[47]

[✂]

28. NortonLifeLock's documents discuss [✂]:[48]

(a) [✂] documents discuss the [✂].[49]

(b) A more recent document acknowledges [✂].[50]

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[43] For example: NortonLifeLock, Internal Document.
[44] [✂]. NortonLifeLock, Internal Document.
[45] NortonLifeLock, Internal Document.
[46] NortonLifeLock, Internal Document.
[47] NortonLifeLock, Internal Document.
[48] [✂].
[49] See, for example: NortonLifeLock, Internal Document.
[50] NortonLifeLock, Internal Document.

29. NortonLifeLock's documents indicate that its [✂].[51]

Other CCS suppliers (excluding McAfee)

Other suppliers of endpoint security

30. NortonLifeLock's internal documents regularly mention [✂]. [✂], [✂], [✂], [✂], and [✂].

31. The NortonLifeLock documents cited below indicate that [✂]:

    (a) As noted at paragraphs 15 and 18, some of NortonLifeLock's documents assess [✂].

    (b) As discussed at paragraph 18, some of NortonLifeLock's documents [✂].[52] Among documents that monitor or discuss a narrower set of competitors in respect of [✂].[53] [✂].[54]

    (c) [✂] NortonLifeLock's documents monitor the [✂].[55]

    (d) A dedicated competitive assessment document of [✂] assesses in detail [✂].[56] Another document [✂].[57]

32. Other independent suppliers of endpoint security (aside from [✂]) are monitored in NortonLifeLock's internal [✂], [✂], [✂], and [✂]. For example:

    (a) [✂] NortonLifeLock's documents monitor [✂]. For example, a document, dated November 2020, presents the results of [✂]. Some slides compare survey results [✂]. Although as discussed in paragraph 16(a), other slides focus on [✂], [✂], [✂], [✂], and [✂] and [✂].[58]

    (b) [✂] document includes [✂].[59]

    (c) [✂] NortonLifeLock's documents summarise the [✂].[60]

    (d) One of NortonLifeLock's documents presents [✂].[61]

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[51] NortonLifeLock, Internal Document.
[52] See paragraph 18.
[53] For example, see: NortonLifeLock, Internal Documents.
[54] NortonLifeLock, Internal Document.
[55] See paragraph 15. See also: Internal Documents.
[56] NortonLifeLock, Internal Documents.
[57] See paragraph 15(c).
[58] NortonLifeLock, Internal Document.
[59] NortonLifeLock, Internal Document.
[60] NortonLifeLock, Internal Documents.
[61] NortonLifeLock, Internal Document.

(e) [✂].[62]

33. [✂] appears [✂] to be identified in the NortonLifeLock's documents described in paragraphs 32 (c) and (d) above. In addition to this, a document that monitors [✂].[63]

34. [✂] Avira's documents [✂].[64] In addition, [✂] NortonLifeLock document notes, with respect to the Avira brand in Germany, that there is [✂].[65]

Suppliers of CCS excluding endpoint security

35. NortonLifeLock's documents [✂] discuss and monitor the product offering and strategy of identity and privacy suppliers. The documents indicate [✂] are considered by NortonLifeLock to compete, to varying degrees, [✂].

    (a) NortonLifeLock undertakes [✂] monitoring of [✂], [✂], [✂], [✂] and [✂].[66] [✂].[67]

    (b) NortonLifeLock monitors [✂].[68] The documents indicate that [✂].[69]

    (c) NortonLifeLock also monitors [✂].[70]

36. We found that the NortonLifeLock's monitoring of [✂].

37. We have identified [✂] documents that evidence a competitive dynamic between [✂].[71]

38. Additionally we noted [✂] document which [✂]:

    (a) A document dated [✂] includes a slide titled [✂]. [✂]. [✂]. [72]

39. One document implies that [✂]. [✂].[73]

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[62] For example, a table titled '[✂]. (NortonLifeLock, Internal Document). Another document presents [✂] (NortonLifeLock, Internal Document).
[63] NortonLifeLock, Internal Document.
[64] NortonLifeLock, Internal Documents.
[65] NortonLifeLock, Internal Document.
[66] For example Norton's document contain [✂]. NortonLifeLock, Internal Documents. See also: NortonLifeLock, Internal Document.
[67] [✂]. NortonLifeLock, Internal Document. See also: NortonLifeLock, Internal Document.
[68] For example, NortonLifeLock undertakes [✂] (NortonLifeLock, Internal Document. See also: Internal Document.
[69] For example: NortonLifeLock, Internal Documents.
[70] See, for example: NortonLifeLock, Internal Documents.
[71] By way of example see: NortonLifeLock, Internal Document.
[72] NortonLifeLock, Internal Document.
[73] NortonLifeLock, Internal Document.

Other OS suppliers (Apple and Google)

40. There are [✂] in NortonLifeLock's internal documents. We have identified [✂] documents (including [✂] documents presented to the board) that [✂].[74] Another document notes that [✂].[75]

41. [✂].[76]

42. A NortonLifeLock document further states that [✂].[77] [✂].[78]

43. NortonLifeLock mentions in some documents that [✂][79] [✂].[80] [✂].[81] Separately, a NortonLifeLock document mentions that [✂].[82]

44. NortonLifeLock's internal documents also mention [✂].[83]

Product development and expansion plans

45. [✂] NortonLifeLock's documents set out its [✂]: [84]

    (a) NortonLifeLock [✂] in 2021 added an 'anti-track' and 'privacy monitor assistant' product to its portfolio. [✂]).

    (b) [✂].[85]

46. [✂].[86]

Consumer preferences

47. Some of NortonLifeLock's documents analyse [✂].[87,88]

48. These documents include [✂]. Some slides outline the [✂]. One document notes that the [✂].[89]

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[74] NortonLifeLock, Internal Document.
[75] NortonLifeLock, Internal Document.
[76] For example, see: NortonLifeLock, Internal Document.
[77] NortonLifeLock, Internal Document.
[78] NortonLifeLock, Internal Documents.
[79] For example, see: NortonLifeLock, Internal Documents.
[80] NortonLifeLock, Internal Document.
[81] NortonLifeLock, Internal Document.
[82] NortonLifeLock, Internal Document.
[83] NortonLifeLock, Internal Document.
[84] NortonLifeLock, Internal Documents.
[85] We note that this has now launched in the UK.
[86] NortonLifeLock, Internal Document.
[87] NortonLifeLock, Internal Document.
[88] In relation to this document the Parties submitted that '[✂]'. The Parties further submitted that '[✂]'. NortonLifeLock, response to the Working Papers.
[89] NortonLifeLock, Internal Document.

Appendix F: Avast internal documents

Introduction

1. This appendix provides more detail on our review of the internal documents provided by Avast at phase 1 and 2. It details the evidence relating to several of our provisional findings and is supplementary to Chapter 6 and 7.

2. Our internal documents requests at phase 2 primarily targeted documents that relate to Microsoft and, to a lesser extent, Apple, and Google. In this respect, the wider body of documents is likely to be over-representative of documents that mention Microsoft, Apple, or Google.

3. This appendix first sets out our approach to reviewing the internal documents provided by Avast and then sets out the Parties views in relation to Avast's documents. We then set out our assessment of what the Parties' internal documents show about: (a) competition between the Parties and other suppliers of CCS solutions; (b) Avast's product development and expansion plans; and (c) consumer behaviour. Finally, we set out our findings in relation to two surveys conducted by Avast.

Approach to internal documents

4. Avast provided approximately [✂] documents at phase 1 and a further [✂] responsive documents at phase 2, dating from June 2019 to April 2022. The majority of the documents provided at phase 1 were prepared for the Avast board, most documents provided at phase 2 were prepared for/by Avast's senior management. Many documents are relevant to competitive conditions or contain survey evidence and methodology, another [✂] documents are financial reports and management accounts.

5. We have reviewed all documents provided by Avast at phase 1 and 2. In assessing the content and the evidential weight of an internal document, we have taken into account the purpose for which it was prepared and the context in which it appears. In particular, we typically have placed greater weight on documents prepared to inform the Avast board as these are likely to be most reflective of the Parties' decision-making.

Parties' views

6. In relation to Avast's internal documents the Parties submitted that:

(a) The CMA has cited 'a number of documents that compare Avast's [✂]' and that the CMA 'fails to recognise that equivalent data for other competitors ([✂], etc.) is simply unavailable'.[1]

(b) It is 'unsurprising' that Avast monitors the [✂], given that '[✂]'. Avast further submitted that '[i]nferences from these references on closeness of competition with Avast One, and Avast more broadly, are directly discredited by Avast's [✂]'.[2]

(c) '[R]eferences to (at least) [✂]', with the exception of some discussions on total security or financial performance, where [✂] are less frequently mentioned.[3]

7. In line with this, the Parties submitted that Avast's internal documents provide evidence of 'powerful constraints from other CCS providers'.[4] In particular, the Parties submitted that Avast's documents show that:

(a) '[✂] are not particularly close competitors of Avast, when compared to (at least) [✂]'.[5]

(b) '[✂]'.[6]

(c) '[✂] provide particularly strong competitive constraint to Avast's privacy offering'.[7]

(d) 'From the privacy offerings of [✂], there arises a strong competitive constraint, which is particularly acute for Avast'.[8]

8. With respect to Avast's documents relating to Microsoft Defender, the Parties submitted that:

(a) 'The Avast One project was [✂]'.[9]

(b) 'Avast monitors [✂], and not only when [✂]'.[10]

(c) '[✂]'.[11]

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[1] Avast, response to the Working Papers.
[2] Avast, response to the Working Papers.
[3] Avast, response to the Working Papers.
[4] Avast, response to the Working Papers.
[5] Avast, response to the Working Papers.
[6] Avast, response to the Working Papers.
[7] Avast, response to the Working Papers.
[8] Avast, response to the Working Papers.
[9] Avast, response to the Working Papers.
[10] Avast response to the Working Papers.
[11] Avast, response to the Working Papers.

9. We have considered these submissions from the Parties, and their submissions about individual documents, when we have assessed the evidence that can be drawn from the Parties' documents and the weight that can be put on them.

Competition between the Parties and other suppliers of CCS solutions

10. This section discusses Avast's internal documents which relate to competition between Avast and:

    (a) [✂] and [✂];

    (b) Microsoft (in particular Microsoft Defender);

    (c) Other independent suppliers of endpoint security;

    (d) Other suppliers of CCS solutions; and

    (e) Other suppliers of OS (Apple and Google).

[✂]

Product strategy and development

11. Across all of the monitoring and benchmarking documents that we reviewed, on the whole, the main focus of Avast's monitoring and benchmarking activity appears to be on suppliers of endpoint security, and in particular, suppliers of endpoint security that offer a comprehensive suite of CCS solutions (often sold as part of a bundle). For the most part, Avast's monitoring and benchmarking documents relate to the Avast One offering and compare the product features of the Avast One free and paid-for solutions with the product features of solutions offered by other suppliers of endpoint security.[12]

12. Avast's internal documents indicate that it considers that the market for 'antivirus' is [✂], but one strategy document presented to the Avast board notes that [✂]. The document further notes that the market [for CCS products] is [✂], though we note that the document also says that [✂].[13]

13. The term 'Total Security' is used by Avast to refer to endpoint security offerings that are integrated and bundled with privacy, performance, identity, and other non-endpoint security CCS products. Many of Avast's documents

[12] See for example paragraph 14.
[13] Avast, Internal Documents.

discuss its repositioning as a 'total security' supplier, namely through the launching of Avast One.[14] Another document dated [✂].[15]

Monitoring and benchmarking

14. Many of Avast's internal documents regularly and closely monitor [✂] (including in strategy documents presented to the Avast board).

(a) Many of Avast's documents monitor the product portfolio and bundle composition of [✂] alongside a small number of other endpoint security suppliers including [✂], [✂], and [✂]. A few such documents specifically highlight [✂]:

(i) A document updating the Avast board on Avast One, dated April 2021, includes a slide that assesses [✂].[16]

(ii) A document, dated November 2020, includes a slide that benchmarks Avast's [✂] product against [✂]. Another slide benchmarks Avast's [✂].[17] Further to this, one slide benchmarks the [✂] product against [✂]. [18]

(iii) A document, dated April 2020, includes a slide that benchmarks the Avast One product and Avast's free endpoint security offering that preceded Avast One [✂]. The slide notes that the 'Avast one free proposition will be superior to any free AV on the market in terms of available features'. Another slide benchmarks Avast One against the product portfolio of [✂] paid-for bundles. The slide notes that '[✂]'.[19]

(iv) A document includes a slide that benchmarks the [✂] Avast One against [✂]. Another slide benchmarks the [✂] Avast One against [✂]. It notes that [✂].[20]

(v) A document, dated June 2020, includes a slide that benchmarks against the product portfolio of [✂]. Another slide assesses the product portfolio of [✂].[21]

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[14] For example: Avast, Internal Documents. See also: Internal Documents.
[15] Avast, Internal Documents.
[16] Avast, Internal Document.
[17] [✂].
[18] Avast, Internal Document.
[19] Avast, Internal Document.
[20] Avast, Internal Document.
[21] Avast, Internal Document.

(vi) A document presented to the board, dated May 2020, that assesses the [✂].[22]

(vii) A document, dated June 2020, includes a slide that benchmarks [✂] Avast One against the [✂]. Another slide benchmarks [✂] Avast One against [✂]. The slide states that [✂].[23,24]

(b) Some of Avast's internal documents monitor [✂]. In particular, some documents discuss [✂]. Avast's internal documents view [✂].[25]

(c) Some of Avast's documents monitor consumer awareness of [✂] (alongside other CCS suppliers).[26] One document shows that Avast undertakes [✂].[27]

(d) [✂] board-level documents include high-level summaries of Avast's competitive landscape and discuss [✂]. [28]

(e) Some of Avast's internal documents [✂] alongside other endpoint security suppliers namely [✂].[29]

15. Overall, we infer from Avast's internal documents that monitor and benchmark against competitors that, among CCS providers, [✂] are Avast's closest competitors, particularly in respect of [✂]. In particular we note that:

(a) Avast appears to monitor [✂] to a greater extent than other CCS suppliers ([✂]).

(b) In many documents that monitor the product portfolio and product strategy of competitors (see paragraph 14(a)), [✂] are monitored alongside a small number of other suppliers. Some such documents (see paragraphs 14(a)(iii) and 14(a)(vii)) specifically highlight [✂]. Other documents that monitor brand awareness also monitor [✂] and [✂] alongside a small number of other suppliers. [30]

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[22] Avast, Internal Document.
[23] In respect of the statement [✂], the Parties submitted that the statement does not apply solely to [✂] (Avast, response to the Working Papers). Avast, Internal Document.
[24] Another Board document [✂] (Avast, Internal Document). In addition, one Board document notes [✂] (Avast, Internal Document).
[25] Avast, Internal Documents.
[26] See, for example: Avast, Internal Document.
[27] Avast, Internal Document.
[28] By way of example: [✂]; [✂]. [✂] (Avast, Internal Document); [✂] (Avast, Internal Document). See also: Internal Document.
[29] One document, dated [✂], discusses [✂] (Avast, Internal Document). Another document monitors [✂] (Avast, Internal Document). See also: a document that [✂] (Avast Internal Document); a document that [✂] (Avast Internal Document); a document that [✂] (Avast, Internal Document); and a document that [✂] (Avast, [✂], Internal Document). See also: [✂].
[30] Avast, Internal Documents.

(c) As discussed in paragraph 14(d), some of Avast's documents that include high-level summaries of Avast's competitive landscape discuss [✂]. A few such documents only include [✂].

(d) Many of Avast's monitoring and benchmarking documents focus on, or include more detailed monitoring of, [✂]. In some such monitoring documents [✂] are described as '[✂], [✂]. Notwithstanding, we note that each of these documents contains monitoring of [✂].[31]

Competitive pressure faced and competitive strategies

16. Avast's documents indicate that Avast One is intended to closely compete with [✂]. Given Avast was not previously active in [✂]:

(a) We note that in the documents presented at paragraph 14(a), Avast benchmarks the product features of Avast One against that of [✂]. Given that a number of these documents are dated before the launch of Avast One, it appears that Avast has positioned Avast One to be competitive to [✂].

(b) One document updating the Avast board on Avast One notes that '[✂]'.[32]

(c) Another document that discusses [✂].[33]

(d) One board-level document discussing Avast One specifically notes that: [✂].[34]

(e) One document, dated July 2021 [✂].[35]

(f) As discussed in paragraphs 14(b), 13, and 14(b), Avast [✂].

Microsoft

Monitoring and benchmarking

17. Avast's internal documents closely monitor [✂]. In particular we found that:

(a) Many of Avast's documents monitor [✂] (See paragraph 14(a)).

[31] Avast, Internal Document.
[32] Avast, Internal Document.
[33] Avast, Internal Document.
[34] Avast, Internal Document.
[35] Avast, Internal Document.

(b) As noted at paragraph 14(d) and 15(c), several Board documents include high-level summaries of Avast's competitive landscape [✂].

(c) Some of Avast's documents monitor [✂].[36] For example, one document, dated May 2020, that [✂].[37]

(d) Several monitoring and benchmarking documents indicate that [✂]. For example:

(i) [✂].[38]

(ii) One document dated December 2021 assesses Avast's '[✂]'.[39] [✂].[40]

(iii) Another document [✂].[41]

(e) In brand monitoring documents [✂]. For example:

(i) One document dated October 2021 includes a slide that presents the results of a [✂] survey in the UK. The slide assesses [✂]. The slide shows that [✂]. Another slide refers to [✂].[42]

(ii) Another document that presents the results of a [✂] survey in the US describes [✂].[43]

18. Avast's internal documents indicate that Microsoft Defender [✂]:

(a) As detailed above, several of Avast's documents benchmark against [✂]. In such documents, [✂].[44]

(b) In respect of the Avast One [✂], a document notes that '[✂]'.[45] Another document notes that: [✂]. [46] We infer from these that [✂].

(c) One document that discusses Microsoft Defender's [✂].[47]

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[36] See for example: Avast, Internal Document.
[37] Avast, Internal Document.
[38] Avast, Internal Document.
[39] As noted in paragraph 24, [✂].
[40]Avast, Internal Document.
[41] Avast, Internal Document.
[42] Avast, Internal Document.
[43] Avast, Internal Document. See also: Avast, Internal Document.
[44] This is consistent with [✂] which describes Microsoft Defender as a '[✂] (Avast, Internal Document).
[45] Avast, Internal Document. See also: Avast, Internal Document.
[46] Avast, Internal Document.
[47] Avast, Internal Document.

19. In respect of paragraph 18, we acknowledge, as submitted by the Parties,[48] that [✂].[49]

20. Additionally, some of Avast's documents indicate that [✂]. For example:

(a) One document dated May 2020 discusses [✂].[50]

(b) One document shows that Avast [✂].[51]

(c) Another document notes that [✂].[52]

21. Some internal documents also mention the threat posed by [✂]). In respect of this, one document notes that [✂].[53]

22. Some Avast documents indicate that Microsoft has [✂]. For example one document notes that [✂].[54,55]

Competitive pressure faced and competitive strategies

23. The internal documents we reviewed indicate that Avast [✂].

24. Namely, a few documents [✂]. One such document shows that [✂]. The document notes that [✂]. In respect of Microsoft, the document notes that [✂].[56] Another document notes that its [✂] is 'Avast's fundamental challenge'.[57]

25. Consistent with this, Avast's internal documents show that [✂]. In particular, Avast's documents indicate that [✂].[58] Notwithstanding, we note (as in paragraph 16) that Avast's documents indicate that [✂].

26. In particular, one document notes that [✂].[59] In respect of this, we note that Avast has undertaken an advertising campaign that specifically [✂].[60]

27. Other motivations for [✂] discussed by Avast's documents include: [✂][61]

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[48] Avast response to the Working Papers.
[49] Avast, Internal Documents.
[50] For example, see: Internal Documents.
[51] Avast, Internal Document.
[52] Avast, Internal Document.
[53] Avast, Internal Document.
[54] [✂].
[55] Avast Internal Document.
[56] [✂]. Avast, Internal Document.
[57] Avast, Internal Document.
[58] For example, see: Avast, Internal Documents.
[59] Avast, Internal Document.
[60] Parties, response to the phase 2 Issues Statement, 24 May 2022, page 35 [public document].
[61] Avast, Internal Document.

Other suppliers of CCS solutions (excluding [✂]***)***

Other suppliers of endpoint security

28. Avast's internal documents regularly monitor [✂]. In particular, [✂] Avast's documents discuss [✂] and some documents discuss [✂]. Other suppliers that are mentioned, albeit to a lesser extent than [✂], include (but are not limited to) [✂].

    (a) [✂] Avast's documents discuss [✂], which is monitored as a competitor to Avast's free and paid-for offerings.[62]

        (i) Avast monitors [✂]. A document notes that while [✂].[63]

        (ii) One board-level document titled [✂].[64]

    (b) Some of Avast's documents monitor [✂] as a competitor to Avast's [✂].[65] Avast monitors [✂].[66]

    (c) In addition, [✂] documents monitor [✂]. These suppliers are mentioned [✂] and [✂]. For example:

        (i) As discussed in paragraphs 14(a)(iv) and 14(a)(v), Avast monitors the [✂].

        (ii) One document monitors [✂].[67] Another document monitors [✂].[68] In addition, one document monitors [✂] (alongside others).[69]

29. A few of Avast's documents show that other suppliers of endpoint security [✂] Avast One (Avast's 'total security' offering) [✂] to Avast. For example, one document states that [✂], [✂] [✂]'.[70,71]

30. One document, dated March 2022, includes a slide titled '[✂]. The slide presents [✂]).[72]

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[62] For example, see: Avast, Internal Document.
[63] For example, see: Avast, Internal Documents.
[64] Avast, Internal Document.
[65] For example, see: Avast, Internal Document.
[66] For example, see: Avast, Internal Documents.
[67] Avast, Internal Document.
[68] Avast, Internal Document.
[69] Avast, Internal Document.
[70] The document also discusses the CCS solutions of Microsoft and NortonLifeLock. Avast Internal Document. See also: Avast, Internal Document.
[71] In addition, Avast also undertakes [✂] (Avast, Internal Document).
[72] Avast, [✂], Internal Document.

Other suppliers of CCS solutions (excluding suppliers of endpoint security)

31. Avast's internal documents [✂] monitor [✂].[73] For example, one document monitors the [✂].[74]

32. We have identified one document that discusses [✂]. The document states that [✂].[75]

33. We found that Avast's monitoring of other non-endpoint security CCS suppliers is [✂]. Notwithstanding this position, in relation to Avast One we have identified a few Avast internal documents that [✂]. For example:

    (a) One document dated March 2022 includes a slide that notes that '[✂] compared to suppliers of standalone security, privacy and performance products. The slide [✂].[76]

    (b) One document dated September 2021 notes that [✂]. [77]

Other suppliers of OS (Apple and Google)

34. [✂] of Avast's documents monitor and discuss Apple and Google in relation to their CCS offering. These documents relate to Apple and Google incorporating cyber-protection into their platforms. In particular, Avast monitors the potential for Apple and Google to [✂].[78]

35. A document, dated 2021, notes that: '[✂]'.[79] Another document, dated November 2020, notes that '[✂]'.[80]

Product development and expansion plans

36. [✂] of Avast's internal documents discuss its strategy for the business over a [✂] horizon. They indicate that Avast is [✂].[81]

37. Avast has considered [✂].[82]

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[73] For example: Avast, Internal Documents.
[74] Avast, Internal Document.
[75] Avast, Internal Document.
[76] Avast, Internal Document.
[77] Avast, Internal Document.
[78] Avast, Internal Documents.
[79] Avast, Internal Document.
[80] Avast, Internal Document.
[81] Avast, Internal Document.
[82] For example, see: Avast, Internal Document.

Consumer behaviour

38. Avast has [✂].

[✂]

39. In documents for the Avast board which summarise outcomes [✂].[83] [✂].[84]

[✂]

40. Avast's internal documents indicate that [✂].[85]

41. [✂].[86] [✂].[87]

42. Consistent with this, Avast's documents indicate that [✂] is an important driver of consumer choice. For example, one document notes that '[✂].[88]

43. One explanation for loyalty to CCS suppliers mentioned in an internal document is [✂].[89]

44. Avast's internal documents indicate that many customers have a strong preference for [✂].[90]

45. In addition, one document, that presents [✂].[91] [✂].[92]

Avast's surveys

46. The Parties provided evidence they had gathered through surveys of customers or the general population in the ordinary course of business.

47. Two of these provide some evidence of customer behaviour, preferences and attitudes towards CCS:

    (a) a survey commissioned by Avast and run by a third-party consultancy (the 'Avast survey of CCS users'); and

    (b) a survey [✂] (the 'Avast One Uninstall survey').

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[83] See for example: Avast, Internal Document.
[84] Avast, Internal Document.
[85] For example, see: Avast, Internal Document.
[86] Avast Internal Documents.
[87] Avast, Internal Document.
[88] Avast, Internal Document. See also: Avast, Internal Documents.
[89] Avast, Internal Document.
[90] Avast, Internal Documents.
[91] Avast, Internal Document.
[92] Avast, Internal Document.

The Avast survey of CCS users

48. The Avast survey of CCS users was a survey of around [✂] UK and [✂] US respondents. Respondents were eligible for the survey if they were [✂]. The UK sample had [✂] Avast users, [✂] AVG users and [✂] NortonLifeLock users; [✂].

49. [✂].[93]

50. [✂].[94]

The Avast One Uninstall survey

51. The Avast One Uninstall survey is a [✂] survey asked to [✂], and [✂]. One of the options for the first question is: [✂].

52. In the phase 1 inquiry, the Parties submitted that [✂].

53. The Parties submitted that more recent data shows [✂]. The figures for switching to NortonLifeLock are [✂].[95]

Parties' views on Avast's surveys

54. The Parties submitted that the results of the Avast survey of CCS users should not be given any material weight as a source of evidence on switching or diversion behaviour.[96]

    (a) [✂].[97]

    (b) The survey was excessively [✂], and as such was unlikely to accurately reflect actual consumer behaviour.[98]

55. The Parties also submitted that post-Merger incentives are affected by the behaviour of marginal customers and not the minority that [✂].[99] The Parties' marginal customers are likely to view [✂]' are unlikely to be choosing between the Parties' products, given that [✂]% of Avast's paid customers are acquired through free products.

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[93] [✂].
[94] [✂].
[95] Parties, response to the Working Papers.
[96] Parties, response to the Working Papers.
[97] Parties, response to the Working Papers.
[98] Parties, response to the Working Papers.
[99] Parties, response to the Working Papers.

56. The Parties submitted that the Avast uninstall survey should be given material weight in the assessment.

57. They submitted that it reflects actual consumer behaviour, that the information it provides on switching behaviour is valuable,[100] and that it [✂].[101]

Our assessment of the quality of the surveys

58. The Avast survey of CCS users is a survey of [✂]. We would expect people who choose to take part in [✂] not to be typical of all cybersecurity or potential cybersecurity users, although this issue is likely to be more limited in the context of cybersecurity products relative to other markets given the importance of the online acquisition channel.

59. In addition, the survey was not designed to measure diversion or switching and respondents were not asked to consider all relevant attributes of various offers other than brand when answering questions, although we note that, based on the evidence we have seen, brand is one of the important drivers of customer choice.

60. Overall, we do not view the Avast survey of CCS users as being sufficiently robust to use to estimate diversion. However, it used a standard methodology and had a reasonable sample size, and we can put some weight on the results to help inform our understanding of consumer switching and the wider consumer behaviour in the market.

61. As regards the Avast One Uninstall survey, we note that a significant weakness in its design is [✂].

62. In addition, we note that respondents were not given the option of answering 'Don't Know'. These issues, and in particular the prompting,[102] mean we give little weight to the Avast One Uninstall survey as [✂] in the ordinary course of business.

Our overall assessment of the survey evidence

63. The Avast survey of CCS users is informative of consumer behaviour and preferences (although it cannot be used to estimate diversion). It contains evidence indicating that:

[100] Parties, response to the Working Papers.
[101] Parties, response to the Working Papers.
[102] [✂].

(a) [✂].

64. As discussed above, we place little weight on the Avast One Uninstall survey results and do not consider them sufficiently robust to use as evidence of switching intentions in the ordinary course of business. However, we note that the survey results are consistent with many Avast One free users considering using Microsoft Defender as a potential alternative.

Appendix G: Search advertising keywords

1. This appendix considers evidence from the Parties and third parties on their online search advertising

2. Spend on search engine advertising is an important means of customer acquisition for the Parties and third parties. Therefore, it is relevant for assessing the closeness of competition for new customers.

3. The Parties submitted that while they both use search advertising as a means of acquiring new business, this [✂]. Specifically, they told us that the direct acquisition channel comprised [✂]. Consistent with this, NortonLifeLock's spend on search advertising in the UK made up [✂]% of its total UK marketing spend in FY22.[1]

4. The Parties also submitted that for Avast, the direct acquisition channel represents a [✂]. Consistent with this, search advertising represented a [✂] ([✂]) of its global marketing spend in 2021.[2] The Parties submitted that [✂].[3]

5. We note that both Parties spend [✂] sums on keyword advertising (see Table 1).

6. Spend on advertising keywords is affected by:

   (a) the volume of searches for the keyword;

   (b) the amount a party bid on that keyword;

   (c) the probability of winning the auction (and the position won, as multiple slots are often available); this will be affected by the size of the bid, of course, but also the relevance of the keyword to the user search; and

   (d) the likelihood that users will click on the ad (which is affected by the position won, but which is in itself will affect the probability of winning the auction, as the search engine selects the winner(s) based on the expected revenue it gets).

[1] Parties, response to the Working Papers.
[2] Parties, response to the Working Papers.
[3] Parties, response to the Working Papers.

NortonLifeLock

7. We analysed data provided by NortonLifeLock on its top 20 UK search advertising keywords by spend for each month for the period January 2020 to March 2022.[4] This resulted in [✂] unique keywords.

8. [✂].

9. NortonLifeLock's top ten keywords in order of size of spend over the whole period were:

   (a) [✂]

   (b) [✂]

   (c) [✂]

   (d) [✂]

   (e) [✂]

   (f) [✂]

   (g) [✂]

   (h) [✂]

   (i) [✂]

   (j) [✂]

10. [✂]:

    (a) [✂]; and

    (b) [✂].[5]

11. NortonLifeLock's spend [✂].[6]

12. The Parties submitted that consumers do not need to search for Microsoft Defender in order to download it.[7]

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[4] [✂].
[5] Parties, response to the Working Papers.
[6] We note that [✂].
[7] Parties, response to the Working Papers.

13. We agree that this is true, but consider that consumers may search for Microsoft Defender in order to assess whether it meets their needs and, for this reason, CCS solution providers may choose to bid on advertising keywords which relate to Microsoft Defender.

Avast

14. Avast provided data on its top 20 search advertising keywords by spend for each month for the period January 2020 to March 2022.[8] This resulted in [✂] unique keywords.

15. [✂].

16. The top ten keywords in order of size of spend over the whole period were:

    (a) [✂]

    (b) [✂]

    (c) [✂]

    (d) [✂]

    (e) [✂]

    (f) [✂]

    (g) [✂]

    (h) [✂]

    (i) [✂]

    (j) [✂]

17. The only competitor mentioned in the [✂] unique keywords was [✂]. The Parties noted that [✂] last appeared in Avast's top [✂] keywords in February 2021.[9]

18. Avast's spend [✂]. As noted in paragraph 11, the Parties submitted that consumers do not need to search for Microsoft Defender in order to download it.[10]

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[8] [✂].
[9] Parties, response to the Working Papers.
[10] Parties, response to the Working Papers.

Parties' analysis of the Parties' full keyword dataset

19. The Parties submitted that our analysis of the Parties' competitor keywords is 'incorrect' and 'ignores key relevant datasets'.[11]

20. In particular the Parties' noted that we assessed their top 20 keywords by spend for each month from January 2020 to March 2022, rather than all keywords they used. The Parties analysed the full lists of UK keywords for shorter time periods: financial year 2022 for NortonLifeLock and April 2021 to March 2022 for Avast.

21. They submitted that this showed that:

(a) For NortonLifeLock [✂].[12] NortonLifeLock's spend on keywords including [✂].[13]

(b) For Avast, [✂].[14]

(c) Competitor keywords constitute [✂] of the Parties' spend on search advertising.[15] [✂]% of NortonLifeLock's and [✂]% of Avast's UK advertising search spend was spent on competitor keywords.[16]

(d) [✂] Avast's total spend was on keywords relating to '[✂]' ([✂]). By contrast, [✂]% of NortonLifeLock's spend was on keywords containing the term '[✂]' (£[✂]).[17]

(e) [✂] of Avast's spend was on keywords relating to the term '[✂]' ([✂]).[18]

Third parties

22. We asked third parties to provide the amount they spent on search engine advertising in the UK or globally. The responses are shown in Table 1 along with the Parties' total spend on search engine advertising.

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[11] Parties, response to the Working Papers.
[12] Parties, response to the Working Papers.
[13] Parties, response to the Working Papers.
[14] Parties response to the Working Papers. Avast's spend on search advertising keywords including [✂], compared to £[✂] for the next largest spend ([✂]), as such, we do not consider spend on these competitors to be 'close' to the spend on keywords related to [✂]. We consider the spend on these competitors to be relevant to our assessment.
[15] Parties, response to the Working Papers.
[16] Parties, response to the Working Papers.
[17] Parties, response to the Working Papers.
[18] Parties, response to the Working Papers.

23. The Parties' spend on search engine advertising [✂].[19]

Table 1: Third parties' and Parties' total spend on search engine advertising

Party	*2020*	*2021*	*2022**	£ *Total 2020 to 2022**
NortonLifeLock (UK spend)	[✂]	[✂]	[✂]	[✂]
Avast (UK spend)	[✂]	[✂]	[✂]	[✂]
[✂])	[✂]	[✂]	[✂]	[✂]
[✂])	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]
[✂])	[✂]	[✂]	[✂]	[✂]
[✂])	[✂]	[✂]	[✂]	[✂]
[✂])	[✂]	[✂]	[✂]	[✂]
[✂])	[✂]	[✂]	[✂]	[✂]
[✂])‡	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]
[✂])	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis of third party questionnaire responses. Where applicable, spend has been converted to GBP using Bank of England exchange rates.
* Year to the date of the response, therefore the period for 2022 data varies slightly but we do not consider that this would materially affect our assessment. It covers the year to 31 March for NortonLifeLock, Avast; the year to 21 April for [✂]; the year to 24 April for [✂]; the year to 9 May for [✂]; and the period covered is unclear for [✂], [✂], [✂], [✂] and [✂].
‡ This is [✂] spend on its top 20 keywords as it did not provide its total spend on search engine advertising.

24. Third parties provided data on their top 20 search advertising keywords by spend for 2020, 2021 and the year to the date of their submission in 2022. Table 2 shows each third party's top keyword by spend and lists any competitors which appeared in their top 20 keywords by spend.

25. The top keyword is most often their own brand, followed by generic product terms (eg antivirus or VPN). This pattern continues within the top 20 keywords for third parties, that is, most are brand names or generic product terms (eg antivirus or VPN), or a combination of the two.

26. Regarding generic product terms [✂] and [✂] top keywords included multiple references to 'VPN', more than terms like 'antivirus', 'security', 'malware' or 'protection'. [✂], [✂], [✂], [✂], [✂] and [✂] top 20 keywords included the word 'free' as part of a keyword during the period.

Table 2: Third party's top keyword and competitors who appeared in the top 20 keywords

[✂]

Source: CMA analysis of third party questionnaire responses.
* Year to the date of the response, therefore the period for 2022 data varies slightly. It covers the year to 21 April for [✂]; the year to 25 May for [✂]; the year to 24 April for [✂]; the year to 30 April for [✂]; the year to 9 May for [✂]; and the period covered is unclear for [✂].
[✂].

[19] [✂] provided its global spend. Pro-rating this based on its UK share of direct global sales in 2021, its advertising spend was [✂] and, as such, [✂].

Our assessment

27. From our analysis of the Parties' and third parties' search terms, we have found that:

(a) The term 'antivirus' is important for customer acquisition, indicating that brands with strong brand recognition, due to their historic provision of antivirus software, are likely to have an advantage in winning new customers from the online acquisition route even in the provision of a range of CCS solutions, including standalone products and bundles.

(b) The Parties and third parties frequently spend on keywords which include their own brands.

(c) Spend on keywords which include competitor brands is less common than on more generic search terms and is [✂].

(d) The Parties [✂] top 20 keywords by spend for each month for the period January 2020 to March 2022. For NortonLifeLock [✂] appeared, while for Avast, [✂] appeared.

(e) In the Parties' analysis of their full keyword dataset, both Parties spent [✂]. NortonLifeLock also spent [✂].

(f) [✂]. This is consistent with the Parties' submission that consumers do not need to search for Microsoft Defender in order to download it.

(g) Competitors appeared infrequently in third parties' top 20 keywords. NortonLifeLock brands only appeared in two third parties' top 20 keywords [✂] and [✂] and Avast brands only appeared in one third party's top 20 keywords [✂].

(h) Both Parties seek to acquire users looking for 'free' products as do several other third parties.

(i) Two third parties' top 20 keywords primarily included VPN-based keywords [✂] and [✂], rather than antivirus-based keywords. We understand this to mean that their businesses are more focused on VPN than antivirus and as such they may be less close competitors to the Parties' endpoint security based products. These competitors may be closer competitors to the Parties' VPN products, in particular for Avast [✂] (see paragraph 21).

(j) The Parties' spend ([✂]) on search engine advertising appears to be [✂] than that of the majority of other respondents.[20] We consider that this shows that there is a barrier to using search advertising for customer acquisition for smaller competitors. It is also consistent with NortonLifeLock, Avast and McAfee being close competitors spending more similar amounts to acquire new customers directly.

[20] We note that [✂] search engine advertising spend is of a similar magnitude to NortonLifeLock's, however [✂] spend was global. Therefore [✂].

Appendix H: Response to the Parties' submission on switching analysis

Introduction

1. This appendix outlines our assessment of the Parties' customer switching analysis carried out by Compass Lexecon (hereafter, the **switching analysis**).[1] It first briefly describes the switching analysis, and then outlines our views on the evidentiary weight it holds.

2. The Parties submitted that the switching analysis shows that the Parties exert only limited competitive constraint on one another.

3. We have found that only very limited weight can be placed on the switching analysis.

The switching analysis

4. Both Parties provided Compass Lexecon with a [✂].

5. Compass Lexecon's analysis identified events where customers left one Party (Party A) (ie cancelling or allowing subscriptions to expire with no new subscription with the same Party within 90 days) and purchased a new subscription from the other Party (Party B) within 90 days before or after leaving.[2]

6. By identifying these events, Compass Lexecon estimated switching ratios – the proportion of customers leaving Party A and joining Party B (the **numerator**) as a proportion of all customers leaving Party A that remain in the market for CCS (the **denominator**). This latter quantity is estimated by:

   (a) taking the proportion of customers who responded to Party A's cancellation survey with a response that the Parties considered indicated the customer would continue to purchase CCS from a competitor (hereafter, the '**adjustment factor**', and calculated as [✂]% and [✂]% for NortonLifeLock and Avast respectively); and

   (b) multiplying this with the total number of customers who left Party A.

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[1] [✂]
[2] The Compass Lexecon analysis also analysed the extent of customer overlaps between the Parties by matching [✂], between the Parties' paid subscribers over the entire time period of the data made available for this analysis (at least 5 years, between 2016 and October 2021).

7. The switching ratios estimated by Compass Lexecon using this methodology were less than [✂]% from NortonLifeLock to Avast and less than [✂]% from Avast to NortonLifeLock, both globally and in the UK.[3] The Parties submitted that this shows that the Parties exert only a limited competitive constraint on one another.

Our assessment of the switching analysis

8. This section outlines what we consider to be the main limitations of the switching analysis and, where applicable, discusses the Parties' response to these concerns.

Switching ratios do not fully capture competitive constraints in the CCS market

Our assessment

9. Switching ratios capture the frequency with which customers of each of the parties switch to the other party (and ideally to competitors) in the ordinary course of business, out of the total number of each party's customers who switch. This evidence can be used to inform the assessment of closeness of competition between the parties (and between the parties and their competitors, when the information is available).[4]

10. We note that the CCS market is characterised by high levels of customer retention. For example, NortonLifeLock's retention rate in FY20 and FY21 was 85%.[5] In this context, we may expect that competition between suppliers primarily takes place at the first point of customer acquisition, while, once customers are acquired, switching rates are relatively low and competition is more limited. We note that, while switching ratios in general measure the behaviour of a subset of existing customers (that is, those who switch), this feature is more limiting in markets (such as the market for CCS solutions) in which competition primarily takes place at the point of acquisition, given the proportion of customers who eventually switch is particularly small. As a result, we currently consider switching ratios to have a limited relevance for understanding the overall constraint that the Parties impose on each other.

11. We consider this to be the case even considering the Parties' submission that they strongly focus on retention.[6] While we acknowledge that customer

[3] NortonLifeLock, Internal Document.
[4] See Mergers Assessment Guidelines, paragraph 4.13.
[5] NortonLifeLock 2021 Annual Report [public].
[6] Parties, response to the Working Papers.

retention is important to the Parties and they make efforts to achieve high retention rates, this does not undermine our view that an analysis of switching ratios is not informative of the overall constraint the Parties exert on each other, given it refers to a small subset of customers and it does not reflect competition to acquire new customers in the first place. We note that the evidence we have reviewed shows the importance of customer acquisition to the Parties' business models.

12. We note that the switching analysis contains a sensitivity test that estimates switching ratios [✂]. These switching ratios are similar to those calculated for all customers.[7] However, because they represent only a subset of customers of the Parties' products, [✂], they are still not likely to be representative of the important competitive dynamics at the point of customer acquisition.[8]

The Parties' view

13. In its submission to us, Compass Lexecon acknowledged that the switching ratios 'are not strictly speaking themselves diversion ratios', but that they consider them to 'form a good proxy for diversion ratios, as they measure actual switching and not customer movements in response to a price increase'.[9] As outlined in paragraph 10 above, we do not consider that 'actual switching' is entirely representative of the competitive constraints the Parties exert on one another.

14. The Parties have further submitted that:

    (a) all switching ratios measure the behaviour of existing customers, yet they are generally considered to have probative value;[10]

    (b) characterising the CCS market as having high retention is speculative, and because Parties [✂] the switching of existing customers is informative on closeness of competition;[11] and

    (c) the sensitivity described in paragraph 12 above is evidence that (by proxy) switching between the Parties is not materially different for [✂].[12]

15. For the reasons set out above, we do not currently consider these points to outweigh the limitations outlined above.

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[7] NortonLifeLock, Internal Document.
[8] Parties, response to the Working Papers.
[9] NortonLifeLock, Internal Document.
[10] Parties, response to the Working Papers.
[11] Parties, response to the Working Papers.
[12] Parties, response to the Working Papers. We note that this was highlighted to the CMA in response to our switching analysis working paper.

Inability to reliably identify those exiting the market

Our assessment

16. The denominator of any switching ratio should be the number of customers leaving a party and remaining in the market for CCS solutions.

17. As outlined in paragraph 6(a), to calculate the denominator Compass Lexecon adjusted the total number of customers leaving each Party by using responses from their cancellation surveys to estimate the proportion that might be leaving for another competitor (including to the other Party). Figure 1 (NortonLifeLock) and Figure 2 (Avast) below show the possible responses to their cancellation surveys.

18. First, we consider that the survey responses used to calculate these proportions are not the only responses that potentially indicate exiting the market. For NortonLifeLock and Avast respectively, the responses used were:

    (a) '[✂]' ([✂]% of responses based on a simple average across the period); and

    (b) '[✂]' ([✂]% on average) and '[✂]' ([✂]% on average).

Figure 1: Distribution of responses to NortonLifeLock's cancellation survey

[✂]

Source: NortonLifeLock.

Figure 2: Distribution of responses to Avast's cancellation survey

[✂]

Source: Avast.

19. The Parties take these responses as the sole indicators of market exit, therefore inferring that the [✂] of customers – [✂]% and [✂]% for NortonLifeLock and Avast respectively – remain in the market for CCS solutions upon leaving NortonLifeLock/Avast. As a result, the adjustment to the denominator of the switching ratios is minor.

20. However, there are other possible responses to the Parties' exit surveys that directly reveal customers' intentions to remain in the market. For example, [✂]% of NortonLifeLock's respondents answered positively to the response '[✂]'. Assuming, as the Parties do (see the note in Figure 1), that each response is a unique reason for cancelling, this would imply an adjustment factor of [✂]% as opposed to [✂]%.

21. The switching ratio for NortonLifeLock to Avast increases from [✂]% to [✂]% when using this response as the adjustment factor and reaches [✂]% among [✂] customers only – the [✂].[13] As such, we consider that there are a range of switching ratios that could be calculated using reasonable assumptions regarding the adjustment factor and that these ratios vary according to the brand analysed. This is particularly true given our concerns around the validity and representativeness of the Parties' surveys (see paragraphs 24 to 25 below).

22. In response to our concerns about the survey questions used to calculate the adjustment factor, the Parties administered new cancellation surveys (hereafter the revised surveys) with questions designed to more directly identify market exit (see paragraphs 26 and 31 below). However, the global response rates to these revised surveys were [✂]% for NortonLifeLock and [✂]% for Avast.[14] As a result, we place very limited weight on results calculated from the revised surveys.[15]

23. Second, Figure 1 also shows that responses are [✂] across NortonLifeLock's quarterly surveys. For example, the proportion of customers answering '[✂]' jumps from [✂]% in the fourth quarter of 2020 to [✂]% in the first quarter of 2021. Similarly, '[✂]' is answered positively by [✂]% in quarter four of 2020, which increases to [✂]% and then [✂]% in the two following quarters. This [✂] casts doubt on the survey methodology and so the validity of the results from the survey. While the Parties have submitted an explanation for this [✂], we do not consider it to resolve our concerns (see paragraph 46 below).

24. Third, the exact response rates for the original surveys used are unclear. For NortonLifeLock, the Parties' submission states they 'consider the response rate to be [✂]%'. This is based on comparing the number of responses with some measure of the number of total customers who cancelled their subscription over the period of the survey.[16] However no exact response rate has been provided, nor is it disaggregated across quarters so we can understand how quarterly survey results might be weighted into an overall average.[17] For Avast, the response rate to its survey is [✂], however, if the [✂]% response rate to its revised survey is indicative of the response rate to

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[13] We are unable to carry out a similar analysis in respect of Avast switching to NortonLifeLock on the basis of the data provided by the Parties. In particular, the Avast cancellation survey, on which the assumption of the number of Avast consumers exiting the market is made, does not include any option which refers explicitly to moving to a competitor.
[14] Compass Lexecon, response to CMA questions, 16 June 2022, paragraphs 2.7 and 2.12.
[15] Good practice in the design and presentation of customer survey evidence in merger cases, paragraph 4.38(b).
[16] For example, the Parties submitted an estimate of [✂]% for the response rate by comparing the number of responses with an estimate of the number of customers leaving NortonLifeLock over the period of the survey: Parties, response to the Working Papers.
[17] NortonLifeLock, Internal Document.

the original survey (Figure 1), then it we would consider it to be [✂] low and would place very limited evidentiary weight on a statistic calculated from its responses.[18]

25. The (relatively) few customers who responded to the surveys might differ in important ways from the majority who did not and, as a result, the patterns of responses among the respondents are not necessarily generalisable to all customers. This is particularly the case because both Parties' cancellation surveys are administered to a subset of customers [✂].[19]

The Parties' view

26. The Parties submitted that it would require implausible changes to the adjustment factor to generate even small changes in the switching ratios. For example, they submitted that to estimate a switching ratio of [✂]% in the UK would require an increase in the assumed proportion of users exiting the market from [✂]% to [✂]% for Avast and from [✂]% to [✂]% for NortonLifeLock.[20] The Parties also submitted that this implies that an implausibly large non-response bias (due to potential differences in responses from customers who did and did not respond to the survey) would be required to meaningfully change their results.[21]

27. Compass Lexecon has also carried out additional sensitivity tests on the switching ratios based on [✂].[22] It found that using responses to this alternative question to define the adjustment factor changes the switching ratio from NortonLifeLock to Avast by [✂] percentage points at most.[23]

28. As regards our observation that the switching ratio can reach [✂]% (paragraph 19 above) the Parties submitted that this upper bound is implausible because:

    (a) it is based on switching by [✂]; and

    (b) it uses only one response to the survey – '[✂]' - to define the adjustment factor.[24]

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[18] Good practice in the design and presentation of customer survey evidence in merger cases, paragraph 4.38(b).
[19] NortonLifeLock, Internal Document.
[20] Parties, response to the Issues Letter. These figures are based on the 'baseline results' of the analysis.
[21] Compass Lexecon, response to CMA questions.
[22] Compass Lexecon, response to CMA questions. The additional question asks respondents '[✂].
[23] Compass Lexecon, response to CMA questions.
[24] Compass Lexecon, response to CMA questions. This upper bound was also cited in the CMA's Phase 1 decision: CMA, phase 1 Decision, 16 May 2022, paragraph 107(a) [public document].

29. We note the Parties' submission that under the current methodology, large, 'implausible' changes in the adjustment factor are required to substantially change the switching ratios (see paragraph 26 above). However, our view is that such large changes in the adjustment factor are not necessarily implausible given the uncertainty around survey responses (paragraphs 18 to 22 above), methodologies (paragraph 23), and response rates (paragraphs 24 to 25).

30. To improve the accuracy of the adjustment factor, the Parties administered a revised cancellation survey with questions designed to more directly estimate the proportion of customers leaving the market. Figure 3 below shows the new survey questions and possible answers for both Parties.

Figure 3: new questions and responses added to the Parties' [✂] surveys

[✂]

Source: Compass Lexecon.

31. Using the responses from these revised questions, Compass Lexecon estimated adjustment factors of [✂]% for NortonLifeLock (previously [✂]%) and [✂]% for Avast (previously [✂]%).[25] This translated to switching ratios of [✂]% from NortonLifeLock to Avast in the baseline results (no change) and [✂]% from Avast to NortonLifeLock in the baseline (previously [✂]%).[26] The Parties submitted that this implies the Parties' conclusions from the original switching analysis (of limited switching) still hold under this alternative calculation of the adjustment factor.[27]

No relative comparison for switching ratios between the Parties in the CCS market

Our assessment

32. The switching ratios estimated by Compass Lexecon are low (under [✂]% from NortonLifeLock to Avast and under [✂]% vice versa). However, due to data limitations (ie the fact the Parties understandably do not have access to data of their competitors) there is no relative comparison to provide context for these figures. Specifically, setting aside its limitations, the analysis is unable to identify switching between the Parties and third party competitors.

33. If these relative comparisons - based on the same methodology - were available, it would enable us to further assess the methodology, for example

[25] Compass Lexecon, response to CMA questions.
[26] Compass Lexecon, response to CMA questions.
[27] Compass Lexecon, response to CMA questions.

by testing whether the roughly [✂]% (or less) of customers who the Parties submit do not switch to one another have switched to another competitor.

34. Without these relative comparisons it is difficult for us to fully understand the robustness of the assumption that the switching analysis reliably captures aggregate switching to third party competitors. It is therefore also difficult for us to assess switching (and closeness of competition) between the Parties relative to other CCS solution providers.

The Parties' view

35. The Parties submitted that our observation is not a criticism of the switching analysis in itself, but rather that it did not include more results, and that while switching to other suppliers cannot be inferred from the data available it does show that, in aggregate, they capture the large majority of customers leaving the Parties.[28]

36. In response to the Parties' views, first, we acknowledge that this limitation is not with the methodology. However, this makes it no less relevant. Second, we note that the Parties' argument presupposes that both the numerator and denominator of the switching ratios was estimated accurately. As we have outlined throughout this appendix, we do not consider this to be the case.

No coverage of Avast free customers

Our assessment

37. The estimated switching ratios do not capture switching between Avast's free products and NortonLifeLock's products, or vice versa.

38. Setting aside our concerns around the relevance of switching ratios in the CCS market, switching from a free Avast product to a paid NortonLifeLock product could be viewed as indicative of competition between NortonLifeLock and Avast *paid* products (since customers would be 'upgrading' to NortonLifeLock and not Avast).[29] Similarly, switching from NortonLifeLock to a free Avast product could be viewed as indicative of the constraint Avast's free offering imposes on NortonLifeLock.

39. While it is primarily the Parties' paid products that compete directly, Avast's free product is a significant part of its customer acquisition strategy.[30] As

[28] Parties, response to the Issues Letter, paragraphs 6.64 to 6.66. These figures are based on the 'baseline results' of the analysis.
[29] Parties, response to the phase 1 Issues Letter, paragraph 6.71(a).
[30] Avast, Main Party Hearing transcript.

such, evidence of switching from/to these products would be relevant to an assessment of closeness of competition between the Parties.[31] In particular, any NortonLifeLock customers who did divert to Avast's free products would be potential future paid Avast customers. Similarly, the Parties told us that free products place an indirect constraint on their paid products (see Chapter 6). As such, we would expect some evidence of customers switching between NortonLifeLock paid products and Avast free products in response to changes in their relative paid and free offerings. As a result, we consider the omission of Avast's free customers from the switching analysis limits the extent to which we can fully assess competition between the Parties.

The Parties' view

40. The Parties submitted that:

(a) the relevant competitive constraints are between Avast and Norton's paid products since their products are the closest substitutes;[32]

(b) there is no strong evidence on the importance of switching between NortonLifeLock's paid and Avast's free products;[33]

(c) losing a paid NortonLifeLock customer to a free Avast subscription would be financially unattractive to the Parties post-merger; [34] and

(d) it is implausible that paid NortonLifeLock products exert an important constraint on free Avast products given the availability of other free alternatives, for example Microsoft Defender and Kaspersky.[35]

41. However, for the reasons outlined from paragraph 37 above, we consider that the omission of Avast's free customers makes it difficult to fully assess the constraint the Parties exert on one another.

Other limitations

42. There are also several additional limitations to the switching analysis.

43. For example, [✂] might not capture:

(a) [✂]; or

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[31] Avast, Main Party Hearing transcript.
[32] Parties, response to the Issues Letter, paragraph 6.70(a).
[33] Parties, response to the Working Papers.
[34] Parties, response to the Working Papers.
[35] Parties, response to the Working Papers.

(b) [✂].

44. The Parties submitted that this is likely to affect only a small proportion of customers given existing evidence that individuals generally have [✂],[36] and [✂].[37]

45. As discussed in paragraphs 16 and 17, we also have concerns regarding the generalisability of the survey results given the reported [✂] in quarterly response rates and uncertainty around the sampling methodology.

46. The Parties submitted that this [✂] is a result of changes in:

(a) [✂];[38] and

(b) [✂].[39]

47. The Parties further submitted that because these changes are explained, they should not cast doubt on the validity of the results of the survey.[40] However, we consider the above explanation suggests significant changes in the survey methodology over the period it covers that is not accounted for in the switching analysis.

48. Our view is that, by themselves, these additional limitations do not fundamentally undermine the switching analysis, however they add to the already substantial uncertainty around the accuracy of the calculations.

Summary of our assessment

49. To summarise, we have found a number of issues with the switching analysis, of which the most relevant are:

(a) Not considering its methodological limitations, the analysis could be viewed as providing evidence on the behaviour of a small group of customers who choose to switch from the Parties during the ordinary course of business. However, it does not provide evidence on closeness of competition between the Parties for customer acquisition, which is a key dimension of competition in the CCS market given the high levels of customer retention;

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[36] Compass Lexecon, response to CMA questions.
[37] Compass Lexecon, response to CMA questions.
[38] Parties, response to the Working Papers.
[39] Parties, response to the Working Papers.
[40] Parties, response to the Working Papers.

(b) there is a high degree of uncertainty as to how many of the Parties' customers remain in the market for CCS upon cancelling or failing to re-subscribe, which means that, based on the data available, the switching ratios cannot be reliably estimated;

(c) given the absence of estimates of switching ratios between the Parties and their competitors, there is a lack of context for the results; and

(d) by not including switches between Avast's [✂] and NortonLifeLock, the analysis does not fully capture closeness of competition between the Parties.

50. When considered together, our view is that that the limitations outlined in this appendix mean only very limited weight can be placed on the switching analysis as evidence of the Parties' competitive constraint on one another.

Glossary

Term	Definition
the Act	Enterprise Act 2002.
Anti-track and anti-tracking software	Software used to prevent forms of online tracking by third parties (*e.g.*, websites and advertisement providers), including by disguising the unique details associated with a device and by removing cookies.
Antivirus	Software which is designed to detect and remove computer viruses.
AV engine	See 'Threat analytics engine' below.
CCS and CCS solutions	Consumer cyber safety. This may include antivirus software and other endpoint security as well as other solutions, such as online privacy and identity protection. 'Consumer' includes small and medium sized enterprises (SMEs) but not large enterprises.
Closed operating system (also called "closed ecosystem")	Operating System where the developer controls every aspect of the user's software experience, notably including the applications that are available for users to download, install and use.
Cloud storage	Storage by a user of their data on servers hosted, secured and maintained by a third-party provider. The data can be accessed by the user at any time through the internet.
Dark web monitoring	A service that continually monitors the "dark web" to detect users' leaked personal information, including, *e.g.*, email addresses and passwords.
Device care solutions	automated techniques to optimise device performance, battery life, assist with software/driver updates, and clean-up storage.
Endpoint security	The protection of devices such as desktops, laptops, mobile phones, and tablets from malicious threats and cyberattacks. Endpoint

	security was originally designed to detect malware and viruses exclusively with signatures, but detection has now advanced to include heuristic and behavioural file analysis and to block access to and/or alert users to known or suspected bad websites.
Firewall / firewall protection	Security software that monitors all incoming and outgoing traffic going through a network, blocking any malicious or unauthorized connections to a device.
Freemium	A business model whereby the provider offers a base product free of charge and then seeks to sell more advanced products or services to those customers.
Identity protection	Identity protection notifies consumers if their personally identifiable information has been stolen, has been found in the dark web, and, depending on the service, will reimburse victims of identity theft for the cost to recover their identities and repair their credit reports.
Identity theft	Identity theft is a type of fraud in which individual information is stolen and used by the thief pretending to be someone else for financial or other gain.
Licensing	The procurement for use of one or multiple software components, which is/are then integrated into the licensee's wider software offering.
Malware	An umbrella term for any type of malicious software designed to infiltrate a device without a user's knowledge.
OEM	Abbreviation of original equipment manufacturer. A manufacturer of hardware devices, such as mobile and laptop devices.

OS	Abbreviation of operating system. These include Microsoft Windows, Apple MacOS and the two mobile systems, Google Android and Apple iOS.
Parental controls	Software to allow parents to monitor and limit their children's use of internet connected devices. It may also include the ability for parents to track the location of a child's device.
Password manager	Software to allow users to store, generate and manage their passwords for web applications and services.
Ransomware	A type of malware that prevents or limits users from accessing their system, either by locking the system's screen or by locking the users' files until a ransom is paid.
Social media monitoring	Service monitoring users' social media accounts and notifies users of suspicious activity, such as changes to account settings, risky links, cyberbullying and hate speech, among others.
Spyware	A type of malware that remains hidden whilst secretly recording information and tracking a user's online activities on computers or mobile devices. Spyware can monitor and copy all user entries, uploads, downloads and stored information on their device.
Threat analytics engine	The underlying technology of antivirus and endpoint security products.
VPN	Abbreviation of Virtual private network. This establishes an encrypted tunnel between the customer's online device and the VPN provider allowing for a secure and private communication channel.
White-labelling	The supply of an entire "turnkey" CCS solution by a CCS supplier with proprietary technology, which has been built to the buyer's design.