ANTICIPATED JOINT VENTURE BETWEEN VODAFONE GROUP PLC AND CK HUTCHISON HOLDINGS LIMITED CONCERNING VODAFONE LIMITED AND HUTCHISON 3G UK LIMITED

Provisional Findings Report

ME/7064/23

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CMA

Competition & Markets Authority

Website: www.gov.uk/cma

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 Some numbers have been replaced by a range.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

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SUMMARY

OVERVIEW

1. The Competition and Markets Authority (**CMA**) has provisionally concluded that the anticipated joint venture between Vodafone Group plc (**Vodafone**) and CK Hutchison Holdings Limited (**CK Hutchison**) that will combine their UK telecoms businesses, respectively Vodafone Limited (**VUK**) and Hutchison 3G UK Limited (**3UK**) (the **Merger**) may be expected to result in a substantial lessening of competition (**SLC**) in two markets in the UK. These are the supply of retail mobile telecommunications services to end customers, including both consumers and business customers (the **retail market**), and the supply of wholesale mobile telecommunications services (the **wholesale market**). Vodafone and CK Hutchison are together referred to as the **Parties.** For statements relating to the future, the Parties' UK telecoms businesses are together referred to as the **Merged Entity**.

2. With regards to the retail market, we have provisionally concluded that the Merger would lead to price increases for tens of millions of mobile customers, or see customers get a reduced service such as smaller data packages in their contracts. It would create the largest retail mobile operator by revenue in the UK and the second largest in terms of customers.

3. We consider these findings to be particularly significant given that the Parties collectively have over 27 million subscriptions in the UK which would be directly affected by any price rises. We also predict some level of price increase across the retail market as a whole, which in 2023 comprised almost 90 million mobile subscriptions.

4. With regards to the wholesale market, we have provisionally found that the Merger would negatively affect customers – known as Mobile Virtual Network Operators (**MVNOs**) - such as Sky Mobile, Lyca, Lebara and iD Mobile. MVNOs do not own their own networks and so rely on wholesale access to the mobile network operators' (**MNOs**) networks to provide their own mobile services. The Merger would reduce the number of MNOs from four to three, making it more difficult for independent MVNOs to secure competitive terms, restricting their ability to offer the best deals to retail customers. This is important because many MVNOs price aggressively, often focusing on value segments of the retail market.

5. VUK and 3UK have claimed that the rationale for the Merger is that:

   (a) the UK currently lags behind other countries in terms of 5G infrastructure, roll-out and performance due to a bifurcated market structure, with two strong converged players (BT Group plc (**BTEE**), VMED O2 UK Limited (**VMO2**)) and two weak players (VUK and 3UK);

(b) absent the Merger, VUK's and 3UK's lack of scale will further impede their ability to compete;

(c) VUK and 3UK need greater scale to address the investment challenge posed by the need to deploy 5G standalone (**5G SA**) and address explosive growth in data traffic; and

(d) by bringing together the complementary assets of VUK and 3UK and increasing their investment capacity, the Merger will create a stronger third network operator that will invest in a 'best-in-class' network which will force BTEE and VMO2 to invest more. This will in turn bring significant benefits to customers – consumers, businesses and public sector organisations – to competition and to the wider UK economy.

6. We have provisionally found that the Merger, by integrating the VUK and 3UK networks, could improve the quality of mobile networks and bring forward the deployment of next generation 5G networks and services, as claimed by VUK and 3UK. But we currently consider that these claims are overstated, and that the Merged Entity would not necessarily have the incentive to follow through on its proposed investment programme after the Merger. Most consumers also told us that they would not be willing to pay more for better quality. We therefore have significant concerns about the impact of the Merger on the large number of consumers who might have to pay more for improvements in network quality they do not value.

7. We have therefore provisionally found that while some pro-competitive efficiencies are likely, these are not sufficient to offset the adverse effects of the Merger.

8. The report and its appendices, which will be published shortly after this summary, constitute our **Provisional Findings**. We invite any interested parties to make representations on these Provisional Findings by no later than 4 October 2024. We will take all submissions received by this date into account in reaching our final decision.

9. We are also consulting on potential solutions to our competition concerns. These include legally binding investment commitments overseen by the sector regulator, Ofcom, and measures to protect both retail customers and customers in the wholesale market. We will retain the option to prohibit the Merger should we conclude that other remedy options will not address our competition concerns effectively. In our notice of possible remedies, published alongside our Provisional Findings, we have set out more detail on options to remedy the provisional SLCs. We also invite submissions from interested parties on these initial views by 27 September 2024.

10. Interested parties should refer to the notice of provisional findings for details of how to do this.

ABOUT THE BUSINESSES

11. Vodafone – listed on the London Stock Exchange – is the holding company of a group of companies providing mobile and fixed telecommunication services, principally across Europe and Africa. In the UK, Vodafone supplies retail mobile services to consumers and businesses and wholesale mobile services through its wholly-owned subsidiary VUK. It operates under the Vodafone brand and the VOXI and Talk Mobile sub-brands.

12. CK Hutchison – listed on the Stock Exchange of Hong Kong – is a multinational conglomerate operating in over 50 countries across four core businesses: ports and related services, retail, infrastructure and telecommunications. In the UK, CK Hutchison supplies retail mobile services to consumers and businesses and wholesale mobile services through its wholly-owned subsidiary 3UK. It operates under the Three brand and the SMARTY sub-brand.

ABOUT THE UK MOBILE INDUSTRY

13. Mobile services play an integral role in the daily lives of consumers and businesses in the UK. In the last decade, there has been a significant shift towards the use of mobile devices in UK consumers' everyday lives, with mobile internet access becoming an essential service. 97% of UK adults are estimated to have a mobile phone, and 92% a smartphone. In May 2023, UK adults spent on average 2 hours and 47 minutes a day online on their smartphones, with 89% of the time spent via apps. Average monthly data volumes per mobile data user grew to 9.9 gigabytes (**GB**) per month in 2023 from 2.6GB in 2017.

14. Ofcom expects demand for mobile data to continue to grow to meet changing customer needs. Operating a mobile network involves high fixed costs and Ofcom anticipates that significant investment in mobile networks will be required to deploy the capacity needed to carry more mobile traffic, as well as in new technologies, including 5G SA.

15. 5G is the next generation of mobile network technology. Compared to 4G, 5G technology is capable of providing faster speeds, greater capacity and very fast response times. These features mean that 5G will allow many more users and devices to access fast internet connections and a large amount of data at the same time. 5G in its most advanced form (ie 5G SA) also has the potential to enable various 'smart' applications, for example in e-healthcare, smart cities, connected vehicles, and automated technologies. However, most of these new applications are still under development in terms of technology and business

cases, and MNOs and other market participants have said that the case for deploying 5G is challenging due to the uncertainty over the extent to which they can make a return on their investment.

16. There are currently four MNOs in the UK – BTEE, VMO2, VUK, and 3UK. All four MNOs are party to one of two network sharing arrangements in the UK: BTEE and 3UK have a network sharing arrangement (**MBNL**), and VUK and VMO2 have a separate network sharing arrangement (**Beacon**). These allow BTEE and 3UK on the one hand, and VMO2 and VUK on the other, to share – to some degree – the costs of rolling out and maintaining their networks while continuing to compete with each other at the retail and wholesale level. Although certain network infrastructure is shared between the parties to each arrangement, other infrastructure is not, and so each of the four MNOs is able to differentiate its network quality to some degree (for example regarding 5G roll-out).

17. In addition to the four MNOs, there are a number of MVNOs active in the supply of retail mobile services in the UK, including Sky Mobile, Tesco Mobile (which is 50% owned by VM02), Lebara, Lyca Mobile and iD Mobile.

OUR ASSESSMENT

Why are we examining this Merger?

18. On 14 June 2023, Vodafone and CK Hutchison entered into an agreement (the **Contribution Agreement**) to establish a joint venture combining their UK telecom businesses. Under the terms of the Contribution Agreement, CK Hutchison will hold 49% of the issued share capital of Vodafone UK Trading Holdings Limited, the joint venture vehicle which is currently indirectly wholly owned by Vodafone; Vodafone will hold 51% of the issued share capital of this entity; and each of VUK and 3UK will sit as a wholly-owned subsidiary of this entity. The Merger is subject to certain regulatory conditions, including merger control clearance from the CMA.

19. We have provisionally found that we have jurisdiction to review the Merger: each of Vodafone, CK Hutchison, VUK and 3UK is an enterprise; as a result of the Merger 3UK will cease to be distinct from Vodafone and, conversely, VUK will cease to be distinct from CK Hutchison, and VUK and 3UK together generated more than £70 million turnover in the UK in FY2023.

How have we examined this Merger so far?

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

UK. This includes considering any claims of efficiencies that may offset an SLC that might otherwise arise as result of the merger (discussed in more detail below).

21. We have taken a forward-looking approach when assessing the impact of the Merger and considered how competition would have evolved with and without the Merger. To understand the impact of the Merger on competition, we considered a very wide range of evidence in the round. We received a large number of submissions and responses to information requests from the Parties and met with them in person on a number of different occasions to allow them to present their views directly. We gathered data, including on shares of supply, switching by customers, tenders for MVNO contracts and prices. We reviewed a large number of internal documents from Vodafone and CK Hutchison to understand their businesses, financial performance, competitive strategies and plans, their considerations in agreeing the Merger and the competitive landscape in which VUK and 3UK operate.

22. We also gathered evidence from other interested parties and sector participants, including MNOs and MVNOs, as well as the Parties' retail business customers. This included internal documents from other MNOs and MVNOs relating to commercial strategy, the current competitive significance of the Parties in both the retail and wholesale markets and the likely impact of the Merger, including whether they considered the Parties' claimed efficiencies would be realised and the impact of these if so. Finally, we commissioned a survey of the Parties' customers, as well as of the general population, and carried out an econometric estimation of consumer demand for mobile services using data from Ofcom and third-party providers (Open Signal and Pure Pricing).

23. Throughout our phase 2 inquiry, in line with CMA guidance in relation to merger investigations involving regulated sectors, we also engaged with Ofcom given its sector expertise, particularly in relation to the technical aspects of the Parties' claims about rivalry-enhancing efficiencies which they said would result from the Merger.

…and how have we considered the Parties' efficiency claims?

24. If the CMA provisionally finds that a merger gives rise to competition concerns (as is the case here), it must then assess whether there are any 'countervailing factors' which prevent or mitigate any SLC arising from a merger, including potential efficiencies.

25. Rivalry-enhancing efficiencies are efficiencies resulting from a merger that are likely to strengthen the ability and incentive of the merged entity to act pro-competitively for the benefit of consumers. These efficiencies may prevent an SLC by offsetting any anti-competitive effects of the merger. The CMA will generally first consider whether there is scope for an SLC absent any efficiencies and, if

there is, it will consider rivalry-enhancing efficiency claims from the merger firms before determining the overall impact of the merger on competition.

26. When announcing the Merger, the Parties made a number of claims about pro-competitive efficiencies and consumer benefits which they said would result. For example, they said that from ‘Day one’ (ie within the first 12 months from closing the Merger) millions of customers of VUK and 3UK would enjoy a better network experience with greater coverage and reliability at no extra cost. They also said that the combined business would invest £11 billion in the UK over ten years to create one of Europe’s most advanced 5G SA networks, and that the Merger would create a third mobile operator with scale, levelling the competitive playing field, and thereby increasing competition to the UK’s two leading converged operators (BTEE and VMO2).

27. In the course of the merger review process, the Parties also supplied us with a number of complex economic models and submissions which they claimed quantified in different ways (for example in terms of quality and capacity improvements) the efficiencies that would result from the Merger.

28. Part way through the phase 2 investigation, the Parties entered into an agreement with VMO2 (**Beacon 4.1**) which involves, among other things, the divestment of spectrum to VMO2 (conditional on CMA approval for the Merger). The Parties claimed Beacon 4.1 would generate further Merger-specific efficiencies, in particular by making VMO2 a more effective competitor in the wholesale and retail markets.

29. Cost and revenue synergies (which in this case are intended to provide a large proportion of the funding for the claimed network investment) often form part of the rationale for mergers, and it is not uncommon for firms to make efficiency claims in merger proceedings. Some studies have found that firms often do not fully realise the expected synergies from their mergers and, even for the synergies that they do realise, firms do not always pass on the benefits to their customers. Merger efficiencies therefore must be likely to be realised so as to ensure that customers in the UK do benefit overall from a merger; this means that the evidence supporting claimed future efficiencies needs to be verifiable.

30. The CMA case team comprised a range of specialist advisors (for example, economists, financial analysts, lawyers, econometricians and a third-party academic advisor) and worked closely with technical specialists at Ofcom to assist the Inquiry Group in carefully considering these claims and the models the Parties submitted in support of them.

What did the evidence tell us?

… about the relevant markets?

31. Where the CMA makes an SLC finding, this must be 'within any market or markets in the United Kingdom for goods or services'. We are therefore required to identify the market or markets within which an SLC exists. An SLC can affect the whole or part of a market or markets.

32. As noted above, we have assessed the impact of the Merger in the supply of retail mobile telecommunications services to end consumers, including both consumers and business customers, and the supply of wholesale mobile telecommunications services, in the UK.

… about the effects on competition in the retail market of the Merger?

In terms of what matters to UK customers

33. At the outset, we sought to understand the factors that matter to UK end customers of retail mobile services, so as to better assess how the Merger (through its impact on competition) would affect their overall user experience. We found that price is the most important parameter of competition. Whilst customers also require a minimum level of quality, and network quality related parameters play an important role in customer decisions, they are less important than price.

34. For example, most consumers told us that they would not be willing to pay more for better quality (with 76% unwilling to pay for faster speed, and 59% unwilling to pay more for more reliability). Ofcom also noted the current limited evidence of customer willingness to pay a premium for services that rely on 5G SA capabilities. We recognise the possibility that consumer attitudes may evolve as the mobile industry develops.

About the market positions of the Parties and their rivals

35. We then considered the position of the Parties and their rivals in the market, including how closely they currently compete and what alternative competitive constraints would remain if the Merger took place.

36. We found that VUK and 3UK are the third and fourth largest mobile operators in the supply of retail mobile services by revenue and subscribers. Since commencing a network investment programme in 2020 (when it was ranked as the lowest performing network on some third-party measures), 3UK has improved its network quality rankings relative to other MNOs and is particularly strong in (non-standalone or **NSA**) 5G and it currently has the fastest 5G speeds in the areas where it has rolled this out.

37. VUK has historically had the second-best network quality behind BTEE across several third-party measures. More recently, due to improvements in 3UK's network, VUK's network quality is broadly similar to 3UK's on some aspects of these third-party measures and slightly behind 3UK's on others (notably 5G).

38. We provisionally found that the Parties compete closely in the supply of retail mobile services and that this would continue in the future absent the Merger. In particular we found that most competitors consider each Party to be a strong or very strong competitor to the other, whilst switching and diversion data shows the Parties provide a constraint on each other. We further found that the Parties compete particularly closely in some subsegments of the retail market, including in the unlimited data, pre-paid and small office/home office (**SoHo**) subsegments.

39. We currently consider that both BTEE and VMO2 compete closely with the Parties, and that this will likely continue in the future, absent the Merger. We found that they both have a large presence in the supply of retail mobile services, high switching and diversion from customers of the Parties, and strong brands, particularly BTEE which has consistently had the highest network quality. However, there is also some evidence to suggest that both BTEE and VMO2 compete less aggressively than the Parties in some respects.

40. BTEE positions itself towards the premium end of the market and third parties see it as more expensive. VMO2 operates a dual-brand strategy, using Giffgaff to compete in the value subsegment and O2 in the premium subsegment and is a 50% shareholder in Tesco Mobile, the largest MVNO. On a number of third-party measures, and according to competitor views, it now has the lowest network quality of the UK MNOs. Third parties view BTEE as being slow to change and VMO2 as being less innovative. BTEE and VMO2 have also both been losing share by both revenue and subscribers, whilst the Parties have been gaining share by revenue and have had largely stable shares by subscribers in the period from 2020 to 2023.

41. We provisionally found that some independent MVNOs currently exercise some constraint on the Parties, namely Sky Mobile and, especially in the value segment, Lebara, Lyca and iD Mobile. Overall, however, we currently consider that the constraint from MVNOs is limited. This is because, firstly, all independent MVNOs individually have a very small share of supply and are dependent on wholesale contracts to compete. Most MVNOs are also not considered by third parties to be either a strong or very strong competitor to the Parties. Secondly, MVNOs typically only compete in some segments. Most MVNOs, including Lebara, Lyca and iD Mobile, appear to generally cater more towards cost-sensitive consumers.
A significant exception to this is Sky Mobile, which is the largest of the independent MVNOs (with strong recent growth) and particularly competes in the PAYM handset segment. However, its share of supply in the overall retail segment

is small (less than 5% by subscribers and revenue) and it does not offer pre-paid or business tariffs.

About the effect of the Merger on price

42. In light of these findings and given the importance of price to customers, we sought to quantify the likely impact of the Merger on pricing using a range of economic techniques, and carefully considered the robustness of our results. It is difficult to estimate the impact of a merger on retail pricing with precision in this industry for a range of reasons. We have therefore considered our economic estimates in the round, rather than as a single definitive source of evidence about the likely impact of the Merger.

43. Our quantitative economic analyses consistently show that the Merger is likely to have a material upwards impact on retail prices. Our analysis of the Gross Upwards Pricing Pressure Index (**GUPPI**) suggests significant pricing pressure of between 5-10% and 10-20% for 3UK and between 0-5% and 5-10% for VUK. Our merger simulation predicts that the Merged Entity's prices would rise by 7.0% for 3UK and 3.8% for VUK on average. This, along with predicted price rises from the other retail providers, would lead to a harm to UK customers which is equivalent to at least £328 million per year, though our sensitivity analysis suggests that this could be as high as £1.1 billion.

44. This analysis does not account for the loss of competition arising from the Merger on the wholesale market. Faced with less competitive wholesale terms, MVNOs would be less able to compete in the retail market, particularly in the low-cost segment where they tend to operate. This would lead to greater price increases than already outlined from the direct loss of retail competition resulting from the Merger.

45. We also note that our estimates are broadly consistent with the results of a recent European Commission study on the effects of market concentration on retail mobile pricing across European Union member countries (which at the time included the UK), which found a strong and significant positive relationship between market concentration and prices.

About the effect of the Merger on network quality

46. Although less important than price, we also found that network quality is important for customers. There are multiple dimensions of network quality including coverage, speed, latency, consistency and reliability.

47. Many (but not all) of the Parties' claimed efficiencies relate to what they described as 'transformational' increases in network quality that they said would result from the integration of their individual networks (and related investments), which they claimed would accelerate the deployment of 5G SA across the UK. The Parties

said there would be significant improvements across a range of the different technical dimensions of network quality. The Parties said that without the Merger, they would remain ‘sub-scale’ compared to the two other UK mobile networks, and therefore unable to invest sufficiently to allow them to compete with them on network quality.

48. We agree that these improvements (if delivered) have the potential to enhance network quality. We therefore carefully considered, firstly, what network quality was likely to result without the Merger, and in particular whether there was evidence that supported the Parties’ claims that they are currently ‘sub-scale’. We have provisionally found that absent the Merger, both of the Parties’ standalone networks are likely to deliver higher network quality than they have claimed. We have reviewed the current business plans of both of VUK and 3UK, which show that they expect to continue to make network investments to improve customer experience. We also challenge the Parties’ claim that they are unable to effectively compete on a standalone basis so as to deliver good outcomes for UK customers.

49. Secondly, we assessed what the likely impact on network quality (and therefore competition) would be if the Merger were to take place. Many of the Parties’ claims in this regard are based on their ‘joint business plan’ (**JBP**) which incorporates the ‘joint network plan’ (**JNP**) they have prepared for the Merged Entity, and which provides for integration and investment over the period up to FY34. We therefore carefully considered whether the Parties were able, and likely, to deliver this plan, including by consulting Ofcom, particularly in relation to its technical aspects.

50. We consider that there are a number of practical implementation risks in the integration of any two large and established businesses, and in particular – in this case – the consolidation of two of the four UK mobile networks. However, we have provisionally concluded that the Parties are likely to have the ability to deliver the JBP (or a plan that is broadly comparable). We consider the JBP to be a credible integration plan, reflecting detailed due diligence by external consultants and significant time and resource investment by the Parties. We also recognise that the network improvement plans in the JNP involve the consolidation and upgrading of existing mobile sites, to rationalise down rather than scale up the total number of sites held by the Merged Entity. This process contrasts with the identification of locations for and subsequent construction of new sites, which would be required for site footprint expansion by each of the Parties absent the Merger, and which is likely to be significantly more practically challenging.

51. However, we have also provisionally concluded that the Parties are not likely to deliver the full JBP. In reaching this conclusion, we have carefully considered the detailed economic modelling which the Parties provided to us which they claim demonstrates their commercial incentive to implement the full JBP as opposed to, for example, a less ambitious network integration and investment approach. We found that if we apply a number of alternative assumptions that we consider

reasonable, the case for the implementation of the JBP becomes substantially less commercially compelling.

52. We consider that the commercial strategies of the Merged Entity would respond dynamically to future market circumstances and that the Merged Entity would re-assess (and potentially reduce) the scale of network investment in light of future market circumstances, which may differ from what they project currently in the JBP.

53. In particular, we consider that the Parties may have the commercial incentive to retain a lower number of sites than claimed in the JNP given the cost savings that can be realised through site decommissioning. This commercial incentive may be particularly strong in low and mid traffic areas, where the impact on network congestion of the site decommissioning may be less, and Ofcom has raised concerns with us in this respect.

54. We have also carefully considered the Parties' quantitative modelling of the claimed network capacity and quality impacts of the Merger (which include the claim of a market-wide welfare gain of £1.8 billion per year). We have a number of serious concerns about the robustness and predictive value of these models, and therefore we do not put any weight on these models or their claims.

55. However, we do currently consider that the Parties have the ability to, and are likely to, deliver some of the claimed network improvements efficiencies. In particular, we consider that based on the evidence we have seen thus far, the Merged Entity would have the incentive (and ability) to deliver the so-called 'Day 1' benefits of a combination of multi-operator core network arrangement (**MOCN**), and deployment of additional spectrum through sharing of the Parties' combined holdings (for example in relation to 1,800 MHz spectrum). In addition, we also consider that some degree of site densification relative to either Party's standalone networks is likely, particularly given the inevitability of network integration, although it is not possible to quantify precisely the likely extent (for example in terms of the Merged Entity's site numbers or the level of spectrum deployed).

56. The combination of these factors is likely to result in some improvement in various network quality metrics in ways that affect consumer experience, but less than the Parties have claimed.

57. Firstly, we consider that MOCN and spectrum sharing will have some impact on capacity and congestion. Specifically, MOCN will help address congestion in areas where VUK is congested but 3UK is not and vice versa and deployment of VUK's 1,800 MHz spectrum on 3UK sites will help alleviate congestion on 3UK's 4G network. We also consider that over time integration of the networks and deployment of spectrum through that process will increase network capacity, further reducing congestion. We consider that – without the Merger – both of 3UK

and VUK, on a standalone basis, are incentivised to continue to manage congestion at least as effectively as they do at the moment. In addition, it does not appear that the additional capacity that would be delivered by the Merger (in the Parties' modelling) is necessarily well targeted to meet future demand for usage, as the modelling implies that capacity at some sites would be expanded despite there being no foreseeable prospect of congestion at those sites.

58. We also consider that the Merger is likely to potentially improve reliability, particularly in rural (but populated) areas and in buildings as a result of the greater number of combined sites. Even in areas where there is technically coverage the distance from the site and obstacles such as buildings, trees and hills can affect the quality of the signal that the customer gets. The benefits of MOCN on reliability will reduce over time as the combined grid is rationalised. The impact of densification (ie the number of sites) in the longer term will depend on how many sites the Merged Entity retains, and we consider that the Merged Entity may have incentives to reduce the number of planned sites post-Merger, particularly in low to mid traffic areas.

59. While we understand that MOCN (and subsequently network integration – depending on the number of sites retained) would lead to some increase in geographic coverage (ie removal of 'not-spots'), given the existing and future projected coverage of the Parties' standalone networks, we note this is likely to be in areas where there is limited use of mobile connectivity.

60. Finally, while the Parties claim that the Merger will lead to a significant improvement in network latency and average speeds relative to the standalone scenarios, we note that the Parties' forecasts suggest that their standalone networks will deliver high speeds and low latencies by reference to current measures of high performance. We therefore consider that the value to customers of some of these technical improvements (especially speed and latency) is likely to depend to a significant extent on the emergence and adoption of new applications that require very high speeds and low latencies. We also note that these KPIs depend on the full implementation of the JNP and as set out above, we currently do not consider that the Merged Entity would be likely to deliver the full JNP.

61. We currently consider that these overall network quality improvements would in turn likely lead to some competitive response (for example, by way of further network investment) from BTEE and VMO2 to also improve their respective network quality, increasing the extent of network quality competition in the retail market.

62. As noted above, on a number of measures and according to competitor views, VMO2 has the lowest network quality of the UK MNOs. We therefore consider that the spectrum transfer to VMO2 agreed through Beacon 4.1 would provide a

notable and rapid increase in network quality for its wholesale and retail customers which would further increase network quality competition.

About the overall impact on competition in the retail market

63. The greater the expected adverse effect of a merger, the greater the expected efficiencies must be to offset overall the adverse impact on competition. For the reasons set out below, we do not currently consider that, by themselves, the efficiencies that we provisionally find are likely to result from the Merger (which are more limited than what would be delivered under the JNP) would be sufficient to outweigh the adverse competitive effects identified. In reaching this provisional conclusion we have had regard to several factors.

64. Firstly, we consider the likely price increases for retail customers resulting from the Merger to be particularly significant given that the Parties collectively have over 27 million subscriptions in the UK who would be directly affected by any price rises. We also predict some level of price increase likely to affect the retail market as a whole, which in 2023 comprised almost 90 million mobile subscriptions.

65. Most customers told us that they would not be willing to pay more for better quality. We therefore have significant concerns about the impact of the Merger on the large number of retail customers who might have to pay more for improvements in network quality they do not value.

66. Our analysis also suggests that the customers who will see a particularly large fall in consumer welfare from higher prices have the lowest disposable incomes. We have particular concerns about the impact of the Merger on those customers least able to afford mobile services.

67. Secondly, we consider that the likely level of network quality absent the Merger would be higher than the Parties have claimed, and – conversely – that the network investments that the Merged Entity would make and the impact of those on customer experience would be more limited than the Parties have claimed. This reduces the likely scope of the network quality competition improvements that we consider are specific to the Merger.

68. For these reasons, we have provisionally concluded that the Merger may be expected to result in an SLC in the retail market.

69. For completeness, we also have some doubts as to whether the full JNP would – if delivered – be sufficient to offset the adverse effects on competition in the retail market provisionally identified. We invite submissions from the Parties and third parties in this respect. But we do not need to conclude on that question in these provisional findings given our provisional conclusion that delivery of the full JNP is not likely.

… about the effects on competition in the wholesale market of the Merger?

In terms of what matters to MVNO customers

70. As we did in considering the retail market, we sought to understand the key factors that matter to MVNO customers when choosing an MNO, so as to better assess how the Merger (through its impact on competition) would affect the commercial terms that they would be able to obtain and, in turn, their offering to retail customers. We found that both price and network quality are important to MVNOs, although there may be some differences between MVNOs in the relative importance that they attach to each, particularly depending on their own competitive positioning in the retail market.

About the market positions of the Parties and their rivals

71. Agreements for MVNOs to access an MNO's network can be negotiated through formal tender processes or informal negotiations. Formal tender processes are more likely to be used by larger MVNOs than smaller MVNOs and may involve multiple rounds of bidding and negotiations. Although a very large number of MVNOs operate in the market, a small number of MVNOs comprise a very large proportion of the overall subscriber base served by MVNOs. The five largest MVNOs collectively accounted for almost 60% of all subscribers served by MVNOs in 2023 and the ten largest MVNOs accounted for over 90% of all MVNOs' subscribers in 2023.

72. As there are only four MNOs in the UK, at most four MNOs compete for any given wholesale opportunity. The evidence also suggests that MNOs have incumbency advantages, and that the intensity of competition between MNOs has varied over time and by type of MVNO. We therefore provisionally consider that there is currently limited competition in the supply of wholesale mobile services.

73. We consider that VUK and 3UK are close competitors in the supply of wholesale mobile services and that both are credible choices for potential MVNOs. 3UK's recent improvements in network quality (particularly in 5G roll out) have been recognised by MVNOs.

74. Moreover, we found that the Parties competed directly against one another for a number of large MVNO opportunities, including the Sky Mobile opportunity, by far the largest independent MVNO opportunity, which saw particularly close competition between the Parties. We consider it likely that the Parties will both compete for large MVNO opportunities that may be up for renegotiation in the near future.

75. There are only two alternative suppliers of wholesale mobile services to the Parties in the UK: BTEE and VMO2. It appears that both MNOs exert a

competitive constraint on the Parties, although we note that they do not necessarily compete in all opportunities, even where invited.

About the overall impact on competition in the wholesale market

76. We note that the market will be highly concentrated post-Merger with at most only three options for MVNOs. The Merged Entity would be the second largest supplier of wholesale mobile services by subscribers and revenue, after VMO2.
A significant majority of the MVNOs we spoke to considered that the Merger would worsen competition.

77. We currently consider that the Merged Entity would have a reduced incentive to compete for MVNO opportunities than the Parties individually because the Merger will lead to the removal of the competitive constraint which the Parties currently exert on each other. We also consider that there may be an indirect effect resulting from the fact that the Merged Entity will have an expanded presence in the supply of retail mobile services, which may mean it may have less of an incentive to bid for wholesale business. If the Merged Entity were to act on these incentives by bidding less or offering less competitive terms, its rivals would experience an increase in demand for their services. This increase in demand may also provide rivals with incentives to compete less aggressively.

78. Against these findings, we have carefully considered the impact of those efficiencies which we consider are likely to result from the Merger. A number of the same considerations outlined above in relation to the Parties' claimed efficiencies in the retail market are also applicable to the wholesale market. In particular, we consider that, in light of our provisional conclusions about the overall reduction of rivalry in the wholesale market from the Merger, pricing terms offered to MVNOs are likely to be less competitive, and that while some network quality improvements will result these are more limited than is claimed by the Parties.

79. We also specifically asked MVNOs who expressed concerns about the Merger whether Beacon 4.1 (including the spectrum divestment to VMO2) changed their views about the likely overall impact of the Merger. Almost all said it did not.

80. For these reasons, we have therefore provisionally concluded that the Merger may be expected to result in an SLC in the wholesale market.

81. For completeness, as for the retail market, we have some doubts as to whether the full JNP would – if delivered – be sufficient to offset the adverse effects on competition in the wholesale market provisionally identified. As above, we invite submissions from the Parties and third parties in this respect.

… about the competitive impact of the Merged Entity's participation in both network sharing arrangements?

82. We considered the impact of the Merged Entity's participation in both network sharing arrangements on MNOs' collective incentives to invest and compete. In this context, we considered whether sharing of commercially sensitive information (eg data on investments, information on deployment plans, technical specifications or any other information which, in the context of a concentrated market, may facilitate the Merged Entity's prediction of its competitors' commercial strategy) between the Merged Entity and each of BTEE and VMO2, separately, may lead to competition concerns by reducing MNOs' incentives to invest.

83. As noted above, in the absence of the Merger, the Parties are each participants in one of the two network sharing arrangements, MBNL and Beacon. 3UK therefore has access to certain commercially sensitive information pertaining to BTEE through MBNL. Whilst certain teams within VUK have access to commercially sensitive information pertaining to VMO2, this information is ring-fenced from the retail, wholesale and strategy teams in particular.

84. Given there is already a certain level of information sharing pre-Merger between BTEE and 3UK, on the one hand, and VUK and VMO2, on the other hand we have focused on the potential Merger impact, ie whether the Merged Entity will have an incentive to combine the commercially sensitive information received through MBNL with the commercially sensitive information received through Beacon. Given the Merged Entity would only be able to share VMO2's information with its retail, wholesale and strategy teams by breaching the Beacon information sharing safeguards, we have considered whether post-Merger, the Merged Entity would have the incentive to breach the Beacon safeguards.

85. To assess this, we first considered the importance of the information shared within MBNL to the Merged Entity's investment plans. We found that given its position in MBNL, the Merged Entity may have some visibility as to certain types of information relating to BTEE's network, including its current configuration of sites, forecast rollout plans and high-level technology upgrade plans.

86. However, we provisionally consider that it is unlikely that this information shared via MBNL would be useful to informing the Merged Entity's investment plans given its limitations (including, for example, how far in advance the information is shared and the scale of information shared). It is therefore unlikely to lead to the Merged Entity reducing or postponing its investments.

87. Therefore, we consider that the potential benefit from combining the information the Merged Entity would receive on the MBNL side and the Beacon side is limited. Accordingly, we do not consider that the Merged Entity would have an increased incentive to breach the Beacon information sharing safeguards in order to share

VMO2's information with its retail, wholesale and strategy teams compared to VUK's current incentives in the counterfactual. Given this, we have not needed to assess the usefulness of the information currently being shared via Beacon.

88. For these reasons, we provisionally consider that the Merger does not give rise to an SLC resulting from the sharing of commercially sensitive information via the Merged Entity's participation in both network sharing arrangements.

… about any entry and expansion?

89. The CMA has seen no evidence of any scope for entry by MNOs due to high costs and the availability of spectrum. As regards MVNOs, the CMA currently believes that there are barriers to entry and/or expansion for MVNOs, including the high costs involved and challenges with negotiating and obtaining competitive commercial terms from MNOs. In any case, the CMA has not received evidence to indicate that any entry or expansion in response to the Merger would be timely, likely and sufficient to prevent the SLCs from arising.

PROVISIONAL CONCLUSIONS

90. We have provisionally concluded that the Merger constitutes arrangements in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.

91. We have provisionally concluded that there is scope for an SLC as a result of the creation of that situation in each of:

(a) the national (UK) market for the supply of retail mobile telecommunications services; and

(b) the national (UK) market for the supply of wholesale mobile telecommunication services.

92. We have also provisionally concluded that the Merger does not result in REEs that would offset the anticompetitive effects in either of these markets and that the Merger may therefore be expected to result in an SLC in each of these markets.

PROVISIONAL FINDINGS

1. THE REFERENCE

1.1 On 4 April 2024, the Competition and Markets Authority (**CMA**) in exercise of its duty under section 33(1) of the Enterprise Act 2002 (the **Act**), referred the anticipated joint venture between Vodafone Group plc (**Vodafone**) and CK Hutchison Holdings Limited (**CK Hutchison**) that will combine their UK telecoms businesses, respectively Vodafone Limited (**VUK**) and Hutchison 3G UK Limited (**3UK**) (the **Merger**) for further investigation and report by a group of CMA panel members (the **Inquiry Group**).[1] Vodafone and CK Hutchison are together referred to as the **Parties**. For statements relating to the future, the Parties' UK telecoms businesses are together referred to as the **Merged Entity**.

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

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

(b) if so, whether the creation of that RMS may be expected to result in a substantial lessening of competition (**SLC**) within any market or markets in UK for goods or services.[2]

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

1.4 We are required to prepare and publish our final report by 7 December 2024.[3]

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

1.6 This document, together with its appendices, constitutes the CMA's provisional findings published and notified to the Parties in line with the CMA's rules of procedure.[4] Further information relevant to this inquiry can be found on the CMA case page.[5]

[1] Section 33(1) of the Act.
[2] Section 36(1) of the Act.
[3] In accordance with section 39(1) of the Act, the CMA shall prepare and publish its final report withing a period of 24 weeks beginning with the date of the reference concerned. In accordance with section 39(4) of the Act, the statutory deadline was extended by 24 days as a result of the failure by CK Hutchison to comply with the requirements of a notice issued under section 109 of the Act. The statutory deadline was further extended by eight weeks pursuant to section 39(3) of the Act. For further information, see Appendix B on the conduct of the inquiry.
[4] CMA rules of procedure for merger, market and special reference groups (**CMA 17**), March 2014 (corrected November 2015), Rule 11.
[5] Vodafone/CK Hutchison JV case page.

2. THE PARTIES, THE MERGER AND THE MERGER RATIONALE

2.1 This chapter sets out:

(a) an overview of the Parties;

(b) the Merger; and

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

The Parties

Vodafone

2.2 Vodafone - listed on the London Stock Exchange – is the holding company of a group of companies providing mobile and fixed telecommunications services (such as broadband), principally across Europe and Africa.[6] Vodafone generated global revenues of approximately €37 billion (£32 billion[7]) in the financial year ended 31 March 2024.[8]

2.3 In the UK, Vodafone supplies retail mobile services to consumers and businesses and wholesale mobile services through its wholly-owned subsidiary VUK and operates under the Vodafone brand and the VOXI and Talk Mobile sub-brands. VUK had a UK turnover of approximately €6,837 million (£5,900 million[9]) for the financial year ended 31 March 2024.[10]

CK Hutchison

2.4 CK Hutchison – listed on the Stock Exchange of Hong Kong Limited – is a multinational conglomerate operating in about 50 countries across four core businesses: ports and related services, retail, infrastructure and telecommunications. CK Hutchison generated global revenues of approximately HK$462 billion (£47 billion[11]) in the year ended 31 December 2023, of which 17% were generated in the UK.[12]

2.5 CK Hutchison's telecommunications business consists of its wholly-owned subsidiary CK Hutchison Group Telecoms Holdings Limited. In the UK,

[6] Parties' Final Merger Notice (**FMN**).
[7] Using the average ECB exchange rate for EUR vs. GBP of 0.86300 for the period from 1 April 2023 to 31 March 2024.
[8] Vodafone 2024 Annual Report, page 21, accessed by the CMA on 2 August 2024.
[9] Using the average ECB exchange rate for EUR vs. GBP of 0.86300 for the period from 1 April 2023 to 31 March 2024.
[10] Vodafone 2024 Annual Report, page 24, accessed by the CMA 2 August 2024.
[11] Using the UK Office for National Statistics' average exchange rate for GBP vs HKD of 9.7342 for the period from 1 January 2023 to 31 December 2023.
[12] CK Hutchison 2023 Annual Report, pages 4 and 6, accessed by the CMA on 2 August 2024.

CK Hutchison supplies retail mobile services to consumers and businesses and wholesale mobile services through its wholly-owned subsidiary 3UK, operating under the Three brand and the SMARTY sub-brand. 3UK, a wholly-owned subsidiary of CK Hutchison, had a UK turnover of £[✂] million for the year ended 31 December 2023.[13]

The Merger

2.6 On 14 June 2023, Vodafone and CK Hutchison entered into a contribution agreement (the **Contribution Agreement**)[14] relating to the establishment of a joint venture.[15] Pursuant to the terms of the Contribution Agreement, on completion, CK Hutchison will hold 49% of the issued share capital of Vodafone UK Trading Holdings Limited, the joint venture vehicle which is currently indirectly wholly owned by Vodafone (the **JV entity**); Vodafone will hold 51% of the issued share capital of the JV entity; and each of VUK and 3UK will sit as a wholly-owned subsidiary of the JV entity.[16]

2.7 Vodafone and CK Hutchison have agreed a put/call framework pursuant to which Vodafone may acquire 100% of the JV entity in the future. After a lock-up period of three full financial years following completion of the Merger, Vodafone may acquire CK Hutchison's 49% stake in the JV entity, and CK Hutchison may sell its 49% stake in the JV entity to Vodafone subject to certain conditions being met, including the fair market value of the Merged Entity reaching a minimum enterprise value of £16.5 billion.[17] If the options were exercised, [✂].[18]

2.8 On 9 May 2024, the Secretary of State approved the Merger, subject to certain conditions pursuant to section 26 of the National Security and Investment Act 2021.[19]

The rationale

2.9 The Parties submitted that the strategic and economic rationale for the Merger is as follows:[20]

(a) the UK currently lags behind other countries in terms of 5G infrastructure, roll out and performance due to a bifurcated market structure, with two strong

[13] Freshfields Bruckhaus Deringer LLP email to the CMA.
[14] Vodafone internal document.
[15] FMN.
[16] FMN.
[17] The requirement for this minimum threshold to be satisfied falls away in respect of CK Hutchison's put option following the seventh full financial year following completion of the Merger (FMN); Merger of Vodafone UK & Three UK to create one of Europe's leading 5G Networks, 14 June 2023, accessed by the CMA on 13 August 2024.
[18] Vodafone internal document.
[19] Merger between Hutchison 3G UK Holdings Limited and Vodafone Limited: notice of final order, 9 May 2024, accessed by the CMA on 2 August 2024.
[20] FMN.

converged players (BTEE and VMO2) and two weak players (VUK and 3UK).[21] VUK and 3UK are both sub-scale, earning unsustainable returns and at a growing disadvantage to invest and compete against BTEE and VMO2, who face insufficient competitive pressure to invest what would be required for the UK to compete globally on 5G roll-out and network quality;[22]

(b) absent the Merger, VUK's and 3UK's lack of scale will further impede their ability to compete;[23]

(c) VUK and 3UK need greater scale to address the investment challenge posed by the need to deploy Advanced 5G and address explosive growth in data traffic;[24] and

(d) by bringing together the complementary assets (including spectrum and sites) and increasing the investment capacity of VUK and 3UK, the Merger will create a stronger third network operator that will invest in a 'best-in-class' network which will force BTEE and VMO2 to invest more. This will in turn bring significant benefits to customers – consumers, businesses and public sector organisations – to competition and to the wider UK economy.[25]

2.10 Whilst most of the Parties' internal documents discussing the Merger available to us are broadly in line with their stated strategic and economic rationale, we believe that limited weight can be placed on such documents.[26] Discussions in relation to the Merger commenced between the Parties in [✂] and as early as [✂], Vodafone had already worked to build 'a strategic narrative' and a 'targeted external communications plan required to secure UK political and regulatory support' for a potential combination of VUK and 3UK, suggesting that any Merger rationale documents after that date may be influenced by the Parties' regulatory objectives.[27]

[21] FMN.
[22] FMN.
[23] FMN.
[24] FMN.
[25] FMN.
[26] Merger Assessment Guidelines (**CMA129**), March 2021, paragraph 2.29(a).
[27] Vodafone internal documents. CK Hutchison internal documents.

3. RELEVANT MERGER SITUATION

3.1 Section 36 of the Act and our terms of reference require that we investigate and report on two statutory questions:

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

(b) if so, whether the creation of that RMS may be expected to result in an SLC within any market or markets in the UK for goods or services.[28]

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

Enterprises ceasing to be distinct

3.3 The first element of the RMS test in section 23 of the Act provides that an RMS will be created if, as a result of the Merger, two or more enterprises cease to be distinct.[29]

3.4 The Act defines an 'enterprise' as 'the activities, or part of the activities, of a business'. A 'business' is defined as including any undertaking 'which is carried on for gain or reward or which is an undertaking in the course of which goods or services are supplied otherwise than free of charge'.[30]

3.5 The activities of Vodafone, CK Hutchison, VUK and 3UK are described in Chapter 2, The Parties. In light of those activities, we are satisfied that each of Vodafone, CK Hutchison, VUK and 3UK is an enterprise within the meaning of the Act.

3.6 Section 26 of the Act provides that any two enterprises cease to be distinct if they are brought under common ownership or common control. It distinguishes between three levels of control (in ascending order): material influence, *de facto* control and a controlling interest (also referred to as d*e jure* or legal control).[31]

3.7 The background to the Merger is described in Chapter 2, The Merger. As a result of the Merger, Vodafone will hold 51% of the issued share capital in the JV Entity, and CK Hutchison will hold the other 49%.[32]

3.8 Regarding levels of control, the CMA considers that:

[28] Section 36 of the Act.
[29] Section 23(1)(a) of the Act.
[30] Section 129(1) and (3) of the Act.
[31] Section 26(3) of the Act.
[32] FMN.

(a) Vodafone will have a controlling interest in the JV Entity given it will hold a majority of the voting rights; and

(b) CK Hutchison will be able to exercise at least material influence over the JV Entity. This is on the basis that it will hold 49% of the voting rights, have the ability to appoint half of the directors on the JV Entity's board of directors,[33] and have [✂] rights at the board and shareholder level over a large set of policy matters (including budgeting, finance, branding, and further acquisitions).[34]

3.9 As a result of the acquisition by Vodafone of a controlling interest in the JV Entity, 3UK will cease to be distinct from enterprises controlled by Vodafone. As a result of the acquisition by CK Hutchison of the ability to exercise material influence over the JV Entity, VUK will cease to be distinct from enterprises controlled by CK Hutchison.

3.10 We have therefore provisionally found that arrangements are in progress or contemplation which, if carried into effect, will result in the following enterprises ceasing to be distinct under the Act: (i) Vodafone (including VUK) and 3UK; and (ii) CK Hutchison (including 3UK) and VUK.

Turnover test

3.11 The second element of the RMS test in section 23 of the Act seeks to establish whether the Merger has sufficient connection with the UK on the basis of turnover or share of supply.[35]

3.12 The turnover test is satisfied where the value of the turnover in the UK of the enterprise being taken over in its last business year[36] exceeds £70 million.[37] In a situation where two companies form a joint venture, each parent with control is considered as 'taking over' the target business contributed to the joint venture by the other parent. The relevant turnover is the sum of the turnover of each of the contributed businesses.[38]

3.13 The combined UK turnover of the businesses contributed to the Merged Entity exceeded £70 million in the last financial year, as referred to in Chapter 2, The Parties. We are therefore satisfied that the turnover test in section 23(1)(b) of the

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[33] Vodafone internal document.
[34] Vodafone internal document.
[35] Section 23 of the Act.
[36] If a merger has not yet taken place, the turnover test applies to the turnover of the acquired enterprise that was generated in relation to customers within the UK in the business year preceding the date of the reference for a phase 2 investigation or such earlier date as the CMA considers appropriate. See Enterprise Act 2002 (Merger Fees and Determination of Turnover) Order 2003, article 11(2).
[37] Section 23(1)(b) of the Act.
[38] Mergers: Guidance on the CMA's jurisdiction and procedure (**CMA2 revised**), January 2021 (as amended on 4 January 2022), paragraph 4.54(b).

Act is met. As we have provisionally concluded the turnover test is met, there is no need to consider whether the share of supply test is also satisfied.

Provisional conclusion on RMS

3.14 In light of the above, we have provisionally found that the Merger constitutes arrangements in progress or in contemplation which, if carried into effect, will result in the creation of an RMS. This means that the CMA has jurisdiction to review the Merger. As a result, we must consider whether the creation of that situation may be expected to result in an SLC within any market or markets in the UK for goods or services.

4. COUNTERFACTUAL

Introduction

4.1 Determining whether there is an SLC in the assessment of a merger involves a comparison of the prospects for competition with the merger against the competitive situation without the merger, which is referred to as the counterfactual.[39]

4.2 This chapter sets out our provisional decision on the appropriate counterfactual to apply in our assessment of the Merger. The chapter covers:

(a) Our framework for the assessment of the counterfactual;

(b) The Parties' submissions on the relevant counterfactual;

(c) Our assessment of the appropriate counterfactual in this case; and

(d) Our provisional decision as to the appropriate counterfactual.

Relevant framework

4.3 The counterfactual may consist of the prevailing conditions of competition, or conditions of competition that involve stronger or weaker competition between the merger firms than under the prevailing conditions of competition. The appropriate counterfactual may increase or reduce the prospects of an SLC finding by the CMA.[40]

4.4 The counterfactual is not intended to be a detailed description of the conditions of competition that would exist absent the merger and, in determining the counterfactual, the depth of our analysis is usually not to the same level as in the competitive assessment.[41] This is because establishing the appropriate counterfactual to assess the merger against is an inherently uncertain exercise, and evidence relating to future developments absent the merger may be difficult to obtain.[42]

4.5 As a result of these limitations, we consider the counterfactual in a broad sense and focus on significant changes to conditions of competition where there are reasons to believe that those changes would materially impact the competitive

[39] CMA129, paragraph 3.1.
[40] CMA129, paragraphs 3.2.
[41] CMA129, paragraphs 3.6-3.7.
[42] CMA129, paragraph 3.14.

assessment.[43] These changes may include, for example, entry or expansion by one or both of the merger firms, or market exit by one of the merger firms.[44]

4.6 Our assessment of the counterfactual does not seek to ossify the market at a particular point in time.[45] An assessment based on the prevailing conditions of competition can reflect that, absent the merger, the position of the merging parties and their competitors would have continued to change and evolve in the market over time.

4.7 At phase 2, we make an overall judgement as to whether or not an SLC has occurred or is likely to occur.[46] To help make this assessment, we select the most likely conditions of competition as the counterfactual against which to assess the merger. In some instances, we may need to consider multiple possible scenarios before identifying the relevant counterfactual. In doing this, we will consider whether any of the possible scenarios make a significant difference to the conditions of competition and, if any do, we will find the most likely conditions of competition absent the merger as the counterfactual.[47]

Parties' submissions

4.8 The Parties submitted that they currently do not have the ability or incentive to invest in delivering high quality mobile networks which in turn means BTEE and VMO2 face limited pressure to accelerate their own mobile network investments.[48] The Parties submitted that the relevant counterfactual against which to assess the Merger is one in which the market will become increasingly bifurcated between:

(a) two scaled MNOs (BTEE and VMO2) who will continue to earn returns above their cost of capital, generate the lion's share of the mobile industry's cashflows, and will have the ability (but not the incentive) to make the investments required to innovate, deploy Advanced 5G at scale and meet the growing customer demand for data;[49] and

(b) the Parties, who will each continue to earn insufficient returns and generate a negligible share of mobile cashflows. In the counterfactual, neither Party will be able to deliver the network quality, coverage and capacity that would be required to compete effectively both at retail and wholesale levels.[50] The

[43] CMA129, paragraphs 3.9.
[44] CMA129, paragraphs 3.8-3.9.
[45] CMA129, paragraph 3.3.
[46] '[it] is not necessary for the [CMA] to isolate each step in the analytical process and to apply the balance of probability separately at each stage [of the SLC assessment]', BSkyB and Virgin Media v Competition Commission and BERR [2010] EWCA. Civ 2, paragraph 69.
[47] CMA129, paragraph 3.13.
[48] FMN.
[49] FMN.
[50] FMN.

Parties told us that an inability to invest [✂] limits the Parties' ability to challenge the market leaders.[51]

4.9 The Parties also submitted their views of the UK mobile market, in particular, how it lags behind other nations in 5G roll out, the nature of network investment and the financial challenges that 3UK and VUK face as a result of the dysfunctional structure of the UK market.[52] For a full overview of these submissions, please see Chapter 8.

Our assessment

4.10 As noted above, an assessment of the counterfactual is not intended to be a detailed description of the conditions of competition that would prevail absent the merger. Such descriptions are better considered as part of the competitive assessment. In our appraisal of the counterfactual, we have focused on significant potential changes to the market and its structure that could impact our competitive assessment.

4.11 CMA129 highlights three specific examples of situations where the CMA may use a different counterfactual to the prevailing conditions of competition. These are:[53]

(a) entry or expansion by one of the merger firms;

(b) the exiting firm scenario; and

(c) where there are competing bids.

4.12 The Parties have not made any claims with respect to scenarios (a) and (c) above.

4.13 With respect to (b), the exiting firm scenario, whilst the Parties have made claims that the Parties are 'sub-scale', the exiting firm scenario requires the CMA to see evidence that one of the Parties is likely to have exited the market (through failure or otherwise) absent the Merger. The Parties' submissions that they are sub-scale do not amount to an exiting firm scenario.

4.14 Further, in response to the Issues Letter at phase 1, the Parties specifically told the CMA that they are not submitting that 3UK (or VUK) is a failing firm, and submitted that the Parties do not need to be failing firms for the appropriate counterfactual to be weaker conditions of competition going forward.[54] [✂].

4.15 The Parties' submissions on the counterfactual focus on the current and future dynamics of the market, in particular their submission that these dynamics will lead

[51] Parties' initial submission, 1 May 2024, paragraph 1.3 (ii), page 2.
[52] Parties' initial submission, 1 May 2024.
[53] CMA 129, paragraph 3.16.
[54] Parties response to the phase 1 Issues Letter.

to an increasingly 'bifurcated' market with only two MNOs with the scale to compete effectively and the Parties' position in the market deteriorating over time.

4.16 To determine the appropriate counterfactual we are required to focus on significant market changes and conclude on the counterfactual conditions of competition broadly.[55] The Parties' submissions on their scale and the state of UK 5G roll-out go beyond an assessment of the counterfactual in a broad sense but seek to describe in detail the Parties' view of current market dynamics. Further, the Parties' submissions do not suggest the structure of the market would be different in the counterfactual. For these reasons, we do not consider the Parties' submissions to be relevant for determining the broad counterfactual against which to assess the Merger.

4.17 It is clear that mobile markets regularly go through significant changes. The UK market is currently going through a number of changes, such as the roll out of NSA-5G, 5G-SA, projected strong growth in mobile data demand,[56] growth in MVNOs and the introduction of e-SIMs, among others. Such changes can alter market dynamics and new technologies can have a significant impact on levels of investment. We also understand that changes to the competitive landscape can occur over a number of years in the UK mobile market and that an MNO's investment plans are often considered over a significant time horizon.[57] In the context of the UK mobile industry, the prevailing conditions of competition are therefore likely to encompass significant change and evolution over time with the position of individual competitors also changing over time.

4.18 Whilst we cannot determine with certainty how current market wide changes will impact the market, we can take into account such changes in our competitive assessment where there is supporting evidence.

4.19 Based on our view that the Parties' submissions are more relevant to the competitive assessment and do not suggest an alternative structure for the market, our provisional decision is that the most appropriate counterfactual against which to compare the Merger is that of prevailing conditions of competition, and we will take account of developments in the market in the competitive assessment where relevant and where supporting evidence exists.

4.20 Our provisional decision that the prevailing conditions of competition is the appropriate benchmark against which to assess the Merger does not dismiss the Parties' submissions with regards to the current state of competition and investment, and how this might affect competition today and going forward. As CMA129 sets out, a conclusion of prevailing conditions does not ossify the market

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[55] CMA 129, paragraph 3.9.
[56] Discussion paper: Meeting future demand for mobile data (ofcom.org.uk), accessed by the CMA on 10 June 2024.
[57] Three UK told us that [✂] and Vodafone UK told us that [✂]. Parties' response to the CMA's request for information (**RFI**).

at a particular point in time.[58] We are able to take into account foreseeable changes in the market, which may increase or decrease the likelihood of finding an SLC, in the competitive assessment.

4.21 Our view is therefore that the Parties' submissions on network investment, their weak competitive positions and scale should be taken into account in our competitive assessment (please see the Chapter 8 and in particular, the competitive position section).

[58] CMA129, paragraph 3.3.

5. INDUSTRY BACKGROUND

Introduction

5.1 This chapter sets out background information on the UK mobile telecommunications sector relevant to our assessment of the Merger. The chapter is split into the following subsections:

(a) Overview of mobile services;

(b) Technological developments;

(c) Fixed-mobile convergence and bundling; and

(d) Mobile telecommunications services providers.

Overview of mobile services

5.2 Mobile services play an integral role in the daily lives of consumers and businesses in the UK. The UK telecoms sector generated £32.8 billion in revenue in 2023, with retail mobile services generating £13.7 billion in revenue, and wholesale fixed and mobile services jointly generating £5.1 billion. Mobile services accounted for 49.4% of total retail revenues in 2023, which amounted to £27.7 billion,[59] up from 48.4% in 2022. The total number of mobile subscriptions increased by nearly 3% to almost 90 million in 2023, 84.3 million of which were mobile phone subscriptions and 4.8 million were data only subscriptions.[60]

5.3 Ofcom is the communications regulator in the UK and publishes key data on the telecommunications industry.[61] Based on Ofcom's most recent publications, the telecommunications industry in the UK is a historically well-developed and mature market.[62]

5.4 In the last ten years, there has been a significant shift towards the use of mobile devices in UK consumers' everyday lives, both at home and at work.

(a) 97% of UK adults are estimated to have a mobile phone, and 92% a smartphone.[63]

[59] Retail fixed services made up the remaining £14.0 billion in revenue (Ofcom Communications Market Report, July 2024, page 4).
[60] Ofcom Communications Market Report, July 2024, page 4; Communications Market Report 2024: Interactive data, July 2024, accessed by the CMA on 9 August 2024.
[61] Recent noteworthy publications include: Ofcom Connected Nations; UK Report 2023, December 2023; and Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022.
[62] Similarly, the European Commission found that the UK has traditionally had a well-developed telecommunications sector, Case M.7612 *Hutchison 3G UK/Telefónica UK*, recitals 48 and 54.
[63] Communications Market Report 2024: Interactive data, July 2024, accessed by the CMA on 9 August 2024.

(b) Most calls are now made from mobile phones rather than landlines,[64] with the total volume of outgoing calls from fixed and mobile lines having decreased by 38.3 billion minutes (17%) since 2013.[65]

(c) The use of SMS and MMS messaging has plunged since 2013, by 97 billion messages (75%), driven by the growing use of over-the-top messaging services such as WhatsApp, iMessage and Facebook Messenger.[66]

(d) In May 2023, UK adults spent on average 2 hours and 47 minutes a day online on their smartphones, with 89% of the time spent being via apps.[67]

(e) Average monthly data volumes per mobile data user[68] reached 9.9 gigabytes (**GB**) per month in 2023, up from 2.6GB in 2017.[69]

Mobile services subscriptions

5.5 Traditionally, mobile services subscriptions have either been post- or pre-paid.

(a) Post-paid (pay-monthly or **PAYM**) subscriptions are those for which the customer is billed for the cost of any service after usage. PAYM subscriptions are for a minimum contract period (eg 12 or 24 months).

(b) Pre-paid (pay-as-you-go or **PAYG**) subscriptions are those for which customers pay in advance by topping up their phone with credit, and the charges for use are subtracted from this balance.

5.6 A new form of pre-paid subscription has emerged in recent years with the introduction of **hybrid PAYG tariffs**. As is the case with traditional PAYG services, these tariffs do not involve credit checks, or a minimum contract period and any use outside the inclusive allowance is deducted from a pre-pay credit balance. However, with these tariffs customers may set up a recurring card payment and choose an inclusive allowance of calls, text, and data that refreshes automatically each month, similar to a PAYM subscription. Ofcom recently estimated that of the pre-pay tariffs available in Pure Pricing's September 2023 Monthly Mobile Pricing report, 96% were hybrid PAYG tariffs.[70]

5.7 Mobile services can be offered to customers as:

[64] 88% of call volumes originated on mobile networks in 2023 against 59% in 2013 (Communications Market Report 2024: Interactive data, July 2024, accessed by the CMA on 9 August 2024).
[65] Communications Market Report 2024: Interactive data, July 2024, accessed by the CMA on 9 August 2024.
[66] Communications Market Report 2024: Interactive data, July 2024, accessed by the CMA on 9 August 2024.
[67] Ofcom, Online Nation 2023 Report, November 2023, Figure 4 and page 14.
[68] Excluding machine-to-machine.
[69] Communications Market Report 2024: Interactive data, July 2024, accessed by the CMA on 9 August 2024.
[70] Ofcom pricing trends for communications services in the UK, December 2023, page 28.

(a) SIM-only (**SIMO**) subscriptions, where the customer receives a physical SIM card or eSIM and an inclusive allowance of mobile, data and texts from their mobile provider but not a device (handset) to use them with;[71] or

(b) pay-monthly mobile subscriptions that include airtime and a handset, either in a combined or split contract (**PAYM handset**).

5.8 In 2023, post-pay mobile subscriptions accounted for 80% of all mobile subscriptions.[72] Ofcom observed that the number of pre-pay mobile subscriptions increased in 2022 for the first time in over a decade, due to the growing take-up of hybrid PAYG tariffs.[73] As at the end of Q2 2023, Ofcom estimated that SIMO subscriptions were the most frequently used type of service, representing 41% of total mobile subscriptions,[74] (up three percentage points from 2022), whereas PAYM handset tariffs accounted for 37% (down six percentage points from 2022).[75] Ofcom considers that a key driver of this shift is consumers using their mobile handsets for longer to reduce their mobile spend, meaning that at the end of a combined airtime and handset contract, many customers continue to use the same handset and move to a SIMO subscription.[76]

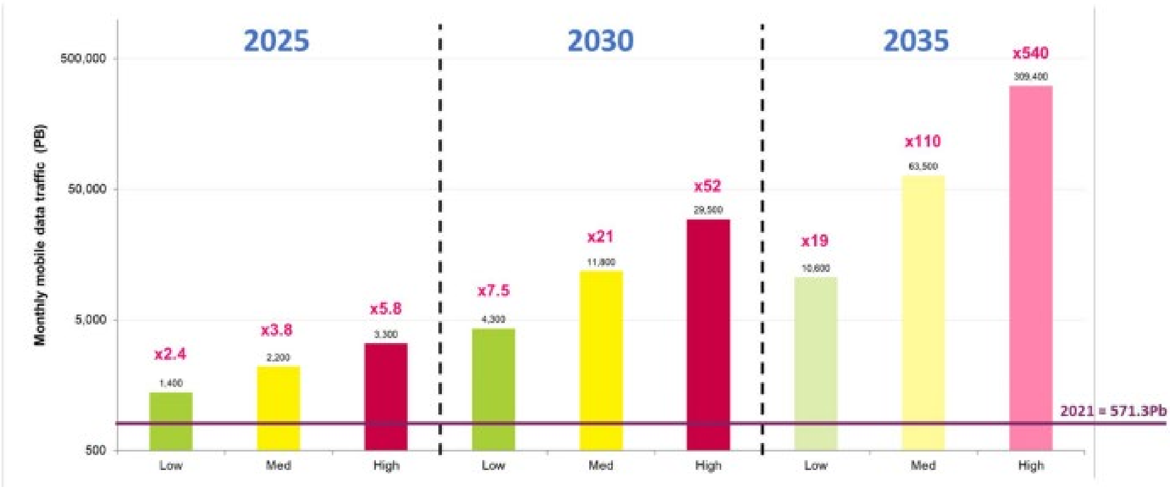
Mobile data traffic growth

5.9 Mobile internet access has become an essential service for people and businesses and Ofcom expects demand for mobile data to grow to meet changing customer needs, as greater use is made of data-hungry services (eg streaming, video calling, virtual and augmented reality) and as new technologies enable new uses (eg robotics, smart cities and in healthcare with remote monitoring and diagnosis), although the rate of potential growth is uncertain.[77] The uncertainty about the future rate of growth of mobile data itself reflects uncertainty over future applications and technology developments (eg 5G) and the extent to which customers will use national mobile networks, private mobile networks and Wi-Fi to meet their connectivity needs.[78] Notwithstanding, Ofcom noted that significant investments in mobile networks will be required to increase capacity and provide the network quality needed to meet customers' future connectivity needs.[79]

[71] SIMO subscriptions can either be pre-paid (traditional or hybrid) or post-paid, and can also be offered as a data-only packages.
[72] Communications Market Report 2024: Interactive data, July 2024, accessed by the CMA on 9 August 2024.
[73] Ofcom Communications Market Report, July 2023, page 2.
[74] Ofcom pricing trends for communications services in the UK, December 2023, page 26. We understand that the 41% figure does not include pre-pay SIMO subscriptions.
[75] Ofcom pricing trends for communications services in the UK, December 2023, page 5.
[76] Ofcom pricing trends for communications services in the UK, December 2023, page 26.
[77] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraph 1.1.
[78] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraph 4.4.
[79] Including through technology upgrades to increase the amount of data that can be carried over a given amount of spectrum and increasing the number of sites in areas where additional capacity is needed (including through the deployment of small cells and millimetre Wave spectrum). See Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraphs 1.8, 4.8 and 4.10.

5.10 In light of the uncertainty highlighted in the previous paragraph, Ofcom considered three different scenarios for growth in mobile traffic up to 2035 (see Figure 5.1 below), noting that these are intended to cover a wide range of possible growth rates to account for the uncertainty in future growth paths, and are neither forecasts nor predictions.[80]

Figure 5.1: Ofcom three estimated scenarios for data traffic growth



Source: Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, Figure 4.1.

5.11 In the same report, Ofcom indicated that data growth in the UK for 2022 fell below the previous year-on-year growth trend of around 40%, and noted that it was too early at that point to assess whether this marked a new trend of lower data growth, but that the growth rates towards the top of Ofcom's range of scenarios seemed less likely in the next few years.[81]

5.12 Recent quarterly telecommunications market data updates released by Ofcom indicate that in the last two years mobile data volumes have continued to increase, albeit at a slower rate, with data volumes growing by 24.1% between 2023 and 2022, compared to 26.4% between 2022 and 2021.[82]

5.13 Several third parties told the CMA that as data demand continues to grow, the MNOs need to continue to invest to keep up with this demand.[83] However, some third parties also noted that 5G standalone (see section 5G below) is not currently

[80] Ofcom's future approach to mobile markets and spectrum Conclusions paper, 6 December 2022, paragraph 4.5 and footnote 54.
[81] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraphs 1.1, 1.4, and 4.7.
[82] Ofcom's Telecommunications Market Data Update Q4 2023, page 14, Table 2; and Telecommunications Market Data Update Q4 2022, page 16, Table 2.
[83] For example, Professor Stephen Temple response to the issues statement, 16 May 2024, page 4; and [✂] meeting slides.

being demanded by a significant proportion of customers and this demand may be some years away.[84]

Technological developments

5G

5.14 5G is the new, fifth generation of mobile network technology. Every generation of new wireless technologies leads to the development of new applications and services that make use of its capabilities. For example, 3G led to the launch of smartphones and 4G enabled video-streaming on mobile devices that was previously impossible on 2G. In the same way, 5G may lead to the development of new applications, as further discussed below.

5.15 In the UK, the roll-out of 5G is primarily led by MNOs who choose when and where they roll out services. 5G infrastructure can also be delivered by neutral hosts (or tower companies) which build passive infrastructure (such as towers and masts) and then lease access to MNOs, but which do not offer mobile services themselves. Private 5G networks can be provided by network operators other than the MNOs.[85]

5.16 MNOs began rolling out 5G in 2019,[86] by deploying non-standalone 5G (**NSA 5G**). Ofcom found that competition between MNOs has been driving investment in 5G and has been initially focused on improving network capacity to meet demand in congested urban areas.[87] NSA 5G uses 5G equipment for the RAN (which transmits wireless signals to user devices such as smart phones using base stations and antennas), radiating both 5G and 4G combined, but relies on 4G legacy infrastructure for the core network (which manages control and signalling information, thereby enabling connectivity to the wider internet).[88] NSA 5G delivers improvements to the network, in particular an increase in capacity, which supports the current uses of mobile services such as video streaming, gaming and general

[84] BT response to the issues statement, 16 May 2024, paragraph 2.42; [✂] call note; and [✂] call note.
[85] A private network is a mobile network that has been dedicated to a closed group of people and/or devices, and its features can be configured to meet specific customer needs (eg performance and security) (House of Commons Library, Research Briefing, 5G in the UK, 8 March 2024, page 9; Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraphs 1.11, 4.43, 4.55, A3.2, A3.15).
[86] EE becomes first network to take 5G to 50% of UK population, 10 May 2022, accessed by the CMA on 5 August 2024; Three UK continues rollout of 5G across the UK, 30 November 2020, accessed by the CMA on 5 August 2024; One year on from 5G launch, Vodafone first to showcase next phase of 5G technology, 3 July 2020, accessed by the CMA on 5 August 2024.
[87] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraph 3.11. This is consistent with the Parties' internal documents which show VUK monitoring the NSA 5G roll-out of 3UK, BTEE and VMO2 (for example, Vodafone internal document). 3UK views its NSA 5G roll-out as [✂] (CK Hutchison internal document).
[88] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, A1 Glossary; House of Commons Library, Research Briefing, 5G in the UK, 8 March 2024, page 8.

web browsing.[89] However, the more advanced use cases envisioned for 5G will require 'standalone' networks.[90]

5.17 5G technology is expected to have three main differences compared to 4G: faster speeds, greater capacity (the ability to connect very large numbers of devices in a small area, at one time) and low latency (ie the time between instructing a wireless device to perform an action and that action being completed) which means that 5G is also more responsive.[91] These features mean that 5G has the potential to support a variety of uses, including 'smart' applications, beyond mobile broadband, for example in e-healthcare, smart cities, connected vehicles, and automated manufacturing.

5.18 5G standalone (**5G SA**) utilises dedicated 5G equipment in all parts of the network (ie a 5G core network and 5G RAN infrastructure).[92] 5G SA can offer broader capabilities than existing NSA 5G networks, including very high responsiveness (ultra-low latency), advanced network slicing functions,[93] and potentially improved coverage. These capabilities, in particular very high responsiveness, may be required to enable certain new applications over mobile, such as advanced augmented reality or virtual reality and robotic applications over mobile networks (although they can also be delivered by other technologies such as Wi-Fi).[94]

5.19 Some of the available literature relating to 5G refers to the notion of 'advanced 5G', although this is not a term used in Ofcom's conclusions paper on future approach to mobile markets and spectrum.[95] The UK Government's April 2023 UK Wireless Infrastructure Strategy (the **Wireless Infrastructure Strategy**) reports that advanced 5G, building on 5G SA, will likely include use of artificial intelligence and machine learning techniques to further optimise network performance and support for extended reality applications.[96] In their submissions, the Parties noted that advanced 5G is a 5G network with enhanced capabilities beyond connectivity and achieved through a combination of (i) 5G SA, (ii) widespread deployment of C-

[89] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, footnote 98.
[90] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraph 4.8; House of Commons Library, Research Briefing, 5G in the UK, 8 March 2024, page 8.
[91] Ofcom, What is 5G?, 16 June 2023, accessed by the CMA on 5 August 2024; House of Commons Library, Research Briefing, 5G in the UK, 8 March 2024, page 6. 5G networks have enabled access to increased bandwidth and more efficient use of radio spectrum, resulting in faster download speeds and lower latency. Due to their use of higher frequency spectrum bands, 5G networks also make greater use of mMIMO antenna technology, which enhances network capacity, signal quality and energy efficiency by simultaneously serving multiple users and accurately directing signals (FMN).
[92] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, A1 Glossary; House of Commons Library, Research Briefing, 5G in the UK, 8 March 2024, page 4.
[93] Network slicing is a feature of 5G SA networks that allows an MNO to create multiple virtual networks (slices) on top of its common shared physical infrastructure. The virtual networks are then customised to operate with specific quality of service and meet the specific needs of applications, services, devices, customers or operators.
[94] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraph 4.8.
[95] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022.
[96] DSIT, Policy paper, UK Wireless Infrastructure Strategy, April 2023, Table 2.

band spectrum, (iii) high-bandwidth backhaul, and (iv) a low latency network architecture.[97]

5.20 5G use cases can be grouped into three broad categories which are illustrated in Figure 5.2 and discussed in more detail below:

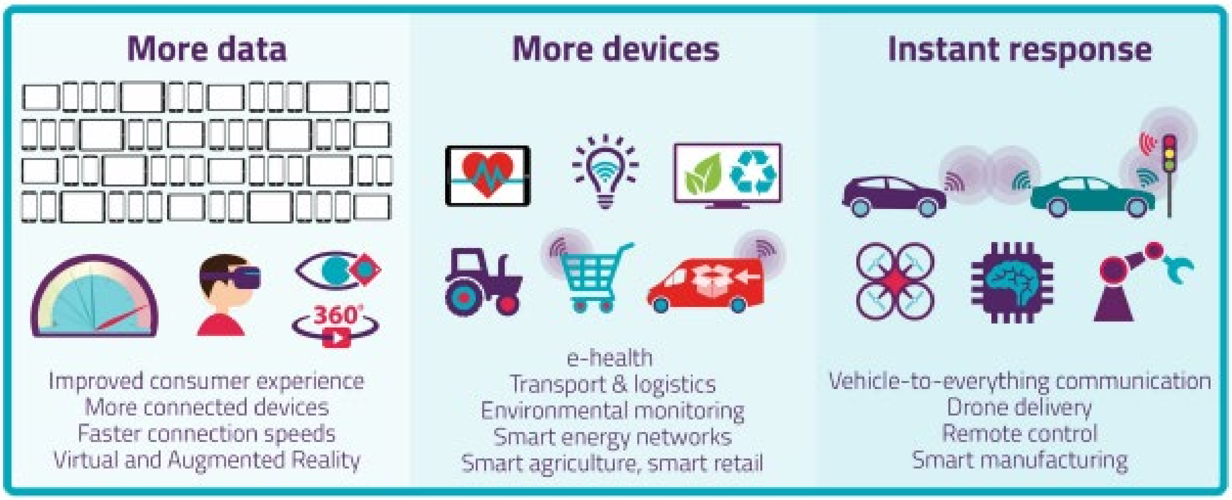
(a) Enhanced mobile broadband (more data): this means an evolution of the 4G services already used, including improved consumer experience (such as a more reliable service), more connected devices and faster connection speeds. 5G may also be used for wireless home broadband (**FWA**) and could support virtual and augmented reality technology;

(b) Massive machine type communications (more devices) – this means that 5G is expected to support many internet-connected devices and applications (Internet of Things or **IoT**).[98] 5G is expected to be the networking technology that supports the IoT in the future, due to its low latency and capacity to support many devices at any one time. Examples of possible uses include smart energy meters and thermostats, remote health monitoring, vehicle tracking, smart bins that send warnings when they are full, smart fridges that can tell how much food is left or order replacement items that have run out.

(c) Ultra-reliable low-latency communications (instant response): this means that 5G will be able to support near real-time communications applications with high reliability, including tactile internet, remote control and autonomous vehicles. Applications may include driverless vehicles, drone delivery, smart manufacturing, remote surgeries, wireless robots and machinery, and emergency response and management.[99]

[97] The Parties further submitted that while advanced 5G can, in theory, be deployed using a range of different spectrum bands, the widespread use of C-band spectrum is an essential prerequisite to support advanced use cases (FMN).
[98] The IoT refers to a network of connected devices that talk directly to each other without needing to interact with human beings.
[99] Ofcom, Enabling 5G in the UK, March 2018, section 3 'Benefits of 5G'; House of Commons Library, Research Briefing, 5G in the UK, 8 March 2024, section 1.2 'What can 5G be used for?'. The UK Telecoms Innovation Network has webpages discussing 5G applications in key sectors including healthcare, manufacturing and agriculture (UKTIN, How To Deploy Advanced Connectivity Solutions, accessed by the CMA on 16 August 2024).

Figure 5.2: Expected 5G use cases



Source: Ofcom, Enabling 5G in the UK, March 2018, Figure 1.

5.21 Most of these applications are still developing in terms of technology and business cases supported, for example, by government funding.[100] While the societal and economic impact of 5G is difficult to predict, a study by Analysys Mason, commissioned by the Department for Science, Innovation and Technology (**DSIT**) projected a cumulative gross value added (**GVA**) ranging between £41 billion and £243 billion over 2021 to 2035 depending on how widely 5G is adopted.[101]

5.22 As of December 2023, 4G continues to provide the backbone of consumers' mobile experience in the UK.[102] Notwithstanding, Ofcom reported that 5G availability (almost all of which is delivered using NSA 5G technology) is gathering pace though it varies by MNO and by geography,[103] and that it is now beginning to see the transition to mobile 5G SA rollouts, with around 2,000 5G SA sites deployed commercially in 2023.[104] VUK has started deploying a limited 5G SA network focused on urban areas in London, Manchester, Glasgow and Cardiff under 'Vodafone 5G Ultra' and has plans to [✂] absent the Merger.[105] 3UK has [✂] absent the Merger.[106]

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100 In 2017, the UK Government initiated the 5G Testbeds and Trials programme, a £200 million nationally coordinated programme of investment in 5G. To date, the programme has invested in a wide range of projects from testing healthcare applications in Liverpool to delivering the world's first 5G music lessons, connecting musicians in Bristol and London to play together (DSIT, Policy paper, UK Wireless Infrastructure Strategy, April 2023).
101 Analysys Mason, Realising the benefits of 5G, August 2021, chapter 8.2. £243 billion is the GVA of £159 billion in the 'general purpose technology' scenario, where around 70% of firms adopt 5G, plus up to £84 billion from addressing market barriers. £40.7 billion is the GVA for the 'advanced technology' scenario where adoption is lower.
102 Ofcom Connected Nations 2023: UK report, December 2023, page 35.
103 Ofcom estimated that 3UK has the most extensive outside premises coverage of 78% and BTEE has the most coverage overall of 63% (Ofcom Connected Nations 2023: UK report, December 2023, page 35). Noting that for 3UK's coverage this is for the range covering Very High and High Confidence levels and for BTEE is for Very High Confidence levels, both of which are explained on page 36 of the same report.
104 Ofcom Connected Nations 2023: UK report, December 2023, page 37.
105 FMN.
106 FMN.

5.23 The Wireless Infrastructure Strategy sets a target of 'nationwide coverage of standalone 5G to all populated areas of the UK by 2030',[107] and it is widely recognised that 5G deployment will require significant investment, including from MNOs.[108]

5.24 However, there is uncertainty around 5G use cases and adoption rates, creating what the UK Government refers to as the 'chicken and egg problem': mobile operators need to see clear demand from consumers and enterprises for 5G services in order to invest, but without real-word evidence of 5G use cases in practice, potential users of 5G may be unable to see its potential and the benefit of investing in it.[109] Similarly, MNOs have said to Ofcom that the case for deploying 5G is challenging, with considerable uncertainty over the extent to which they can make a return on their investment. This is, in particular, due to:

(a) the prospect of monetising 5G mobile services by charging consumers higher prices for 5G compared to 4G being limited, at least for the time being; and

(b) the investment needed to deliver 5G SA being greater than for previous generations, and with 5G SA requiring a greater level of capex which may make scale more important.[110]

5.25 The Parties submitted that 5G SA and advanced 5G may not be required to address future growth in data traffic from the existing consumer applications such as video streaming, web browsing, social media and from other consumer applications with throughput and latency requirements that can be met with 4G and NSA 5G.[111] This is broadly consistent with third-party feedback on 5G SA we have received which suggests that this remains a nascent technology that has yet to develop widespread use cases.[112] Ofcom also reported that the strength of the business case relies on the demand for new types of uses enabled by 5G SA but that these new uses are either still under development or not yet proven.[113]

5.26 Further, Ofcom commented that MNOs may have lower incentives at present to invest in 5G technology, since in the absence of 5G SA, NSA 5G delivers a similar service to 4G and customers may not be prepared to pay a premium for 5G (as discussed further in Efficiencies).[114] We have found evidence of this in the Parties'

[107] DSIT, Policy paper, UK Wireless Infrastructure Strategy, April 2023. Populated areas include villages and rural communities.
[108] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraphs 1.8 and 4.8; DSIT, Policy paper, UK Wireless Infrastructure Strategy, April 2023; House of Commons Library, Research Briefing, 5G in the UK, 8 March 2024, section 3.1 'Investment uncertainty'.
[109] DSIT, Policy paper, UK Wireless Infrastructure Strategy, April 2023, Chapter 6.
[110] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraph 4.18. This is consistent with the Parties' submissions to the CMA throughout this inquiry. The Parties refer to this as the 'investment challenge' (FMN).
[111] However, the Parties also submitted that future customer needs mean that it would not make economic and commercial sense to expand capacity with older 5G technology (FMN).
[112] Responses to the CMA's competitor and wholesale questionnaires from: [✂]; [✂]; [✂]; and [✂].
[113] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraph 4.18.
[114] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraph 4.19.

internal documents[115] and third-party evidence suggests that there is currently not significant consumer demand for or understanding of 5G services,[116] and that consumers may not be able to distinguish between 4G and NSA 5G or 5G SA.[117]

5.27 Notwithstanding, Ofcom reported that while there is currently uncertainty about future demand for new use cases enabled by 5G SA, (including uncertainty over how much of that demand MNOs will capture), this uncertainty is likely to reduce over time. As evidence of demand emerges, this will inform the need for, and benefit from, further investment and reduce uncertainty for MNOs.[118]

eSIM

5.28 In its conclusions paper on its future approach to mobile markets and spectrum, Ofcom indicated that it expects to see a range of changes across the mobile value chain over the next five to ten years, many of which will be facilitated by technological developments, such as deployment of 5G standalone (discussed in the previous section), and embedded-SIMs (**eSIMs**).[119] An eSIM is a form of programmable SIM that is embedded directly into a device, thereby removing the need for a physical SIM card.[120]

5.29 When customers switch mobile operators, they will typically need to physically insert a new SIM card (ie from the operator they are switching to) into their mobile device. By contrast, an eSIM is embedded into the device and not tied to one specific network. Customers therefore have the ability to switch provider directly on their device, by updating the eSIM wirelessly.[121] In addition, eSIMs can hold multiple profiles (eg mobile airtime or data plans), enabling customers to take services from different providers at the same time. Ofcom considers that customer awareness of eSIMs is likely to be low at present and providers have not yet sought to actively promote eSIM use among consumers. Ofcom nevertheless expects that, within the next five to ten years, most consumers will be using eSIMs instead of physical SIMs, with physical SIMs eventually phased out.[122] At present, the benefits of eSIMs have mostly been highlighted in relation to international roaming, as a potentially more cost effective alternative to using roaming add-ons.[123]

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[115] For example, CK Hutchison internal document suggests demonstrating to consumers [✂] and states that '[✂]'.
[116] Responses to the CMA's competitor questionnaire from: [✂]; and [✂].
[117] Responses to the CMA's competitor questionnaire from: [✂]; [✂]; and [✂].
[118] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraph 4.19.
[119] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraph 4.42.
[120] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, footnote 106.
[121] This is done either through an app or scanning a QR code.
[122] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, Box A3.
[123] MoneySavingExpert, What is an eSim?, 31 July 2024, accessed by the CMA on 5 August 2024; Which?, Mobile phone eSims explained: what is an eSim and how does it work?, 14 May 2024, accessed by the CMA on 6 August 2024.

5.30 eSIM-enabled devices (ie devices that accept both a physical SIM and an e-SIM) have been available since 2017 in the UK.[124] While in the US Apple moved to eSIM-only handsets for its iPhone 14 devices in September 2022, eSIM-only handsets are yet to be introduced in the UK. Several mobile operators now offer eSIMs, including the four MNOs, although some providers (including BTEE, Giffgaff, Sky Mobile, Tesco Mobile) appear to require consumers to order a physical SIM first and eSIMs are not currently widely available on PAYG tariffs.[125]

5.31 The Parties submitted that the adoption of eSIMs will increase the competitive constraint on MNOs, in particular by (i) disintermediating the mobile operators and weakening their relationship with end consumers, and (ii) further reducing barriers to entry and switching for end customers.[126] This is due, according to the Parties, to:

(a) increased consumer churn as eSIMs remove the need for a customer to obtain a new physical SIM when switching operator, and therefore make the switching experience more seamless and attractive for consumers;[127]

(b) the increased threat of entry by hyperscalers (defined in section the Hyperscalers & system integrators below to include [✂]) in retail mobile or as a distribution channel [✂], through offering consumers who purchase eSIM-enabled devices that use their mobile operating system the ability to change mobile operator at any time;[128] and

(c) the increased strength of MVNOs, as fully digital eSIMs reduce barriers to entry for new MVNOs and to switch host MNOs.[129]

5.32 In response to the Phase 1 Decision, Vodafone submitted that VUK's internal documents illustrate how eSIMs [✂], which is capable of intensifying competition both at the retail and wholesale level.[130]

5.33 Ofcom has noted that the deployment of eSIMs could enable Apple and Google to enter into the distribution of mobile services. In particular, Apple and Google could use their mobile operating systems to offer platforms on which customers can choose their mobile provider, for example, by setting up a 'choice screen' accessible through the settings menu or an app.

5.34 Ofcom has suggested that a choice screen or app provided by Apple or Google could offer consumers an easy and convenient way to compare providers across a number of different factors (such as quality), which could in turn lead to MNOs

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[124] See for example The Verge, Google's Pixel 2 phones are the first to use built-in eSIM technology, October 2017.
[125] MoneySavingExpert, What is an eSim?, 31 July 2024, accessed by the CMA on 5 August 2024.
[126] FMN.
[127] FMN.
[128] FMN; and Parties' initial submission, 1 May 2024, paragraph 1.6.
[129] FMN; and Parties' initial submission, 1 May 2024, paragraphs 1.8(iii)(b),1.9(iv), 4.1(iii)(c), and 4.14(v).
[130] Annex to Parties' initial submission.

being more incentivised to invest and compete more intensely on aspects of quality, but that this could give rise to some risks too (for example as a result of Apple and/or Google leveraging their market power into the distribution of mobile services).[131] At the same time, Ofcom recognised that there is still uncertainty for now as to how the deployment of eSIMs will unfold in practice.[132]

5.35 In the course of the Merger inquiry, we have sought views from mobile operators regarding whether they expect any material developments to take place in the UK retail mobile sector in the near future (ie the next two to three years). Most respondents that expected material developments to take place referred to eSIMs.[133] We summarise below qualitative comments made in this context:

(a) One MNO shared the Parties' view that eSIMs gaining momentum could result in disintermediation of MNOs, thereby impacting their ability to connect with customers and continue to invest in the infrastructure necessary to provide quality of service and coverage for all customers.[134]

(b) Another MNO commented that as eSIM technology and eSIM-enabled handsets become more widespread, different customer offerings and business models may start to emerge eg 'try before you buy' offers, different inbound and outbound roaming offers, eSIM driven tariff aggregation ie different providers for different parts of the bundle voice vs data vs roaming. The increasing prevalence of eSIM capability means that more MVNOs will be able to offer mobile services with different business models with recent eSIM entrants focused on roaming solutions eg Airalo, EasySIM.[135]

(c) One business MVNO noted that as eSIM penetration increases, the disruption caused by the SIM swap process will diminish somewhat and this may limit the volume of churn suffered during the migration process, although even with eSIMs available, migration between networks will remain far from seamless.[136]

(d) Another MVNO told us that eSIM is a significant development expected in the next few years with all devices transitioning and that this will increase the technical load required for both MNOs and MVNOs, which requires significant investment.[137]

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[131] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, Annex 3, paragraphs A3.21-A3.23.
[132] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, Annex 3, paragraph A3.25.
[133] Responses to the CMA's competitor questionnaire from: [✂]; [✂]; [✂]; [✂]; [✂]; and [✂].
[134] [✂] response to the CMA's competitor questionnaire.
[135] [✂] response to the CMA's competitor questionnaire.
[136] [✂] response to the CMA's competitor questionnaire.
[137] [✂] response to the CMA's competitor questionnaire.

5.36 The vast majority of the Parties' internal documents[138] convey a degree of uncertainty as to how the deployment of eSIM will unfold as its use becomes more widespread.[139] This is consistent with eSIM not having been a strong feature of the mobile industry to date, despite eSIM-enabled devices having been available since 2017 in the UK. The Parties' internal documents tend to consider a range of scenarios in terms of what could change, with varying degrees of likelihood and impact.[140] For example, while a June 2023 Vodafone board paper on '[✂]' notes that in a worst case scenario [✂] could '[✂]' this is immediately nuanced noting that '[✂]'.[141]

5.37 While the Parties' internal documents identify some disintermediation risks associated with the adoption of eSIMs they also identify ways to mitigate these as well as potential opportunities they could bring about. For example:

(a) While eSIM is described as a [✂], the relevant taskforce also indicates [✂]. In terms of opportunities to capture new propositions, VUK identifies [✂].[142]

(b) In relation to [✂] eSIM [✂], the same document notes that [✂].[143] As of the date of this document, [✂].[144]

(c) Another VUK document from [✂] notes [✂].[145]

(d) In a report from June 2023, 3UK notes that [✂], and notes that [✂].[146] In the same document, [✂].[147] The document also [✂].[148]

(e) In a presentation from October 2023, 3UK discusses [✂].[149] [✂].[150]

5.38 The internal documents submitted by Vodafone on the impact of eSIM on its business segment [✂].[151]

5.39 Finally, the Parties have only provided very limited evidence from their internal documents in support of their argument that eSIM will reduce barriers to entry for new MVNOs and to switch host MNOs.[152]

[138] Annex to Parties' initial submission, 1 May 2024; and Vodafone internal documents.
[139] For example, an internal paper to Vodafone's executive committee from March 2023 on '[✂]' (Vodafone internal document).
[140] For example, Vodafone, internal documents.
[141] Vodafone internal document.
[142] Vodafone internal document. Also, Vodafone internal document.
[143] Vodafone internal document.
[144] Vodafone internal document.
[145] Vodafone internal document.
[146] CK Hutchison internal document.
[147] CK Hutchison internal document.
[148] CK Hutchison internal document.
[149] CK Hutchison internal document.
[150] CK Hutchison internal document.
[151] Vodafone internal documents.
[152] Vodafone internal document. While Vodafone referenced additional documents in its initial phase 2 submission (Annex to Parties' initial submission, 1 May 2024), these did not relate to this point.

5.40 Taken in the round, the evidence we have seen suggests that although the increased penetration of eSIMs – the timing of which remains uncertain – could bring about disintermediation risks for MNOs, they have ways to mitigate these and this could also create new opportunities for MNOs.

Fixed-mobile convergence and bundling

5.41 Fixed-mobile convergence (**FMC**) is a trend in telecommunications towards removing differences between fixed and mobile networks, and comprises two aspects: one related to changes in technology (technological convergence), and the other to the ability of operators to offer both mobile and fixed services to retail customers (retail convergence).[153]

5.42 The Parties submitted that, following the mergers of BT with EE in 2016 and Virgin Media with O2 in 2021, together with the entry of Sky Mobile in 2017, converged operators pose an increased competitive constraint through their ability to cross-sell mobile services to their fixed bases and that the uptake of fixed-mobile bundles in the UK is increasing.[154]

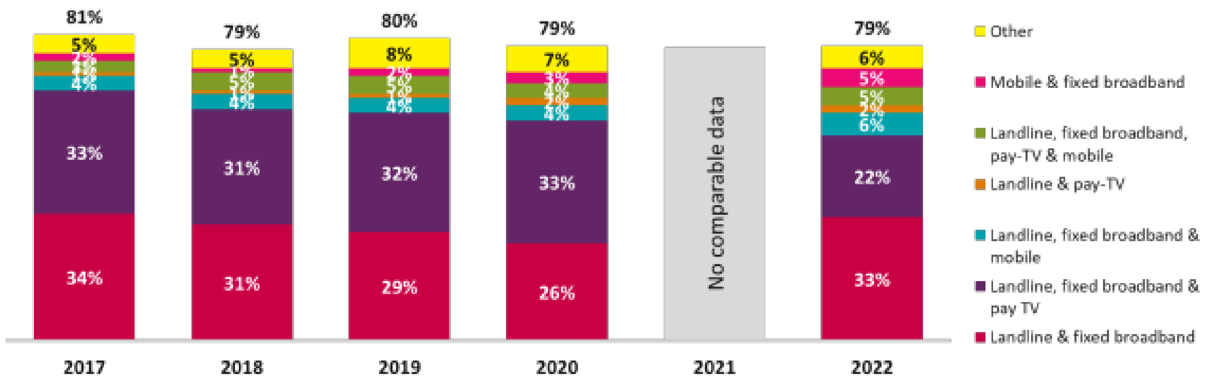
5.43 Fixed-mobile bundles (also known as multi-play offers) are a combination of mobile telecommunications services and one or more fixed telecommunications services, such as fixed telephony, fixed broadband internet or pay TV purchased from the same provider, regardless of whether they are under the same contract, purchased at the same time, or sold with connected discounts.[155] The services may be, but are not necessarily, packaged together into a retail bundle (ie a retail offer in which there is some form of integration between the services offered in a bundle, for example through converged billing) or they may be offered as a result of cross-selling to an existing customer base.[156]

5.44 Ofcom stated that most users tend to purchase mobile services on a standalone basis, and the purchase of fixed-mobile bundles has not been a strong feature of the UK market to date.[157] By comparison, the take-up of such bundles has been much higher in a number of other European countries, ranging from 37% in France to 66% in Spain.[158]

[153] Case M.7612 *Hutchison 3G UK/Telefónica UK*, recital 63. The Parties have not put forward arguments regarding technological convergence and this point is therefore not further discussed.
[154] FMN; FMN; Parties' initial submission, 1 May 2024, paragraphs 3.18(iv) and 3.18(v); and Annex 1 to the Parties' response to the AIS and working papers.
[155] Case M.7612 *Hutchison 3G UK/Telefónica UK*, recital 69; CMA final report on the anticipated acquisition by BT Group plc of EE Limited, Appendix H (paragraph 2).
[156] CMA final report on the anticipated acquisition by BT Group plc of EE Limited, paragraphs 5.6(c) and 5.11.
[157] Ofcom's discussion paper on future approach to mobile markets, February 2022, paragraphs 5.64-5.65.
[158] Ofcom's discussion paper on future approach to mobile markets, February 2022, paragraphs 5.64-5.65; Case M.7612 *Hutchison 3G UK/Telefónica UK*, recitals 72-73; CMA final report on the anticipated acquisition by BT Group plc of EE Limited, Appendix H (paragraph 3); E-Communications in the Single Market, June 2021, Special Eurobarometer 510.

5.45 In December 2022, Ofcom published a report showing that approximately 80% of UK households purchased two or more communications services from the same service provider as part of a bundle in 2022, but that only 16% included a mobile element (Figure 5.3 below).[159]

Figure 5.3: Take-up of bundled services, by bundle type



Source: Ofcom Technology Tracker 2022.
QL4. Which of these is your main supplier for your landline? QM4. Which mobile network do you use most often? QE8. Which internet service provider (ISP) does your household currently use as its main supplier at home? QT3. Which – if any – of these TV services are used in your household to watch programmes, shows or films?
Base: All respondents.
Note: Comparable data is not available for 2021 due to a change in research methodology as a result of the Covid-19 pandemic.

Source: Ofcom pricing trends for communications services in the UK, December 2022, Figure 18.

5.46 A May 2022 report by Enders Analysis suggests that there is no evidence that fixed-mobile convergence delivers value to the operators in spite of it being a 'major strategic lynchpin' for many European operators over the past decade, and in spite of the fact that it has been the justification for M&A activity in the sector.[160] In a more recent report from December 2023, Enders Analysis also noted that it sees little evidence of convergence reducing churn.[161]

5.47 Consistent with these reports, only 7% of respondents to the CMA's general population survey cited other services that formed part of a bundle as a reason for choosing their current provider (see Chapter 8, CMA surveys).

5.48 We set out further evidence on fixed-mobile convergence and our related analysis in Chapter 8, Third party evidence.

[159] Ofcom pricing trends for communications services in the UK, December 2022, pages 29-30.
[160] Vodafone internal document.
[161] FMN.

Mobile telecommunications services providers in the UK

MNOs

5.49 There are four MNOs in the UK: VUK, 3UK, BTEE and VMO2. There are two key inputs required to operate as an MNO: authorisation to use spectrum bands for mobile telecommunications and a mobile network.

VUK

5.50 VUK was the first MNO to enter the UK in 1985. It offers retail mobile services to consumers and business customers in the UK under the Vodafone brand and the VOXI and Talk Mobile sub-brands. VUK is also active in the resale of fixed voice and broadband services in the UK.

5.51 VUK had 16.8 million mobile subscribers in Q4 2023.[162]

5.52 VUK has a network sharing arrangement with VMO2. This is described in more detail in the CTIL/Beacon section.

5.53 3UK entered the UK retail mobile industry in 2003. 3UK offers retail mobile services in the UK under the Three brand and the SMARTY sub-brand. 3UK does not have any fixed-line offerings, but offers FWA using its 5G network marketed as ‘broadband without landline’.[163]

5.54 3UK had 10.6 million mobile subscribers in Q4 2023.[164]

5.55 3UK has a network sharing agreement with BTEE. This is described in more detail in the MBNL section.

BTEE

5.56 Everything Everywhere was created as a joint venture by the merger of T-Mobile (UK) Limited (**T-Mobile**) and Orange UK in 2010 and was ultimately owned by Deutsche Telekom and France Télécom until its acquisition by BT Group in January 2016. Since then, EE has operated as a brand under the BT Group.

5.57 In addition to EE, BTEE owns a number of sub-brands that supply retail mobile services, including Plusnet and BT Mobile. However, BTEE has announced that it plans to focus on EE as its primary brand for consumers, with plans to close the

[162] Vodafone internal document.
[163] Broadband without Landline | Broadband Only Deals | Three, accessed by the CMA on 23 August 2024.
[164] CK Hutchison response to the CMA’s s109 notice.

Plusnet mobile brand[165] and BT Mobile no longer being available to new customers.[166]

5.58 BTEE operates exclusively in the UK and offers both fixed and mobile communications services to consumers and businesses.

5.59 BTEE had [✂] million mobile subscribers in Q4 2023.[167]

5.60 As described above, BTEE is in a network sharing agreement with 3UK.

VMO2

5.61 O2 UK was formed in 1985 as Cellnet, a 60:40 joint venture between BT Group and Securicor. In 1999 BT Group acquired Securicor's share of Cellnet. The O2 UK brand was formed as part of a de-merger from the BT Group in 2002 and O2 UK was subsequently purchased by Telefónica in 2006. VMO2 was formed in 2021 following the merger of O2 UK and Virgin Media.

5.62 VMO2 launched its sub-brand Giffgaff in 2009 and is a 50% shareholder in Tesco Mobile, the largest MVNO in the UK.

5.63 VMO2 offers a fixed cable and fibre business alongside its mobile business.

5.64 VMO2 had 23.7 million subscribers in Q4 2023.[168]

5.65 As mentioned above, VMO2 has a network sharing arrangement with VUK.

Spectrum and respective spectrum holdings

5.66 Mobile phones and other devices use radio frequencies in the electromagnetic spectrum to connect to MNOs' networks via local masts. Radio spectrum is a finite resource, for which there are a large and growing number of competing potential uses and users.[169] Ofcom is responsible for spectrum management in the UK, including the award of mobile spectrum licences to MNOs, and as part of this responsibility, it must have regard to, among other things, the promotion of competition.[170]

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165 Plusnet mobile has now closed, see: Plusnet Mobile has closed | Plusnet Mobile, accessed by the CMA on 22 August 2024.
166 FMN.
167 BTEE response to the CMA's RFI.
168 VMO2 response to the CMA's RFI.
169 Review of Ofcom's market-based approach to mobile spectrum management, Response to Government, January 2024, paragraph 2.2.
170 Ofcom has a number of duties under the Communications Act 2003 and the Wireless Telegraphy Act 2006 which are relevant to its spectrum management functions. Under these duties, Ofcom is required to secure, among other things, the optimal use for wireless telegraphy of the electro-magnetic spectrum and the availability of a wide range of electronic communications services throughout the UK. In performing its duties, Ofcom also has to have regard to a number of

5.67 Spectrum is essential to deliver mobile services and MNOs require a balance of spectrum holdings to provide coverage and capacity, and to meet demand for different services in different locations. In general, lower frequencies are best for delivering wider coverage and carrying signals deeper indoors, while higher frequencies have greater capacity to carry data, enabling more applications, but are less able to provide wide coverage.[171]

5.68 In its conclusions paper on its future approach to mobile markets and spectrum, Ofcom indicated that future MNO spectrum needs will depend on several factors, including the growth rate of data traffic and the ways in which networks evolve to satisfy this demand, including through the spectral efficiency that can be achieved.[172] In the same paper, Ofcom reported that while MNOs consider that providing additional spectrum to mobile would be a more cost-effective solution to meet future demand than densification of macro cells and small cells using millimetre wave (**mmWave**[173]), it takes time for new spectrum to be made available (five years or more). As such, if there is continued data growth, other options to satisfy growing demand will be needed towards the end of the decade and Ofcom expects a shift in how MNOs deploy their network to meet this demand.[174] In 2023, Ofcom announced its decision to make a large amount of spectrum in the 26 GHz and 40 GHz bands (ie mmWave spectrum) available for new services including 5G, noting that making this spectrum available for new uses has the potential to deliver significant benefits by enabling large increases in wireless data capacity and speeds.[175]

5.69 Figure 5.4 provides an overview of the current allocation of spectrum. In order to supply 5G, the optimal spectrum band is the 3.4-3.8 GHz band (also referred to as C-band spectrum).[176] C-band spectrum would play an important role in delivering advanced 5G use cases in conjunction with 'massive MIMO' (**mMIMO**) radio access network (**RAN**) equipment.

factors as it appears relevant in the circumstances, including the desirability of promoting competition and encouraging investment and innovation in relevant markets and the interests of everyone who may wish to use the spectrum for wireless telegraphy. See for example, paragraphs 2.17-2.23 of Consultation: Exploring future use of the unpaired 2100MHz (1900-1920MHz) spectrum, March 2023.

[171] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraph 3.6.

[172] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraphs 5.8-5.9.

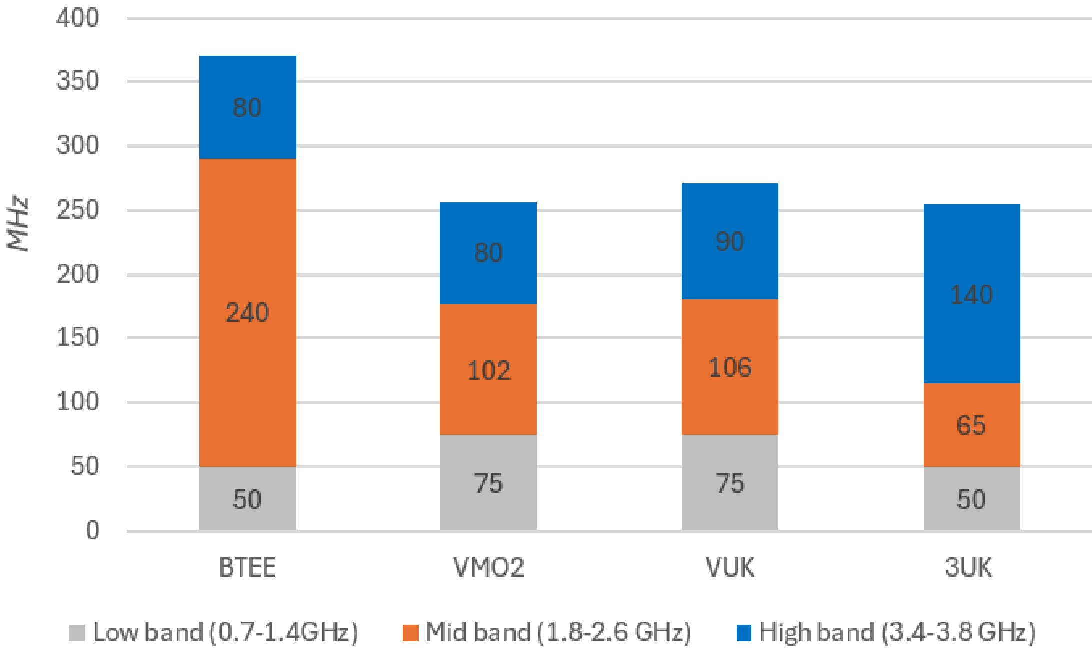
[173] This is the range of spectrum above 24 GHz but below 100 GHz.

[174] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraphs 5.36-5.47. Relatedly, Ofcom published in May 2024 a paper setting out a vision of how shared use of the upper 6 GHz spectrum band (6425-7125MHz) could enable both Wi-Fi and commercial mobile services, while also continuing to serve the band's existing users as much as possible (Ofcom, Vision for sharing upper 6 GHz spectrum between Wi-Fi and mobile, 21 May 2024, accessed by the CMA on 16 August 2024).

[175] Ofcom, Enabling mmWave spectrum for new uses, accessed by the CMA on 16 August 2024.

[176] The larger bandwidths available mean that deployment of C-band can deliver a transformative boost in network capacity and allow MNOs to offer speeds multiple times higher than what 4G is capable of. C-band is typically deployed using mMIMO technology, which maximises the capacity delivered and also enhances coverage.

Figure 5.4: Mobile spectrum holdings in the UK



Source: CMA analysis of Ofcom's [Frequency allocations: mobile and wireless Broadband below 5 GHz](#).
Notes: We have not included 3UK's holdings in the 3,800-4,200 MHz band as it is not usable for mobile services (FMN) and allocations expiring on 15 October 2024 and 31 December 2025.

5.70 As is evident from Figure 5.4 above, 3UK has by far the most C-band spectrum of the four MNOs, with around 1.75 times the current holdings of either BTEE or VMO2. As shown in Figure 5.5 below, after the Merger – and in the absence of any spectrum trade – the Merged Entity would own 46% of total spectrum, BTEE would hold 32% and VMO2 would hold 22%, of which the biggest asymmetry would be in C-band spectrum (the Merged Entity would have 59%).

Figure 5.5: Post-Merger mobile spectrum holdings in the UK (in the absence of spectrum trade)

[✂]

Source: CMA analysis of Ofcom's [Frequency allocations: mobile and wireless Broadband below 5 GHz](#).
Notes: We have not included 3UK's holdings in the 3,800-4,200 MHz band as it is not usable for mobile services (FMN) and allocations expiring on 15 October 2024 and 31 December 2025.

5.71 On 3 July 2024, VUK and VMO2 announced they had extended their current network sharing agreement and that they had also agreed that VMO2 will acquire spectrum from VUK subject to completion of the Merger (**Beacon 4.1**).[177] This is discussed further in the section CTIL/Beacon below.

[177] Vodafone and Virgin Media O2 announce new, long-term network sharing agreement, 3 July 2024, accessed by the CMA on 30 July 2024.

Network sharing arrangements

Background to network sharing

5.72 A mobile network consists of four principal components:[178]

(a) a RAN which consists of antennas and transceiver station equipment. The RAN uses radio frequencies to provide wireless connectivity to individual end-user devices through radio base station sites, each with a mast on which there are antennas, and a base transceiver station system;

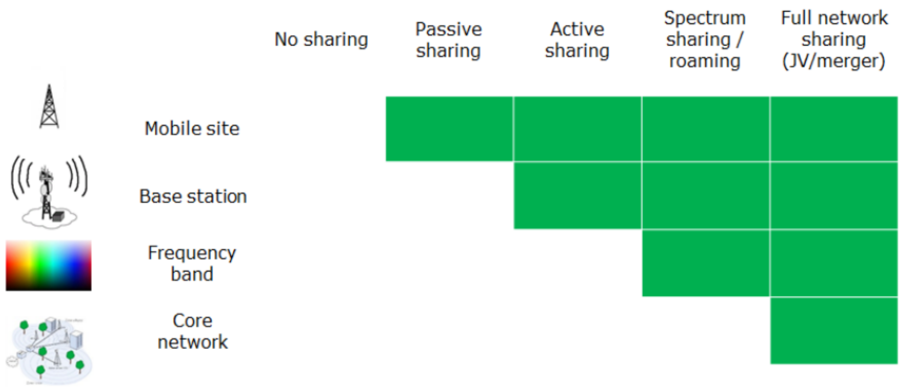
(b) the mobile backhaul, which links radio base station sites to core sites (which interconnect between different radio base station sites). This backhaul network is gradually changing from microwave (wireless) to fibre cables;

(c) transport aggregates traffic from multiple radio sites and connects with network functions and to the core; and

(d) virtualised core services provide mobile services such as voice, data and messaging.

5.73 In a network sharing arrangement, MNOs agree to share some of the network elements in order to reduce costs and increase coverage and capacity. As depicted in Figure 5.6, MNOs can choose to share the site infrastructure[179] (passive sharing) or also the active radio equipment (active sharing). For both their shared network and unilateral sites, MNOs use the infrastructure of independent providers in some cases.

Figure 5.6: Extent of sharing under different network sharing arrangements



Source: Case M.7612 Hutchison 3G UK/Telefónica UK, figure 10.

[178] Parties' phase 1 teach-in slides.
[179] This includes the masts, cabins and sometimes antennas and power supplies (capex) as well as the cost of the site itself, such as rent and rates (opex).

5.74 It is also possible for MNOs to integrate further and share spectrum under a multi-operator core network (**MOCN**) arrangement. There are no MOCN arrangements in the UK.

5.75 There are two network sharing arrangements in the UK:

(a) MBNL (defined in paragraph 5.77) which includes primarily passive network sharing between 3UK and BTEE;[180] and

(b) CTIL/Beacon (defined in paragraph 5.87) which includes passive and active network sharing between VUK and VMO2.

5.76 Some MNOs also deploy and operate a proportion of their passive site infrastructure and/or RAN independently of the network sharing arrangements.

MBNL

5.77 BTEE, then T-Mobile, and 3UK established Mobile Broadband Network Limited (**MBNL**) as a 50/50 joint venture in December 2007. The core objective when MBNL was established was to create a shared 3G RAN with a larger site footprint and in a significantly faster timescale than either shareholder could achieve on its own, delivering improved geographic coverage at lower network cost.[181]

5.78 To this end, T-Mobile and 3UK entered into [✂] (together, the **MBNL Agreements**). Pursuant to the MBNL Agreements, the MBNL joint venture was incorporated with a term until 31 December 2031 ([✂]). The shared sites that sit in MBNL consist of approximately [✂] sites, which represent approximately [80-90%] of 3UK's sites.[182]

5.79 On 10 November 2022, Cellnex completed the acquisition of the passive infrastructure assets of CK Hutchison and its subsidiaries in the UK (including 3UK) (the **Cellnex Transaction**).[183] The Parties submitted that [✂].[184] Upon termination of MBNL, [✂] sites [✂] 3UK will be transferred to Cellnex in accordance with the provisions of the agreements between 3UK and Cellnex. The Parties submitted that [✂].[185]

5.80 The Parties submitted that MBNL has evolved over time from active sharing (where BTEE and 3UK shared passive infrastructure and active equipment, and also carried out site upgrades jointly) to a largely passive sharing agreement.[186] The Parties submitted that MBNL now operates as an estates company that

[180] [✂].
[181] FMN.
[182] [✂]. Calculated using information from FMN.
[183] FMN.
[184] FMN.
[185] FMN.
[186] Active sharing is now limited to sharing 3G equipment in rural areas.

manages the existing passive infrastructure and joint sites on behalf of BTEE and 3UK.[187] MBNL also has ongoing responsibilities on behalf of both BTEE and 3UK to support the management of the passive infrastructure, including [✂].[188] We understand that [✂].[189]

5.81 The most recent iteration of the MBNL Agreements came into effect in April 2023 (known as the [✂]). Its stated core principles include:[190]

(a) transition to a simplified operating model for MBNL as a provider of cost-efficient services to the shareholders, focussed primarily on estates management; and

(b) facilitate, and continue to facilitate, the shareholders' ability to pursue their separate technical and operational objectives for their networks, independently of each other.

5.82 As part of this, BTEE and 3UK have ceased jointly upgrading sites through MBNL and now perform all upgrades independently of each other and predominantly at their own, rather than shared, expense. 3UK considers [✂].[191] This process and our assessment of the impact of the Merger on the competitive constraint posed by BTEE through the Merged Entity's participation in MBNL is discussed in Chapter 11.

5.83 BTEE and 3UK are each [✂] under the MBNL Agreements to [✂].[192] [✂]. This is discussed in greater detail in Chapter 11, Background to MBNL.

5.84 We understand that [✂]. [✂].[193]

5.85 [✂].[194]

5.86 We understand that [✂].[195] Therefore, [✂]. There are a number of exceptions to this which we discuss in Chapter 11, Background to MBNL.

[187] FMN.
[188] FMN.
[189] Note of call with Parties.
[190] CK Hutchison internal document.
[191] FMN.
[192] [✂].
[193] FMN; and CK Hutchison internal document.
[194] CK Hutchison internal document.
[195] CK Hutchison internal document.

CTIL/Beacon

5.87 Cornerstone Telecommunications Infrastructure Ltd is a joint venture concerning passive infrastructure between Vodafone (through its subsidiary Vantage Towers) and VMO2 (**CTIL**).[196,197]

5.88 There are three types of sites currently used by VUK:

(a) [✂];

(b) [✂]; and

(c) [✂].[198]

5.89 Through the Beacon network sharing arrangement, VUK and VMO2 also share active infrastructure ([✂] 5G multi-operator radio access network (**MORAN**) infrastructure). The objective of the Beacon agreement when it was entered into was to create a combined grid to rapidly increase the network coverage of VUK and VMO2 throughout the UK [✂].[199]

5.90 The original Beacon agreement envisaged completion of a single grid with VUK as 'host' operator (ie the operator with the responsibility for providing active RAN services and deploying each operator's spectrum on that RAN) in the West of the UK and South London and VMO2 as host in the East of the UK, including Scotland and North London.[200]

5.91 In 2017, VUK and VMO2 agreed to unwind active sharing in certain areas, meaning they no longer rely on each other for the provision of active network services. This was initially done for all active sharing in London (known as Beacon 2) and then in 2019, VUK and VMO2 agreed to unwind all active sharing in the major population centres in the UK (known as Beacon 3). The Beacon parties continued acting as "host" in the rest of the UK, with VUK hosting MORAN in the West and VMO2 hosting MORAN in the East.[201]

5.92 On 5 June 2024, VUK and Telefónica UK Limited, VMO2's parent company, entered into the Beacon 4.1 Long Form Amendments[202] and a Spectrum Transfer Agreement pursuant to which VUK has agreed to transfer spectrum assets to

[196] FMN.
[197] Virgin Media O2 sells minority stake in Cornerstone to GLIL Infrastructure, 31 October 2023, accessed by the CMA on 19 August 2024.
[198] FMN. For completeness, [✂].
[199] FMN. For the avoidance of doubt, references to CTIL refer to passive sharing only, references to Beacon refer to active sharing only and references to CTIL/Beacon refer to the combination of passive and active sharing.
[200] FMN.
[201] FMN.
[202] [✂].

VMO2. This is the latest iteration of the Beacon arrangements (together, the **Beacon 4.1 Agreements**).

5.93 The Beacon 4.1 Agreements include: (i) provisions that are unrelated to the Merger, ie 'business as usual' amendments which came into effect upon execution; and (ii) provisions that are related to and, in most part, conditional on the completion of the Merger.

5.94 The 'business as usual' amendments include:

(a) the extension of the Beacon term to [✄];

(b) changes to the ways in which the arrangements deal with emerging technologies;

(c) provisions relating to the shut-down of 2G and 3G technology in the Beacon network; and

(d) modifications to the ongoing unwind processes in London and the Unwind Polygons.[203]

5.95 The provisions that are related to and mostly conditional on the Merger include:

(a) various provisions related to the delivery of the Merged Entity's joint network and its integration within the Beacon grid:

(i) the consolidation of the Merged Entity's and VMO2's respective requirements into a single delivery plan;

(ii) waivers of geographic exclusivity provisions provided by VMO2 to allow the Merged Entity to integrate 3UK sites into the Beacon grid;

(iii) planning, testing and deployment of the MOCN (multi-operator core network) solution, which will allow 3UK customers to access the VUK network (and vice versa) before the VUK and 3UK networks are fully integrated;

(iv) [✄] to secure rights from third parties for VMO2 to access 3UK sites integrated into the Beacon grid; and

(b) the transfer of [✄] of spectrum from VUK to VMO2.

5.96 The Beacon 4.1 Agreements and our assessment of their impact on competitive constraints are discussed in Chapter 10.

[203] VUK and VMO2 have unwound active sharing in London and 22 other major cities in the UK (the **Unwind Polygons**). They continue sharing passive infrastructure in these areas.

MVNOs

5.97 MVNOs offer retail mobile services without owning all the mobile infrastructure required to provide those services. Instead, an MVNO enters into a wholesale agreement with an MNO enabling it to use the MNO's network as an input to provide retail mobile services.

5.98 MVNOs can be either 'full' or 'light'.[204]

(a) Full MVNOs are dependent on MNOs for the radio network (ie RAN equipment and backhaul) that delivers connectivity. However, they build their own core network and as such are responsible for their own SIMs and routing their own network traffic (and arranging interconnect deals with other telecom operators). Full MVNOs take a more active role in managing network infrastructure than light MVNOs. Only a few MVNOs are full MVNOs: Sky Mobile, Tesco Mobile, Lyca Mobile and Truphone,[205] however full MVNOs supply [80-90%] of all subscribers supplied by MVNOs.[206]

(b) Light MVNOs use the MNO's core network, SIMs and radio network. They delegate operational management of the core and radio network to the MNO, enabling them to focus on commercial activities such as customer relations, sales and marketing. The majority of MVNOs are light MVNOs, however light MVNOs only supply [10-20%] of all subscribers supplied by MVNOs.[207]

5.99 In addition to giving them greater control over their network infrastructure, an MVNO may choose to transition from a light to full MVNO model in order to increase commercial freedom and make it easier to switch MNO host (this is because there is no need for a physical SIM swap as full MVNOs are responsible for their own SIMs). One full MVNO told us switching MNO hosts is easier and quicker as a full MVNO, but still rated the difficulty of switching MNO host as very difficult.[208] However, switching from a light to a full MVNO requires substantial investment, due to full MVNOs needing to invest in their own core network.[209]

5.100 Table 5.1 shows the ten largest MVNOs in the UK by number of subscribers. Each of these is discussed in turn below, with the exception of Superdrug which is discussed in section 3UK.

[204] CMA, *Liberty Global/Telefónica*, Final Report, paragraph 2.30. It is also possible to be a 'hybrid' MVNO, that is a light MVNO which use some of their own IT platforms eg for rating and billing of traffic. Gamma is an example of a hybrid MVNO (FMN, paragraph 15.409 and footnote 556).
[205] As of 2023, [✂] (FMN).
[206] Vodafone response to the CMA's s109 notice ([✂]); [✂] response to the CMA's RFI; and [✂] response to the CMA's RFI.
[207] Vodafone response to the CMA's s109 notice ([✂]).
[208] [✂] response to the CMA's questionnaire; and [✂] call note.
[209] FMN. See Chapter 9, MNO's competitive strategies.

Table 5.1: Ten largest MVNOs in the UK by number of subscribers

MVNO	*Network*	*Launch*	*Full/Light*	*Number of subscribers (as of 2023)*
Tesco Mobile*	VMO2	2003	Full	[✂]
Sky Mobile	VMO2	2017	Full	[✂]
Lebara	VUK	2007	Light	[✂]
Lyca Mobile	BTEE	2006	Full	1.7 million
iD Mobile	3UK	2015	Light	[✂]
Utility Warehouse	BTEE	2002	Light	450,000
Asda Mobile	VUK	2007	Light	[✂]
Gamma	3UK/BTEE	2001	Light	[✂]
TalkTalk	VUK	2003	Light	[✂]
Superdrug**	3UK	2018	Light	[✂]

Sources: Vodafone response to the CMA's s109 notice; CK Hutchison response to the CMA's s109 notice; Tesco Mobile response to the CMA's RFI; and Sky Mobile response to the CMA's RFI.
** Joint venture between Tesco and VMO2.*
*** Superdrug is an MVNO hosted on 3UK's network and is a sister company within the CK Hutchison group.*

Tesco Mobile

5.101 Tesco Mobile is a joint venture between VMO2 and Tesco. Tesco Mobile launched in the UK on the O2 UK network in May 2003, marketing its products under the Tesco brand. Tesco Mobile is the largest MVNO in the UK, with an estimated subscriber base of over five million subscribers as of 2023. It offers a wide range of post-paid and pre-paid plans.[210]

5.102 The Parties submitted that Tesco Mobile operates entirely independently of VMO2, and should therefore be treated as a separate strategic rival that will constrain the Merged Entity.[211]

5.103 Consistent with previous decisions and based on the evidence we have seen, we consider for the purpose of the competitive assessment in relation to retail mobile services that VMO2 and Tesco Mobile cannot be treated as fully independent competitors given VMO2's 50% shareholding in Tesco Mobile and associated rights (which we consider confer material influence to VMO2 over Tesco Mobile and gives it a significant economic interest in its commercial performance).[212] We therefore aggregated Tesco Mobile's share of supply in retail mobile services with

[210] Mobile Phones, Phone Contracts & SIM Only Deals | Tesco Mobile, accessed by the CMA on 25 July 2024.
[211] This position is on the basis that Tesco Mobile has a different management team, a distinct brand, and a different and differentiated commercial, pricing and marketing strategy to VMO2. Further, the Parties submitted that Tesco Mobile operates separately from VMO2, with ring-fenced employees and no visibility over VMO2' s mobile propositions (Parties' initial submission, 1 May 2024, paragraph 3.21(v) and footnote 94 and Annex 1 to the Parties' response to the AIS and working papers).
[212] CMA, Anticipated joint venture between Liberty Global Plc and Telefónica S.A., Final report, May 2021, paragraph 9.38 and Table 9-2. This is also consistent with Case M.7612 *Hutchison 3G UK/Telefónica UK*, recital 112. Deed of Amendment and Restatement dated 4 January 2024 relating to a shareholder's agreement dated 31 January 2014 as amended on 19 October 2015 as further amended on 1 August 2016 and as further amended on 13 August 2019 between Telefonica UK Limited, O2 Communications Limited, Tesco Holdings Limited, Tesco Mobile Services Limited, Tesco Mobile Communications Limited, and Tesco Mobile Limited (VMO2 response to the CMA's RFI); VMO2 email confirming that the response provided to the CMA's RFI remains accurate following the entry into the revised shareholder's agreement on 4 January 2024; and Tesco Mobile call note.

that of VMO2. Notwithstanding this, we have sought to reflect, where appropriate, the evidence gathered on the competitive constraint attributable to Tesco Mobile.

Sky Mobile

5.104 Sky is a media and entertainment company that was acquired by Comcast Corporation in 2018.[213] Sky Mobile is Sky Group's mobile communications services brand. Sky Mobile launched in January 2017 and has since grown rapidly, leveraging a strong brand in fixed broadband and entertainment services to grow its subscriber base to over three million as of 2023.[214] It is, by some margin, the largest fully independent MVNO in the UK. Sky Mobile is hosted on VMO2's network.

Lebara

5.105 Lebara Group, trading as Lebara, is present as an MVNO in the UK, across Europe, Saudi Arabia, and Australia.[215] Lebara is hosted on VUK's network and has been since its UK launch in 2007.[216] As of 2023, Lebara had approximately [✂] million subscribers. In its latest company accounts, Lebara indicates that it is active in prepaid mobile telecommunication services and offers 'low cost international calling, domestic calling, messaging and data services'.[217] Lebara has transitioned to a full MVNO model in Germany and France and [✂].[218]

Lyca Mobile

5.106 Lyca Mobile was established in 2006 as an international MVNO with a focus on low-cost inter-country telecoms services.[219] It entered the UK market in 2007. As of 2023, Lyca Mobile had a subscriber base of approximately 1.7 million. Lyca Mobile is a full MVNO and was formerly hosted on the VMO2 network. In June 2023, Lyca Mobile switched to the BTEE network and is in the process of migrating its customers.[220] In 2023, Lyca Mobile announced the launch of post-paid SIMO plans (starting from £4 a month), complementing its existing pre-paid SIMO offering.[221]

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[213] Comcast is now the majority owner of Sky, 9 October 2018, accessed by the CMA on 30 July 2024.
[214] Brits are £260 million out of pocket every month due to unused mobile phone data, 24 November 2022, accessed by the CMA on 30 July 2024.
[215] About Us (lebara.co.uk), accessed by the CMA on 25 July 2024.
[216] Vodafone partners new Sim-only service aimed at immigrants | Technology | The Guardian, 31 October 2007; Lebara extends MVNO partnership with Vodafone, 8 June 2021 (accessed by the CMA on 30 July 2024).
[217] Lebara Mobile Limited, Full accounts made up to 31 December 2023, page 4, accessed by the CMA on 30 July 2024.
[218] FMN.
[219] Lyca Mobile - Leading Mobile Virtual Network Operator, accessed by the CMA on 25 July 2024.
[220] Lyca Mobile partners with BT Wholesale, levelling up connectivity, speed, and coverage for customers, 27 June 2023, accessed by the CMA on 25 July 2024.
[221] Introducing Lyca Mobile Pay Monthly: enjoy more peace of mind with prices frozen until 2026, 17 November 2023, accessed by the CMA on 30 July 2024.

iD Mobile

5.107 iD Mobile is a UK-based MVNO founded in 2015 with approximately [✂] million subscribers in the UK as of 2023. iD Mobile is a wholly owned subsidiary of Currys plc, which was known as Dixons Carphone plc until September 2021. iD Mobile has been hosted on 3UK's network since its launch in 2015. Its handset and SIMO offers are distributed through Currys' own stores and online.[222] iD Mobile has grown its subscriber base by 34% in the period 30 April 2023 to 27 April 2024, to 1.8 million subscribers and has a target of more than 2 million subscribers before the end of 2024/25 year end.[223]

Utility Warehouse

5.108 Telecoms Plus Plc, trading as Utility Warehouse, is a UK fully integrated multiservice retailer that offers customers a range of home services bundled into one monthly bill, including energy, broadband, home insurance and mobile services.[224] As of 2023, Utility Warehouse had approximately 450,000 mobile customers. Utility Warehouse announced in September 2020 an extension to its agreement with host network BTEE, which has been in place for over 20 years.[225]

Asda Mobile

5.109 Asda Mobile is a UK MVNO, with approximately [✂] subscribers as of 2023. Asda Mobile launched in 2007 and has been hosted on VUK's network since entry.[226] Asda Mobile offers smaller data allowances, with its cheapest bundle starting at £5 for 3GB of data and unlimited minutes and texts.[227]

Gamma

5.110 Gamma is an MVNO which offers mobile services to businesses (in addition to its business broadband services). 3UK hosts approximately [✂]% of Gamma's subscriber base, [✂].[228] As of 2023, Gamma had approximately [✂] mobile subscribers with 3UK.

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[222] FMN.
[223] Currys Annual Report and Accounts 2023/24, 25 July 2024, accessed by the CMA on 30 July 2024.
[224] UW and BT agree new mobile deal, 1 September 2020, accessed by the CMA on 30 July 2024.
[225] UW and BT agree new mobile deal, 1 September 2020, accessed by the CMA on 30 July 2024.
[226] Asda signs with Vodafone for MVNO, 4 June 2007, accessed by the CMA on 24 July 2024.
[227] Asda Mobile SIM Bundle Deals (From £5 a month) - Asda Mobile, accessed by the CMA on 24 July 2024.
[228] FMN.

TalkTalk

5.111 TalkTalk is currently hosted on VUK’s network and had approximately [✂] mobile subscribers, as of 2023. It is also the fourth largest broadband provider in the UK. [✂].[229]

Other players in the market

MVNEs and MVNAs

5.112 As an alternative to negotiating wholesale access to a mobile network directly with an MNO, MVNOs can access networks through a mobile virtual network enabler (**MVNE**) or a mobile virtual network aggregator (**MVNA**).

(a) An MVNE platform provides a package of network infrastructure and operational services to MVNOs. These operational services can include network subsystems, business support systems, provisioning and administration services. These platforms can provide a full end-to-end experience including functionality such as e-commerce, online self-care and customer apps that would otherwise be supplied by the MVNO. An MNO that has integrated with an MVNE can support the launch of a new MVNO in reduced timescales with minimal upfront and ongoing investment required from the MVNO. For example, VUK currently has an MVNE agreement with Digitalk.[230] 3UK launched its own multi-tenant platform Lifecycle MVNE technical platform, with [✂] in January 2024, and [✂].[231] [✂].[232]

(b) MVNAs (such as Transatel[233]) are resellers of wholesale services, whereby the MVNA purchases mobile airtime in bulk from the MNO and wholesales this airtime to MVNOs. The benefits of an MVNA for an MVNO is that, in addition to purchasing airtime through the MVNA, an MVNO can use the MVNA’s master wholesale access agreement with all the necessary infrastructure and hosted systems (ie the functionality of an MVNE platform), such that it can set up an MVNO offering in a much shorter time.

5.113 MVNEs and MVNAs are not mobile operators in the sense that they do not have direct relationships with mobile customers and do not compete in the supply of retail mobile services. However, they are relevant to the supply of wholesale mobile services as suppliers of network enablement platforms and/or intermediary

[229] FMN.
[230] FMN.
[231] Parties’ response to the CMA’s RFI.
[232] FMN.
[233] FMN.

wholesale access services, particularly for smaller MVNOs seeking to enter the market.

5.114 Third-party feedback suggests MVNAs play a limited role in supplying wholesale mobile services in the UK. Seven of the ten largest MVNOs (as mentioned in Table 5.1) responding to the CMA's third-party phase 1 questionnaire were not in a position to comment or had limited views on MVNAs, suggesting a low level of engagement between MVNOs and MVNAs. One MVNO stated they were not aware of any MVNAs in the UK.[234] Another MVNO suggested that their presence is very limited in the UK and that MVNOs tend to have a direct relationship with an MNO.[235]

5.115 Third-party feedback suggests that there are advantages and disadvantages to MVNOs from working with MVNAs. A number of MVNOs suggested that MVNAs can reduce the barriers to entry, however they can also make a sustainable business model for an MVNO more difficult to achieve. This is due to an MVNO's margins being reduced as a result of the MVNA applying a mark-up to the MNO pricing.[236]

Hyperscalers & system integrators

5.116 The Parties submitted that system integrators (**Sis**) and hyperscalers have a role in the supply of retail mobile services to business customers. They submitted that Sis, such as Accenture, Atos, Infosys, TCS and others, supply business communication products by repackaging services from other providers and supply a single solution that meets a specific customer's needs.[237] Similarly, they submitted that hyperscalers or tech platforms, such as Microsoft, have been diversifying their business communication offerings and can either partner with an MNO that provides the underlying base for their applications or can operate a mobile private network.[238,239]

5.117 Third-party evidence suggests that hyperscalers and Sis currently operate in different, but complementary product categories to business mobile services[240] and as such do not currently compete with MNOs or MVNOs in the provision of retail mobile services to business customers.[241] Instead, hyperscalers and Sis procure from or partner with existing MNOs for mobile connectivity services, which

234 [✂] response to the CMA's competitor questionnaire.
235 [✂] response to the CMA's competitor questionnaire.
236 Responses to the CMA's wholesale questionnaire from: [✂]; and [✂].
237 FMN.
238 FMN.
239 Mobile private networks are dedicated mobile networks operated in a limited geographical area (eg, a large building) for the benefit of a specific (enterprise) client (FMN).
240 [✂] response to the CMA's competitor questionnaire.
241 Responses to the CMA competitor questionnaire from: [✂]; and [✂].

they then combine with their own products/services to offer a suite of services to their customers.[242]

5.118 Third parties also suggested that hyperscalers and Sis have not been able to build a substantive presence in the supply of retail mobile telecommunications services to business customers due to: (i) the high costs involved in securing spectrum licences and building a national radio network;[243] and (ii) the cost of compliance in a heavily regulated market.[244]

5.119 Third parties indicated that they expect the number of hyperscalers to grow over the coming years[245] and Sis and hyperscalers to continue to drive substantial increase in utilisation and demand, but that they do not anticipate they will build their own infrastructure.[246] One third-party MNO indicated that it expects continued innovation and product development from hyperscalers within the value-added mobile services category and assumes [✄],[247] whereas another third-party MNO indicated that it could not comment on whether the position of hyperscalers and Sis would change in the coming years and that while there has been speculation about entry into retail mobile services, this has not materialised to date.[248]

Resellers

5.120 Resellers, such as Currys Business and Bytes Digital, act as retail intermediaries and enable businesses to compare price and network quality across MNOs and MVNOs.[249]

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242 [✄] response to the CMA's competitor questionnaire.
243 [✄] response to the CMA's competitor questionnaire.
244 [✄] response to the CMA's competitor questionnaire.
245 [✄] response to the CMA's competitor questionnaire.
246 [✄] response to the CMA's competitor questionnaire.
247 [✄] response to the CMA's competitor questionnaire.
248 [✄] response to the CMA's competitor questionnaire.
249 FMN.

6. MARKET DEFINITION

Framework of assessment

6.1 Where the CMA makes an SLC finding, this must be 'within any market or markets in the United Kingdom for goods or services'.[250] An SLC can affect the whole or part of a market or markets.

6.2 Market definition provides a framework for assessing the competitive effects of a merger. The assessment of the relevant market is an analytical tool that forms part of the analysis of the competitive effects of the merger and should not be viewed as a separate exercise.[251] The boundaries of the market do not determine the outcome of our analysis of the competitive effects of the merger in a mechanistic way. We may, for example, take into account constraints outside the relevant market, segmentations within the market, or other ways in which some constraints are more important than others. In many cases, especially those involving differentiated products, there is often no 'bright line' that can or should be drawn.[252]

6.3 The Parties overlap both in the supply of retail mobile telecommunications services to end consumers and in the supply of wholesale mobile services. This has formed the starting point of our assessment. We consider each of these in turn.

Retail mobile telecommunications services

6.4 We firstly consider the Parties' submissions and previous CMA and European Commission decisions, before presenting our assessment.

Parties' submissions

6.5 The Parties submitted that:

(a) Consistent with the approach followed by both the CMA and the European Commission in previous cases – the relevant market is the overall retail supply of mobile telecommunications services to end consumers, and that further subsegments are not appropriate and in any event do not constitute separate markets.[253]

[250] Section 35(1)(b) of the Act.
[251] CMA129, March 2021, paragraph 9.1.
[252] CMA129, paragraph 9.4.
[253] FMN.

(b) In particular, there should be no distinction between business customers and consumers.[254] This is because there are sufficient levels of supply-side substitutability and the products required by business customers – devices and airtime contracts – are the same as those required by consumers and form part of the same economic group supply-side.[255] As an example, the Parties submitted that there is evidence of both pricing interactions and switching between the SoHo subsegment and the broader consumer segment.[256] The Parties also submitted that while business customers do have some distinct requirements, for example with regards to price negotiation and dedicated customer support, these do not necessitate segmenting business customers and consumers into separate markets.[257]

(c) Consistent with the approach followed by both the CMA and European Commission in previous cases – the relevant geographic market is the UK.[258] Further, the Parties submitted that targets set by both Ofcom and the UK Government (such as the Shared Rural Network and Wireless Infrastructure Strategy) aim to level competitive conditions across different geographic areas and encourage mobile operators to provide even coverage across the UK.[259]

Previous CMA and European Commission decisions

6.6 The CMA found in *BT/EE* that there was a single national (UK) market for the supply of retail mobile telecommunications services. However, the CMA also noted that the competitive constraints may vary within certain market subsegments, including fixed-mobile bundles vs stand-alone mobile services, businesses vs consumers and packages including high speeds and generous data allowances relative to less generous packages, and therefore considered those factors in the competitive assessment, where appropriate.[260]

6.7 The CMA did not find it necessary to conclude in that case on whether the business and consumer segments constituted separate markets, because it did not make a difference to the outcome of its competitive assessment. The CMA therefore took account of differences between business and consumer customers where appropriate within its competitive assessment.[261]

6.8 In past decisions, the European Commission has identified an overall retail market for mobile telecommunications services, distinct from retail fixed

[254] FMN.
[255] FMN.
[256] FMN.
[257] FMN.
[258] FMN.
[259] FMN.
[260] CMA final report on the anticipated acquisition by BT Group plc of EE Limited, paragraph 10.49.
[261] CMA final report on the anticipated acquisition by BT Group plc of EE Limited, paragraph 10.29.

telecommunications services. The European Commission has considered that the retail mobile telecommunications market should not be further segmented based on the type of service (voice calls, SMS, MMS, data services), or the type of network technology (2G, 3G, 4G). The European Commission has considered a number of possible segmentations of the overall retail market (pre-paid vs post-paid services; consumers vs business customers; high-value vs low-value customers; SIMO and handset subscriptions; different distribution channels; fixed-mobile bundles and stand-alone mobile services) and has taken the view that they do not constitute separate product markets but rather segments of the same market.[262] In *Hutchison 3G UK/Telefónica UK*, the European Commission found that the market for the retail supply of mobile telecommunications services was national in scope (ie limited to the UK).[263]

Our assessment

Product scope

6.9 We have considered whether the market should be segmented according to types of customers, types of products (pre-paid vs post-paid services, SIMO vs handset subscriptions, fixed-mobile bundles vs stand-alone mobile services), distribution channels, the type of service (eg voice, SMS and data vs data only), and the type of network technology.

6.10 The available evidence indicates that there may be differences between the services provided depending on the type of customer, for example consumers and business customers, and by type of business customer (for example corporate customers vs SMEs).

(a) In their internal documents, each of VUK and 3UK report separately on the business and consumer retail segments, and those segments constitute separate divisions within the Parties' respective organisational structures.

(b) From a demand-side perspective, the Parties recognise that customer requirements vary along a spectrum of complexity with larger businesses (for example corporate and public sector customers) requiring additional services by comparison to smaller business customers or consumers.[264] This has been confirmed by third parties in the course of our merger investigation.[265] However, the Parties have also provided data showing that (i) within 3UK, business customers have switched from 3UK's consumer to business tariffs, and (ii) SoHo customers on business tariffs port out to and from MVNOs

[262] Case M.10515 – *ILIAD/UPC POLSKA*, recital 14; Case M. 8792 – T-Mobile NL/Tele2 NL, recitals 160, 197, 202, 206, 210, 214, 220.
[263] Case M.7612 – *Hutchison 3G UK/Telefónica UK*, recitals 289 and 293.
[264] FMN.
[265] Responses to the CMA competitor questionnaire from: [✂]; and [✂].

(even though most do not have business-specific tariffs).[266] Some business customer respondents also indicated that their mobile requirements could be met by using consumer tariffs.[267]

(c) From a supply-side perspective, our share of supply estimates suggest that the current conditions of competition vary to an extent across the business and consumer retail segments, with the MNOs having different shares and strengths across each segment. In particular, VUK's share of supply in the consumer retail segment by number of subscribers was [10-20%] as of in 2023, whereas in the business retail segment it was [30-40%]. These variations in shares of supply also exist for other MNOs (as reflected at Chapter 8, Customer bases). Shares of supply by subscribers also point towards MNOs having different shares and strengths within the business retail segment itself, with VUK's share of supply in the corporate and public sector subsegments being significantly higher than in the SoHo, small SME and medium SME subsegments, whereas by contrast 3UK has a much larger share of SoHo customers than other types of business customers. This is consistent with third party responses to our merger investigation (see Chapter 8, Evidence from MNOs and MVNOs). Based on information provided by the Parties, we also observe that MVNOs active in the consumer retail segment, such as Sky Mobile and Tesco Mobile, do not appear to serve business customers to any meaningful extent and MVNOs on the whole account for a materially smaller share of supply in the business retail segment than the consumer retail segment (as reflected at section Chapter 8, Customer bases). This is consistent with third party responses.

6.11 We have also found some evidence indicating that there may be some differences in competitive constraints for customers in the value segment as compared to more premium segments. For example, as outlined in Chapter 8, evidence from the Parties' and third parties' internal documents and third party views suggest that several MVNOs predominantly target consumers in the value segment.

6.12 The available evidence also suggests that competitive constraints may vary to some degree across different types of mobile service products (for example, pre-paid vs post-paid, SIMO vs handset, mobile bundles vs standalone). For example, as outlined in Chapter 8, some operators only offer certain types of services, and there are differences in the shares of supply across types of services. However, we note that the Parties submitted switching data indicating that some customers move between types of contracts.[268]

[266] FMN.
[267] Responses to the CMA business customer questionnaire from: [✂]; and [✂].
[268] FMN.

6.13 We have found no evidence that retail mobile telecommunications services should be segmented according to distribution channels, the type of service (eg voice, SMS and data vs data only), or the type of network technology.

6.14 Taking the available evidence in the round, we provisionally conclude that the appropriate product market is the overall supply of retail mobile telecommunications services to end consumers. We note, however, that competitive constraints may vary within certain subsegments, including in particular business vs consumer customers. Accordingly, all meaningful variations between customer groups that are relevant to our assessment, are considered in the competitive assessment, where appropriate.

Geographical scope

6.15 Evidence available to us does not point towards a geographic market narrower than national. We note that despite some limited local differences in the Parties' (and other MNOs') mobile coverage[269] and retail footprint, both Parties and their main competitors are national, large-scale mobile operators with nationally recognised brands, as well as integrated and centralised operations. Importantly, the Parties submitted that their prices are set [✂].[270] [✂], the Parties' sales, advertising and marketing strategies are determined [✂].[271] The Parties' internal documents show that competitive performance is monitored [✂].

Our provisional view

6.16 We provisionally conclude that there is a national (UK) market for the supply of retail mobile telecommunications services (**Retail Market**). We note that competitive constraints may vary within certain market subsegments and have therefore considered those factors in the competitive assessment, where appropriate.

Wholesale mobile services

6.17 We firstly consider the Parties' submissions and previous CMA and European Commission decisions, before presenting our assessment.

Parties' submissions

6.18 The Parties have submitted that:

[269] See Ofcom Connected Nations; UK Report 2023, December 2023, Figure 3.6 'Differences in 4G geographic coverage in England, Northern Ireland, Scotland and Wales'.
[270] FMN.
[271] FMN.

(a) Consistent with the approach followed by both the CMA and European Commission in previous cases – the relevant market is the wholesale supply of network access and call origination on public mobile telephone networks (ie the supply of wholesale mobile services),[272] and the relevant geographic market is the UK.[273]

(b) This market should not be further segmented according to the access provided to different types of MVNOs, as from a supply-side perspective each MNO can supply the access required by each type of non-MNO.[274]

Previous CMA and European Commission decisions

6.19 In past decisions, the European Commission has consistently found that there is a single product market for the wholesale supply of network access and call origination. Both network access and call origination were considered 'key elements required […] to provide retail mobile communications services' and are typically supplied together by an MNO.[275]

6.20 The European Commission has previously found that:

(a) Services provided may vary by type of access seeker (ie between a full MVNO or light MVNO). However, it concluded that differences in the access imply only differences in the activities related to the provision of retail mobile services by MVNOs and that all MNOs in the UK have the technical ability to perform such activities.[276]

(b) The wholesale market corresponds to the dimension of the MNOs' networks, which are limited to national borders, given that the licences to mobile operators are granted on a national basis.[277]

6.21 The CMA found in:

(a) *Liberty Global plc/Telefónica SA* that the relevant market was the wholesale supply by MNOs to MVNOs of network access and call origination on public mobile telephone networks in the UK;[278] and

(b) *BT/EE* that the relevant market was no broader than the wholesale market for network access and call origination on public mobile telephone networks in the UK.[279]

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[272] FMN.
[273] FMN.
[274] FMN.
[275] Case M. 7018 – *Telefónica Deuteschland/E-Plus*, recital 77.
[276] Case M. 7612 *Hutchison 3G UK/Telefónica UK*, recital 299.
[277] Case M.7612 – *Hutchison 3G UK/Telefónica UK*, recital 304.
[278] CMA final report on the anticipated joint venture between Liberty Global Plc and Telefónica SA, paragraph 9.19.
[279] CMA final report on the anticipated acquisition by BT Group plc of EE Limited, paragraph 13.10.

Our assessment

6.22 We have considered the extent to which the market should be segmented according to the access provided to different types of MVNOs.

6.23 We have broadly found that MNOs compete for all types of MVNOs. However, there is some evidence that the competitive position of individual MNOs may differ to some degree across types of MVNOs. For example, according to our analysis of MVNO opportunity data in Chapter 9, MVNO opportunity data, BTEE has been particularly successful in winning smaller MVNO opportunities. In addition, we have seen some evidence suggesting that 3UK [✂] (see Chapter 9).[280] Taking the evidence in the round, we provisionally consider that it is not appropriate to segment the market according to type of MVNO. However, we will consider any meaningful variations between types of MVNOs within the competitive assessment, where appropriate.

6.24 We note that there are some limited local differences in the Parties' (and other MNOs') mobile coverage[281] and we received a submission from a third party MVNO that suggests that competition in the supply of wholesale mobile services may vary depending on regional considerations.[282] However, we note that the available evidence does not point to the Parties (or other MNOs) taking a regionalised approach to the supply of wholesale mobile services. In particular, the Parties' internal documents show that the Parties monitor MVNO customers in the UK and, in the case of 3UK's internal documents, refer to 3UK [✂].[283] Further wholesale contracts are for national coverage and most MVNOs are active nationally.

Our provisional view

6.25 We provisionally conclude that there is a national (UK) market for the supply of wholesale mobile telecommunication services (**Wholesale Market**).

[280] We note that there are [✂]. Parties response to the CMA's RFI.
[281] See paragraph 6.15 above.
[282] [✂] response to the CMA's 11 October 2023 preliminary invitation to comment.
[283] For example, CK Hutchison internal documents.

7. INTRODUCTION TO COMPETITIVE ASSESSMENT

7.1 This chapter sets out some aspects of our treatment of the evidence considered in our assessment of the potential competitive effects of the Merger, including a summary of the evidence base itself. It then sets out the overall framework for our competitive assessment, including the interplay between the theories of harm and our assessment of the efficiencies that the Parties claim the Merger would bring about. In the first section below, we briefly set out some of the sources of evidence we have gathered during our investigation. We then set out some aspects of our approach to the assessment of certain types of evidence.

Treatment of evidence

Evidence gathered in this investigation

7.2 In assessing the impact of the Merger, we have looked at a wide range of evidence that we considered in the round to reach our provisional decision. The evidence we have gathered has been tested rigorously, and we considered the context in which the evidence was produced when deciding how much weight to place on it. The evidence we have taken into account includes:

(a) Submissions from the Parties: the Parties had multiple opportunities to make submissions and comment on our emerging thinking throughout the investigation, including a number of in-person meetings with the Inquiry Group. In May 2024, the Parties submitted a response to the CMA's Phase 1 Decision. We held an in-person teach-in and site visit with each of the Parties, where their senior business staff gave us several presentations on the evolution of the mobile sector and the strategic and economic rationale for the Merger, and answered our questions relating to our investigation. We subsequently produced working papers and an annotated Issues Statement with our emerging thinking, and the Parties submitted their views, in writing, on those materials. We held formal hearings (in-person) with each of the Parties, in which we spoke to the Parties' senior management about topics that we were exploring in our investigation. The Inquiry Group also met in-person with the Parties to further discuss the rivalry-enhancing efficiencies they claim will result from the Merger. In addition, the Parties made a number of other submissions, including technical materials in support of their submissions regarding rivalry-enhancing efficiencies.[284]

[284] This includes a Joint Business Plan and Joint Network Plan for the Merged Entity underpinned by detailed economic modelling, together with submissions regarding the Merged Entity's ability and incentive to realise efficiencies (in particular, the Parties' Merger simulations and sensitivity analysis) and incremental cost of adding capacity. The Parties have also submitted evidence from their own customer survey and analysis of diversion ratios.

(b) Internal documents: we received a significant volume of evidence from the Parties. In response to targeted information requests, we received over 50,000 internal business documents from Vodafone and CK Hutchison, including strategy documents, board presentations, and email communications among senior staff. These documents which, for the most part, were created in the ordinary course of business, set out the Parties' views of the Retail and Wholesale Markets, as well as their future financial, network and commercial strategy.

(c) Shares of supply and other quantitative data: in addition to qualitative evidence we gathered quantitative evidence, including data to estimate shares of supply, business and customer data (including opportunity and customer switching data, along with data on gross adds, net adds and churn), data used to assess the quality of the Parties' 4G and 5G networks, as well as pricing data. We also used both Ofcom and third-party (Pure Pricing and Opensignal) data sets to perform a detailed econometric analysis of consumer demand.

(d) Evidence from other market participants: we gathered evidence from other MNOs and MVNOs. We sent over 20 requests for information, held several calls and meetings, and gathered hundreds of internal documents from these third parties. In our calls we spoke to senior staff and business experts across the industry to get a better understanding of the competitive landscape and potential impact of the Merger.

(e) Evidence from Ofcom: we worked closely with Ofcom given its industry expertise as the sectoral regulator overseeing communications services, including mobile services.[285] While we have carefully considered Ofcom's views, it is ultimately for the Inquiry Group to decide whether the Merger gives rise to an SLC.

(f) Evidence from other third parties: we also sought views from other interested third parties. In response to our Issues Statement of 2 May 2024 we received a number of submissions containing views on the Merger. We considered those views and published third party responses on the case page.

(g) Evidence from customer surveys: we engaged an independent market research company to undertake two separate online surveys aimed primarily at understanding drivers of customer choice and customers' next best alternatives. One was a general population survey and the second polled a random sample of VUK and 3UK customers (the **CMA surveys**).

[285] CMA2 revised, paragraph 17.2.

Internal documents

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

7.4 In our review of internal documents, whether from the Parties or third parties, we took care to interpret them in their context. In deciding what weight to attach to them we considered information such as the identity and role of the person that prepared, sent or received them. In line with our guidance (CMA129), where internal documents support claims being made by merger firms or third parties, we considered whether those documents were generated prior to the period in which the Parties were contemplating the Merger, and the period in which third parties were aware of the Merger.[286] On this point, we observe that a combination between VUK and 3UK was in contemplation for a significant period of time prior to the announcement of the Merger in June 2023, with the vast majority of contemporaneous internal documents which we rely on having been generated over the same period. This may impact the overall evidentiary weight that we are able to attach to such documents as we consider that, particularly for those generated at the board and senior management level, the contemplation of a merger between VUK and 3UK may have affected both the content and the way these were drafted.

7.5 The weight we attach to different pieces of evidence – both quantitative and qualitative – also depends on the relative quality of such evidence. When considering the weight to place on documentary evidence we considered that evidence alongside all the available evidence.[287]

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

[286] CMA129, paragraph 2.29(a).
[287] CMA129, paragraphs 2.25 and 2.30.

Views of market participants

7.7 Views of market participants are an important source of evidence in CMA merger investigations. That said, the outcomes of a merger investigation can have a direct financial or strategic impact on market participants, and therefore – as with internal documents – we considered the interests and incentives of the Parties, market participants that oppose the Merger (or support it) and other third parties, as well as the extent to which any claims made by market participants are consistent with other evidence, when assessing what weight to attach to those views.

7.8 In addition to views provided by firms, we also heard from the public directly throughout the investigation, both through the CMA surveys, and communications received from members of the public (including Members of Parliament). Details of the CMA surveys are provided in Chapter 8. The CMA surveys were commissioned by an independent specialist agency under controlled conditions, with questions specifically tailored to bring out objective responses, and accounting for comments provided by the Parties and by Ofcom. We consider that the CMA surveys have been designed, conducted and analysed robustly in accordance with good survey practice.

7.9 We also considered evidence from Ofcom, including through seeking its technical input on the Parties' claimed post-Merger plans.

Role of quantitative evidence

7.10 Economic modelling and quantitative evidence – including shares of supply, financial modelling, and econometric analysis – can be helpful in assessing a range of questions relevant to merger investigations.

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

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

Framework for assessment

7.13 We have assessed the competitive effects of the Merger with reference to 'theories of harm'. Theories of harm describe the possible ways in which an SLC may be expected to result from a merger and provide a framework for assessing the competitive effects of a merger.[288]

7.14 We have considered three theories of harm (see Chapters 8 to 12). Two of these focus on horizontal unilateral effects. Horizontal mergers combine firms that are currently active, or absent the merger would be active in the future, at the same level of the supply chain and compete to supply products that are substitutable for each other.[289] The third theory of harm focuses on anti-competitive effects arising from the sharing of commercially sensitive information through the Merged Entity's participation in both network sharing arrangements. We have set out at the beginning of each Chapters 8 to 12 the framework we have applied in assessing each of these theories of harm and key questions we have tested in the course of our investigation.

7.15 As reflected in the Issues Statement we published on 2 May 2024, the Parties have publicly claimed that the Merger will result in extensive efficiencies which they say will provide improved network quality for their customers and, in turn, stimulate more intensive competition in the relevant markets, particularly with regard to mobile network quality.[290]

7.16 We have analysed these efficiency claims using the CMA's established framework, which distinguishes between:[291]

(a) Rivalry-enhancing efficiencies (**REEs**): efficiencies that change the incentives of the merger firms and induce them to act as stronger competitors to their rivals, for example, by reducing their marginal costs giving them the incentive to provide lower prices or a better quality, range or service. These go towards the finding of whether or not there is an SLC.

(b) Relevant customer benefits: benefits to UK customers that may result from a merger – for example, greater levels of innovation resulting from the combination of unique assets of the merger firms applying to products other

[288] CMA129, paragraph 2.11.
[289] CMA129, paragraph 2.15.
[290] CMA, Issues Statement, 2 May 2024, paragraph 45.
[291] CMA129, paragraph 8.3.

than those where the firms compete. These do not go towards the finding of whether or not there is an SLC, but may influence the nature of any remedy imposed in response to any SLC that is found. We consider these further in the notice of remedies published alongside our Provisional Findings.

7.17 In assessing the Parties' claimed REEs, we have first considered the potential adverse effect on competition from the Merger (ie whether there is scope for an SLC) (Chapters 8 to 12) and then considered whether any claimed REEs would likely enhance rivalry in a way that offsets any anticompetitive effects identified to prevent an SLC (Chapter 14).[292] We have carried out our assessment in the round, with reference to the available quantitative and qualitative evidence, to weigh any REEs against anti-competitive effects in each market where we have provisionally considered an SLC would arise absent any REEs.[293] We have not, however, sought to quantify precisely the extent of any potential SLC and any claimed REEs.[294]

7.18 Our assessment of mergers is forward-looking, and we have considered the effects of the Merger both now, and in the future.[295] Merger assessments may involve assessing the likely development of markets years into the future and, as a result, some aspects of our assessment may be subject to a large degree of uncertainty. Whilst the degree of uncertainty has been carefully weighted in our assessment of whether the relevant standard of proof is met, the presence of some uncertainty does not in itself preclude us from concluding that the SLC test is met on the basis of all the available evidence.[296] Accordingly, we have sought to account for the future evolution of competitive conditions when assessing both theories of harm and REEs, including considering how competition would evolve with and without the Merger bearing in mind the role of network quality, future network investments and the fact that investment horizons in this sector are long-term in nature. Our assessment also recognises that some effects may take more time than others to materialise, for example short-run effects on price may materialise whereas effects on quality from a multi-year investment programme may take longer to arise.

[292] CMA129, paragraph 8.4.
[293] CMA129, paragraphs 2.22, 2.25 and 2.28.
[294] CMA129, paragraphs 2.7, 2.21 and 2.22; and *Tobii v CMA* [2020] CAT 1, paragraph 393.
[295] CMA129, paragraph 2.14.
[296] CMA129, paragraph 2.27.

8. TOH1: HORIZONTAL UNILATERAL EFFECTS IN THE SUPPLY OF RETAIL MOBILE SERVICES

Introduction

8.1 This chapter sets out our assessment of horizontal unilateral effects in the supply of retail mobile services in the UK.

8.2 Horizontal unilateral effects may arise in a horizontal merger when one firm merges with a competitor that would otherwise provide a competitive constraint, allowing the merged entity profitably to raise prices or degrade non-price aspects of its competitive offering (such as quality, range, service and innovation) on its own and without needing to coordinate with its rivals.[297]

8.3 We firstly outline the Parties' main submissions, then present our assessment based on the evidence we have gathered to date, before presenting our overall provisional conclusions on the theory of harm.

Parties' main submissions

8.4 The Parties submitted that the Merger will not give rise to an SLC in the supply of retail mobile services due to horizontal unilateral effects.[298] This is because:

(a) Neither Party is a significant competitive force in retail and neither exerts a strong competitive constraint.[299] 3UK's share of supply has stagnated at its low, sub-scale level for many years,[300] and although it 'has made some [✂] in the SOHO segment, [✂].[301] 3UK continues to have the highest churn of all MNOs.[302]

(b) The Parties are not each other's closest competitors.[303]

(c) BTEE and VMO2 are 'clear market leaders, acting as strong competitive constraints on the Parties'.[304] The Parties submitted that BTEE and VMO2 are the market leaders, acting as strong competitive constraints on the Parties,[305] and that they are the two largest suppliers in the overall retail mobile market by revenue and subscriber share.[306]

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[297] CMA 129, paragraph 4.1.
[298] Parties' initial submission, 1 May 2024, paragraph 3.
[299] Parties' initial submission, 1 May 2024, paragraph 3.1.(i).
[300] Parties' initial submission, 1 May 2024, paragraph 3.4(iv).
[301] Parties' initial submission, 1 May 2024, paragraph 3.4(viii).
[302] Parties' initial submission, 1 May 2024, paragraph 3.4(ii).
[303] Parties' initial submission, 1 May 2024, paragraph 3.1.(ii).
[304] Parties' initial submission, 1 May 2024, paragraph 3.1.(iii)(a).
[305] Parties' initial submission, 1 May 2024, paragraph 3.1.(iii)(a).
[306] Parties' initial submission, 1 May 2024, paragraph 3.18(i).

(d) MVNOs exert a strong and growing competitive constraint.[307] MVNOs are the 'fastest growing players in the retail mobile market, exerting strong and growing competitive pressure',[308] and they 'compete aggressively on price'.[309] They also submitted that MVNOs also compete on non-network parameters (such as customer service and brand) and that in the consumer retail market MVNOs are the fastest growing players across a range of metrics.[310]

(e) The Parties' lack of scale constrains their ability to compete, due to their inability to fund sustainable investments to [✂].[311]

Our assessment

8.5 In differentiated markets, horizontal unilateral effects are more likely where the merger firms are close competitors or where their products are close substitutes. The merger firms need not, however, be each other's closest competitors for unilateral effects to arise. It is sufficient that the merger firms compete closely and that the remaining competitive constraints are not sufficient to offset the loss of competition between them resulting from the merger.[312]

8.6 The concept of close competition is not limited to products or services that have similar characteristics. A firm may be a close competitor if it represents a significant competitive force or exerts a strong constraint on other firms. For example, a firm that has a particular reputation or incentive to compete aggressively may represent a close competitor to other firms, even if their respective offerings are quite different.[313]

8.7 The CMA will consider the overall closeness of competition between the merger firms in the context of other constraints that would remain post-merger. Where the CMA finds evidence that competition mainly takes place among few firms, any two of them would normally be sufficiently close competitors that the elimination of competition between them would raise competition concerns, subject to evidence to the contrary. The smaller the number of significant players, the stronger the prima facie expectation that any two firms are close competitors. In such a scenario, the CMA will require persuasive evidence that the merger firms are not close competitors in order to allay any competition concerns.[314]

[307] Parties' initial submission, 1 May 2024, paragraph 3.1.(iii)(b).
[308] Parties' initial submission, 1 May 2024, paragraph 3.21.
[309] Parties' initial submission, 1 May 2024, paragraph 3.22.
[310] Parties' initial submission, 1 May 2024, paragraph 3.1(iii)(b), 3.21(i), 3.21(iii), 3.22, 3.21(iv) and Figure 3.5; and Annex 1 to the Parties' response to the AIS and working papers.
[311] Parties' initial submission, 1 May 2024, paragraph 3.1.(iv)(a); and Annex 1 to the Parties' response to the AIS and working papers.
[312] CMA 129, paragraph 4.8.
[313] CMA 129, paragraph 4.9.
[314] CMA 129, paragraph 4.10.

8.8 Therefore, the key questions we have tested are:

(a) the significance of the competitive constraint eliminated by the Merger and whether there would be sufficient remaining good alternatives that customers could switch to post-Merger;

(b) whether the Merged Entity would have lower incentives to compete strongly compared to each Party on a standalone basis, and exert less of a constraint on other mobile operators; and

(c) in turn, whether this would allow the Merged Entity – and its competitors – to profitably increase prices or degrade non-price aspects of their competitive offerings (such as investing less in network quality).

8.9 The evidence which we have used to assess these key questions is split into the following groups and assessed in turn below:

(a) parameters of competition – evidence on customer choice factors;

(b) customer bases – evidence on market shares and customer churn;

(c) the Parties' competitive position – evidence on the competitive positions, incentives, and strategies of the Parties, including in relation to both pricing and network investment;

(d) closeness of competition and competitive constraints – evidence on how closely the Parties compete and the constraint they face from rivals; and

(e) post-Merger constraints – evidence on how the Merger may affect any competitive constraint from MNOs and MVNOs and quantitative evidence on the impact of the Merger on prices, excluding consideration of any efficiencies.

Parameters of competition

8.10 This section provides our assessment of the importance of price and non-price factors (such as network quality and fixed-mobile convergence) on the competitiveness of operators in the UK retail mobile services market.

8.11 The Parties submitted that all operators compete across multiple dimensions with both non-price and price factors playing a significant role in the competitiveness of an operator's offer.[315] The Parties further submitted that the main elements of non-

[315] FMN.

price competition are network quality, brand, quality of customer service and supplementary factors, such as handset range.[316]

8.12 Overall, the Parties submitted that price and network quality are key parameters of competition in the retail market.[317]

(a) In relation to price competition, the Parties submitted that customer preference and engagement mean that operators need to offer competitive propositions to acquire and retain customers, and that variations in competitive strategies have resulted in a pricing landscape that is very heterogenous and differentiated and which offers consumers a wide range of choice and flexibility.[318]

(b) In respect of network quality, the Parties submitted that there are multiple dimensions.[319] Of these dimensions the Parties submitted that coverage (in terms of population and land mass, both indoors and outdoors), reliability and consistency (in particular by reference to download and upload speeds) are important parameters,[320] as well as network capacity (ie networks need to be sized to cope with the customer base and their demands) and speeds,[321] consistency of service, access to 5G SA, and the ability to support new use cases.[322] The Parties submitted that network quality plays a significant role in customer switching decisions and that many UK customers are not willing to accept a network that is perceived to be of lower quality.[323] VUK also said that it looks to compete through a balance between price and network quality. It considers that the '[network] service needs to be there to start with' and, if it is, customers would 'think of the price if they are happy with the service'.[324]

8.13 The Parties also submitted an analysis of customer churn linked to poor network performance. The analysis shows [✂]. The Parties submitted that this data shows that 'customers' poor network experience is a key driver of churn'.[325] We note that [✂]. Therefore, although the analysis [✂], it does not account for the majority of the customer churn. Further, the Parties' analysis does not control for other factors that may affect the churn rates in a given area, such as targeted marketing by competitors.

8.14 The Parties also provided an analysis of the difference between customers terminating their contracts citing [✂]. This showed that in this period non-

[316] FMN; and Parties' initial submission, 1 May 2024, paragraphs 3.4(viii),3.18(ii) and 3,26.
[317] Parties' initial submission, 1 May 2024, paragraphs 3.15 and 3.31.
[318] FMN.
[319] FMN.
[320] Parties' initial submission, 1 May 2024, paragraph 3.18(iii)(b); and FMN.
[321] Parties' initial submission, 1 May 2024, paragraph 1.15.
[322] Parties' initial submission, 1 May 2024, paragraph 6.5; and FMN.
[323] FMN.
[324] Vodafone Main Party Hearing transcript.
[325] Annex 1 to the Parties' response to the AIS and working papers; and Parties' response to the CMA's RFI.

upgraded sites had a higher churn rate than those that were upgraded.[326] However, as above, this analysis does not control for other factors that may affect the churn rates in a given area, such as targeted marketing by competitors.

8.15 The Parties also submitted that converged operators pose an increased competitive constraint through their ability to cross-sell mobile services to their fixed bases and that the uptake of converged offers in the UK is increasing.[327] The Parties submitted that the share of FMC household penetration is around 25%, and pointed to the forecast by Analysys Mason which predicts that this penetration will grow in the next few years, reaching 40% by 2028.[328] However, this is inconsistent with a [✂] prepared by VUK [✂].[329] We note that, based on [✂].[330] We note that the Parties' submissions are also inconsistent with the Ofcom data presented at Chapter 5, Fixed-mobile convergence and bundling. Further, 3UK told us that the 'jury is out on the converged service' proposition and that customers are not currently buying into it. This is because customers are weighing up being tied into a broad offer including multiple products compared to having the flexibility to be able to pick and choose the best options for them.[331]

8.16 Further, the Parties submitted that customer requirements are continually changing with ever increasing demand for mobile data, which has grown significantly in recent years and may grow faster in future. This requires MNOs to continue to invest in their networks in order to compete effectively.[332]

8.17 We have assessed evidence from:

(a) surveys;

(b) econometric analysis; and

(c) third parties.

Surveys

8.18 We have considered evidence from the following surveys:

(a) CMA surveys;

(b) GfK survey; and

[326] Annex 1 to the Parties' response to the AIS and working papers.
[327] Parties' initial submission, 1 May 2024, paragraphs 3.18(iv) and 3.18(v).
[328] FMN.
[329] Vodafone internal document.
[330] Vodafone internal documents.
[331] 3UK site visit recording.
[332] Parties' initial submission, 1 May 2024, paragraphs 2.3 and 2.4; and Annex 1 to the Parties' response to the AIS and working papers.

(c) The Parties' survey.

CMA surveys

8.19 We commissioned the market research agency DJS Research to undertake two separate surveys:

(a) a UK general population survey (**CMA UK population survey**) weighted to be representative of the UK adult population.[333] We received 800 responses to this survey, which was aimed primarily at understanding drivers of customer choice; and

(b) a survey of the Parties' customers (**CMA customer survey**). We received 1,527 responses to this survey, which was aimed primarily at understanding customers' next best alternatives, including for the purpose of calculating diversion ratios. The analysis of the CMA customer survey presented here is an analysis of the data weighted to be representative of the stock of the Parties' customers.[334]

8.20 The Parties submitted that the CMA customer survey is skewed towards pre-paid customers due to the higher response rate amongst customers of the Parties' sub-brands relative to their main brands and therefore the results 'understate customer preferences for network quality'.[335] However, as explained above our analysis of the CMA customer survey presented here is of the data weighted to be representative of the stock of the Parties' customers.

8.21 As part of the CMA UK population survey, we asked respondents the reasons they chose their current provider over the alternatives (with respondents able to select multiple reasons). The survey results show that price is a key parameter of choice, with 84% citing price or a price related factor as a reason for choosing their current provider.[336] 51% of respondents cited at least one network quality attribute as a reason for choosing their current provider,[337] with network coverage (41%) being the most commonly cited. Good previous experience with the provider (36%) and brand reputation (24%), were given as reasons by fewer respondents. Only 7% of

[333] All results from the CMA UK population survey that are presented in this working paper are weighted. The weighting scheme used is as follows: a single weight based on iterative rim weighting to the following (non-interlocking) marginal totals: age and sex (6 categories - young male, young female, middle-aged male, middle-aged female, older male, older female), Region (12 categories – nine English regions plus three other home nations), Index of Multiple Deprivation quintiles (five categories) and urban/rural (two categories).
[334] Results from the CMA customer survey that are presented in this working paper are weighted. The weighting scheme used is as follows: a single weight based on cell weighting to two interlocking cell totals: brand and segment. For VUK 'brand' took three categories – Vodafone, VOXI and Talkmobile; for 3UK it took two categories – Three and SMARTY. For both Parties, 'segment' took two categories – PAYM and PAYG.
[335] Annex 1 to the Parties' response to the AIS and working papers.
[336] Price related factors include: generous data allowances, having unlimited data, perks/rewards/discounts/offers, free roaming in the EU, unlimited or high volume of texts, and roaming costs.
[337] Network quality attributes include: network coverage, network speed, network reliability for voice calls, network reliability for uploading and downloading data, and network response speed for gaming.

respondents cited other services that formed part of the bundle as a reason for choosing their current provider.

Table 8.1: CMA UK population survey – reasons for choosing current provider

	%
Response option	*Proportion of respondents*
Price	68
Network coverage	41
Good previous experience with provider	36
Generous data allowance	32
Unlimited or high volume of texts	25
Brand reputation	24
Free roaming in the EU	24
Network reliability for voice calls	21
Contract length	21
Customer service of the provider	18
Network speed	17
Network reliability for uploading/downloading data	16
Having unlimited data	16
Handset make/type/version	14
Perks/rewards/discounts/offers	14
Handset upgrade or availability	12
Roaming costs	12
Other services that formed part of the bundle	7
Network response speeds for gaming	2
Other	2
Price and price related factors	84
At least one aspect of network quality	51

Source: CMA UK population survey
Base size: n = 773
Note : CMA analysis of responses to question 10 of the CMA UK population survey. The question asked was 'Thinking back to when you took out your mobile phone package with your current provider or when you last renewed your mobile phone package with them, which of the following were reasons for choosing your current provider, rather than any other alternative mobile network providers? (Tick all that apply)'.

8.22 We also asked respondents which factor was most important in choosing their current provider, as well as which factor would be their main consideration if they had to choose a new mobile network provider in the next month. Table 8.2 shows that for 44% of respondents price was the main reason for choosing their current provider and for 53% it would be the main reason for choosing a new provider. Price and price related factors were the main reason for 57% choosing their current provider and 68% for choosing a new provider. The highest network quality parameter (network coverage) was identified as the main reason by 10% for choosing their current provider and by 12% for choosing a new provider. 13% of respondents cited an aspect of network quality as the main reason for choosing their current provider, and 18% for choosing a new provider. Good previous experience with their provider was cited by 13% of respondents as the main reason for choosing their current provider, while brand reputation (3% for choosing their current provider and 3% for choosing a new provider), and other services that formed part of the bundle (2% for choosing their current provider and 1% for choosing a new provider) were given as reasons by few respondents.

Table 8.2: CMA UK population survey results – main reason for choosing provider

Response option	*For current provider*	*For new provider* %
Price	44	53
Good experience with provider	13	N/A
Network coverage	10	12
Generous data allowances	4	4
Free roaming in the EU	3	5
Having unlimited data	3	4
Brand reputation	3	3
Handset make/type/version	3	1
Handset upgrade or availability	2	2
Network reliability for voice calls	2	4
Perks/rewards/discounts/offers	2	2
Customer service of the provider	2	3
Other services that formed part of the bundle	2	1
Contract length	1	1
Network speed	1	2
Network reliability for uploading/downloading data	1	1
Roaming costs	1	1
Unlimited or high volume of texts	0	0
Other	3	0
Don’t Know/Can’t Remember	2	2
Price and price related factors	57	68
Any aspect of network quality	13	18

Source: CMA UK population survey
Base sizes: current provider: n = 718; new provider: n = 745
Note : CMA analysis of responses to questions 11 and 12 of the CMA UK population survey. Question 11 asked ‘And which of these was the single main reason for choosing your current provider?’ while question 12 asked ‘Which of the following would be your main consideration if you had to choose a new mobile network provider in the next month?’.

8.23 As part of the CMA customer survey, we asked respondents for the reasons they chose their current provider over the alternatives (with respondents able to select multiple reasons). The results show that price is a key parameter of competition, with 70% of 3UK’s customers and 59% of VUK’s customers indicating it was a reason for choosing their current provider. Price and price related factors were cited by 88% of 3UK and 79% of VUK customers respectively.[338] 54% of 3UK’s and 61% of VUK’s customers identified at least one network quality attribute as a reason, with network coverage being the most regularly chosen by both Parties’ customers.

[338] Price related factors include: generous data allowances, having unlimited data, perks/rewards/discounts/offers, free roaming in the EU, unlimited or high volume of texts, and roaming costs.

Table 8.3: CMA customer survey results – reason for choosing current provider

Response option	*Proportion of 3UK respondents*	*Proportion of VUK respondents* %
Price	70	59
Network coverage	37	43
Generous data allowance	36	34
Network speed	28	26
Good previous experience with supplier	20	32
Brand reputation	22	30
Network reliability for voice calls	20	25
Customer service	20	24
Unlimited or high volume of texts	21	20
Network reliability for uploading or downloading data	18	24
Unlimited data	25	19
Contract length	24	18
Perks/rewards/discounts	16	18
Free roaming in the EU (and possibly elsewhere)	18	13
Handset upgrade/availability	14	13
Roaming costs	15	10
Handset make/type/version	11	12
Other services that formed part of the bundle	7	10
Network response speed for gaming	8	6
Other	2	5
Price and price related factors	88	79
At least one aspect of network quality	54	61

Source: CMA customer survey
Note: CMA analysis of responses to question 7 of the CMA customer survey. The question asked was 'Thinking back to when you took out your mobile phone package with <PROVIDER>, which of the following were reasons for choosing <PROVIDER>, rather than any other provider? Tick all that apply'.

8.24 We also asked respondents which factor was the main reason for choosing their mobile provider. Table 8.4 shows that for 38% of 3UK's customers and 26% of VUK's customers price was the main reason for choosing their mobile provider. Price and price related factors were the main reason for 62% of 3UK's customers and 45% of VUK's customers choosing their mobile provider. The highest network quality parameter, network coverage, was identified as the main reason by 8% of 3UK's customers and 13% of VUK's customers. Overall, network quality attributes accounted for 15% of 3UK's customers' and 23% of VUK's customers' main reason to choose their mobile provider.

Table 8.4: CMA customer survey results – main reason for choosing a mobile provider

%

Response option	*Proportion of 3UK respondents*	*Proportion of VUK respondents*
Price	38	26
Good previous experience with supplier	8	12
Network coverage	8	13
Generous data allowance	7	6
Unlimited data	8	6
Brand reputation	4	6
Free roaming in the EU	4	1
Network speed	3	3
Customer service	3	4
Handset upgrade/availability	3	3
Perks/rewards/discounts/offers	3	4
Network reliability for voice calls	2	3
Contract length	2	1
Roaming costs	2	1
Unlimited/high volume of texts	2	1
Network reliability for uploading/downloading data	2	4
Handset make/type/version	1	2
Network response speed for gaming	1	0
Other services that formed part of the bundle	0	2
Price and price related factors	62	45
At least one aspect of network quality	15	23

Source: CMA customer survey
Note: CMA analysis of responses to question 8 of the CMA customer survey. The question asked was 'And which of these was the single main reason for choosing <PROVIDER>?'.

8.25 We also note that there were some variations between responses from 3UK and VUK customers to the CMA customer survey:

(a) although price was the most commonly selected factor by both Parties' customers, a higher proportion of 3UK's customers considered it a reason for choosing their mobile provider (70% vs 59%) and also a higher proportion (38% vs 26%) considered it the main reason for choosing their mobile provider, compared to VUK's customers; and

(b) a higher proportion of VUK's customers considered at least one network quality attribute a reason for choosing their mobile provider (61% vs 54%) and also a higher proportion (23% vs 15%) considered it the main reason for choosing their mobile provider, compared to 3UK's customers.

8.26 As part of the CMA UK population survey, we also asked respondents whether they would be willing to pay more than they do now for a faster network or a more reliable network. The results showed that 76% of respondents were unwilling to pay more for a faster network (15% willing),[339] while 59% of respondents were unwilling to pay more for a more reliable network (33% willing).[340]

[339] CMA analysis of responses to question 14 of the CMA UK population survey (weighted). The question asked was 'When you next make a decision about choosing a mobile network provider, would you be willing to pay more than you do now for a faster network connection?'.
[340] CMA analysis of responses to question 15 (weighted). The question asked was 'And would you be willing to pay more for a more reliable network connection?'.

8.27 Further, as discussed below at paragraphs 8.219 and 8.220, as part of the CMA customer survey we asked the Parties' customers what they would do if there was a 10% price increase in the tariffs they are currently purchasing and if the network they were using was a bit less reliable. These results showed that 26% of both 3UK and VUK customers were price-marginal (ie they would switch if prices rose by 10%).[341] The results also showed that 60% of 3UK customers were quality-marginal (ie they would switch if the network they were using was a bit less reliable) while 65% of VUK customers were quality-marginal.[342] We consider that these responses are broadly consistent with price being an important parameter of competition and network quality also being important, particularly if it falls below a certain threshold.

8.28 The Parties submitted that the higher proportion of quality-marginal customers compared to price-marginal customers demonstrates that network quality is very important to the Parties' customers.[343] We consider that, whilst these questions provide a useful indication of how customers may react to changes in price and network quality, the proportions of quality-marginal and price-marginal customers cannot be directly compared. This is because whilst it is possible to specify a price increase (ie in this case a 10% price increase), it is not possible to precisely define a change in quality (in this case we asked what customers would do if the network 'was a bit less reliable').

8.29 We undertook further analysis of any differences in the importance of choice factors according to the CMA UK population survey between (a) area levels of the Index of Multiple Deprivation (**IMD**), (b) age groups, and (c) rural and urban respondents.

8.30 In relation to different IMD areas we found that there is not a strong relationship between IMD and respondents' propensity to mention price and price related factors. For age we found that younger respondents generally tended to mention price and price related factors more often than older respondents.[344]

8.31 With regards to rural and urban respondents, we found that urban respondents were relatively more concerned with price and price related factors compared to their rural counterparts (Figure 8.1), while rural respondents were relatively more concerned with network related attributes (Figure 8.2).

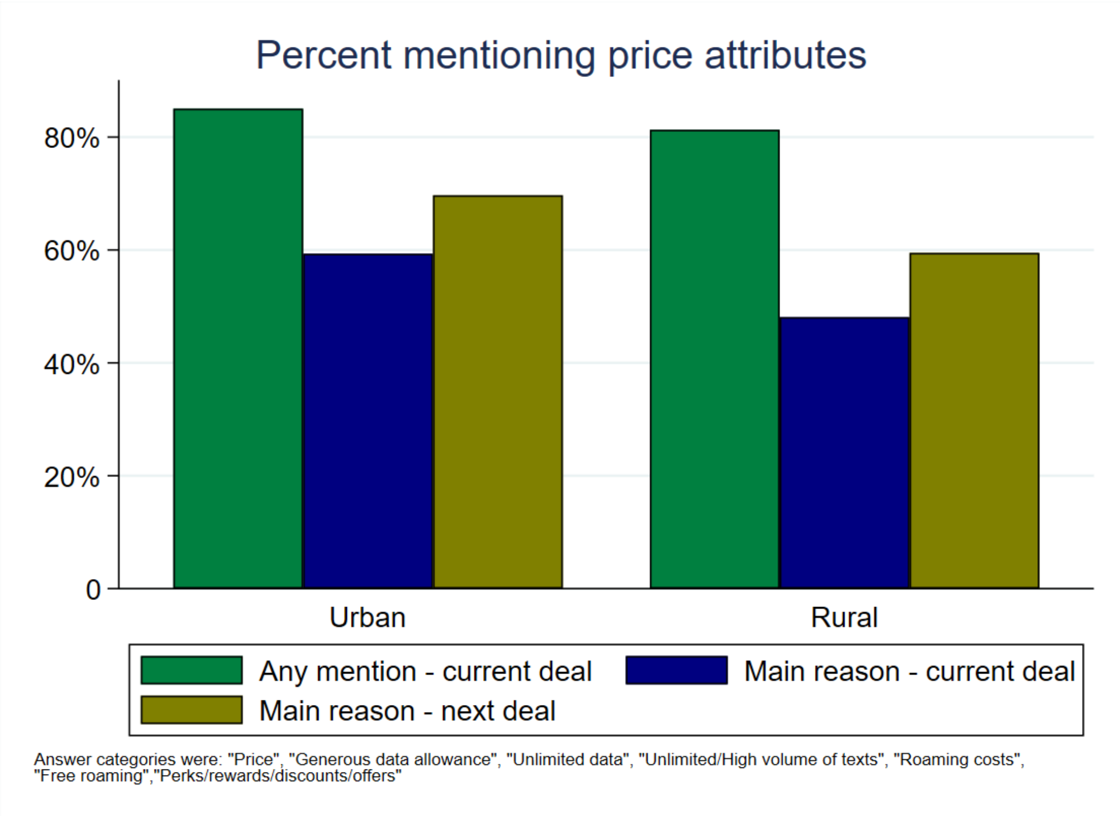
(a) 85% of urban respondents mentioned price and price related factors as a reason for choosing their current provider (compared to 81% of rural

[341] CMA analysis of responses to questions 10 and 11 of the CMA customer survey. Figures weighted by customer weights (weighted to be representative of the number of subscribers on each of the Parties' brands and segment).
[342]CMA analysis of responses to question 12 of the CMA customer survey. Figures weighted by customer weights. Note that for the quality-marginal question, the reduction in quality was not precisely defined. Instead, respondents were asked what they would do if the network was 'a bit less reliable'.
[343] Annex 1 to the Parties' response to the AIS and working papers
[344] We note that the 18-24 age group is a possible exception, though the result for this age group is based on a small sample size.

respondents), while 59% of urban respondents mentioned it as the main reason for choosing their current provider (compared to 48% of rural respondents) and 70% as their main consideration for choosing their next provider (compared to 59% of rural respondents).

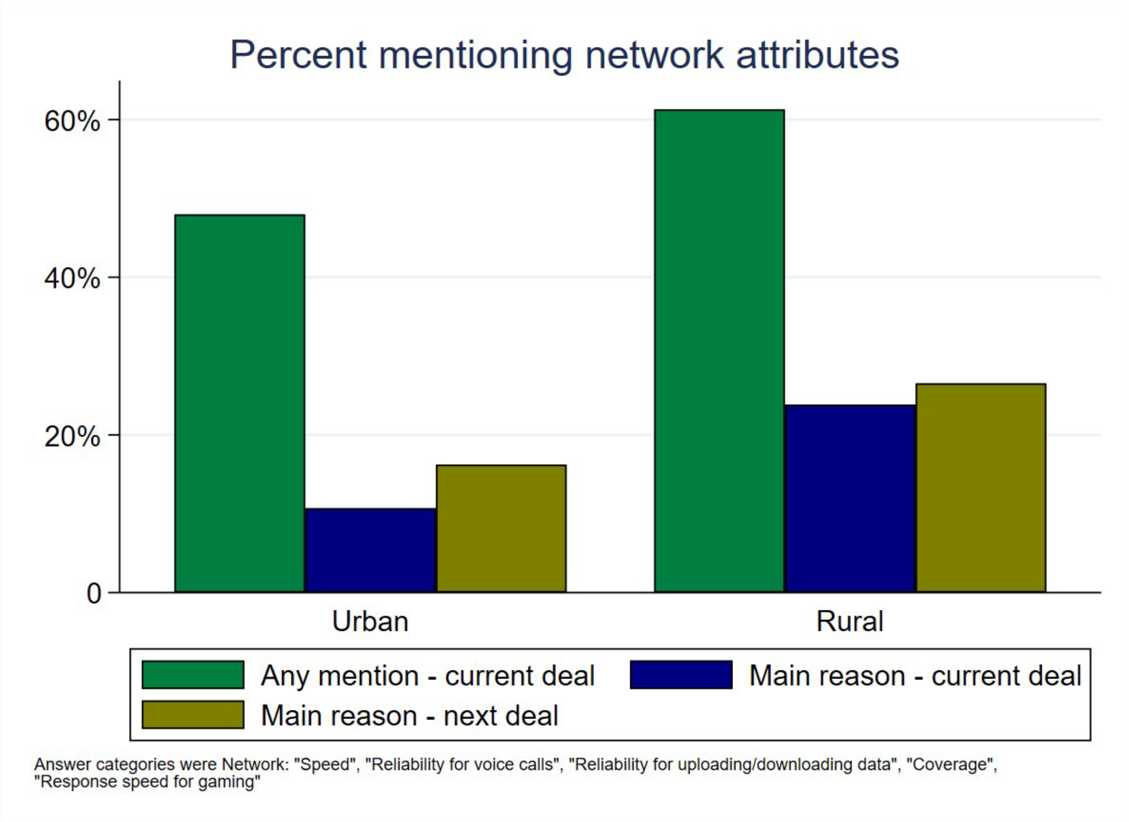
(b) 61% of rural respondents mentioned network related attributes as a reason for choosing their current provider (compared to 48% of urban respondents), while 24% of rural respondents mentioned it as the main reason for choosing their current provider (compared to 11%) and 27% as their main consideration for choosing their next provider (compared to 16%).

Figure 8.1: CMA UK population survey results – percentage of urban/rural respondents mentioning price attributes



Source: CMA analysis of CMA UK population survey

Figure 8.2: CMA UK population survey results – percentage of urban/rural respondents mentioning network attributes



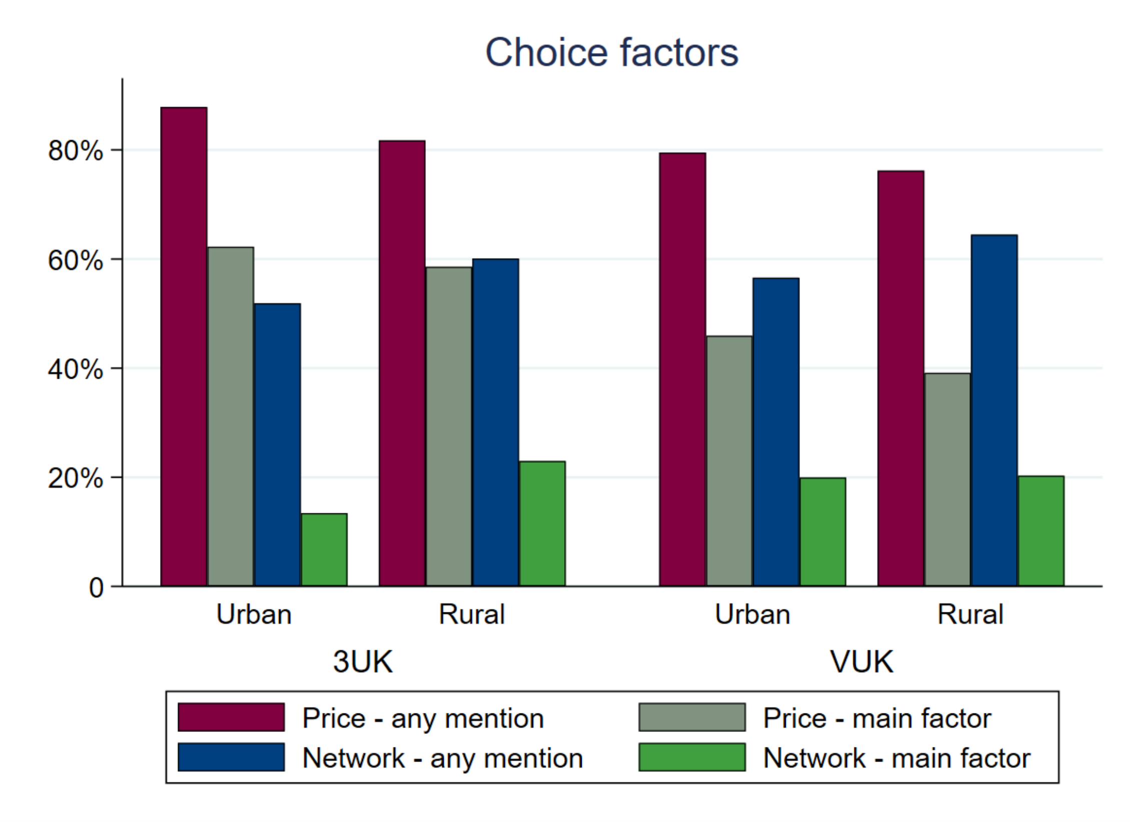
Source: CMA analysis of CMA UK population survey

8.32 This is also consistent with the CMA customer survey results, which showed that across both 3UK and VUK customers urban respondents were relatively more concerned with price and price related attributes compared to their rural counterparts, while rural respondents were relatively more concerned with network related attributes (Figure 8.3).

(a) For 3UK customers, 88% of urban respondents mentioned price and price related factors as a reason for choosing their current provider (compared to 82% of rural respondents), while 62% of urban respondents mentioned it as the main reason for choosing their provider (compared to 59% of rural respondents). 60% of rural respondents mentioned network related attributes as a reason for choosing their provider (compared to 52% of urban respondents), while 23% of rural respondents mentioned it as the main reason for choosing their provider (compared to 13% of urban respondents).

(b) For VUK customers, 80% of urban respondents mentioned price and price related factors as a reason for choosing their current provider (compared to 76% of rural respondents), while 46% of urban respondents mentioned it as the main reason for choosing their provider (compared to 39% of rural respondents). 64% of rural respondents mentioned network related attributes as a reason for choosing their provider (compared to 57% of urban respondents), while 20% of both rural and urban respondents mentioned it as the main reason for choosing their provider.

Figure 8.3: CMA customer survey results - percentage of urban/rural respondents mentioning price and network attributes



Source: CMA analysis of CMA UK population survey

8.33 Overall, the results of the two CMA surveys show that price is the single most important factor that customers consider when choosing a mobile provider. The different aspects of network quality are also important with around half of customers identifying at least one network quality parameter as a reason for choosing a provider, although a smaller proportion of customers consider it to be the main reason for choosing a provider. We also note there are some variations between urban and rural respondents, with urban respondents relatively more concerned with price and price related attributes compared to their rural counterparts and rural respondents relatively more concerned with network related attributes. Brand and customer service are also a consideration for customers but are less likely to be the main reason a customer choose a specific provider. Having mobile services as part of a bundle of products is not considered important by the vast majority of customers.

GFK survey

8.34 VUK provided us with results from the GfK survey.[345] This is an online panel survey that reports quarterly. We considered the survey results for the data from the four quarters from April 2023 to March 2024.

8.35 Respondents who had switched their mobile phone service in the previous three months were asked for the reasons they chose their new operator. Respondents could select multiple reasons and GfK then combined these responses into five broad categories. Table 8.5 shows that attributes in the price/value category were mentioned most often as a reason for joining a network ([60-70%] of respondents mentioned [✄] price attribute as a reason for joining). Network connection attributes were next, mentioned by [40-50%] of respondents, with customer service, brand reputation and recommendation (from family, friends or the press or in other media) attributes mentioned by [✄].

8.36 Table 8.5 also shows that price/value was mentioned more often by respondents who had joined MVNOs than by those who had joined MNOs ([70-80%] compared to [60-70%]).

Table 8.5: Reasons for joining the new operator

			%
Response option	*All*	*MNOs*	*MVNOs*
Price/Value	[60-70]	[60-70]	[70-80]
Network connection	[40-50]	[50-60]	[40-50]
Customer service	[30-40]	[30-40]	[30-40]
Brand	[20-30]	[20-30]	[20-30]
Recommendation	[20-30]	[20-30]	[20-30]

Source: GfK-360 survey (April 2023 to March 2024).

8.37 Respondents were also asked to give their main reason for joining the new operator. Table 1.6 shows attributes in the price/value category were selected as the main reason by [30-40%] of respondents and attributes in the network connection category were identified by [20-30%] of respondents. A price/value attribute was selected by many more respondents joining an MVNO than those joining an MNO ([50-60%] and [30-40%] respectively) while a network connection attribute was more likely to be selected by respondents who joined an MNO ([20-30%]) than an MVNO ([10-20%]).

345 Vodafone response to the CMA's s109 notice.

Table 8.6: Main reason for joining the new operator

Response option	*All*	*MNOs*	*MVNOs*
			%
Price/Value	[30-40]	[30-40]	[50-60]
Network connection	[20-30]	[20-30]	[10-20]
Customer service	[10-20]	[10-20]	[5-10]
Brand	[5-10]	[5-10]	[5-10]
Recommendation	[5-10]	[5-10]	[5-10]
Other	[10-20]	[10-20]	[5-10]

Source: CMA analysis of GfK-360 survey (April 2023 to March 2024). Numbers do not sum to 100% because of rounding

8.38 The GfK survey is a survey from a commercial online panel. The CMA does not usually give full weight to surveys from commercial online panels, particularly in circumstances where panel recruitment methodology is not made clear, which is the case for the GfK survey.[346] However, the Parties submitted that they collect and consider, among other sources, the GfK survey to monitor their competitive position and as such consider we can place some weight on it in so far as it is an input into their decision making.[347] We regard the CMA's surveys to be more robust, but note that the main findings of the GfK survey are broadly consistent with the two CMA surveys. Price is the most important factor for customers when deciding which mobile operator to choose. Network quality is also important for half of MNO customers, and nearly half of all customers, who selected at least one network connection attribute as a reason for joining. The GfK survey indicates that customer service, brand reputation and recommendations are less important.

Parties' survey

8.39 The Parties also submitted the results of a survey of 5,561 respondents, which show that the most relevant attribute for respondents choosing a mobile plan is price (ranked as most important by 42% of respondents, second by 23% and third by 9%) with a reliable connection ranked second most important (ranked as most important by 31% of respondents, second by 28% and third by 14%). Data allowance and a fast connection were third and fourth, selected as relevant considerations by fewer than half of respondents.[348]

8.40 As set out in Appendix F, The Parties' customer choice survey, we have a number of concerns with how this survey was conducted and do not consider that it meets a number of requirements set out in the CMA's Survey Good Practice guide.[349] We have therefore placed no weight on it.

[346] CMA 78, paragraphs 2.29-2.30.
[347] FMN.
[348] Parties' submission, Quality-focused merger simulation model.
[349] CMA78, paragraph 1.23.

Econometric analysis

8.41 To further understand the importance that consumers place on different aspects of operators' offerings we have undertaken econometric analysis on purchases of SIM-only tariffs in the UK in the first half of 2023 (see Appendix D for details). The econometric analysis has the advantage that it is based on the observed choices and switching behaviour of real subscribers in the UK.[350] The econometric model then works by trying to explain observed switching and consumer behaviour. Using a large dataset of consumer choices and detailed data on the set of tariffs available and their characteristics (such as data allowances and network quality) the econometric analysis is able to provide important insights into consumer behaviour.

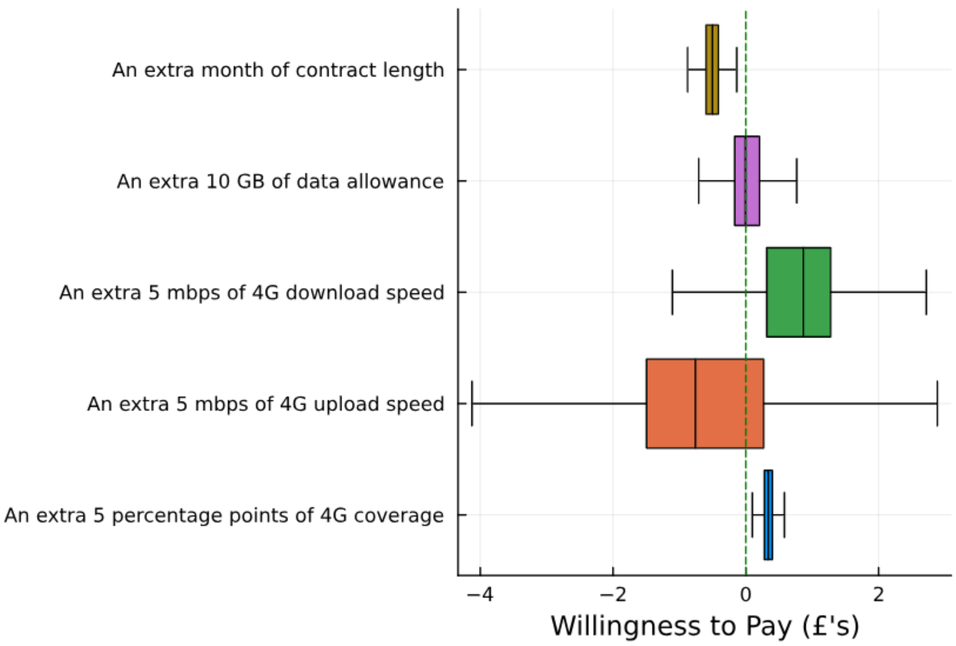
8.42 The econometric analysis we conducted can be used to estimate subscribers' willingness to pay for tariff and network characteristics.[351] A subscriber's willingness to pay is the amount they would pay from their current monthly income to obtain a particular improvement in a tariff characteristic. The sum of subscribers' willingness to pay for different features of a tariff and network gives their total willingness to pay for the tariff in each month.

8.43 Our econometric model allows willingness to pay for each tariff or network characteristic to vary across subscribers by age and monthly income. For example, to obtain a 5Mbps increase in download speed on the network they currently use, a high income, middle aged subscriber might be willing to pay more per month than a low-income, young subscriber on the same network.

8.44 The Figures below show boxplots of estimated distribution in our sample of subscriber willingness to pay in GBP's per month for different tariff and network characteristics. The box shows the 25th percentile (start of the box), the median and 75th percentiles (end of the box) of willingness to pay in the sample used for estimation.

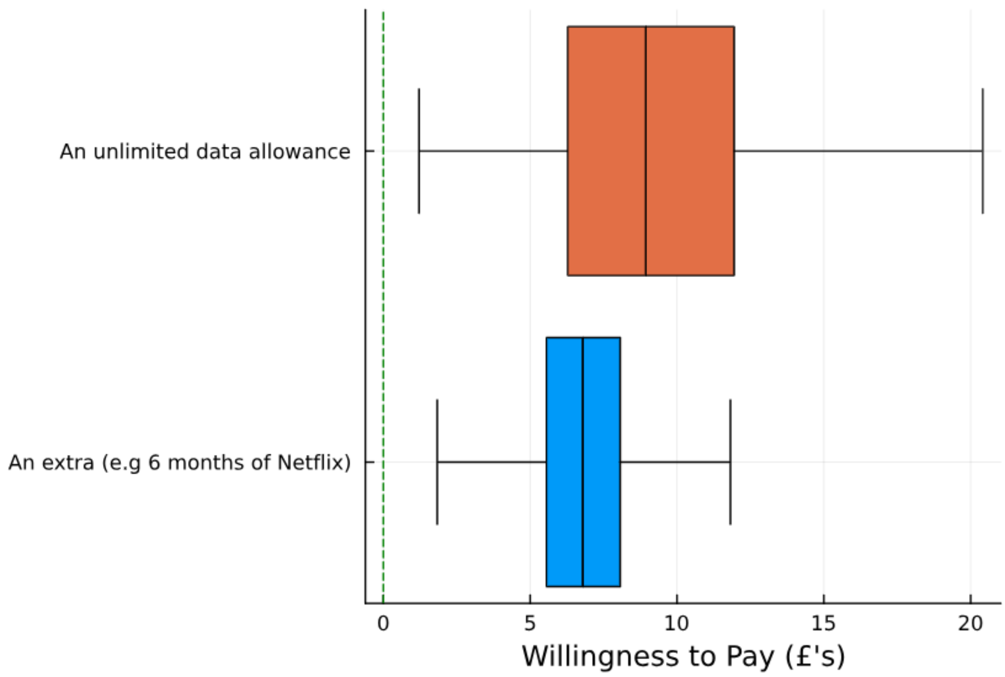
[350] In particular we use a flexible model of subscriber demand to estimate diversion ratios with a sub-sample of a dataset of choices from about 5% of the UK population in January-June 2023. See Appendix D for details.
[351] These include data allowance, download speed, network coverage and other aspects of network quality. For more details of tariff and network characteristics included see Appendix D.

Figure 8.4: CMA econometric estimates of willingness to pay (GBP's per month)



Source: CMA analysis of Ofcom provider data, Ofcom Connected Nations data, Pure Pricing Data and Opensignal Limited © 2024.

Figure 8.5: CMA econometric estimates of willingness to pay (GBP's per month)

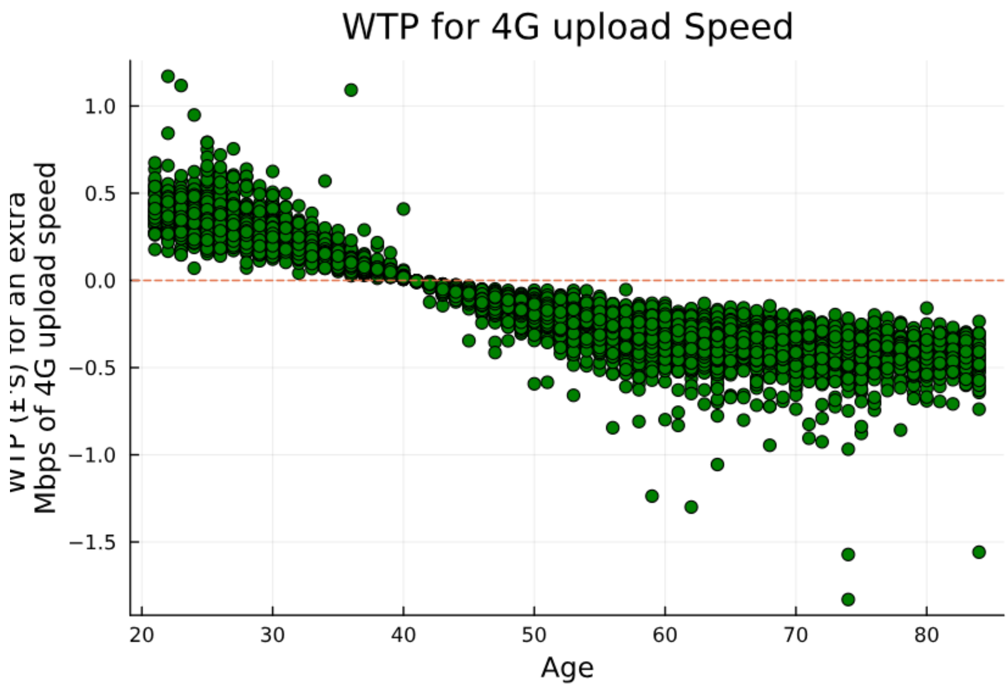


Source: CMA analysis of Ofcom provider data, Ofcom Connected Nations data, Pure Pricing Data and Opensignal Limited © 2024.

8.45 The estimates show that there is willingness to pay for aspects of network quality and in particular for 4G download speed. Five extra Mbps of 4G download speed has a median valuation of GBP 0.86, while an extra 5% of 4G coverage in the travel to work area around where a consumer lives is valued by the median subscriber in the sample as GBP 0.33.

8.46 In contrast we estimate a more varied valuation for 4G upload speed (important for posting to social media or making calls over 4G) with valuations being zero or negative for large parts of the distribution. Our sample has a large fraction of subscribers over the age 40 and, as can be seen in Figure 8.6 below, willingness to pay estimates of 4G upload speeds are highly age dependent with estimates showing a positive willingness to pay for subscribers under the age of 40 but a negative or zero valuation for those over the age of 40.

Figure 8.6: CMA econometric estimates of willingness to pay for 4G upload speed by age



Source: CMA analysis of Ofcom provider data, Ofcom Connected Nations data, Pure Pricing Data and Opensignal Limited © 2024

8.47 Compared to 4G measures we do not estimate a positive valuation for any 5G network quality variables. Specifically, we find that 5G network quality willingness to pay is close to GBP 0 and cannot be statistically distinguished from GBP 0 for any subscribers in the sample.

8.48 It is unclear why consumers value 4G more than 5G. One potential reason for the low willingness to pay for 5G is that 5G speeds may be less commonly observed by consumers than 4G speeds (eg because some consumers do not have a 5G-enabled phone or because it is still being rolled out in some areas).

8.49 Data allowance (for limited contracts) is valued at a median of GBP 0 however, as can be seen from the graph below, there is a positive valuation amongst younger subscribers. This is consistent with higher internet usage by younger audiences.[352]

[352] See Global internet users age distribution 2024 | Statista, accessed by the CMA on 3 September 2024.

Figure 8.7: CMA econometric estimates of willingness to pay for an extra GB of data by age

Source: CMA analysis of Ofcom provider data, Ofcom Connected Nations data, Pure Pricing Data and Opensignal Limited © 2024.

8.50 Other willingness to pay estimates are as follows:

(a) Willingness to pay for an additional month of contract length is negative, consistent with the logic that all else equal, subscribers value the option to be able to change or cancel contracts.

(b) Unlimited data is highly valued with a median willingness to pay of GBP 8.94.

(c) Extras are also valued positively with a median valuation of GBP 6.79 which seems plausible given extras typically include a period of free access to a streaming service.[353]

8.51 More generally the results show that there is variation in the willingness to pay for different characteristics across consumers included in our sample.

8.52 Finally, it is important to note that our demand model assumes willingness to pay estimates are linear in aspects such as speed and is estimated on data from the first half of 2023. This means that our estimates are most suited to understanding the relative importance consumers placed on different aspects of their tariffs in

[353] Streaming services may cost more than this figure however subscribers may not receive the extra for the full contract period and economic theory predicts that consumers have a lower valuation for in-kind transfers compared to cash.

2023 rather than estimating consumers' valuations for very large future changes in network quality.[354]

Third party evidence

8.53 We asked the Parties' competitors (the other MNOs and main MVNOs that account for the majority of the retail mobile market (excluding the Parties) as set out in Table 8.9 below) to rate the importance of a pre-populated list of factors[355] that consumers consider when purchasing retail mobile services in the UK, indicating the importance of each factor on a scale of one to five (where one is not important and five is very important) and adding other factors to the extent relevant.

8.54 We provide below an overview of the responses:

(a) The most important factors according to respondents were:

(i) value for money – which all respondents considered to be very important.

(ii) reliability of network[356] – considered to be very important by eight out of nine respondents.

(iii) price – considered to be important by eight out of nine respondents (and very important by five out of nine).

(b) Other factors considered to be important or very important include brand reputation (seven out of nine respondents) and speed of network (six out of nine respondents).

(c) Other factors were considered to be relatively less important:

(i) only three out of nine respondents considered that availability of handsets is important or very important.

(ii) only three out of nine respondents considered that latency[357] is important, and none considered it very important.

[354] Willingness to pay estimates are calculated in the range of the sample. Therefore, they cannot be reliably extrapolated to predict the aggregate welfare effect that may associated with large changes in tariff characteristics eg a large change in the available network quality. Additionally, our model assumes linearity in WTP for data. Over large changes the assumption of linearity is less likely to hold. For example, a 1mbps increase from a base of 10mbps is possibly valued more than a 1mbps increase when the base is 500mbps.
[355] The list of factors provided was as follows: availability of handsets, brand reputation, latency, perks/rewards (eg free roaming, discounts on other brands, entertainment options), price, quality of customer service, reliability of network, speed of network, and value for money.
[356] For completeness, we note that several responses to the CMA competitor questionnaire from third parties ([✂]; [✂]; [✂]; and [✂]) suggested that good network coverage goes hand-in-hand with network reliability, and one respondent noted that network coverage is often conflated with network reliability and speed. [✂].
[357] This is the time taken to get a data response.

(iii) only two out of nine respondents considered that perks/rewards are important or very important.

(iv) only one out of nine respondents considered that quality of customer service is important or very important.

(d) Some respondents listed other factors as important, including mobile plans that are easy to understand and network coverage, although in each case only one respondent listed the factor as important.[358]

8.55 We also gathered evidence from competitors on the key reasons consumers typically switch providers of retail mobile services, and the results were broadly in line with the factors that competitors believe consumers consider to be the most important when making their purchasing decision. Nearly all respondents said that switching was easy[359] and that getting a better price or value for money, or bad network quality are key reasons for switching, while customer service was identified as less important.[360]

8.56 Further evidence from third parties also indicates that price and network quality are the most important parameters of competition,[361] and that there are multiple dimensions to network quality.[362] One third party noted that there is a balance between value for money and network reliability, where there is a minimum level of network quality a provider needs to meet in order to be credible to customers.[363] Some third parties also considered that customer service, brand, and offer simplicity are important.[364]

8.57 These results are also broadly in line with Ofcom's findings in its consultation paper on its Future Approach to Mobile Markets and Spectrum, as well as other reports it has published which compare customer service levels across providers. While Ofcom has recognised the increasing importance of network quality, noting that it expects the quality of mobile services to become 'more important as customers' dependence on mobile services grows and their needs evolve', it has also highlighted the continued importance of price, noting that 'although quality is important to customers, there is a greater focus on price as a basis for competition'.[365] Further, an Ofcom report comparing customer service across providers published in May 2023 shows that where mobile customers had a reason to complain about their mobile service, the most common reason given was their service was not performing as it should (47%), for example because of

[358] Responses to the CMA competitor questionnaire from: [✂]; and [✂].
[359] Responses to the CMA competitor questionnaire from: [✂]; [✂]; [✂]; [✂]; [✂]; [✂]; [✂]; and [✂].
[360] Responses to the CMA competitor questionnaire from third parties from: [✂]; [✂]; [✂]; [✂]; [✂]; and [✂].
[361] [✂] call note; [✂] call note; [✂] call note, and Which? response to the issues statement, 16 May 2024.
[362] Responses to the CMA's competitor questionnaire from: [✂]; [✂]; [✂]; and [✂].
[363] [✂] call note.
[364] [✂] call note; [✂] call note; and [✂]call note.
[365] Ofcom's future approach to mobile markets and spectrum, Conclusions paper, December 2022, paragraphs 3.14 and 4.2.

poor connection quality or loss of service. This was followed by billing, pricing or payment issues (36%), and then dissatisfaction with customer service (22%).[366] We note however, that the reasons why customers complain to Ofcom may not necessarily correspond with the factors that determine customers' choice of operator.

8.58 We also received survey evidence from a third party – which is not a mobile operator – indicating that when asked to 'rank which is the most important to you when selecting a mobile network', 55% of mobile respondents with a mobile phone said 'price', 28% said 'good connection/signal', while only 6% said '5G coverage'.[367] The same third party also conducted a survey of 3UK customers and asked 'What would be your main driver for moving to a different mobile network?' of which 65% of respondents said 'price', 15% 'coverage', 9% 'speed', 5% 'add-ons' and 6% 'customer service'.[368] These surveys were conducted using commercial online panels which the CMA does not usually give full weight to, particularly in circumstances where panel recruitment methodology is not made clear.[369]

8.59 In respect of fixed-mobile convergence, as set out above in Chapter 5, Fixed-mobile convergence and bundling, Ofcom has noted that most users tend to purchase mobile services on a standalone basis, and the purchase of fixed-mobile bundles has not been a strong feature of the UK market to date. At phase 1, the CMA sought views from competitors on the importance of fixed-mobile bundles, currently and in the near future.[370] Third parties noted that the take-up of fixed-mobile bundles has been slow to date, and that although take-up is expected to increase (although not significantly) in the near future, customers will largely continue to purchase mobile services on a standalone basis.[371] This is in part because converged offerings are not particularly compelling for customers.[372]

8.60 As set out in in paragraph 8.135 below, VUK is seeking to establish itself as [✂] to BTEE and VMO2 while third party internal documents (set out in Appendix C, competitive strategies) suggest that some operators consider their ability to offer fixed-mobile bundles as part of a converged offering to be a competitive advantage in the retail market. Both BTEE and VMO2 actively pursue a converged offering strategy.[373] However, several third parties also considered that being able

366 Ofcom comparing customer service: mobile, landline and home broadband, May 2023, page 9.
367 Unite the Union submission to the CMA.
368 Unite the Union, polling submission, 30 July 2024.
369 CMA78, paragraphs 2.29 and 2.30.
370 In particular: (a) whether it is important to be able to offer fixed-mobile bundles to compete for consumers of retail mobile services in the UK; and (b) how they anticipate the take-up of fixed-mobile bundles in the UK changing in the near future (ie the next two to three years).
371 [✂] response to the CMA's competitor questionnaire; [✂] and [✂] call note.
372 Responses to the CMA competitor questionnaire from: [✂]; [✂]; [✂]; [✂]; [✂]; and [✂].
373 BT Group's 2024 annual report states that to deliver long-term sustainable growth, one of five priorities within BT Group's overall strategic framework is to 'Grow Consumer through converged solutions', specifically that 'Led by EE, Consumer will win more UK households by creating deeper relationships on the back of leadership in full fibre

to offer fixed-mobile bundles is not critical to compete or succeed in the retail market in the UK, rather it is one of the strategies available to operators to compete.[374] Notably, fixed-mobile convergence [✂] suggesting that 3UK does not perceive this as an impediment to its ability to compete in the retail market.[375]

8.61 With respect to the future demand for mobile services, we refer to our analysis set out above in Chapter 5, Mobile data traffic growth, that shows that there is uncertainty about the future rate of growth of mobile data which itself reflects uncertainty over future applications and technological developments.

Provisional conclusion on the parameters of competition

8.62 Overall, our provisional view is that price is a key parameter of competition. Whilst customers require a minimum level of quality, and network quality related parameters play an important role in customer decisions, they are less important than price. Within network quality there are multiple dimensions including network coverage, speed, consistency, latency, and reliability. Our econometric analysis shows that consumers particularly value 4G download speed, with variability in their valuations for 4G upload speed.

8.63 Brand and customer service are important to at least some customers but overall are less important than either price or network quality parameters. We also provisionally consider that, in order to continue to meet customers' growing data demand and remain competitive in the future, MNOs will need to continue to invest in their network infrastructure.

8.64 We also provisionally consider that the importance of price and quality parameters likely varies across customers. A slightly higher proportion of 3UK's customers consider price to be important and a slightly lower proportion consider network quality attributes to be important compared to VUK's customers. A slightly higher proportion of MVNO customers consider price to be important and a slightly lower proportion consider network quality attributes to be important compared to MNO customers. We also note there are some variations between urban and rural customers, with urban customers relatively more concerned with price related attributes compared to their rural counterparts and rural customers relatively more concerned with network related attributes. Our econometric analysis also shows that there is variation in the willingness to pay for different characteristics across consumers included in our sample.

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broadband, 5G and convergence' (BT Group plc Annual Report 2024, page 10, accessed by the CMA on 31 July 2024). VMO2's annual report for the year ended 31 December 2023 states that 'Growing demand for bundled household connectivity and services puts us in a strong position to be the UK converged champion and household supplier of choice, providing mobile, broadband and pay-TV with high-value customer experience and innovative propositions' (VMO2's FY23 Annual Report, page 10, accessed by the CMA on 31 July 2024).

[374] Responses to the CMA competitor questionnaire from [✂]; [✂]; [✂]; [✂]; [✂]; [✂]; and [✂] call note.

[375] CMA, Phase 1 Decision, 29 April 2024, paragraph 147.

8.65 With respect to fixed-mobile convergence, although we consider that it is a competitive strategy used by many operators (ie BTEE, VMO2, Sky Mobile and to some extent VUK), it is only one strategy operators use to compete. The uptake of such bundles has been slower in the UK compared to other European countries and most customers do not consider it an important factor driving their choice of mobile operator. Therefore, we provisionally consider that the ability to provide a fixed-mobile offering will not significantly affect the competitive constraints mobile operators exert in the future.

Customer bases

8.66 In this section, we use market shares by revenues and subscribers, market shares by data allowances, and customer gross adds, churn rates, and net adds, to analyse the customer bases of the mobile operators in the overall retail mobile market.

Market shares

8.67 We have firstly considered market share at a network level by allocating to each MNO their own revenue and subscribers as well as those of the MVNOs hosted on their respective networks. The Parties submitted that these are uninformative of conditions of competition.[376] However, we consider that, (i) as set out in paragraphs 8.62 to 8.64, price and the various dimensions of network quality are important parameters of competition and (ii) network quality is determined primarily by competition between the MNOs, while the ability of MVNOs to compete effectively on price depends on the wholesale terms granted by their host MNO. Accordingly, we consider that presenting market shares at network level is a useful indicator of the conditions of competition.

8.68 The Merger would reduce the number of MNOs from four to three in the UK and create the largest mobile operator, at the network level, in terms of revenue, and the second largest in terms of subscribers. As set out in Table 8.7, our estimates based on 2023 data show that the Merged Entity and the MVNOs hosted on its network would have a combined market share by retail revenue of [30-40%] with an increment of [10-20%] brought about by the Merger, and a similar market share by subscribers of [30-40%] with an increment of [10-20%].

[376] Annex 1 to the Parties' response to the AIS and working papers.

Table 8.7: Market shares in the overall retail mobile market at network level (by revenue and subscribers)

%

Operator	*Revenue*				*Subscriber*			
	2020	*2021*	*2022*	*2023*	*2020*	*2021*	*2022*	*2023*
BTEE Network	[30-40]	[30-40]	[30-40]	[30-40]	[20-30]	[20-30]	[20-30]	[20-30]
VMO2 Network	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]
VUK Network	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]
3UK Network	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
VUK + 3UK combined	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**
Others*	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of Parties' and third parties' revenue and subscriber data.
*Notes: *Others represents small MVNOs categorised under 'Others' by the Parties in their revenue and subscriber estimations, and as such cannot be attributed to any one MNO.*

8.69 As set out in Chapter 5, Mobile Services subscriptions, there are a number of different mobile service subscriptions available to both consumers and businesses. Table 8.8 shows the share of overall retail revenues and subscribers of each of these subsegments based on 2023 data. It shows that:

(a) The consumer retail segment generates a significantly greater share of overall retail revenues (80-90%]) and overall retail subscribers ([80-90]%) than the business retail segment ([10-20%] of revenues and [10-20%] of subscribers);

(b) The PAYM handset subsegment has a slightly larger share of overall retail revenues ([30-40%]) than the PAYM SIMO subsegment ([30-40%]), but PAYM SIMO has a larger share of overall retail subscribers ([30-40%] compared to [20-30%] for PAYM handset);

(c) The pre-paid subsegment has a significantly higher share of overall retail subscribers ([20-30%]) compared to share of overall retail revenues ([10-20%]). It supplies a greater share of subscribers than PAYM handset; and

(d) The PAYM data-only and SoHo subsegments each contribute to less than 5% of overall retail revenues and subscribers.

Table 8.8: 2023 share of overall retail revenues and subscribers in each subsegment

%

Subsegment	*Revenue share*	*Subscriber share*
Overall Retail	100.0	100.0
Consumer Retail	[80-90]	[80-90]
PAYM SIMO	[30-40]	[30-40]
PAYM handset	[30-40]	[20-30]
PAYM data-only	[0-5]	[0-5]
Pre-paid	[10-20]	[20-30]
Business Retail	[10-20]	[10-20]
SoHo	[0-5]	[0-5]
Other Business Retail*	[10-20]	[10-20]

Source: CMA analysis of Parties' and third parties' revenue and subscriber data.
**Other Business Retail subsegments refers to small SME, medium SME, corporate and public services.*

8.70 The Parties provided estimates of market shares for the segments listed in Table 8.8 above (ie overall retail, consumer retail, PAYM SIMO, PAYM handset, PAYM data-only, pre-paid, business retail and subsegments of business retail) at a mobile operator level.[377] We also produced our own estimates of market shares for these segments using the Parties' data, as well as revenue and subscriber data gathered directly from third parties.[378]

8.71 Table 8.9 sets out our estimates for market shares by revenues and subscribers in the overall retail market at mobile operator level. Based on 2023 data, our estimates show that in the overall retail market:

(a) The Merged Entity's market share by revenue would be [30-40%], with an increment of [10-20%] from the Merger. Its market share by subscribers would be [30-40%], with an increment of [10-20%]. This would result in the Merged Entity being the largest mobile operator by revenue, and the second largest by subscribers (behind VMO2 + Tesco Mobile[379]);

(b) Between them, the four MNOs generated over 90% of retail mobile revenues and supplied over 80% of subscribers in 2023. This is also the case for the consumer retail segment, as set out in Table 8.10; and

(c) In comparison, independent MVNOs generated [5-10%] of retail mobile revenues and supplied [10-20%] of subscribers in 2023. This has grown from [0-5%] of revenue and [5-10%] of subscribers in 2020.

[377] Parties' response to the CMA's s109.
[378] [✄] response to the CMA's RFI; [✄] response to the CMA's RFI; [✄] response to the CMA's RFI; and [✄] response to the CMA's RFI.
[379] As discussed in Chapter 5, Tesco Mobile, we consider for the purpose of the competitive assessment in relation to retail mobile services that VMO2 and Tesco Mobile cannot be treated as fully independent competitors given VMO2's 50% shareholding in Tesco Mobile and associated rights.

Table 8.9: Market shares in the overall retail market at mobile operator level (by revenue and subscribers)

%

Operator	*Revenue*				*Subscribers*			
	2020	*2021*	*2022*	*2023*	*2020*	*2021*	*2022*	*2023*
BTEE	[30-40]	[30-40]	[30-40]	[30-40]	[20-30]	[20-30]	[20-30]	[20-30]
EE	[20-30]	[20-30]	[20-30]	[20-30]	[10-20]	[10-20]	[10-20]	[10-20]
BT	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Plusnet	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
BT Business	[5-10]	[5-10]	[5-10]	[5-10]	[0-5]	[0-5]	[0-5]	[0-5]
VMO2 + Tesco Mobile	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]
VMO2	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]
O2*	*	*	*	*	*	*	*	*
Virgin Mobile*	*	*	*	*	*	*	*	*
Giffgaff	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[5-10]	[5-10]	[5-10]
Tesco Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[5-10]	[5-10]	[5-10]	[5-10]
VUK	[20-30]	[20-30]	[20-30]	[20-30]	[10-20]	[10-20]	[10-20]	[10-20]
Vodafone	[10-20]	[20-30]	[20-30]	[20-30]	[10-20]	[10-20]	[10-20]	[10-20]
Talk Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
VOXI	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
3UK + Superdrug†	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
3UK	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
Three	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
SMARTY	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Superdrug†	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
VUK + 3UK	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**
Sky Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Lebara	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Lyca Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
iD Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Utility Warehouse	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Asda	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Gamma	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Talk Talk	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Others	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of Parties' and third parties' revenue and subscriber data.
*Notes: *VMO2 was unable to provide a breakdown for the O2 and Virgin Mobile brands.*
†Superdrug is an MVNO hosted on 3UK's network and is a subsidiary within the CK Hutchison group.

8.72 Table 8.10 sets out our estimates for market shares by revenues and subscribers in the consumer retail segment at mobile operator level. Based on 2023 data, our estimates show that the Merged Entity's market share by revenue would be [30-40%], with an increment of [10-20%] from the Merger. Its market share by subscribers would be [20-30%], with an increment of [10-20%]. This would result in the Merged Entity being the largest mobile operator by revenue, and the second largest by subscribers (behind VMO2 + Tesco Mobile).

Table 8.10: Market shares in consumer retail segment at mobile operator level (by revenue and subscribers)

%

Operator	*Revenue*				*Subscribers*			
	2020	*2021*	*2022*	*2023*	*2020*	*2021*	*2022*	*2023*
BTEE	[30-40]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]
EE	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]
BT	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Plusnet	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
VMO2 + Tesco Mobile	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]
VMO2	[20-30]	[20-30]	[20-30]	[20-30]	[30-40]	[20-30]	[20-30]	[20-30]
O2*	*	*	*	*	*	*	*	*
Virgin Mobile*	*	*	*	*	*	*	*	*
Giffgaff	[0-5]	[0-5]	[0-5]	[0-5]	[5-10]	[5-10]	[5-10]	[5-10]
Tesco Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[5-10]	[5-10]	[5-10]	[5-10]
VUK	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
Vodafone	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
Talk Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
VOXI	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
3UK + Superdrug	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
3UK	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
Three	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
SMARTY	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Superdrug	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
VUK + 3UK	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[20-30]**	**[20-30]**	**[20-30]**	**[20-30]**
Sky Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Talk Talk	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Others	[0-5]	[0-5]	[0-5]	[0-5]	[5-10]	[5-10]	[5-10]	[5-10]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of Parties' and third parties' revenue and subscriber data.
*Notes: *VMO2 was unable to provide a breakdown for the O2 and Virgin Mobile brands*

8.73 Table 8.11 sets out our estimates for market shares by revenues and subscribers in the PAYM SIMO subsegment at mobile operator level. Based on 2023 data, our estimates show that the Merged Entity's market share by revenue would be [30-40%], with an increment of [10-20%] from the Merger. Its market share by subscribers would be [30-40%], with an increment of [10-20%]. This would result in the Merged Entity being the largest mobile operator by revenue, and the second largest by subscribers (behind VMO2 + Tesco Mobile).

Table 8.11: Market shares in the PAYM SIMO subsegment at mobile operator level (by revenue and subscribers)

%

Operator	*Revenue*				*Subscribers*			
	2020	*2021*	*2022*	*2023*	*2020*	*2021*	*2022*	*2023*
BTEE	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]
EE	[10-20]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]
BT	[5-10]	[0-5]	[0-5]	[0-5]	[5-10]	[0-5]	[0-5]	[0-5]
Plusnet	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
VMO2 + Tesco Mobile	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]
VMO2	[30-40]	[30-40]	[30-40]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]
O2*	*	*	*	*	*	*	*	*
Virgin Mobile*	*	*	*	*	*	*	*	*
Tesco Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
VUK	[10-20]	[10-20]	[20-30]	[20-30]	[10-20]	[10-20]	[10-20]	[10-20]
Vodafone	[10-20]	[10-20]	[10-20]	[20-30]	[10-20]	[10-20]	[10-20]	[10-20]
Talk Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
3UK	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
Three	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
VUK + 3UK	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[20-30]**	**[30-40]**
Sky Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Talk Talk	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Others	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[5-10]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of Parties' and third parties' revenue and subscriber data.

8.74 Table 8.12 sets out our estimates for market shares by revenues and subscribers in the PAYM handset subsegment at mobile operator level. Based on 2023 data, our estimates show that the Merged Entity's market share by revenue would be 30-40%], with an increment of [10-20%] from the Merger. Its market share by subscribers would be [20-30%], with an increment of [10-20%]. This would result in the Merged Entity being the third largest mobile operator by revenue (behind BTEE and VMO2 + Tesco Mobile), and the second largest by subscribers (behind VMO2 + Tesco Mobile).

Table 8.12: Market shares in the PAYM handset subsegment at mobile operator level (by revenue and subscribers)

%

Operator	*Revenue*				*Subscribers*			
	2020	*2021*	*2022*	*2023*	*2020*	*2021*	*2022*	*2023*
BTEE	[30-40]	[30-40]	[30-40]	[30-40]	[20-30]	[20-30]	[20-30]	[20-30]
EE	[30-40]	[30-40]	[30-40]	[30-40]	[20-30]	[20-30]	[20-30]	[20-30]
Plusnet	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
VMO2 + Tesco Mobile	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]
VMO2	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]
O2*	*	*	*	*	*	*	*	*
Virgin Mobile*	*	*	*	*	*	*	*	*
Tesco Mobile	[0-5]	[0-5]	[0-5]	[5-10]	[5-10]	[5-10]	[10-20]	[10-20]
VUK	[10-20]	[10-20]	[20-30]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
Vodafone	[10-20]	[10-20]	[20-30]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
3UK	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
Three	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
VUK + 3UK	**[20-30]**	**[20-30]**	**[30-40]**	**[30-40]**	**[20-30]**	**[20-30]**	**[20-30]**	**[20-30]**
Sky Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[5-10]	[5-10]	[5-10]	[10-20]
Talk Talk	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Others	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of Parties' and third parties' revenue and subscriber data.

8.75 Table 8.13 sets out our estimates for market shares by revenues and subscribers in the PAYM data-only subsegment at mobile operator level. Based on 2023 data, our estimates show that the Merged Entity's market share by revenue would be [30-40%], with an increment of [10-20%] from the Merger. Its market share by subscribers would be [40-50%], with an increment of [10-20%]. This would result in the Merged Entity being the second largest mobile operator by revenue (behind BTEE), and the largest by subscribers.

Table 8.13: Market shares in the PAYM data-only subsegment at mobile operator level (by revenue and subscribers)

%

Operator	*Revenue*				*Subscribers*			
	2020	*2021*	*2022*	*2023*	*2020*	*2021*	*2022*	*2023*
BTEE	[40-50]	[40-50]	[50-60]	[40-50]	[40-50]	[40-50]	[40-50]	[40-50]
VMO2	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
O2*	*	*	*	*	*	*	*	*
Virgin Mobile*	*	*	*	*	*	*	*	*
VUK	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
Vodafone	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
3UK	[10-20]	[10-20]	[10-20]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]
Three	[10-20]	[10-20]	[10-20]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]
VUK + 3UK	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[40-50]**	**[40-50]**	**[30-40]**	**[40-50]**
Sky Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Others	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of Parties' and third parties' revenue and subscriber data.

8.76 Table 8.14 sets out our estimates for market shares by revenues and subscribers in the pre-paid subsegment at mobile operator level. Based on 2023 data, our estimates show that in this subsegment:

(a) The Merged Entity's market share by revenue would be [20-30%], with an increment of [10-20%] from the Merger. Its market share by subscribers would be [20-30%], with an increment of [10-20%]. This would result in the Merged Entity being the second largest mobile operator by revenue and by subscribers (behind VMO2 + Tesco Mobile);

(b) In contrast to the PAYM subsegments, MNO sub-brands Giffgaff, VOXI, and SMARTY all operate in the pre-paid subsegment; and

(c) Independent MVNOs, in large part due to Lebara and Lyca Mobile, generated [10-20%] of revenues and supplied [20-30%] of subscribers. Lebara in particular has grown significantly from 2020 to 2023, with its market share by revenue more than doubling, and its market share by subscribers more than tripling.

Table 8.14: Market shares in the pre-paid subsegment at mobile operator level (by revenue and subscribers)

%

Operator	*Revenue*				*Subscribers*			
	2020	*2021*	*2022*	*2023*	*2020*	*2021*	*2022*	*2023*
BTEE	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
VMO2 + Tesco Mobile	[40-50]	[40-50]	[40-50]	[40-50]	[40-50]	[40-50]	[40-50]	[30-40]
VMO2	[40-50]	[40-50]	[40-50]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]
O2*	*	*	*	*	*	*	*	*
Virgin Mobile*	*	*	*	*	*	*	*	*
Giffgaff	[20-30]	[20-30]	[20-30]	[20-30]	[10-20]	[20-30]	[20-30]	[20-30]
Tesco Mobile	[5-10]	[5-10]	[5-10]	[0-5]	[5-10]	[5-10]	[5-10]	[5-10]
VUK	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
Vodafone	[10-20]	[10-20]	[5-10]	[5-10]	[10-20]	[10-20]	[10-20]	[10-20]
Talk Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
VOXI	[0-5]	[0-5]	[5-10]	[5-10]	[0-5]	[0-5]	[0-5]	[0-5]
3UK + Superdrug†	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
3UK	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
Three	[5-10]	[5-10]	[5-10]	[5-10]	[5-10]	[5-10]	[5-10]	[5-10]
SMARTY	[0-5]	[0-5]	[0-5]	[5-10]	[0-5]	[0-5]	[0-5]	[0-5]
Superdrug†	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
VUK + 3UK	**[20-30]**	**[20-30]**	**[20-30]**	**[20-30]**	**[20-30]**	**[20-30]**	**[20-30]**	**[20-30]**
Lebara	[0-5]	[0-5]	[5-10]	[5-10]	[0-5]	[0-5]	[5-10]	[10-20]
Lyca Mobile	[5-10]	[5-10]	[5-10]	[0-5]	[5-10]	[5-10]	[5-10]	[5-10]
Asda	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Others	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of Parties' and third parties' revenue and subscriber data.
*Notes: *VMO2 was unable to provide a breakdown for the O2 and Virgin Mobile brands.*
†Superdrug is an MVNO hosted on 3UK's network and is a subsidiary within the CK Hutchison group.

8.77 Table 8.15 sets out our estimates for market shares by revenues and subscribers in the business retail segment at mobile operator level. Based on 2023 data, our estimates show that:

(a) In the business retail segment, the Merged Entity's market share by revenue would be [30-40%], with an increment of [0-5%] from the Merger. Its market share by subscribers would be [40-50%], with an increment of [0-5%]. This would result in the Merged Entity being the second largest mobile operator by revenue (behind BTEE) and the largest by subscribers; and

(b) The business retail segment is more concentrated than the consumer retail segment, with three MNOs (BTEE, VMO2 + Tesco Mobile, and VUK) having generated over 95% of business retail revenues and having supplied over 90% of subscribers.

Table 8.15: Market shares in business retail segment at mobile operator level (by revenue and subscribers)

%

Operator	*Revenue*				*Subscribers*			
	2020	*2021*	*2022*	*2023*	*2020*	*2021*	*2022*	*2023*
BTEE	[40-50]	[40-50]	[30-40]	[30-40]	[30-40]	[30-40]	[20-30]	[20-30]
VMO2 + Tesco Mobile	[10-20]	[10-20]	[20-30]	[20-30]	[10-20]	[20-30]	[20-30]	[20-30]
VMO2	[10-20]	[10-20]	[20-30]	[20-30]	[10-20]	[20-30]	[20-30]	[20-30]
O2*	*	*	*	*	*	*	*	*
Virgin Mobile*	*	*	*	*	*	*	*	*
Tesco Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
VUK	[30-40]	[30-40]	[20-30]	[20-30]	[40-50]	[30-40]	[30-40]	[30-40]
Vodafone	[30-40]	[30-40]	[20-30]	[20-30]	[40-50]	[30-40]	[30-40]	[30-40]
3UK	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Three	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
VUK + 3UK	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[40-50]**	**[30-40]**	**[40-50]**	**[40-50]**
Talk Talk	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Others	[5-10]	[0-5]	[0-5]	[0-5]	[5-10]	[5-10]	[5-10]	[5-10]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of Parties' and third parties' revenue and subscriber data.
*Notes: *VMO2 was unable to provide a breakdown for the O2 and Virgin Mobile brands*

8.78 Table 8.16 sets out our estimates for market shares by revenues and subscribers in the SoHo subsegment at mobile operator level. Based on 2023 data, our estimates show that in this subsegment:

(a) The Merged Entity's market share by revenue would be [20-30%], with an increment of [10-20%] from the Merger. Its market share by subscribers would be [30-40%], with an increment of [10-20%]. This would result in the Merged Entity being the second largest mobile operator by revenue and by subscribers (behind BTEE);

(b) 3UK has seen significant growth since 2020. From 2020 to 2023, its market share by revenue grew from [0-5%] to [10-20%], and its market share by subscribers grew from [0-5%] to [20-30%]; and

(c) Independent MVNOs have a particularly small presence, generating only [0-5%] of revenues and supplying [0-5%] of subscribers. The four MNOs have a combined market share of over 95% by both revenue and subscribers in 2023;

Table 8.16: Market shares in the SoHo subsegment at mobile operator level (by revenue and subscribers)

%

Operator	*Revenue*				*Subscribers*			
	2020	*2021*	*2022*	*2023*	*2020*	*2021*	*2022*	*2023*
BTEE	[70-80]	[60-70]	[50-60]	[40-50]	[60-70]	[40-50]	[40-50]	[30-40]
VMO2 + Tesco Mobile	[5-10]	[5-10]	[20-30]	[20-30]	[10-20]	[20-30]	[20-30]	[20-30]
VMO2	[5-10]	[5-10]	[20-30]	[20-30]	[10-20]	[20-30]	[20-30]	[20-30]
O2*	*	*	*	*	*	*	*	*
Virgin Mobile*	*	*	*	*	*	*	*	*
Tesco Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
VUK	[10-20]	[10-20]	[10-20]	[10-20]	[20-30]	[10-20]	[10-20]	[10-20]
Vodafone	[10-20]	[10-20]	[10-20]	[10-20]	[20-30]	[10-20]	[10-20]	[10-20]
3UK	[0-5]	[0-5]	[5-10]	[10-20]	[0-5]	[5-10]	[10-20]	[20-30]
Three	[0-5]	[0-5]	[5-10]	[10-20]	[0-5]	[5-10]	[10-20]	[20-30]
VUK + 3UK	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[30-40]	[30-40]
Talk Talk	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Others	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of Parties' and third parties' revenue and subscriber data.
*Notes: *VMO2 was unable to provide a breakdown for the O2 and Virgin Mobile brands.*

8.79 The Parties submitted that 3UK's 'core business' ([✂])[380] has been declining from 2020 to 2023,[381] and that 3UK experienced the lowest growth in PAYM SIMO and PAYM handset of all MNOs.[382]

8.80 We have found that, while 3UK's core business has seen a fall in subscribers, this is driven primarily by [✂], while the [✂] have remained relatively steady over the same timeframe.

(a) While 3UK did experience materially lower growth in absolute subscriber numbers than all other MNOs in PAYM SIMO from 2020 to 2023, it did not experience the lowest growth in PAYM handset, as all other MNOs experienced significant declines in subscriber numbers in this period while 3UK had a stable number of subscribers. This has resulted in 3UK's market share by subscribers in the PAYM handset subsegment increasing from [10-20%] in 2020 to [10-20%] in 2023

(b) Three's losses in pre-paid are likely due to the growth of MNO sub-brands (notably 3UK's sub-brand SMARTY, but to some extent VOXI and GiffGaff as well) and MVNOs (notably Lebara). As set out in Table 8.14, losing market share by subscribers in the pre-paid subsegment is not unique to 3UK, as both BTEE and VMO2 + Tesco Mobile have seen more significant declines in their market shares from 2020 and 2023 than 3UK.

8.81 Based on 2023 market shares by revenue and subscribers, our provisional view is that:

[380] CK Hutchison's response to the CMA's s109 notice.
[381] Annex 1 to the Parties' response to the AIS and working papers.
[382] Annex 1 to the Parties' response to the AIS and working papers.

(a) The Merged Entity would be the largest mobile operator in the overall retail mobile market by revenue, with a market share of [30-40%], and the second largest by subscribers, with a market share of [30-40%];

(b) The Merged Entity would also have a particularly strong position in some of the subsegments discussed above, with combined market shares by revenue and subscribers greater than 30% in the PAYM SIMO subsegment, PAYM data-only subsegment, and business retail segment;[383]

(c) This market is very concentrated, with the four MNOs generating over 90% of revenues and supplying over 80% of subscribers in both the overall retail market and consumer retail segment. Concentration levels are even higher in the business retail segment, with the four MNOs generating over 95% of revenues and supplying over 90% of customers. The pre-paid subsegment is less concentrated, with the four MNOs generating over 80% of revenues and supplying over 70% of subscribers; and

(d) Independent MVNOs, while growing, only cumulatively generate [5-10%] of retail mobile revenues and supply [10-20%] of subscribers, and none have a market share greater than 5% by subscribers or revenue. As of 2023, the three largest independent MVNOs by subscribers do not operate in all consumer retail subsegments, for example Sky Mobile only operates in PAYM subsegments and Lebara and Lyca Mobile only operate in the pre-paid subsegment.

(e) All four MNOs, including both Parties, provide all the main types of consumer tariff (ie PAYM SIMO, PAYM handset, PAYM data-only, and pre-paid) and have a market share greater than 10% (by revenues and subscribers) in each of these subsegments. In contrast, many of the main MVNOs have a more limited offering, as outlined above.

Market shares by data allowances

8.82 We have conducted analysis of market shares by data allowance for PAYM SIMO customers using the Ofcom Provider Database (**PD**). PD contains detailed information on the tariffs used by PAYM SIMO subscribers from January to June 2023, including on data allowances, contract lengths and prices (for a detailed description of the PD see Appendix D, Data).[384]

[383] For example, based on 2023 data, the Merged Entity would have a combined market share of: [30-40%] by revenue and [30-40%] by subscribers in the PAYM SIMO subsegment; [30-40%] by revenue and [40-50%] by subscribers in the PAYM data-only subsegment; and [30-40%] by revenue and [40-50%] by subscribers in the business retail segment.
[384] For the analysis presented in this section, we use the same data as is presented in Appendix D with two differences. Firstly, we base the analysis on a sample of 100,000 not 10,000 choices. Secondly, we sample from the choices of all subscribers not just the choices of 'contestable' subscribers (see Appendix D, Demand model and estimation approach, for the definition of contestable).

8.83 Table 8.17 shows the share of PAYM SIMO consumers in each data allowance category based on the PD data. It shows that the majority ([50-60%]) of PAYM SIMO customers are on low data tariffs (the 0-5GB and 5-12GB data allowance categories). There is also a material proportion ([10-20%]) of PAYM SIMO customers in the 500GB+ unlimited category.

Table 8.17: Share of PAYM SIMO consumers in each data allowance category

	%
Data Category	*Share*
0-5GB	[30-40]
5-12GB	[10-20]
12-25GB	[5-10]
25-50GB	[5-10]
50-150GB	[10-20]
150-500GB	[0-5]
500+ GB*	[10-20]
Total	100.0

Source: CMA analysis of PD.
**Includes unlimited.*

8.84 Using the OPD we estimated market shares by data allowances in the PAYM SIMO subsegment, as set out in Table 8.11. Our analysis shows that:

(a) VUK has a strong presence in larger data categories. For example, it supplies [20-30%] of the 50-150GB, [20-30%] of the 150-500GB, and [30-40%] of the 500-Unlimited GB category, whereas, VUK has less than 10% of subscribers in the 0-5GB and 12-25GB data categories.

(b) 3UK has a strong presence in the 500-Unlimited GB category with a [30-40%] share. It also has a material presence in the 5-12GB and 25-50GB categories, with [20-30%] and [20-30%] shares respectively. However, it does not have a uniform presence across all data categories. For example, its share is below 5% in the 0-5GB, 12-25GB, and 150-500GB categories and [5-10%] in the 50-150GB category.

(c) BTEE and VMO2 + Tesco Mobile have a presence across all data categories. However, their presence is not uniform across the different categories.

(i) BTEE has a notably stronger presence in the 0-5GG, 50-150GB and 150-500GB category, supplying [30-40%], [30-40%] and [30-40%] of consumers respectively, but only [10-20%] of consumers in the largest 500-Unlimited GB category.

(ii) In contrast, VMO2 + Tesco Mobile is strongest in the 12-25GB category, where it supplies [50-60%] of consumers, more than double the next largest supplier BTEE, but with only [10-20%] of consumers in the largest 500-Unlimited GB category.

(iii) Similarly to independent MVNOs, Tesco Mobile has a stronger presence in the smaller data categories supplying between 10-20% of consumers in categories up to 25GB but is weaker in the larger data segments with a share below 5% in data allowances of 50GB and over.

(d) Sky Mobile has a stronger presence in smaller data categories compared to larger data categories. Sky Mobile accounts for between 10-20% of consumers with data contracts under 12GB compared to below 5% in data categories exceeding 25GB. In addition, Sky Mobile does not supply consumers in the 150GB+ data categories.

(e) iD Mobile's shares were below 5% across all categories.

Table 8.18: Market shares in data allowances in the PAYM SIMO subsegment by subscribers

%

Operator	*0-5GB*	*5-12GB*	*12-25GB*	*25-50GB*	*50-150GB*	*150-500GB*	*500+ GB***
BTEE	[30-40]	[20-30]	[20-30]	[20-30]	[30-40]	[30-40]	[10-20]
EE	[30-40]	[10-20]	[20-30]	[10-20]	[30-40]	[30-40]	[10-20]
BT	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	-	-
Plusnet	[0-5]	[0-5]	[0-5]	[0-5]	-	-	-
VMO2 + Tesco Mobile	[30-40]	[20-30]	[50-60]	[20-30]	[20-30]	[30-40]	[10-20]
O2	[10-20]	[10-20]	[40-50]	[10-20]	[20-30]	[30-40]	[10-20]
Virgin Mobile	[5-10]	[5-10]	[5-10]	[0-5]	[0-5]	[0-5]	[5-10]
Tesco Mobile	[10-20]	[10-20]	[10-20]	[5-10]	[0-5]	[0-5]	[0-5]
VUK	[5-10]	[10-20]	[5-10]	[20-30]	[20-30]	[20-30]	[30-40]
3UK	[0-5]	[20-30]	[0-5]	[20-30]	[5-10]	[0-5]	[30-40]
VUK + 3UK	**[10-20]**	**[30-40]**	**[5-10]**	**[40-50]**	**[30-40]**	**[20-30]**	**[60-70]**
Sky Mobile	[10-20]	[10-20]	[5-10]	[0-5]	[0-5]	-	-
iD Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Total*	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of PD.
*Notes: *The complete list of brands included in PAYM SIMO OPD is BTEE, Plusnet, Vodafone, VMO2, Tesco Mobile, Three, Sky Mobile, iD Mobile and Talk Mobile.*
***Includes unlimited.*

8.85 Overall, we note that the Parties compete particularly closely in the 500GB+ unlimited category, with VUK and 3UK having a combined share of [60-70%]. Post-Merger the Parties would also be the largest suppliers in the 5-12GB and 50-150GB categories, accounting for [20-30%] and [30-40%] of PAYM SIMO customers respectively. BTEE and VMO2 + Tesco Mobile compete across the full range of tariffs, while Sky Mobile predominately competes in the lower data categories.

Customer gross adds/churn/net adds data

8.86 We note that market shares based on existing revenue and subscribers, although a useful indicator, only capture the current competitive strength of mobile operators to a certain degree. In the PAYM subsegment, many customers are bound by long-term contracts, which means that, at any given time, only a proportion of the total customer base is actually contestable. We are therefore also considering market shares by gross adds as well as churn rates and net adds, which capture more recent competitive dynamics.

8.87 The Parties provided estimates for gross adds, churn rates, and net adds in the PAYM subsegments, and pre-paid subsegment.[385] We also produced our own estimates for these subsegments using the Parties' data, as well as data gathered directly from third parties.[386]

8.88 We have not considered gross adds and churn rates in the pre-paid subsegment, as market shares by revenue and subscribers are likely to be a better reflection of competitive strength. This is due to the lack of long-term contracts in the pre-paid segment and as customers will have used services in the last 90 days.

8.89 We define gross adds as the number of new subscribers in a given period, excluding: (i) customers that have disconnected within a cooling period (typically 14 days) and (ii) customers that have internally migrated within a mobile operator from a different subsegment (eg PAYM handset to PAYM SIMO).

8.90 Table 8.19 sets out our estimates of market shares by gross adds and by subscribers.[387] In this analysis we included the operators which we had gross adds data for, namely BTEE, VMO2 + Tesco Mobile, VUK, 3UK, and Sky Mobile. These estimates are based on the Parties' and third parties' estimates in the PAYM subsegment.[388] These estimates show that:

(a) In 2022 and 2023, 3UK performed more strongly than its market shares by subscribers suggested (ie [10-20%] by gross adds vs [10-20%] by subscribers in 2023);

(b) Similarly, Sky Mobile had higher 2022 and 2023 market shares by gross adds ([5-10%] in 2023) compared to by subscribers ([5-10%] in 2023).

(c) In contrast, VMO2 + Tesco Mobile and VUK both had smaller 2022 and 2023 market shares by gross adds than by subscribers; and

(d) In 2023, BTEE had higher market shares by gross adds ([20-30%]) than by subscribers ([20-30%]), but a smaller gross adds share than subscriber share in 2022.

385 Parties' response to the CMA's s109 notice.
386 [✂] response to the CMA's RFI; [✂] response to the CMA's RFI; [✂] response to the CMA's RFI; and [✂] response to the CMA's RFI.
387 These market shares by subscribers are not comparable to those set out in the Market Shares section above, as the market shares in Table 8.22 omits 'others'.
388 We have not considered gross adds in the PAYM subsegment prior to 2022 due to insufficient data.

Table 8.19: Market shares in the PAYM subsegment (by gross adds and subscribers)

%

Operator	*Gross adds share*		*Subscribers share*	
	2022	*2023*	*2022*	*2023*
BTEE	[20-30]	[20-30]	[20-30]	[20-30]
VMO2+Tesco	[20-30]	[20-30]	[30-40]	[30-40]
VMO2	[20-30]	[20-30]	[20-30]	[20-30]
Tesco Mobile	[5-10]	[5-10]	[5-10]	[5-10]
VUK	[10-20]	[10-20]	[10-20]	[10-20]
3UK	[10-20]	[10-20]	[10-20]	[10-20]
VUK+3UK	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**
Sky Mobile	[5-10]	[5-10]	[5-10]	[5-10]
Total	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of Parties' and third parties' gross adds and subscriber data.
Notes: iD Mobile, Utility Warehouse, Gamma, TalkTalk and 'others' has been omitted from this table due to data limitations.

8.91 We define churn rate as disconnections (ie the number of subscribers lost in a given period) divided by a mobile operator's opening customer base (ie number of subscribers at the start of that period).

8.92 Table 8.20 sets out our estimates of mobile operator churn rates, based on the Parties' and third parties' estimates, in the PAYM subsegment. These estimates show that from Q1 2021 to Q4 2023:

(a) BTEE had the second highest rates of churn of MNOs, and these rates have increased, particularly from Q2 2023 to Q4 2023. As of the end of 2023, BTEE's churn rate was at a similarly high level to 3UK's;

(b) VMO2 + Tesco Mobile had the lowest rates of churn of MNOs, though this rate has been slowly increasing, driven primarily by VMO2's churn. When excluding Tesco Mobile, VMO2 had the second lowest rates of churn of MNOs in this period. Tesco Mobile had considerably lower rates of churn than MNOs and Sky Mobile in 2023;

(c) VUK had stable rates of churn, which have been the second lowest of MNOs. When excluding Tesco Mobile from VMO2, VUK had the lowest rates of churn of MNOs in this period;

(d) 3UK had the highest rates of churn of all MNOs; and

(e) Sky Mobile had considerably lower rates of churn than MNOs, though its churn was higher than Tesco Mobile in 2023.

8.93 The Parties submitted that the increase in BTEE's churn rates is not consistent with the Parties' analysis of BTEE's published data, figures reported by Enders Analysis, or BTEE's reported data.[389] They also submitted that BTEE's recent churn is due to the closure of its Plusnet sub-brand.[390]

[389] Annex 1 to the Parties' response to the AIS and working papers.
[390] Annex 1 to the Parties' response to the AIS and working papers.

8.94 In response to this, we adjusted the churn figures to exclude Plusnet, given it closed in this period, and found that BTEE's churn rates in Q3 and Q4 2024 were [3-4%] and [3-4%]. We consider that this shows that, whilst Plusnet drove the increase in BTEE's churn rate in 2023, BTEE's churn rates were still the second highest of all MNOs even when Plusnet was removed. More broadly, we consider that BTEE's churn rates are broadly consistent with its published and reported data.

Table 8.20: Quarterly churn rates in the PAYM subsegment

%

Operator	*Q2 2021*	*Q3 2021*	*Q4 2021*	*Q1 2022*	*Q2 2022*	*Q3 2022*	*Q4 2022*	*Q1 2023*	*Q2 2023*	*Q3 2023*	*Q4 2023*
BTEE	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[4-5]	[4-5]
VMO2 + Tesco Mobile	[2-3]	[2-3]	[2-3]	[3-4]	[2-3]	[3-4]	[3-4]	[3-4]	[3-4]	[2-3]	[3-4]
VMO2	[2-3]	[2-3]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]
Tesco Mobile	[1-2]	[2-3]	[2-3]	[2-3]	[2-3]	[2-3]	[2-3]	[2-3]	[2-3]	[2-3]	[1-2]
VUK	[2-3]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]	[3-4]
3UK	[3-4]	[3-4]	[4-5]	[4-5]	[4-5]	[4-5]	[4-5]	[4-5]	[3-4]	[3-4]	[4-5]
Sky Mobile	[1-2]	[2-3]	[2-3]	[2-3]	[2-3]	[2-3]	[2-3]	[2-3]	[2-3]	[2-3]	[2-3]

Source: CMA analysis of Parties' and third parties' churn rates data
Dates refer to calendar years, ie Q2 2021 refers to 1 April 2021 to 30 June 2021.

8.95 We define net adds as the difference between a mobile operator's opening and closing base in a given time period.

8.96 Table 8.21 sets out our estimates of net adds in the PAYM subsegment. Our estimates show that in the period 2020 to 2023:

(a) BTEE had the weakest net adds of MNOs over this period, with significant losses in 2023;

(b) VMO2[391] + Tesco Mobile had positive net adds over this period, with Tesco Mobile in particular having greater net adds than all MNOs;

(c) VUK had large and positive net adds in 2021 and 2022 but small net losses in 2020 and 2023; and

(d) 3UK had positive net adds over this period, particularly so in 2021, and driven by [✂] in 2022 and 2023; and

(e) Sky Mobile had greater net adds than MNOs, though from a smaller starting base.

8.97 The Parties submitted that the vast majority of growth in 3UK's PAYM data-only subscriber base is attributable to its FWA offering, which they submitted has [✂]. They submitted that when excluding PAYM data-only, 3UK's PAYM net adds (ie

[391] Data for VMO2 is only available from 2022 onwards.

PAYM SIMO and PAYM handset) have been negative in 2020 and 2023.[392] Consistent with this, we found that when excluding FWA, 3UK's PAYM net adds in 2022 and 2023 were negative, at [(50,000)-0] and [(100,000)-(50,000)].

Table 8.21: Net adds in the PAYM subsegment

000s

Operator	*2020*	*2021*	*2022*	*2023*
BTEE	[0-50]	[150-200]	[(50)-0]	[(400)-(350)]
VMO2* + Tesco Mobile	*	*	[250-300]	[300-350]
VMO2*	*	*	[50-100]	[50-100]
Tesco Mobile	[100-150]	[150-200]	[150-200]	[200-250]
VUK	[(50)-0]	[100-150]	[100-150]	[(50)-0]
3UK	[50-100]	[250-300]	[0-50]	[0-50]
Sky Mobile	[550-600]	[600-650]	[500-550]	[350-400]

Source: CMA analysis of Parties' and third parties' net adds and subscriber data.
*Notes: * Data for VMO2 is only available from 2022 onwards.*
Dates refer to calendar years, ie 2021 refers to 1 January 2021 to 31 December 2021.

8.98 Table 8.22 sets out our estimates of net adds in the pre-paid subsegment. Our estimates show that relative to the PAYM subsegment, net adds in the pre-paid subsegment tend to be much lower for the mobile operators we have data for. We believe this is partly due to the significant recent growth of Lebara, an MVNO specialising in the pre-paid subsegment, and partly due to the reduction in the size of the pre-paid subsegment by subscribers in 2020 and 2021.

8.99 Our estimates show that in the pre-paid segment over this period:

(a) BTEE had large negative net adds, particularly from 2020 to 2022;

(b) VMO2[393] + Tesco Mobile had large negative net adds, with VMO2 having negative and worsening net adds every year from 2021 to 2023, and Tesco Mobile having significant negative net adds in 2020, 2021 and 2023, and marginally positive net adds in 2022;

(c) 3UK had large negative net adds in 2020 and 2021, followed by large positive net adds in 2022 and marginally positive net adds in 2023. Its main brand, Three, experienced very large and negative net adds (with the exception of 2022), while its sub-brand, SMARTY, experienced large and positive net adds every year from 2020 to 2023;

(d) VUK has performed more strongly than other MNOs, with two consecutive years of large positive net adds in 2022 and 2023;

(e) Lebara has had positive and growing net adds since 2021; and

[392] Annex 1 to the Parties' response to the AIS and working papers.
[393] Data for VMO2 is only available from 2022 onwards.

(f) Lyca Mobile had negative net adds in 2020, but has had negligible net adds since 2021.

Table 8.22: Net adds in the pre-paid subsegment

Operator				*000s*
	2020	*2021*	*2022*	*2023*
BTEE	[(700)-(650)]	[(350)-(300)]	[(200)-(150)]	[(50)-0]
VMO2* + Tesco Mobile	*	*	[(150)-(100)]	[(550)-(500)]
VMO2*	*	*	[(200)-(150)]	[(400)-(350)]
Tesco Mobile	[(200)-(150)]	[(150)-(100)]	[0-50]	[(200)-(150)]
VUK	[(350)-(300)]	[(150)-(100)]	[100-150]	[300-350]
3UK	[(700)-(650)]	[(400)-(350)]	[350-400]	[0-50]
Three	[(1000)-(950)]	[(600)-(550)]	[200-250]	[(300)-(250)]
SMARTY	[250-300]	[150-200]	[150-200]	[250-300]
Lebara	[(50)-0]	[0-50]	[0-50]	[0-50]
Lyca Mobile	[(50)-0]	[0-50]	[(50)-0]	[(50)-0]

Source: CMA analysis of Parties' and third parties' net adds and subscriber data.
*Notes: * Data for VMO2 is only available from 2022 onwards.*
Dates refer to calendar years, ie 2021 refers to 1 January 2021 to 31 December 2021

8.100 The Parties submitted that net adds present a better view of competitive dynamics in the market than gross adds.[394] We consider that gross adds, churn rates, and net adds are all useful measures in understanding competitive dynamics in the PAYM subsegment. Whilst net adds capture how the overall size of mobile operators' customer bases changes over time, gross adds and churn rates are informative in understanding what is driving this. Gross adds indicate how effectively mobile operators compete for new or switching customers, whilst churn rates indicate their effectiveness at retaining their existing customers.

8.101 The Parties submitted that the Working Paper only shows gross adds, net adds and churn for two MVNOs, Sky Mobile and Tesco Mobile, and that this omits the recent growth of other MVNOs such as Lebara and iD Mobile.[395] We consider that gross adds and churn rates are relevant metrics in the PAYM subsegment, as set out in paragraph 8.86, and we have included the largest independent MVNO in this subsegment (Sky Mobile). In the PAYM subsegment, the Parties were unable to provide a breakdown for iD Mobile, whilst all other MVNOs have a very small presence. We have considered the net adds of Lebara and Lyca Mobile who are the largest MVNOs in the pre-paid subsegment.

8.102 Overall, our view based on gross adds, churn rates, and net adds is that:

(a) 3UK is performing more strongly than its market shares by subscribers suggest in the PAYM subsegment as, despite its high churn rates, it also has high gross adds and stronger net adds than BTEE and VUK (although positive net adds are driven by growth in FWA). 3UK performs more weakly in the pre-paid subsegment, due to the poor performance of its main brand,

[394] Annex 1 to the Parties' response to the AIS and working papers
[395] Annex 1 to the Parties' response to the AIS and working papers.

Three, and the growing presence of Lebara; though, its sub-brand, SMARTY, has seen a significant growth in pre-paid market share since 2020;

(b) BTEE appears to be performing more weakly than its market shares by subscribers indicate, with high churn rates and large negative net adds;

(c) VUK performs similarly compared to market shares by subscribers in the PAYM subsegment. It has lower market share by gross adds than by subscribers, but also has stable and low churn rates. Unlike other MNOs, VUK performs strongly in the pre-paid subsegment;

(d) Similarly to VUK, VMO2 + Tesco Mobile performs similarly compared to market shares by subscribers in the PAYM subsegment. It has lower market share by gross adds than by subscribers, but also has the lowest churn rates of MNOs (though greater than those of Sky Mobile). As with most other MNOs, it has large and negative net adds in the pre-paid subsegment;

(e) Sky Mobile performs strongly in the PAYM subsegment, with low churn rates and strong net adds.

Provisional conclusion on customer bases

8.103 Overall, our provisional view is that the retail mobile market is highly concentrated.

8.104 From 2020 to 2023, 3UK has been marginally gaining market share by revenue and by subscribers, though it is still the smallest MNO. While it has seen rapid growth in the business segment (predominately from gains with SoHo customers) its overall presence in business is relatively small. Based on market shares by gross adds in the PAYM subsegment, 3UK appears to perform more strongly than its market shares by subscribers suggest, though it has the highest churn rates of all MNOs. Based on net adds, 3UK performs less strongly in the pre-paid subsegment than the PAYM subsegment, with substantial subscriber losses for its Three brand but also with significant gains for its sub-brand, SMARTY. In the PAYM SIMO segment, 3UK does not have a uniform presence across all data allowance categories but has a material presence in many, notably the unlimited space.

8.105 From 2020 to 2023, VUK has also been gaining market share by revenue and has been marginally losing share by subscribers, and it is the second smallest MNO. It has a large market share in the business retail segment. Based on market shares by gross adds in the PAYM subsegment, VUK appears to perform more weakly than its market shares by subscribers suggests, though it has had low and stable churn rates. Unlike other MNOs, VUK performs strongly in the pre-paid subsegment based on net adds. In the PAYM SIMO segment, VUK has a strong presence in large data allowance categories and is the biggest supplier of consumers in the unlimited space.

8.106 In the overall retail market, BTEE's and VMO2 + Tesco Mobile's market shares continue to fall, though they remain the largest two mobile operators. Based on its market shares by gross adds, its high churn rates, and its net adds, BTEE appears to perform more weakly than its market shares by subscribers suggests. In the PAYM subsegment, VMO2 + Tesco Mobile has lower market share by gross adds than market share by subscribers, but also has the lowest churn rates of all MNOs (though higher than Sky Mobile's). In the PAYM SIMO segment, BTEE and VMO2 + Tesco Mobile have a strong presence across all data categories.

8.107 The combined market share of independent MVNOs is growing, most notably due to Sky Mobile and Lebara, which also have large and positive net adds in the PAYM subsegment and pre-paid subsegment respectively. Sky Mobile also has a higher market share by gross adds than by subscribers and has lower churn rates than all MNOs. But even when combined, independent MVNOs still supply a small proportion of retail mobile subscribers ([10-20%]), no independent MVNO has a market share greater than 5% by revenue or subscribers in the overall retail mobile market, and most independent MVNOs do not operate in all consumer retail subsegments. In the PAYM SIMO segment, Sky Mobile accounts for between 10-20% of consumers with small data allowances (ie, those under 12GB) compared to below 5% in data categories exceeding 25GB, while iD Mobile's shares are below 5% across all categories.

The Parties' competitive position

8.108 The Parties submitted that:

(a) Each Party's lack of 'scale' is impeding its ability to compete effectively in the relevant markets, including in the retail market for mobile telecommunications services, and – as demonstrated in financial performance – both Parties face scale disadvantage as compared to BTEE and VMO2:[396]

(i) 3UK's lack of scale to sufficiently invest in nationwide network improvements has contributed to high congestion levels and a reputation for poor network quality, limiting its ability to win and retain customers.[397] This is demonstrated by its market share having 'stagnated' over recent years.[398] CK Hutchison submitted that while 3UK has recently invested in improving its network quality, it [✂][399] and

[396] Annex 1 to the Parties' response to the AIS and working papers.
[397] Parties' initial submission, 1 May 2024, paragraph 3.1(i)(a).
[398] Parties' initial submission, 1 May 2024, paragraph 3.1(i)(a).
[399] CK Hutchison submits that 3UK's recent network investment was funded by the proceeds of a recently completed transaction with Cellnex, see Parties' initial submission, 1 May 2024, paragraph 2.15(ii).

– as a result of 3UK's [✂] unable to commit the necessary funding to roll out further 5G technology and limit congestion, to the detriment of its competitive capabilities in the consumer retail market and in its more recently established revenue streams.[400]

(ii) VUK's ability to compete is [✂] as a result of its lack of scale and [✂].[401] This is related to (i) [✂] and (ii) [✂].[402]

(b) Smaller MNOs do not have stronger incentives to compete aggressively, and the CMA's phase 1 analysis in this respect disregards (i) the targeting of different customer segments by market operators; and (ii) that the amount of capacity deployed is a key determinant of the intensity of competition.[403] The CMA's assessment also ignores that the Parties' lack of scale constrains their ability to compete in a meaningful way (due to their inability to fund sustainable [✂]), as well as evidence of the competitive constraint currently placed on the Parties by the activities of BTEE and VMO2.[404]

8.109 We have examined the Parties' current competitive position, including the relevance of scale economies in the UK telecommunications industry, and the factors highlighted by the Parties (above). In this assessment, we have considered:

(a) third party views on the relevance of 'scale' in the UK mobile telecoms industry;

(b) evidence from the Parties' internal documents of each Party's assessment of its 'scale' and ability to make investments, including evidence of each Party's assessment of its recent financial performance;

(c) evidence of the Parties' competitive strategies;

(d) evidence of the Parties' performance against key parameters of competition, including price and network quality; and

(e) the impact of the size of an operator's customer base on its competitive incentives.

[400] Parties' initial submission, 1 May 2024, paragraphs 2.15-2.21; 3.5(i)-3.5(iv) and Annex 1 to the Parties' response to the AIS and working papers.
[401] Parties' initial submission, 1 May 2024, paragraph 3.1(i)(b).
[402] Parties' initial submission, 1 May 2024, paragraphs 2.33-2.38.
[403] Parties' initial submission, 1 May 2024, paragraphs 3.1(iv), 3.29(i).
[404] Parties' initial submission, 1 May 2024, paragraphs 3.1(iv), 3.29(ii).

Third party views on the relevance of scale to the UK telecommunications industry

8.110 Consistent with our provisional conclusions outlined at paragraph 8.188, several stakeholders and market participants have told us that the UK mobile telecommunications industry is characterised by high fixed costs and significant ongoing investment requirements.[405] A number of mobile operators and stakeholders told us that, as a result, having sufficient 'scale' (ie sufficient subscribers providing sufficient revenue to (i) cover a high fixed cost base, and (ii) maintain and improve network infrastructure) is important to an MNO's ability to operate effectively.[406]

8.111 In its published reports, Ofcom has recognised that scale economies are currently a feature of mobile markets, but that it is unclear how important these will be in future (with the potential for MNOs' cost profiles to become more variable in nature).[407] However, Ofcom has also noted that an MNO consistently earning returns below its cost of capital over a sustained period, despite continuing to compete (and invest), may have reduced forward-looking investment incentives.[408] Ofcom noted that this could happen if one or more smaller MNOs become weaker competitors, unable to invest as fully as a larger, stronger player.[409] Ofcom found that this may lead to the MNO scaling back investment to reduce its costs which could both (i) impact its quality of service and ability to retain or gain market share, and (ii) weaken the incentives of rival operators to invest in network improvements, ultimately leading to poorer outcomes for customers.[410] However, Ofcom told us that its own empirical analysis has not found evidence of a positive link between market concentration and investment or average download speeds.[411] In addition, Ofcom's published analysis has never described VUK or 3UK specifically as 'sub-scale', although Ofcom has noted in one paper that the companies may be earning returns (as measured by ROCE[412]) below a representative 'industry' cost of capital (WACC).[413]

[405] Responses to the CMA's questionnaire from: [✂]; [✂]; [✂]; [✂]; [✂]; and [✂].
[406] Responses to the CMA's questionnaire from: [✂]; [✂]; [✂]; [✂]; [✂]; [✂]; [✂]; [✂]; [✂]; and [✂].
[407] Ofcom's future approach to mobile markets and spectrum Conclusions paper, 6 December 2022, paragraph 4.20, accessed by the CMA on 13 June 2024.
[408] Ofcom's future approach to mobile markets and spectrum Conclusions paper, 6 December 2022, paragraph 4.33, accessed by the CMA on 13 June 2024.
[409] Ofcom's future approach to mobile markets and spectrum Conclusions paper, 6 December 2022, paragraph 4.47, accessed by the CMA on 13 June 2024
[410] Ofcom's future approach to mobile markets and spectrum Conclusions paper, 6 December 2022, paragraph 4.47, accessed by the CMA on 13 June 2024
[411] Ofcom's Market structure, investment and quality in the mobile industry paper, 8 January 2021, accessed by the CMA on 13 June 2024 and Ofcom, response to the CMA's 19 April 2024 letter
[412] ROCE means return on capital employed.
[413] WACC means weighted average cost of capital; for Ofcom's analysis of MNOs' relative ROCE performance, see Ofcom's future approach to mobile markets and spectrum Conclusions paper, 6 December 2022, paragraphs 4.21-4.33, accessed by the CMA on 13 June 2024.

8.112 A number of third parties have also highlighted perceived challenges in the 'profile' of both investment incentives and returns[414] across the industry:

(a) One third party expressed the view that declines in unit pricing (for MNOs' suppliers' technology, which may translate into consumer savings) are driven by innovation, which in turn is funded by continuous network investment by MNOs.[415] This third party asked that our investigation consider the potential for any price rises against the industry's 'already impaired ability to invest', which risked 'suffer[ing] still further erosion', noting that 'consistently poor' returns may ultimately lead to sub-optimal consumer outcomes. [416]

(b) Another third party noted the importance of the CMA considering 'infrastructure competition' (ie competition by MNOs to improve networks and roll out next generation technology) alongside 'retail competition'.[417] This third party considered that 'retail competition alone cannot dramatically drive down the unit price per bit of mobile data [for consumers]', and that there was a question around 'whether the intensity of retail competition is having a detrimental effect on the effectiveness of infrastructure competition' (ie competition to improve network quality). [418]

(c) One third party referred to MNOs in the UK being 'stuck' in a 'status quo' with respect to network investment, as a result of perceived challenges for operators in achieving adequate returns.[419] This third party suggested that a contributing factor may be low average revenues per user (**ARPU**s) in the UK, aided by competition and disruption by 3UK and MVNOs, which has been a feature of the market even as technology has evolved in the provision of 3G, 4G and 5G. [420] This third party suggested that this has meant 'less money coming in' which is able to be filtered into investment in high quality network infrastructure. [421] This third party submitted, however, that we should carefully consider 'what' may drive innovation in the market after the Merger (including in network quality), noting that 3UK has been something of a catalyst for innovation in its brand and in the retail market more broadly.[422]

(d) One third party told us, in relation to network quality, that the Merger would enable a 'more sustainable market structure to secure a return on investment for digital infrastructure and attract increased capital into [mobile] network[s]', that it 'offers the prospect of significant cost efficiencies and economies of scale, which will increase financial stability', and that '[c]onsolidation is

[414] In this context, 'returns' largely refers to increased income or profitability following network investment.
[415] Communication Chambers response to the Issues Statement, 16 May 2024, page 1.
[416] Communication Chambers response to the Issues Statement, 16 May 2024, page 1.
[417] Professor Stephen Temple response to the Issues Statement, 26 May 2024, page 1.
[418] Professor Stephen Temple response to the Issues Statement, 26 May 2024, pages 1-2.
[419] [✂] call note.
[420] [✂] call note.
[421] [✂] call note.
[422] [✂] call note.

broadly seen as a pivotal measure towards helping operators to attain the necessary scale for expanding their future network infrastructure'.[423]

(e) A number of third parties, in response to a CMA questionnaire, told us that 'returns' and perceptions of the potential for 'returns' are thought to be particularly limited with respect to MNOs' investment in new technology (ie 5G, both 5G NSA and 5G SA), with some third parties referencing (i) significant costs associated with rollout and (ii) that consumers do not perceive a clear benefit (leading to a limited willingness to pay higher prices) for newer technologies, contributing to a challenging 'business case' for investment in general.[424]

8.113 Several third parties also indicated that both VUK and 3UK are likely to already generate sufficient revenues, based on a sufficient number of subscribers, to benefit from economies of scale with their current market position.[425] Some third parties recognised the considerations and factors raised by the Parties, but did not agree that market consolidation was the best solution for favourable market outcomes. Some third parties submitted that the proposed Merger may, as a result of reduced competition, dampen incentives to invest to improve network quality:

(a) One third party noted that the position of firms within a market naturally fluctuates over time, with firms' level of returns, size, growth prospects, and market share all shifting as the market evolves and competitors respond – and this can be influenced by many other factors including the strategic and business choices that firms make.[426]

(b) Another third party suggested that the mobile industry is a challenging environment in which to achieve adequate ROCE and it can therefore be assessed as low priority for capital allocation.[427] However, this third party submitted that this was likely as a result of current challenges in growing revenue (given the lack of growth in the total 'addressable' market of potential subscribers, and challenges in 'convincing' consumers to pay more for higher quality services), and that the solution can be innovation by MNOs to find new revenue sources, perhaps aided by advances in technology such as 5G. This third party noted that such challenges are faced by players in both three-player and four-player markets in Europe.[428]

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[423] Ericsson response to the Issues Statement, 10 June 2024, pages 1-2
[424] Responses to the CMA's questionnaire from: [✂]; [✂]; and [✂].
[425] Responses to the CMA's questionnaire from: [✂]; [✂]; [✂]; and [✂].
[426] [✂] response to the CMA's preliminary Invitation to Comment.
[427] [✂] response to the CMA's preliminary Invitation to Comment; [✂] meeting slides.
[428] [✂] meeting note.

(c) A number of third parties noted that certain market features, such as the presence of network sharing arrangements, may act to ease an MNO's investment requirements.[429,430]

(d) Two third parties referenced academic evidence suggesting that a reduction in competition (ie in three-player markets compared to four-player markets) may result in a reduction in network quality investment, given that MNOs compete in respect of both quality and price. In the context of a range of academic evidence, one of these third parties noted that 'adverse impacts on investment' are 'a distinct possibility'[431] and another of these third parties noted that all firms essentially compete by offering 'good product[s]' to customers, and - in the context of mobile telecommunications - this can be thought of as offering high-quality network infrastructure (through investment) at sufficiently attractive prices.[432]

(e) Another third party suggested that the concentration of network infrastructure envisaged by the Merger 'will in itself reduce the ability of the mobile operators to differentiate their mobile service offerings, removing incentives to invest in new infrastructure […] to the detriment of consumers'.[433]

8.114 We provisionally consider, that the mobile telecommunications industry is characterised by the need to make significant infrastructure investments, the presence of high fixed costs, and economies of scale. In assessing the potential impact of the Merger on competition in the retail market, we have considered evidence relating to (i) the Parties' own evidenced perspectives of their relative 'scale' and the influence this may have on their competitive capabilities, incentives, and go-to-market strategy, and (ii) observed outcomes in respect of key parameters of competition. We did so to understand whether either Party's relative 'scale' is impacting, or is likely to impact in future, competitive outcomes in the market for retail mobile telecommunications services in the UK.

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[429] Responses to the CMA's questionnaire from: [✂]; and [✂]. [✂] response to the CMA's preliminary Invitation to Comment.
[430] We note that the Parties submitted, in response to these third party perspectives, that (by making use of network sharing arrangements and using neutral host providers), MNOs have already leveraged all available economies of scale that can be delivered by these arrangements, and must leverage economies of scale from capacity and scope to address exponential growth in data demand. See Annex 1 to the Parties' response to the AIS and working papers.
[431] Which, response to the CMA's preliminary Invitation to Comment, October 2023, pages 10-11.
[432] [✂] and [✂] meeting transcript.
[433] Company B response to the issues statement, 15 May 2024, pages 1-2.

Evidence of the Parties' assessment of their 'scale' and ability to make network investments

Evidence from Parties' internal documents

8.115 We have found mixed evidence in the Parties' internal documents with respect to each Party's own assessment of the impact of 'scale considerations' on its competitive capability (i) currently, and (ii) over the medium term (ie in typical five-year budgeting cycles).

8.116 With respect to 3UK, as set out at Appendix C, Importance of scale

(a) We have reviewed some material evidencing both (i) [✂], and (ii) [✂]. We also observe that [✂]. We have found [✂].

(b) We have also reviewed evidence demonstrating that, [✂]. [✂]. We have also seen some evidence that [✂].[434]

(c) We have reviewed 3UK's most recent long term business plan, which both (i) notes [✂] significant [✂] across [✂]; and (ii) anticipates [✂],[435] [✂]. We have also reviewed internal management reporting updates in FY24 which, in general, demonstrate that [✂].[436] This growth performance, together with improving profitability - as set out in internal documents - is consistent with its recent published results to the first half of FY24.

8.117 With respect to VUK, as set out at Appendix C, Importance of scale:

(a) We have reviewed materials which suggest that VUK considers itself to [✂] and [✂], and have reviewed a number of documents in which (i) VUK perceives its 'converged' competitors to [✂] or (ii) VUK perceives itself to be positioned as a [✂]. We have also reviewed documents over a significant period which demonstrate that VUK has historically not perceived itself to be [✂],[437] although this has been improving more recently.

(b) A number of documents also discuss VUK showing [✂] revenue growth performance, [✂] against [✂], and to have [✂] over recent years.

[434] We have seen some evidence of 3UK management being requested to review capital expenditure in light of preparations for the Merger, see Appendix C, Importance of scale.
[435] We note that 3UK had a period of high investment from around FY20 to FY22, and has recently reduced its capex to be more in line with 'pre-2020 levels'.
[436] In this chapter we refer to financial years (**FY**) in each of CK Hutchison's, 3UK's, Vodafone's and VUK's financial reporting cycles. For CK Hutchison and 3UK, each FY ends on 31 December, and so – in the context of discussing 3UK's or CK Hutchison's performance – FY23 means the 12 months ended on 31 December 2023. For Vodafone and VUK, each FY ends on 31 March, meaning - in the context of discussing Vodafone's and VUK's financial performance - FY23 refers to the 12 months ended on 31 March 2023.
[437] **ROCE** means 'return on capital employed' and is often compared to the weighted average cost of capital, **WACC**.

(c) Vodafone's most recent 'Long Range Plan' for VUK for FY25 onwards [✂].[438] [✂].

Evidence on the Parties' financial performance

3UK's recent growth and financial performance

8.118 We observe (as also discussed at paragraph 8.104) that 3UK has seen rapid growth in the business retail segment (albeit its overall presence remains relatively small) and it has marginally grown its overall market share by revenue and subscribers over the course of 2020 to 2023. This is consistent with [✂]. Table 8.23 outlines recent full-year growth (to FY22 and FY23) in respect of 3UK's internally classified categories of revenue.

Table 8.23: Revenue performance across 3UK's internally classified categories of revenue; FY21–FY23

	Unit	*FY21*	*FY22*	*FY23*	*Unit*	*Growth– FY21 - FY22*	*Growth– FY22 - FY23*	*CAGR FY21- FY23*
		Actual	*Actual*	*Actual*				
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Publicly reported definition of revenue	GBPm	**2,444**	**2,520**	**2,588**	%	**3.1**	**2.7**	**2.9**

Source: CMA analysis of [✂].

8.119 As can be seen at Table 8.23, 3UK has seen year-on-year revenue growth over the last three financial years at a compound annual growth rate (**CAGR**) of [✂]% in its internally defined revenue (we note that this was during a period of high inflation, and – as with other MNOs – 3UK's total revenue declined in 'real' terms). We observe 3UK's significant recent growth, in particular, in newly established revenue streams. Over the last two financial years, it has experienced CAGR of [✂]% in its business segment and [✂]% in its FWA segment, and significant growth in these segments' subscriber bases.[439]

8.120 Internal documents suggest that, over the course of FY24, 3UK has generally continued to perform in line with its budget and in its year-on-year growth performance:

[438] Vodafone Internal Document.

[439] This is consistent with subscriber data submitted by the Parties (which appears to define revenue subtotals with slightly different parameters), which demonstrates that 3UK's Consumer FWA subscriber base grew by [✂]% from 2021 to 2022, and by [✂]% from 2022 to 2023 (see Parties response to the CMA's RFI), and 3UK's business retail subscriber base grew by [✂]% from 2021 to 2022, and by [✂]% from 2022 to 2023 (see Parties' response to the CMA's s109 notice).

(a) An email setting out 'year to date' (**YTD**) results for the quarter ended 31 March 2024 demonstrates that, [✂],[440] [✂].[441]

(b) Several 'chairman meeting' packs demonstrate that 3UK continues to perceive itself as achieving strong financial performance, against both the prior year and [✂], performing particularly well in its more recently established revenue streams:

(i) A 'Chairman pack' setting out YTD performance to 31 March 2024 shows that '[✂]' is '[✂]', and this has been driven particularly by year-on-year growth in 5G Home (part of 3UK's FWA offering) of [✂]%, growth in SMARTY of [✂]%, and growth in the Business segment of [✂]%.[442] This document also sets out that 3UK has both (i) [✂] and (ii) performed strongly year-on-year in respect of profit metrics, with EBITDA up [✂]% year-on-year, and EBIT and cashflow metrics – [✂] – noted to have shown significant improvements.[443]

(ii) This is consistent with a number of management reporting documents outlining performance in FY24 so far:

(1) February's performance demonstrated [✂]% year-on-year growth in '[✂]' (gross profit), with improvements in a number of metrics (EBIT, EBITDA, and cashflow), demonstrating [✂] and showing significant improvement on the prior year;[444]

(2) January's performance demonstrated [✂]% year-on-year growth in total gross profit ([✂]), with all of EBIT, EBITDA, and cashflow noted to be [✂] significantly improving year-on-year.[445]

(iii) The evidence set out in internal documents is also largely consistent with 3UK's published financial results to the first half of FY24 (**H1'24**):

(1) CK Hutchison reported that 3UK saw both revenue growth and gross profit ('total margin') growth at 9% year-on-year, with EBITDA noted to have increased by 31% year-on-year. The results also show that 'EBITDA less Capex' (which is a proxy for operating cashflow in CK Hutchison's external reporting) improved

[440] This email notes that – [✂].
[441] CK Hutchison Internal Document.
[442] CMA calculations based on page 9 of CK Hutchison Internal Document.
[443] CK Hutchison Internal Document. EBITDA growth is a CMA calculation based on figures set out on page 6 of this document.
[444] CK Hutchison Internal Document.
[445] CK Hutchison Internal Document.

to be negative GBP (17) million, as compared to negative GBP (112) million in H1'23. [446]

(2) CK Hutchison commented publicly that this was driven by 'significant growth' in the areas that 3UK has 'expanded into', noting: 54% year-on-year growth in Business, 30% year-on-year growth in SMARTY, and 61% year-on-year growth in 5G Home (part of 3UK's FWA offering). [447]

(3) 3UK noted its total revenue performance as showing 'very strong growth overall [at] 9%' and noted that it had continued to outperform all other MNOs in respect of total net adds for the sixth consecutive quarter.[448]

(4) We note that CK Hutchison also publicly outlined many of its key submissions to our inquiry, set out at paragraph 8.108 above.

8.121 CK Hutchison told us that 3UK's activities in its higher-growth areas have [✂], and will be [✂].[449] We observe that 3UK's most recent long term plan suggests that it perceives itself to be competitively capable in these areas, and continues to anticipate growth, [✂]:[450]

(a) [✂];

(b) [✂]; and

(c) [✂].

8.122 We consider that 3UK's expectations for its business over the medium term (ie the coming five years) – together with the evidence set out at paragraph 8.120(b) that it has recently, in many cases, been broadly performing in line with many of its own expectations – demonstrates that it anticipates continuing to actively compete and operate in the market for retail mobile telecommunications services in the UK.

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[446] CK Hutchison Group Telecom Holdings 2024 Interim Results Analyst Presentation, accessed by the CMA 15 August 2024.
[447] CK Hutchison, investor relations webcast, 15 August 2024, Webcast – CK Hutchison Group Telecom Holdings – 2024 2024 Interim Results Analyst Presentation, 12:00 – 18:00 minutes, accessed by the CMA 15 August 2024.
[448] CK Hutchison, investor relations webcast, 15 August 2024, Webcast – CK Hutchison Group Telecom Holdings – 2024 2024 Interim Results Analyst Presentation, 12:00 – 18:00 minutes, accessed by the CMA 15 August 2024.
[449] Parties, Issues Meeting presentation and Annex 1 to the Parties' response to the AIS and working papers
[450] Calculated from CK Hutchison Internal Document.

VUK's recent financial performance

8.123 Based on the evidence provided to us by Vodafone and consistent with the evidence noted above at paragraph 8.117, we see commentary in Vodafone's most recent group-level reviews of VUK that suggest it perceives [✂].[451]

8.124 Table 8.24 sets out a summary of VUK's financial performance to FY24 on the basis of management accounts submitted to the CMA, and in comparison to its 'budget' expectations for FY24 as highlighted in the same document.[452] This demonstrates that VUK's performance [✂] (as seen in [✂]), and has [✂].

Table 8.24 VUK's performance over the period FY23 to FY24, compared to FY24 budget expectations, from management accounting records submitted to the CMA

	Unit	**FY23**	**FY24**	**FY24**	**Unit**	*Year-on-year growth (FY24 actual vs FY23 actual)*
		[✂]	[✂]	[✂]		
Mobile service revenue	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
o/w Wholesale	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
o/w Consumer	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
o/w Business	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Fixed service revenue	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total service revenue	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total revenue	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Mobile direct costs	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Fixed direct costs	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total direct costs	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Direct margin*	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Acquisition and retention costs	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total other operating expenses	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
EBITDA	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Margin	[✂]	[✂]	[✂]	[✂]		
Depreciation and amortisation	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
EBIT	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Margin		[✂]	[✂]	[✂]		
Operating free cashflow		[✂]	[✂]	[✂]		[✂]

Source: CMA analysis of Vodafone response to the CMA's s109 notice. [✂] (Vodafone Internal Document. [✂].

8.125 We see evidence that, following its performance to FY24, Vodafone group's expectations for the VUK business have [✂]. [✂].[453] This is known as its long range plan (**LRP**), and Vodafone has told us that [✂].[454] Table 8.25 compares forecast plans set in Spring 2023 (**FY24 LRP**) to forecast plans set in Spring 2024 (**FY25 LRP**), showing some key metrics, as highted in Vodafone's group-level budget and LRP for VUK.

451 See Appendix C, Importance of scale.
452 Vodafone response to the CMA's s109 notice.
453 Vodafone response to the CMA's s109 notice.
454 Parties' response to the phase 1 Issues Letter.

Table 8.25 Summary of Vodafone's changes to long-range plan (LRP) forecasts for VUK

[✂]

Source: [✂]: see Vodafone Internal Documents. We note that Vodafone has submitted that [✂], for example Vodafone Internal Document.

8.126 While Table 8.25 shows [✂] in some cases, it demonstrates that – following [✂] – its future plans (as set by Vodafone) appear [✂]. Its [✂] plans, in particular, have largely [✂]. It is therefore difficult for us to conclude – on this basis and following Vodafone's submissions (outlined at paragraph 8.108(a)(ii)) – that Vodafone is [✂].

8.127 In response to many of the observations outlined above (ie [✂]), Vodafone told us that measures such as [✂].[455] Vodafone submitted that [✂] were a result of [✂].[456] Vodafone asked that we consider [✂].[457]

8.128 Vodafone's most recent long range plan summarising performance across its group, indicates that, [✂].[458] This document shows that Vodafone [✂] for VUK's [✂] (as outlined at Table 8.25 above).

8.129 We provisionally consider, based on the evidence available to us, that VUK, supported by Vodafone, is likely to remain an important competitor in the UK mobile sector, [✂] in [✂] and [✂] in the [✂].

Evidence of the Parties' competitive strategies

3UK's competitive strategy

8.130 We found evidence in 3UK's internal documents suggesting a strong commitment to long-term growth, along with [✂] and compete sustainably in the supply of retail mobile services.

8.131 Calendar years 2019 and 2020 are presented in 3UK's documents as 'pivotal' years to set the business up for longer term growth, which we note coincided with 3UK's significant 4G and 5G NSA network investment programme initiated in 2020.[459] As submitted by the Parties, in an effort to address traffic growth and congestion on its network, 3UK significantly increased its total investment during FY20 to FY22 (approximately GBP 2.3 billion in capex, excluding spectrum).[460]

[455] Annex 1 to the Parties' response to the AIS and working papers.
[456] Annex 1 to the Parties' response to the AIS and working papers. The [✂] (see Parties response to the CMA's RFI). Given that (i) many businesses are likely to experience cost savings or positive performance as a result of 'ordinary course' project delivery, and (ii) [✂], it remains the case that VUK [✂], we consider that this is not sufficiently material to change our provisional conclusions.
[457] Annex 1 to the Parties' response to the AIS and working papers.
[458] Vodafone Internal Document.
[459] CK Hutchison internal document.
[460] FMN.

8.132 In its 2020 budget presentation to CK Hutchison, 3UK set out a number of avenues to meet its growth objectives, focusing on growing its base while [✂].[461] Further to the introduction of 3UK's new 5 Year Plan in the course of 2020, 3UK presented to CK Hutchison [✂] and [✂].[462] Those [✂] have since consistently been used by 3UK [✂].[463]

8.133 As an overarching point, we note that 3UK's latest available results and budget illustrate its continued growth and improved performance across several metrics, as discussed in Chapter 8, 3UK's recent growth and financial performance.[464] 3UK also reported having maintained [✂].[465] Consistent with the customer bases section above, we further note that 3UK's recent growth also appears strong, with 3UK anticipating in an internal document that [✂].[466] We also note evidence (discussed above) that, on the basis of documents submitted to the CMA to the first quarter of FY24, 3UK is currently continuing to show significant growth in its more recently established revenue streams, and it is largely performing [✂].

8.134 3UK's internal documents indicate that its competitive strategy over the last three years has been focused on seven broad areas, which show that 3UK competes ambitiously in the supply of retail mobile services. We briefly set out below what these areas are, with the detail of our analysis of 3UK's internal documents set out in Appendix C, Competitive strategies:

(a) pricing strategy [✂];

(b) business – where it re-introduced a business offering in 2020, initially focusing on SoHo/micro businesses [✂];

(c) SMARTY – which 3UK positions as a hybrid pre-paid provider [✂];

(d) FWA – 3UK has seen strong growth in FWA in recent years [✂];

(e) network enhancements – 3UK has made significant investment in recent years to improve its network – [✂];

(f) customer experience – [✂]; and

(g) brand reputation – 3UK is committed to improving the perception and reputation of its brand and is making significant progress in this direction.

461 CK Hutchison internal document.
462 CK Hutchison internal document.
463 CK Hutchison internal documents.
464 CK Hutchison internal documents.
465 CK Hutchison internal document.
466 CK Hutchison internal document.

VUK's competitive strategy

8.135 VUK's internal documents indicate that it strives to compete strongly in the supply of retail mobile services, [✂]. We briefly set out below some examples of this, with the detail of our analysis of VUK's internal documents set out in Appendix C, Competitive strategies:

(a) challenging the converged players – internal documents show that VUK is seeking to establish itself as [✂];

(b) business – [✂], including through targeting a market leading position;

(c) network ambitions – Vodafone's internal documents also convey [✂], including in terms of 5G deployment.

(d) pricing strategy – a number of Vodafone's internal documents suggest that it has exerted – and continues to exert – strong competitive pressure on other operators in the supply of retail mobile services and [✂].

Parties' performance against key parameters of competition

8.136 As discussed in paragraphs 8.62 to 8.64, we consider that price followed by network quality are the two most important parameters of competition, while brand and customer satisfaction are also important to at least some customers. Below we summarise the evidence on the Parties' competitive positioning with respect to these parameters.

Pricing

8.137 We have considered the Parties' competitive positions in relation to pricing primarily by analysing Pure Pricing tariff data (the **Pure Pricing data**). The Pure Pricing data is available on a monthly basis from January 2019 until present.[467] However, to analyse pricing on recently available tariffs before the Parties formally notified the Merger to the CMA, we primarily focused on data from July to December 2023.[468]

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[467] Pure Pricing sources information from mobile operators' publicly facing pricing touchpoints, including website published pricing, price guides, legal terms and conditions, online sales customer journeys and discussions with customer support teams. The Pure Pricing data does not capture any tariffs or deals that might be offered to existing customers through other sales channels.

[468] We understand that, although many tariffs remain available for long periods of time, tariffs can change and be added or removed from the market on a monthly basis. As a result, analysis of different time periods will not show the exact same set of tariffs. However, focusing on tariffs in the last two quarters of 2023 covers all tariffs that were (a) available during the most recent period before the Parties formally notified the Merger to the CMA (26 January 2024); and (b) were offered by the set of mobile operators currently active in the market. In this regard, we note that by the second half of 2023 both BTEE and VMO2 had stopped offering mobile tariffs under their BT/Plusnet and Virgin Mobile sub-brands, respectively.

8.138 This dataset contains information on all publicly available tariffs offered by 3UK (under the Three and SMARTY brands), VUK (under the Vodafone and VOXI brands), BTEE, VMO2 (under the O2 and Giffgaff brands), Tesco Mobile, Sky Mobile, and iD Mobile. In the rest of this section, we refer to mobile operators' sub-brands by their brand names: (i) O2 and Giffgaff for VMO2, (ii) Three and SMARTY for 3UK, (iii) Vodafone and VOXI for VUK.

8.139 Mobile tariffs typically have many different attributes including allowances for minutes, texts and data alongside a range of extras (eg additional data or the ability to use certain apps for free), promotions, and discounts.[469] This is particularly true for post-paid tariffs (ie PAYM SIMO and PAYM handset).

8.140 On the other hand, pre-paid (PAYG) tariffs are relatively more straightforward and typically comprise simple time-limited allowance bundles. For example, a customer with a pre-paid SIM may buy a bundle of texts, minutes, and data that runs out one month from the time of purchase. Our analysis of the Pure Pricing data suggests that pre-paid tariffs do not typically have the same range of extras that are available for post-paid tariffs.[470] This therefore makes it easier to compare pre-paid tariffs on a like-for-like basis than post-paid tariffs.

8.141 To understand pricing among pre-paid tariffs, we first compared the effective monthly prices across different capped data allowances (ie excluding unlimited data tariffs) for the period July to December 2023.[471] Effective monthly prices reflect the advertised monthly price of a tariff net of any promotions or discounts averaged over the length of the contract.[472] Pre-paid tariffs accounted for 20.6% of VUK's customer base and 25.8% of 3UK's in 2023. Figure 8.8 shows that:

(a) MNOs' main brands typically offered pre-paid tariffs at the same price points (eg GBP 10, GBP 15, GBP 20, and GBP 30).

[469] We note that today the vast majority of tariffs have unlimited minutes and texts meaning they are primarily differentiated according to their data allowance and extras, for example the ability to stream content for free.

[470] Typically, if the customer exhausts the allowances, they must buy additional texts and minutes or another bundle to continue using their pre-paid SIM. Mobile operators do provide some extras on their pre-paid tariffs. For example, VOXI provides free social media usage and/or video streaming on some of its tariffs and the O2 brand has a range of international allowances. However, generally there is a far smaller range of extras for pre-paid tariffs.

[471] In the data for the period Q3 and Q4 2023 Sky Mobile did not offer a pre-paid tariff so it is not included in the figures.

[472] To calculate the 'effective price', we have subtracted the value of any discount or promotion from the advertised monthly tariff price. For pre-paid tariffs, these types of discounts and promotions are less common than PAYM SIMO tariffs. Where they are offered, discounts and promotions are typically for one month given pre-paid tariffs are typically time limited. A small number of pre-paid tariffs do offer promotions if a customer renews their tariff purchase when it runs out. However, it is not possible to fully adjust for these types of promotions given we cannot know whether the typical customer would purchase the bundle on a recurring basis and for how long. Where there is no promotion or discount on a tariff, the effective monthly price is the advertised monthly tariff price. For post-paid PAYM SIMO tariffs, we have averaged any discount on a tariff over the tariff length of the contract and then subtracted this amount from the advertised monthly tariff price. For example, a 12-month PAYM SIMO contract might be advertised with a monthly tariff price of GBP 30 with a promotion for 'half price for the first three months'. In this case, the effective monthly price would be GBP 26.25 because customer would receive a total discount of GBP 45 over the 12-month contract.

(b) At each price point, 3UK's main brand, Three, offered more data than the other MNOs' main brands. Therefore, it tended to offer the lowest price per GB of data;

(c) Across all price points, the Vodafone brand offered tariffs with a higher price per GB than the Three brand, with its prices being more similar to the other main brands: EE and O2; and

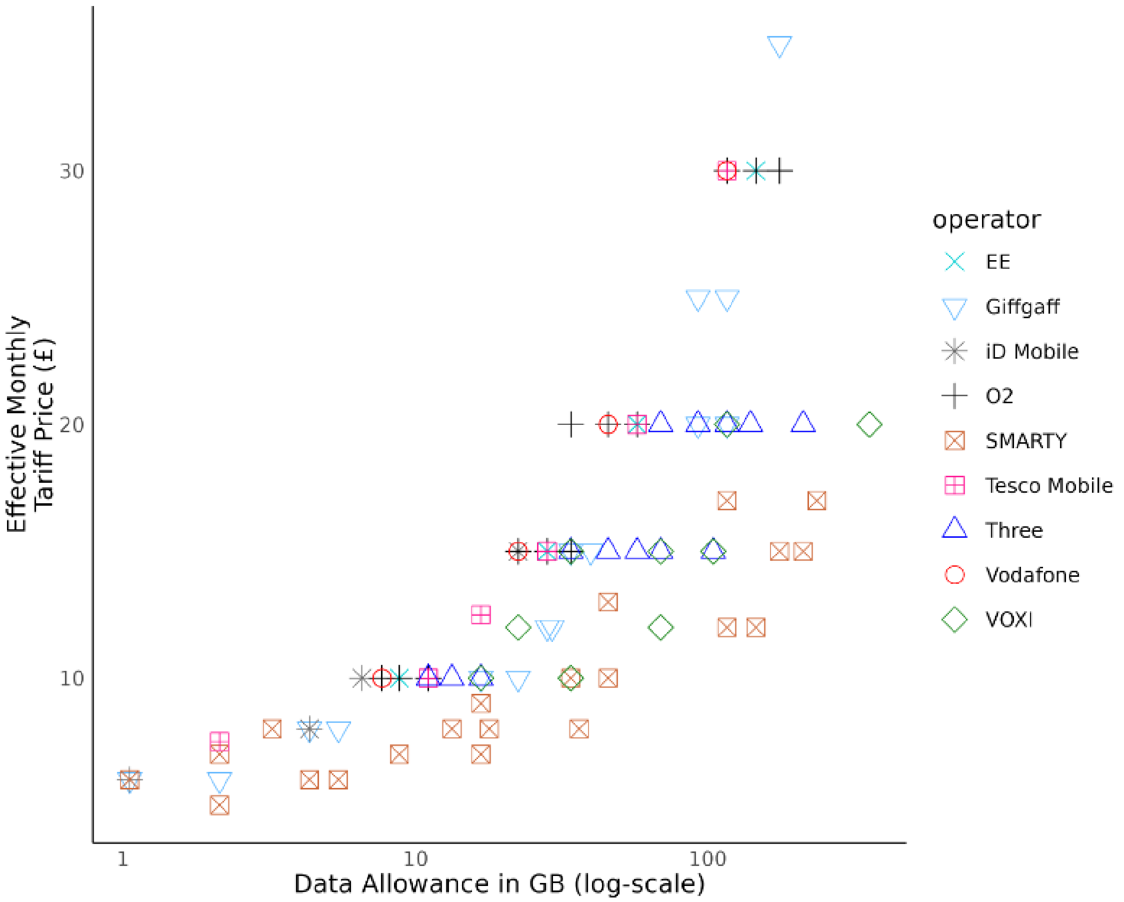
(d) MNOs typically offered tariffs at lower price points and with a lower price per GB through their sub-brands than their main brands.

   (i) 3UK, through its sub-brand SMARTY, offered tariffs with the lowest price per GB across the range of data allowances.

   (ii) Similarly, VUK, through its sub-brand VOXI, offered among the lowest price per GB at the price points served by its pre-paid tariffs.

(e) iD Mobile, the only independent MVNO we have data for in this category, offered pre-paid tariffs in line with the MNO's main brands.

Figure 8.8: Pre-paid tariff prices across capped data allowances, by brand Q3 and Q4 2023



Source: CMA analysis of Pure Pricing data

8.142 Second, we compared mobile operators' unlimited pre-paid tariffs for the same period. Customers on unlimited pre-paid tariffs cannot run out of data within the period the tariff covers (typically one month). For the mobile operators that offer them, Figure 8.9 shows the average effective monthly price of an unlimited data pre-paid tariff across those operators between July and December 2023, showing that:[473]

(a) the cheapest provider was iD Mobile, which was also the only MVNO in the Pure Pricing data to offer unlimited pre-paid tariffs;

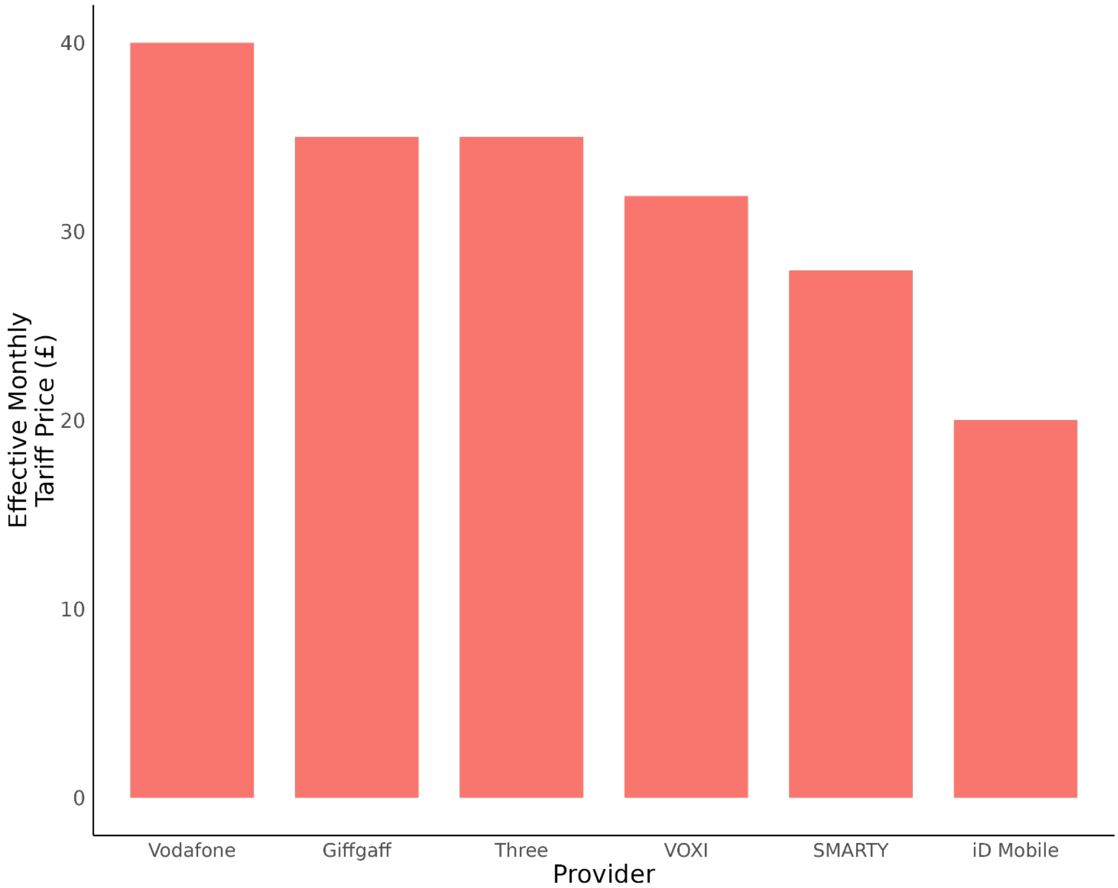
(b) the next cheapest tariffs were offered by the Parties' sub-brands SMARTY and VOXI;

(c) Three's tariffs were similar to Giffgaff's tariffs, whilst Vodafone's tariffs were the most expensive; and

(d) Tesco Mobile, BTEE and VMO2 did not offer unlimited pre-paid plans in this period.

[473] As was the case with capped pre-paid tariffs, see Figure 1 some operators offer more than unlimited data tariff: SMARTY offered four plans and VOXI offered three with different extras or promotions. Vodafone, Three, Giffgaff and iD Mobile offered one.

Figure 8.9: Unlimited data pre-paid tariff prices, by brand Q3 and Q4 2023



Source: CMA analysis of Pure Pricing data.

8.143 Third, we compared operators' PAYM SIMO tariffs. As noted in paragraphs 8.139 and 8.140, it is significantly more difficult to compare PAYM SIMO tariffs between mobile operators on a like-for-like basis than it is to compare pre-paid tariffs. We segmented our analysis of PAYM SIMO tariffs by contract length and data allowance. Even within these segments, tariff prices will vary because the analysis does not account for other differentiating factors. Nonetheless, we consider that comparing mobile operators' PAYM SIMO prices across data allowances and contract length provides insight into the design of the menu of tariffs they offer and evidence on the prices they charge for them.

8.144 In the Pure Pricing data, PAYM SIMO contracts are 1, 12, 18, or 24 months. Our analysis of mobile operators' PAYM SIMO pricing focuses on the two most popular contract lengths, 12 and 24 months.

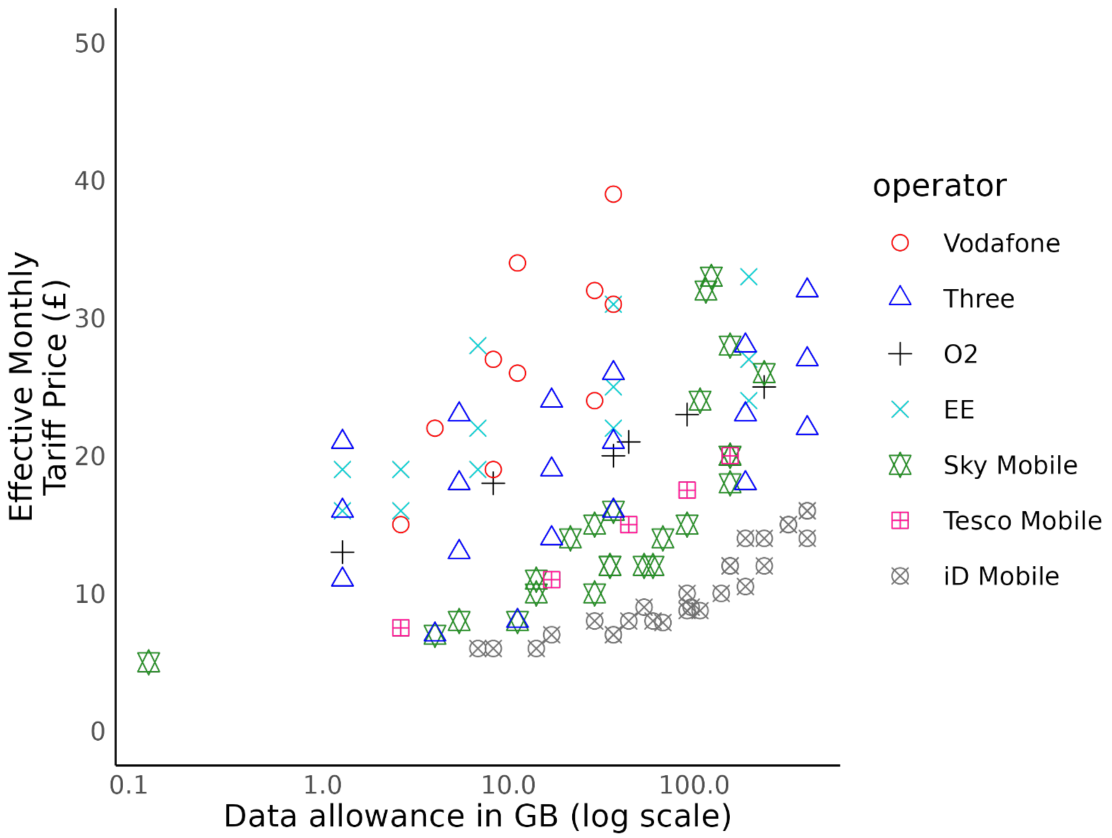
8.145 Figure 8.10 shows mobile operators' effective monthly prices for PAYM SIMO 12-month tariffs with capped data allowances. Overall, the picture is mixed. In broad terms:

(a) the cheapest tariffs across data allowances were offered by Tesco Mobile, Sky Mobile and iD Mobile;

(b) under their main brands, MNOs offered tariffs at more price points than they did for their pre-paid tariffs. Three typically offered the cheapest tariffs, but it also offered tariffs that were broadly similarly priced to O2 tariffs and the cheaper EE and Vodafone tariffs; and

(c) Vodafone offered tariffs across a range of price points. Whilst it offered some of the most expensive tariffs, it also offered some tariffs that were similarly priced to the other MNO brands. We note that some of these more expensive tariffs are likely the result of differences in other aspects of the offer – for example, Vodafone typically offered additional streaming and media content, roaming, and data allowance extras with its more expensive tariffs. Vodafone did not offer any tariffs with more than 25GB of data.

Figure 8.10: 12-month PAYM SIMO tariff prices across capped data allowances, by brand Q3 and Q4 2023



Source: CMA analysis of Pure Pricing data

8.146 For each mobile operator that offered unlimited data PAYM SIMO 12-month tariffs in Q3 and Q4 2023, Figure 8.11 shows the average (mean, indicated by the dots) and range (the grey bars) of their effective monthly prices.[474]

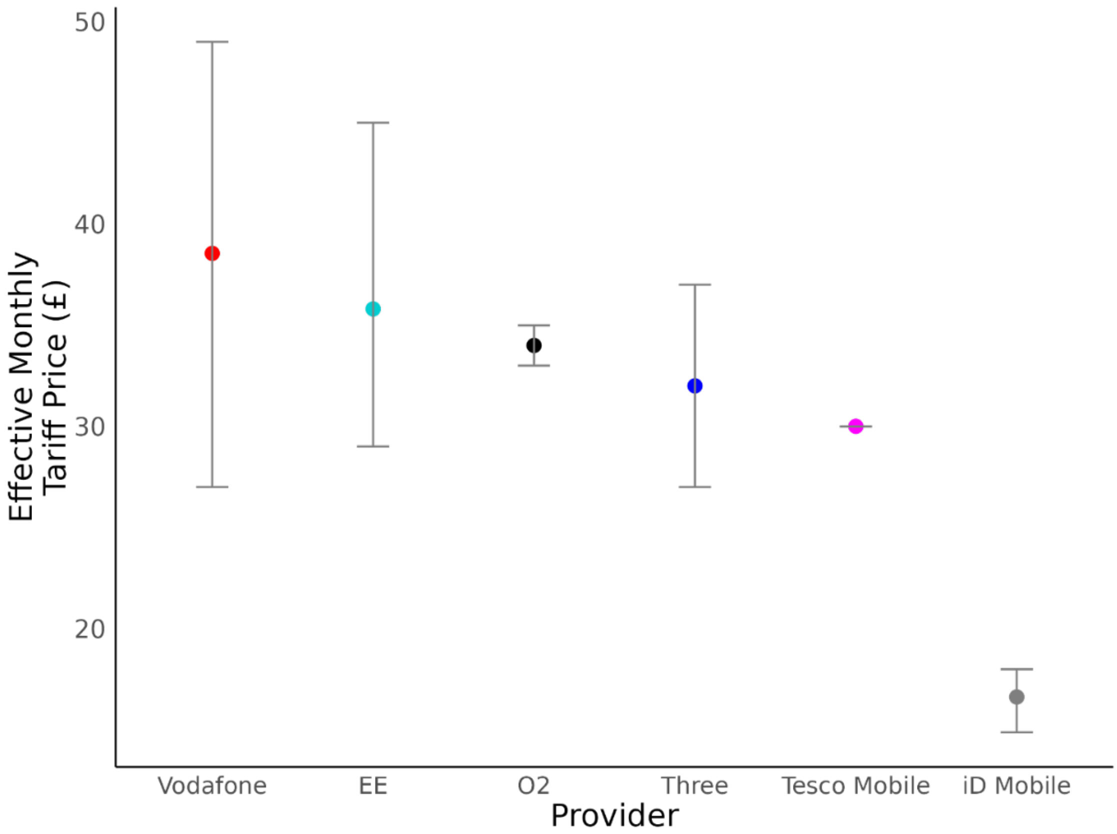
[474] Tesco Mobile and iD Mobile are the only MVNOs/sub-brands in the Pure Pricing dataset to offer PAYM SIMO 12-month tariffs with unlimited data. Operators offer different unlimited data tariffs with various extras and promotions, which

(a) The cheapest tariffs were offered by iD Mobile by a significant margin.

(b) On average, Vodafone had the most expensive tariffs, followed by EE, O2, Three, and then Tesco Mobile. However, Vodafone, EE, and to a lesser extent Three, have a wide range of prices – in particular, despite having the highest price on average, Vodafone offered the cheapest unlimited data tariff among MNOs (alongside Three).[475]

(c) As was the case with capped data tariffs (Figure 8.10), the MNOs' unlimited data tariffs prices overlap, and much of the variation in tariff prices within operators appears to be driven by differences in extras offered.

Figure 8.11: Unlimited data 12-month PAYM SIMO tariff prices, by brand Q3 and Q4 2023



Source: CMA analysis of Pure Pricing data

8.147 Next, we analysed mobile operators' prices for PAYM SIMO 24-month contracts with capped data allowances.[476] Figure 8.12 below plots the effective monthly

is why they have multiple tariffs. Tesco Mobile does not have range bars because it only has one unlimited data. We provide ranges for these PAYM SIMO tariffs because there is a greater range of tariffs/prices, whereas pre-paid tariffs are more homogeneous. The variation in prices for a single provider is due to temporary promotional discounts and variation in contact features eg roaming charges and promotional extras.

[475] We note that the cheapest Vodafone tariff was available only in July 2023.

[476] The CMA also analysed average prices for unlimited data 24-month PAYM SIMO tariffs. The results of that analysis are the same as those from its analysis of 12-month unlimited data PAYM SIMO tariffs (see paragraph 8.146).

price against the (logarithm of) data allowance in GB for these longer contracts, and shows that:

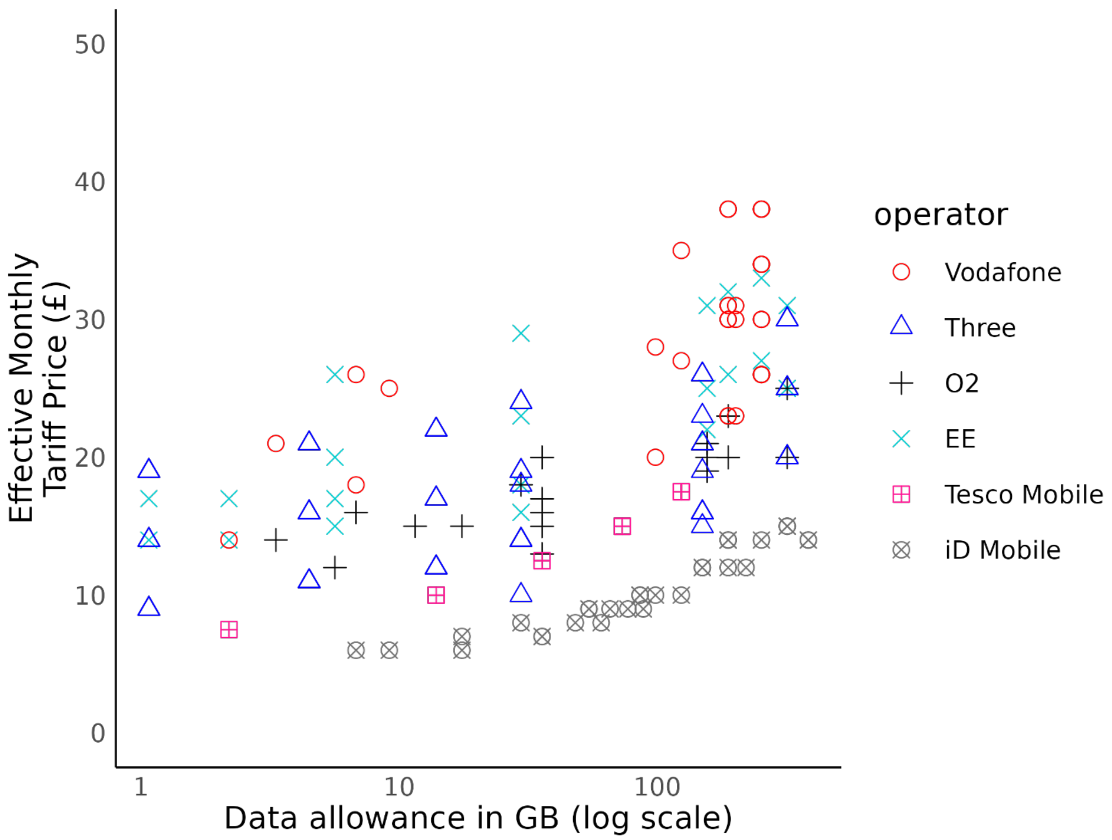
(a) as with 12-month contracts, iD Mobile and Tesco Mobile offered some of the cheapest tariffs per GB across a wide range of data allowances. However, Sky Mobile did not offer any 24-month PAYM SIMO tariffs;

(b) there was overlap in the offerings of mobile operators that offered 12-month and 24-month tariffs (both MNO's main brands and MVNOs with the exception of iD Mobile). Three again offered the cheapest tariffs across allowances and Vodafone offered the most expensive. Vodafone, Three, O2, and EE all still overlapped to a large extent in terms of their allowances and price points; and

(c) one significant difference is that Vodafone only offered tariffs with higher data allowances on its 24-month contracts. This is in contrast to its 12-month PAYM SIMO offering (in Figure 8.11 above), where it only offered tariffs at or below 25 GB.[477]

[477] There is a similar, although less pronounced, pattern with Three, EE, and O2 – although they did offer 12-month tariffs with higher data allowances, over 24-months these mobile operators also offer more and/or higher-allowance tariffs.

Figure 8.12: 24-month PAYM SIMO tariff prices across capped data allowances, by provider Q3 and Q4 2023



Source: CMA analysis of Pure Pricing data

8.148 In the response to our Working Paper, the Parties submitted that 3UK's prices have been converging with the other MNOs and provided analysis of Pure Pricing data that shows 3UK's SIMO prices increasing from the second half of 2022, but then slightly decreasing to June 2024.[478] We note that the data presented by the Parties also shows that 3UK was the cheapest MNO over the period of the analysis (2020 to June 2024) and that 3UK's price rises have coincided with the Parties' contemplation of the Merger and then the CMA Merger investigation.

8.149 Overall, we consider that our analysis of the Pure Pricing data from July to December 2023 broadly indicates that:

(a) There was material overlap in how mobile operators priced their tariffs across data allowances and contract lengths, including between VUK and 3UK. There were also significant similarities between the Parties' pricing.[479] In particular the Parties both operated low-price sub-brands, offered tariffs

[478] Annex 1 to the Parties' response to the AIS and working papers.
[479] In the response to the Issues Letter, the Parties submitted the similarity in pricing was not unique to VUK and 3UK and for example also applied to VMO2 (Parties' response to the phase 1 Issues Letter). We note the Parties do not need to each other's closest competitors for horizontal unilateral effects to arise as a result of the Merger.

across the range of possible data allowances, and a significant portion of their tariffs overlapped in terms of data allowances and price points.

(b) Although it offers tariffs at a range of prices, among MNOs, 3UK offered the cheapest tariff at any data allowance where it was present. [✂] outlined in Appendix C, Competitive strategies, and is supported by third party views.[480]

(c) Across the pre- and post-paid subsegments, VUK offered a range of tariffs, prices and features. While the Vodafone brand typically offered the most expensive tariffs in the period, this was often in conjunction with additional media, content, and roaming offers. It also offered a range of PAYM SIMO tariffs that were similar in terms of price to EE, O2 and Three's PAYM SIMO tariffs. Its VOXI sub-brand was among the cheapest in the pre-paid segment.

Network quality

8.150 We have considered the Parties' competitive positions in relation to network quality. As discussed at paragraph 8.12(b), we note that network quality has different dimensions, including coverage, average speeds, and congestion. Although there is no clear industry consensus on which measures of network quality are most important, there are some external measures that are helpful to compare network quality between MNOs, which the Parties track in their internal documents and appear to rely on – in conjunction with their own internal measures – in their internal strategy documents. These external measures are from:

(a) Umlaut, which publishes benchmarking results annually at a national level and also sells the underlying data on a quarterly basis which provides a more granular/disaggregated view. Umlaut measures network quality and reliability, broken down by voice, data, crowdsourcing and by city. The Umlaut 'overall best network' is determined using the aggregate score of each MNO over the voice, data and crowd tests.[481] Both Parties monitor their quarterly Umlaut results and these measures are referenced in their board level documents.[482]

(b) RootMetrics, which has an overall performance test that captures a combination of reliability and speed results from data, call and text testing. MNOs are also ranked across six categories (reliability, accessibility, speed, data, calls and texts).[483] Both Parties monitor RootMetrics results in their internal documents, although the Parties submitted that VUK does not purchase data from RootMetrics.[484] Prior to Ookla acquiring RootMetrics in

[480] Responses to the CMA competitor questionnaire from: [✂]; [✂]; and [✂].
[481] FMN; and Parties' response to the CMA's data questions.
[482] See for example, CK Hutchison internal document; and Vodafone internal document.
[483] FMN.
[484] Parties' response to the CMA's data questions; CK Hutchison internal document; and Vodafone internal document.

2021,[485] Ookla published data performance broken down by download speed, upload speed, latency and by technology. Both Parties monitored their Ookla results which are referenced in their board level documents.[486]

(c) Opensignal, which is a third party analytics provider which gathers network speed data across the UK and produces reports comparing MNOs' network performance.[487] It publishes analysis based on this data in a bi-annual UK mobile network experience report. Both Parties monitor Opensignal reports which are referenced in their board level documents.[488]

(d) Measures of availability (measured by complaints) and coverage published by Ofcom, which are broken down by geographic and population coverage (measured by number of sites). Both Parties monitor their Ofcom results.[489]

8.151 The Parties also confirmed that MVNOs cannot directly influence network speed and coverage,[490] but that full MVNOs can offer tiered download speeds to different subscribers.[491] We consider, however, that MVNOs cannot improve customer download speeds beyond that offered by their host MNO. MVNOs told us that they cannot directly compete on network quality, as this is determined by MNOs.[492] Therefore, we do not consider that MVNOs compete on network quality with the MNOs for the purpose of our competitive assessment.

8.152 In this section we consider evidence on the relative position of the Parties' network quality from:

(a) Evidence from internal documents and third parties; and

(b) Third party data on the predicted signal strength and download speeds.

Evidence from internal documents and third parties

8.153 The Parties' internal documents show that based on the Umlaut benchmarking results, which the Parties track on a regular basis:[493]

(a) 3UK's network quality was the lowest of all MNOs in Q3 2020. Since then, its network quality has been improving. In contrast, the overall scores for each of BTEE, VMO2 and VUK have remained largely flat over time, indicating no significant improvements in the quality of their networks.

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[485] Ookla Acquires RootMetrics, 14 December 2021, accessed by the CMA on 28 August 2024.
[486] For example, CK Hutchison internal document; and Vodafone internal document.
[487] About us | Opensignal, accessed by the CMA on 28 August 2024.
[488] For example, CK Hutchison internal document; and Vodafone internal Document.
[489] Parties' response to the CMA's data questions.
[490] Parties' response to CMA RFI.
[491] Annex 1 to the Parties' response to the AIS and working papers.
[492] Notes of calls with: [✂]; [✂]; [✂]; and [✂].
[493] CK Hutchison internal documents.

(b) In 2021, 3UK moved ahead of VMO2 from fourth to third, and has since maintained this position, meaning that 3UK no longer has the lowest network quality among MNOs according to Umlaut benchmarks.

(c) BTEE has consistently had the highest Umlaut score for the period Q1 2019 to Q2 2023, consistently followed by VUK.

8.154 This is consistent with the Rootscore results which also show BTEE as having the best overall network performance, followed by VUK and then 3UK. VMO2 has the lowest score.[494]

8.155 We also considered the relative rankings of each MNO for 'Fastest 5G' published by Ookla. One internal document shows that according to Ookla's measure, 3UK had the fastest 5G network and was nearly twice as fast as second place VUK's download speeds in H1 2023.[495] The same document shows that VMO2 had the slowest speed, with BTEE in third place.

8.156 More recently, in August 2024 a RootMetrics 'UK Mobile Performance and 5G in review' also showed that at a UK level 3UK's network quality has improved. 3UK ranked equal first in one network performance category (UK Text), second in six, and third in one category. At a UK level VUK ranked second in two categories and third in the others. Umlaut also noted that 'Vodafone's RootScores were generally similar to those of Three across the board, reflecting strong competition between the two operators in our UK-wide testing'. BTEE ranked first (or first equal) on all UK-wide categories, and VMO2 ranked last.[496]

8.157 Beyond references to benchmarking results, the improvement in 3UK's network quality is reflected further in its internal documents:

(a) In one internal document from 2023, 3UK mentioned that [✂].[497] Another internal document shows that 3UK is closing the network quality gap between itself and VUK. The same document notes that 3UK has maintained its lead over VMO2 ever since it moved ahead of VMO2 in 2021.[498]

(b) An internal document from October 2023 notes that although '[✂]',[499] the improvements to its network has [✂] the number of customers leaving 3UK due to [✂] and [✂] has also [✂] as a reason for customers to stay. 3UK considers this is '[✂]'.[500]

[494] See Rootmetrics, UK RootScore Report 2nd Half 2023, accessed by the CMA on 6 September 2024.
[495] CK Hutchison internal documents.
[496] RootMetrics' UK Mobile Performance and 5G in review: Which operator came out on top in 1H 2024, dated 5 August 2024 (reviewed 12 August 2024), accessed by the MCA on 6 September 2024.
[497] CK Hutchison internal document.
[498] CK Hutchison internal document.
[499] This is in the context of 'poor network coverage' being the highest ranking in the 'Top Reasons for Rejecting Three' see CK Hutchison internal document.
[500] CK Hutchison internal document.

(c) A brand health KPI report from December 2023 shows that in the period since August 2021 the perception of 3UK's brand image as having a '[✂]' has [✂] although it remains behind that of [✂].[501]

(d) Despite references in a Leavers Report of January 2024 that [✂], diagrams on slide 3 in that report also demonstrate [✂] in the [✂] in '[✂]' and the '[✂]' for leaving 3UK, although '[✂]' has been trending [✂] as a reason for leaving 3UK in [✂].[502] The same document further emphasises that over the long term 3UK has seen '[✂]', with the relevant network reasons for leaving 3UK identified as [✂].[503]

(e) A June 2024 report on the '[✂]' shows that '[✂]' come second of all reasons for joining the brand, behind '[✂]' as is also the case for [✂].[504]

8.158 Evidence from third parties also suggests that 3UK's network quality has improved. Several competitors noted that 3UK has improved network quality in recent years.[505] One third party noted that changing perceptions following a period of investment generally requires a long time horizon and significant investment in advertising, [506] and [✂].[507] A number of 3UK's competitors also stated that its 5G speeds and network capacity were particular strengths.[508] Some third parties also considered that BTEE has strongest overall network quality,[509] and VMO2 has the weakest network quality of the four MNOs.[510]

8.159 Evidence from third parties' internal documents, the detail of which is set out in Appendix C, Network investment strategies, shows that:

(a) BTEE is considered to have the best network in the UK and [✂] in 5G;

(b) VUK is considered to have the second-best network in the UK, and its 5G SA poses some threat to BTEE's [✂] 5G;

(c) 3UK is considered to have the third-best network in the UK, due its recent improvements in network quality, and poses a threat to BTEE's [✂] 5G. However, [✂]; and

501 CK Hutchison internal document.
502 CK Hutchison internal document.
503 CK Hutchison internal document.
504 CK Hutchison internal document.
505 Notes of calls with: [✂]; [✂]; and [✂].
506 [✂] call note.
507 Phase 1 decision meeting transcript. On page 39, a Vodafone representative discusses that 'perception lags the delivery on experience' and that network perception is 'less science, more art'. On page 39, a Vodafone representative also discusses an '18-month delay before the actual experience is perceived'.
508 Responses to the CMA competitor questionnaire from: [✂]; [✂]; [✂]; [✂]; and [✂].
509 Responses to the CMA competitor questionnaire from: [✂]; [✂]; [✂]; [✂]; [✂]; [✂]; [✂]; and [✂].
510 [✂] call note; [✂] response to the CMA's questionnaire; and responses to the CMA competitor questionnaire from: [✂]; [✂]; [✂]; [✂]; and [✂].

(d) VMO2 is considered to have the [✄] network, and [✄] 5G offering, in the UK.

CMA analysis on the quality of each network using third party data

8.160 In order to assess the quality of the Parties' 4G and 5G networks we analysed predicted coverage data from Ofcom and download speeds data from Opensignal in 2023.

Predicted coverage data

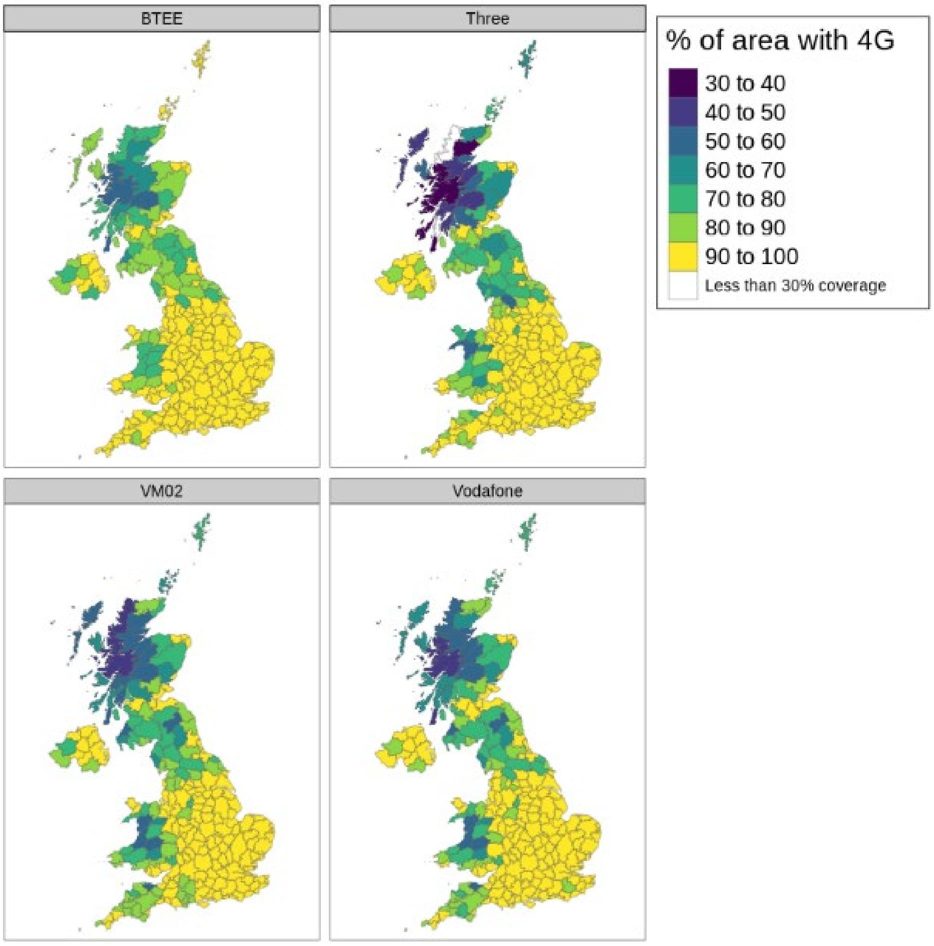
8.161 With regards to coverage we analysed coverage predictions submitted to Ofcom by each network between May 2022 and September 2023 for the purpose of producing Ofcom's Connected Nations Reports.[511] The network coverage prediction data contain a prediction of signal strength for each technology and frequency band within the network that provides a measure of the coverage of that technology in a given area. [512] Ofcom told us that these signal strength predictions 'represent a reasonable basis for estimating signal strength (and coverage) in aggregate' and we note they are used by Ofcom to analyse coverage in their Connected Nations Reports. [513]

8.162 Figure 8.13 and Figure 8.14 below show the 4G and 5G coverage for June 2023 based on the 2011 definitions of Travel to Work Areas (**TTWA**s).[514] These are based on signal strength predictions provided by each network to Ofcom. For the purposes of defining coverage, we apply the thresholds used by Ofcom in their connected nations reports.[515]

8.163 Figure 8.13 shows the percentage coverage of 4G in different TTWAs in June 2023. This shows that coverage is broadly similar across all four networks, with each network having over 90% coverage in the majority of TTWAs in England.

[511] These network predictions are collected by Ofcom for the purpose of producing its Connected Nations Reports. Ofcom's methodology annex which explains its approach to obtaining and analysing the information from the operators to generate the Connected Nations data can be found here.
[512] Formally signal strength measures the power of a given signal. This can be associated to coverage by using by reference to thresholds as is done in Ofcom's connected nations reports.
[513] Ofcom response to the CMA's 19 April 2024 letter.
[514] TTWAs approximate a self-contained labour market area. These are areas where most people both live and work and therefore relatively few commuters cross a TTWA boundary on their way to work. They are produced by the ONS using statistical analysis of census data.
[515] In particular for 4G we consider there to be coverage if the signal strength is above -105dBm. This is the threshold Ofcom considers as meaning there is a 95% probability a user can make an uninterrupted voice call or get 2mb/s of download speed. For 5G we use a threshold of -100dBm which corresponds to a very high confidence (over 95% probability) of accessing 5G outdoors. To consider the coverage in a TTWA we analyse predictions at the 100x100 pixel level aggregating predicted signal strengths across frequency bands by taking the highest signal strength across frequency bands for a network in a given pixel. Then we count the percentage of pixels in the TTWA with e.g a maximum 4G signal strength above the coverage threshold.

Figure 8.13: 4G coverage in TTWAs in the UK in June 2023



Source: CMA analysis of Ofcom's Connected Nations data

8.164 Figure 8.14 shows the percentage coverage of 5G in different TTWAs in June 2023. In contrast to 4G, there are larger differences in 5G coverage between the networks. 3UK and BTEE have over 30% coverage in more areas across the UK. VUK has more limited 5G coverage across the UK but is strong in London and parts of the west of England. VMO2 also has more limited 5G coverage across the UK than 3UK and BTEE.

Figure 8.14: 5G coverage in TTWAs in the UK in June 2023

Source: CMA analysis of Ofcom's Connected Nations data

8.165 The Parties submitted that the Ofcom Connected Nations signal strength data alone does not capture the actual quality experienced on each network. Therefore, its results cannot be relied upon in isolation.[516] As a result we have also analysed data on 4G and 5G download speeds for each network between January 2023 to June 2023.

Download speed data

8.166 We analysed download speed data from Opensignal, a third party analytics provider which gathers network speed data based on network performance tests using mobile devices across the UK.[517] We analysed 4G and 5G download speeds for each network from January 2023 to June 2023. In our analysis we only considered download speed results in TTWAs with over 25% coverage and over 50 conducted tests. This was to ensure the estimates provide an appropriate

[516] Annex 1 to the Parties' response to the AIS and working papers.
[517] Opensignal collects measurements of network experience quality and speed based on regularly scheduled periodic tests, executed independently and at random intervals to capture what users are experiencing at a typical moment in time. For more information on Opensignal's approach and methodology see https://www.opensignal.com/our-approach.

snapshot of the speeds in the area (and for example were not biased by a single test result).

8.167 Figure 8.15 and Figure 8.16 show the distribution of speed in megabytes per second (**mbps**) across the TTWAs in the UK with over 25% coverage. Each chart is a box plot. The bottom and top of the box represent the 25th and 75th percentiles of the data, respectively. The middle line in the box represents the median average download speed across TTWAs with over 25% coverage.

8.168 For reference a Vodafone news article from 2023 cites the following standards for mobile download speeds:[518]

(a) 2Mbps is fast enough for

(i) Streaming or downloading music;

(ii) sending and receiving text in messages and emails;

(iii) web browsing.

(b) 10Mbps is fast enough for all of the above, as well as:

(i) Video chats;

(ii) sending and receiving photos and videos;

(iii) streaming or downloading video in HD quality;

(iv) playing most single-player online games.

(c) 50Mbps is fast enough for all of the above, as well as

(i) Streaming or downloading video in 4K quality;

(ii) livestreaming video of yourself or your surroundings;

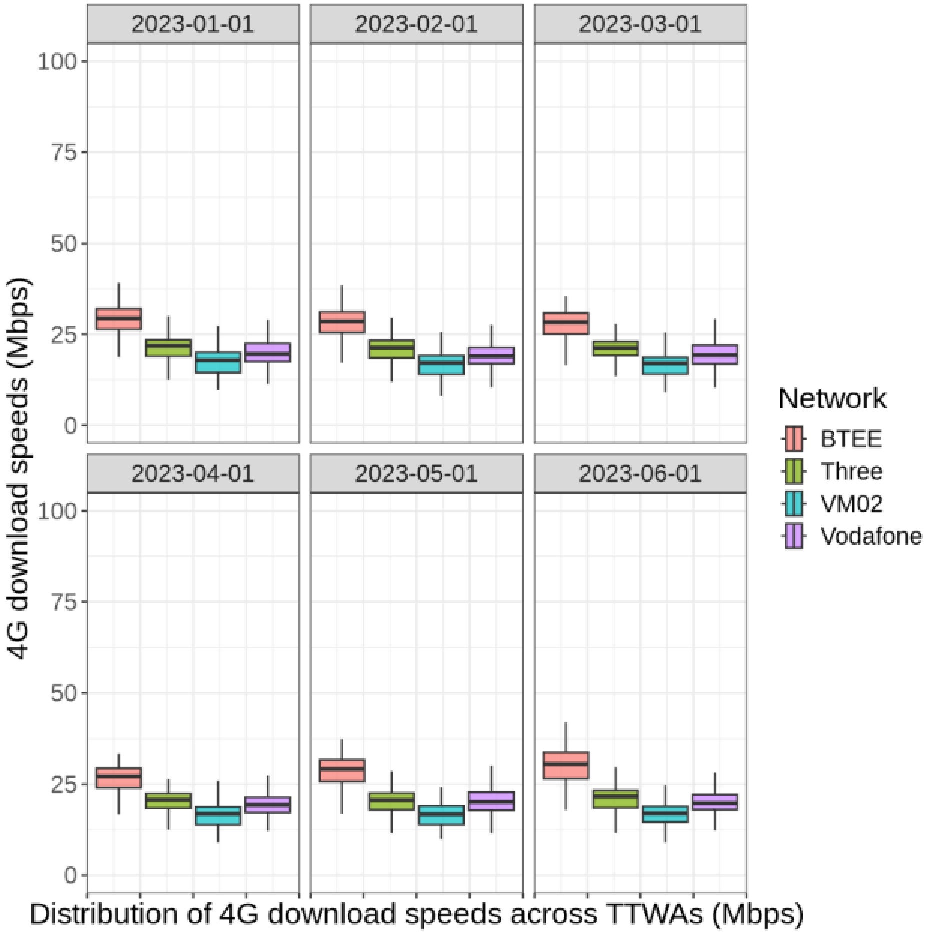
(iii) playing most multiplayer online games;

(iv) playing games using cloud gaming services;

(v) uploading multiple files to cloud storage services.

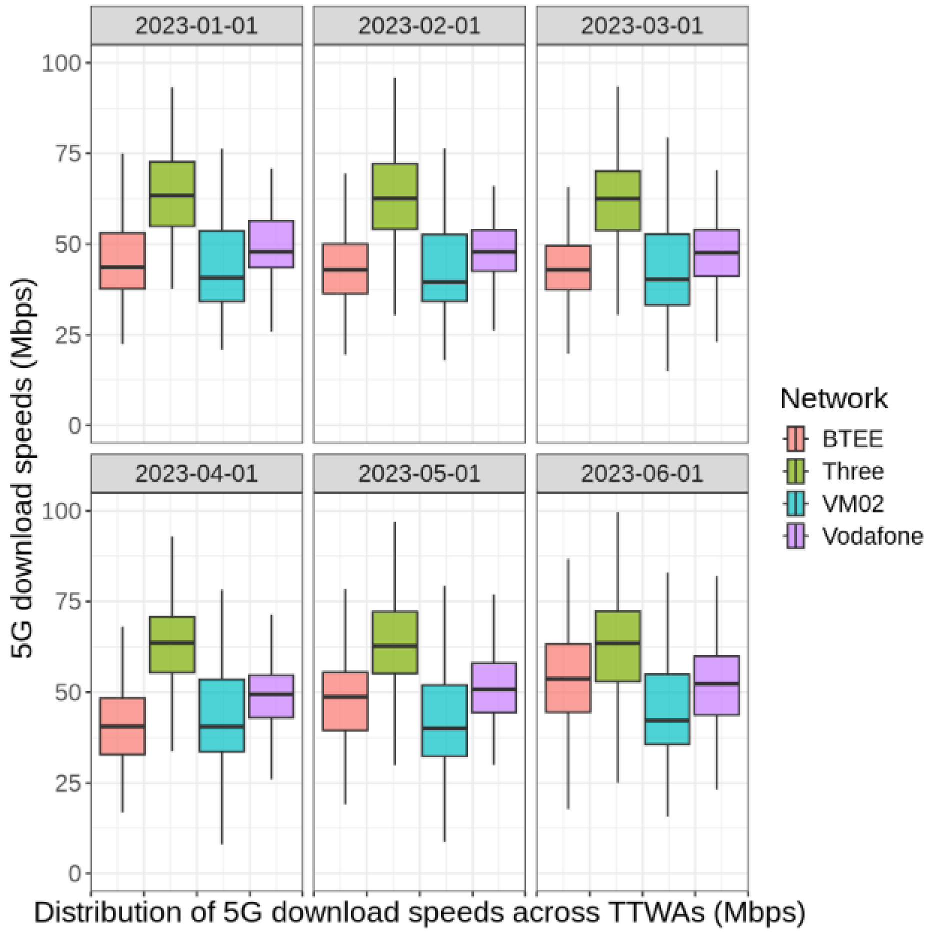
[518] Mobile data speeds explained (vodafone.co.uk) accessed by the CMA on 18 August 2024

Figure 8.15: 4G Download speed in 2011 TTWAs in the UK in January-June 2023



Source: CMA analysis of Opensignal Limited © 2024.

Figure 8.16: 5G Download speed in 2011 TTWAs in the UK in January-June 2023



Source: CMA analysis of Opensignal Limited © 2024.

8.169 Figure 8.15 shows the distribution of 4G download speed tests by network across TTWAs from January 2023 to June 2023. This shows that:

(a) In the majority of TTWAs with above 25% 4G coverage all networks provide an average download speed of above 10Mbps fast enough for streaming HD video and playing online games;

(b) BTEE consistently had the fastest average 4G download speed;

(c) 3UK had the second highest average although VUK was close behind in third with broadly similar 4G download speeds; and

(d) VMO2 consistently had the slowest 4G network in terms of download speed.

8.170 Figure 8.16 shows the distribution of 5G download speed tests by network across TTWAs from January 2023 to June 2023. We note that compared to 4G download speeds, 5G is around twice as fast.

(a) 3UK consistently had the fastest 5G download speeds and was improving across the period;

(b) VUK and BTEE made improvements to their average 5G download speed; and

(c) compared to 4G there is greater variability in download speeds.

8.171 We note that although this analysis provides an insight into the quality of each network in 2023 there are some important limitations to the analysis.

(a) Coverage and download speeds are just a few possible measures of network quality (alongside for example, signal interference), and thus, the analysis only provides a partial insight into the quality offering of each network.[519]

(b) The Opensignal data is based on tests and as such in areas where there are limited numbers of tests or tests do not happen across the TTWAs, the results may provide an inaccurate representation of the speed consumers may experience in that area.

8.172 Overall, based on all the evidence above on network quality, we provisionally consider that:

(a) 3UK has seen improvements in its network quality. Where it has rolled it out, its 5G network outperforms others and in the median TTWA it currently has the fastest 5G speeds. A number of 3UK's competitors consider that its 5G speeds and network capacity are particular strengths. This is also broadly consistent with 3UK's assessment of its own network performance in its internal documents as set out in the Evidence from internal documents and third parties section above.

(b) VUK has historically been in second place behind BTEE on network quality across several measures. More recently, due to improvements in 3UK's network, VUK's network quality appears broadly similar to 3UK's on some measures and slightly behind 3UK's on others (notably 5G).

(c) BTEE, on different measures and according to competitors, is regarded as having the strongest overall network quality.

(d) On a number of measures, and according to competitor views, VMO2 now has the lowest network quality of the UK MNOs.

(e) We do not consider that MVNOs compete on network quality with the MNOs for the purpose of our competitive assessment.

[519] Ofcom response to the CMA's 19 April 2024 letter.

Brand

8.173 We have considered the Parties' competitive positions in relation to brand by considering how the Parties assess the strength of their brands in their internal documents.

8.174 3UK provided 'Brand Health KPI Reports' for both the Three and SMARTY brands covering the three years up to December 2023.[520] The December 2023 iteration of this report shows that the spontaneous awareness of the Three brand is [✄] but is [✄].[521] A similar report for the SMARTY brand demonstrates that since December 2021, consideration of the brand has [✄].[522]

8.175 Another 3UK internal document from December 2023 indicates that Three's spontaneous awareness is [✄] than [✄] in the period from September to November 2023. It also shows that spontaneous awareness for the Three brand is [✄] than [✄].[523] The document also notes that '[✄]', and that 3UK has seen '[✄]'.[524]

8.176 Regarding VUK's brands, a presentation from April 2023 regarding net promoter scores (**NPS**)[525] in the consumer retail segment shows that:

(a) [✄]; and

(b) [✄].[526]

8.177 We provisionally consider that this evidence shows that Vodafone and EE have strong brands. The Three brand is relatively weaker, but is generally stronger than MVNO brands, and there is some evidence that this has been improving.

Customer satisfaction

8.178 We assessed the Parties' competitive positions in relation to customer satisfaction by considering data on the number of complaints lodged with Ofcom per 100,000 post-paid mobile subscribers per year, quarter and operator. In the first quarter of 2024: BTEE and VUK both received the least complaints (2 complaints per 100,000 subscribers), while 3UK received 4 complaints and VMO2's O2 brand received 8 complaints per 100,000 subscribers. The industry average was 4 complaints per 100,000 subscribers. This indicates that, overall, the customer

[520] FMN.
[521] CK Hutchison internal document.
[522] CK Hutchison internal document.
[523] CK Hutchison internal document.
[524] CK Hutchison internal document. The brand image associations referenced on [✄] of the presentation are network coverage, fastest 5G network, good value for money, and appreciation and rewards for loyalty.
[525] We note that NPS measures the loyalty of customers to a company or brand.
[526] Vodafone internal document.

satisfaction of the Parties is better (in VUK's case) and in line (in 3UK's case) with the industry average, and better than VMO2.[527]

The impact of the size of an operator's customer base on its competitive incentives

8.179 In this section we consider how a mobile operator's competitive incentives could be impacted by the size of its customer base. As outlined in the customer bases section above, we note that 3UK, and to a lesser extent, VUK have smaller customer bases than BTEE and VMO2. The Merged Entity would have a significantly larger customer base than the Parties on a standalone basis.

8.180 As a starting point, we note that there are several ways in which an operator's size could impact its competitive incentives. For example:

(a) Mobile operators may try to attract new customers from their competitors by offering cheaper tariffs. In the short-term, the existence of long-term contracts means that the operator can charge lower prices for new customers compared to its existing customers. However, in the medium-term, the mobile operator is likely to have to extend the same terms to its existing customers. Therefore, when deciding whether to reduce prices, a mobile operator faces a trade-off between the short-term benefit of gaining additional customers from rivals and the cost of reducing the profitability of its existing base in the medium-term. This cost is likely to be greater for mobile operators with larger existing bases than those with smaller existing bases. This means that those with larger existing bases may have lower incentives to compete strongly on price than mobile operators with smaller bases.

(b) We consider that, as set out above in the Third party views on the relevance of scale to the UK telecommunications industry section above, the mobile industry is characterised by the presence of high fixed costs and significant ongoing investment requirements. As well as investing to respond to technological developments and changing customer demands, MNOs must also invest to maintain their base of network infrastructure. We consider that this may mean that smaller MNOs have particularly strong incentives to find ways to increase revenue to cover this fixed cost base, including by being competitive on prices and/or innovating to increase their customer bases.

8.181 We consider that several of the Parties' submissions and statements acknowledge that the competitive incentives of an operator depend, in part, on the size of its customer base:

[527] Ofcom, Report: Complaints about broadband. Landline, mobile and pay-TV services, January 2024.

(a) 3UK – in the context of discussing its recent expansion into the business retail segment (see Table 8.16) – noted that [✂]. It [✂].[528] 3UK noted that [✂].[529]

(b) VUK told us at the Main Party Hearing that it 'disagree[s] that scale is the only reason for driving price competition' because 'you can want to be more aggressive, but you have to have the ability to be more aggressive'.[530] However, this appears to indicate that scale is one factor in an operator's incentives to price aggressively.

(c) In response to our Working Paper, the Parties submitted that 'to the extent that MergeCo will face a trade-off when setting tariff prices between attracting new customers and reducing the profitability of its existing base, this trade-off must be weighed against a range of other factors. Any reduction in competitive incentives as a result of the Transaction would likely be minimal as a result.'[531]

(d) In Vodafone's submissions to the European Commission in relation to the *Hutchison 3G UK/Telefónica UK* merger it noted that it would have been the [✂].[532]

8.182 We have also found some internal documents which suggest that operators consider the impact of 'front-book' prices on their 'back-books'.

(a) One of VUK's recent internal documents discusses [✂].[533] This is consistent with a number of other internal documents which discuss similar themes.[534]

(b) A VUK internal document states that it '[✂]'.[535]

(c) A BTEE internal document dated 20 December 2023 for the '[✂]' states that '[✂]'. The document justifies this because '[✂]'. It also states that BTEE '[✂]'.[536]

8.183 Third party evidence is also consistent with a smaller customer base providing operators with incentives to compete harder:

(a) A [✂] dated 9 September 2021, states that 'BTEE and O2 [are] positioning at a premium to defend value & Vod[afone], H3G & Sky [are] discounting to drive scale'. The document further states that Vodafone's strategy is to 'scale

[528] 3UK site visit recording.
[529] 3UK site visit recording.
[530] Vodafone Main Party Hearing transcript.
[531] Annex 1 to the Parties' response to the AIS and working papers.
[532] Vodafone Internal Document.
[533] Vodafone Internal Document.
[534] See, for example, Vodafone Internal Document. See also Vodafone Internal Documents.
[535] Vodafone Internal Document.
[536] BTEE internal document.

[its] mobile base through high-end discounting, indirect and Voxi', and Three's strategy is to 'scale [its] mobile base through aggressive UL pricing & indirect'.[537]

(b) Gamma told us that a converged entity of greater or similar scale to BTEE and VMO2 will potentially have less incentive to disrupt the market, and this could potentially result in higher retail prices over time.[538]

(c) Sky Mobile submitted that 3UK has significantly disrupted the status quo between the three main incumbent MNOs. It told us that 3UK's role as a competitor has evolved over the years since it first entered, softening (to some extent) some of its more aggressive tactics. However, it nevertheless has played and continues to play a critical role in the retail mobile market – offering low prices and good value deals, improving and investing in its network quality, driving growth in some parts of the market.[539]

(d) A BTEE internal document [✂] lists volume performance drivers for mobile operators, and states that [✂].[540]

(e) Third parties also submitted that 3UK is a strong competitor in the supply of retail mobile services. One third party noted that despite being the smallest MNO 3UK has been innovative, disruptive and very competitive,[541] while another noted that 3UK has been a 'disruptor' in the SIMO space for a long time by offering cheap unlimited deals.[542] One third party noted, while recognising challenges for 3UK in making 'sufficient' returns, that 3UK has been something of a catalyst for innovation in its brand and in the retail market more broadly, and that we should carefully consider 'what' may drive innovation in the market after the Merger.[543]

8.184 In response to our Working Paper the Parties identified a range of other factors which they state are more important in impacting the competitive abilities, incentives and strategies of smaller MNOs. These include the Parties' lack of scale and financial situation and the capacity available to an operator.[544]

8.185 We consider that there are a range of factors which impact the competitive incentives of operators, and the evidence suggests that the size of an operator's customer base is one of these. We consider the factors raised by the Parties, in particular as these relate to forward-looking network investment plans and

[537] [✂] internal document.
[538] Gamma response to the CMA's questionnaire.
[539] Sky, response to the CMA's preliminary Invitation to Comment.
[540] BTEE internal document.
[541] [✂] meeting slides.
[542] [✂] call note.
[543] [✂] call note.
[544] Annex 1 to the Parties' response to the AIS and working papers, 8 July 2024.

incentives as compared to what is proposed in the JBP, elsewhere in our assessment.

8.186 We note that 3UK and, to a lesser extent, VUK, currently have smaller customer bases than the other MNOs. We consider that this may, to some extent, mean that each of the Parties, and 3UK in particular, has strong incentives to be competitive on prices and innovate to increase its customer base. We note that the Merged Entity would have a significantly larger customer base, which conversely means that it may have a lower incentive to compete strongly compared to each Party (and, in particular, 3UK) on a standalone basis.

Provisional conclusion on competitive position of the Parties

8.187 Overall, our provisional view is that both Parties act as a strong competitive constraint on other mobile operators in the supply of retail mobile services. In particular, our provisional view – based on the evidence set out above – suggests that:

(a) 3UK is the cheapest MNO. Although its network quality and brand reputation were historically below that of the other MNOs, due to recent improvements in 3UK's network it has improved its network quality and [✄]. Our analysis of quality data shows that it is leading on 5G speeds, is behind BTEE on 4G speeds and is comparable to BTEE on 5G coverage. It has successfully grown in the business retail segment, FWA and [✄] evidencing its ability and incentive to find new avenues for revenue growth.

(b) VUK's share of supply and recent revenue growth metrics, including as measured in its internal documents, demonstrate that it is providing competitive constraint in the supply of retail mobile services. Its network quality has consistently been high, and VUK has established plans to continue to improve this network performance by rolling out next-generation technology (including 5G NSA and 5G SA).

(c) Informed by our review of the Parties' internal documents and third party submissions, we recognise that economies of scale are an important feature of the UK mobile telecoms industry and that being able to invest in network quality is important to compete effectively, albeit certain market features (such as network sharing arrangements) act to ease MNOs' total investment requirements. We also recognise significant evidence from both Parties' internal documents that relative scale is a key consideration for both of VUK and 3UK:

(i) historically – VUK has perceived itself to be making [✄] and Vodafone has recently [✄], following VUK's achievement of a number of financial performance objectives.

(ii) 3UK has placed significant reliance on CK Hutchison and the Cellnex transaction to fund recent significant network improvements, and has been [✂], albeit this has largely been as part of a strategy to grow its business. It has delivered significant growth, by industry standards, more recently to improve its position.

8.188 Considering currently observed competitive conditions (ie the 'short run' conditions observed 'today'), and drawing on evidence related to (i) market outcomes (seen in changes to the Parties' and others' customer bases), (ii) the Parties' pricing strategies, and (iii) the Parties' network quality metrics, we do not currently find evidence that either Party's size or scale is limiting its ability to exert a competitive constraint across the relevant parameters of competition.

8.189 In respect of the Parties' longer term ability to exert a competitive constraint, including through network investment, we observe that both Parties' internal documents refer to [✂] (in particular for 3UK in its more recently established revenue streams). Both Parties' medium-term budgets (ie considering the coming five years) anticipate [✂] (with 3UK continuing to expect particularly strong growth, in line with its recent performance). Both Parties' current business plans also anticipate [✂] network investment to improve customer experience, and we note some evidence (outlined at Appendix C, Importance of scale) that 3UK's capital expenditure may have been [✂]. We also note, as discussed in Chapter 14, that – in respect of congestion in particular, and not withstanding our network quality findings outlined in this chapter – [✂].

8.190 We also provisionally consider that CK Hutchison and Vodafone are incentivised to prioritise and allocate resources both (i) where 3UK and VUK see scope for revenue growth and (ii) to protect the current value of their shareholdings in each business (with a view to enabling organic growth and improving financial performance or to realising this value through alternative 'inorganic'[545] means).

Closeness of competition and competitive constraints

8.191 We have examined the extent to which VUK and 3UK compete closely for different types of retail customers and the constraint they currently face from rivals. Within this assessment, we have considered the following sources of evidence:

(a) evidence on customer bases and competitive positioning;

(b) customer switching data;

(c) diversion ratios;

[545] Ie alternative divestment of the VUK or 3UK, mergers, acquisitions, investments or other strategic options.

(d) the Parties' internal documents;

(e) evidence from the other MNOs and MVNOs;

(f) evidence from business customers; and

(g) third party views on the impact of the Merger.

Customer bases and competitive positioning

8.192 In this section we summarise the evidence above in relation to closeness of competition and competitive constraints.

Customer bases

8.193 As discussed in paragraphs 8.103 to 8.107 above:

(a) VUK and 3UK are the third and fourth largest suppliers of retail mobile services by revenue and subscribers, respectively. The Parties also both have market shares between 10% and 30% by revenue and subscribers in all consumer subsegments. 3UK has been marginally gaining market share by revenue and subscribers and VUK has been gaining market share by revenue but marginally losing share by subscribers.

(b) While 3UK has seen rapid growth in the business segment (predominately from gains with SoHo customers) its overall presence in business is relatively small. Based on market shares by gross adds in the PAYM subsegment, 3UK appears to perform more strongly than its market shares by subscribers suggest, though it has the highest churn rates of all MNOs. The Parties also compete closely for PAYM SIMO customers in the large and unlimited data allowance tariffs. In the pre-paid subsegment, where MVNOs such as Lebara and Lyca Mobile operate, 3UK (and particularly its main brand, Three) performs less strongly than in the PAYM subsegment.

(c) BTEE's and VMO2 + Tesco Mobile's market shares in the overall retail mobile market continue to fall but they remain the largest two suppliers.

(d) The combined market share of independent MVNOs is growing, most notably due to Sky Mobile and Lebara, which also have large and positive net adds in the PAYM subsegment and pre-paid subsegment respectively. Independent MVNOs generated [5-10%] of retail mobile revenues and supplied [10-20%] of subscribers in 2023, which has grown from [0-5%] of revenue and [5-10%] of subscribers in 2020. However, no independent MVNO has a market share greater than 5% by revenue or subscribers, and most independent MVNOs do not operate in all consumer retail subsegments.

Competitive positioning of the Parties

8.194 As discussed in paragraphs 1.187 to 1.190 above:

(a) 3UK and VUK both operate low-price sub-brands, offer tariffs across the range of possible data allowances, and a significant portion of their tariffs overlap in terms of data allowance and price points. 3UK consistently offers lower-priced tariffs out of the MNOs;

(b) 3UK has successfully grown its propositions in the business retail segment, FWA and in the pre-paid subsegment (through its SMARTY brand). VUK is also seeing growth in similar subsegments; and

(c) 3UK has seen improvements in its network quality and is particularly strong in NSA 5G where it currently has the fastest 5G speeds where it has rolled it out. VUK's network quality has historically been second place behind BTEE. However, more recently due to improvements in 3UK's network, VUK's network quality appears broadly similar to 3UK's on some measures and slightly behind 3UK's on others (notably 5G). It has established plans to continue to improve this network performance by rolling out next-generation technology (including 5G NSA and 5G SA). BTEE has been the market leader on network quality for several years, while VMO2 is the lowest ranked provider.

Customer switching

8.195 We have considered evidence from the following:

(a) Mobile Number Portability (**MNP**) data; and

(b) GfK survey data submitted by the Parties.

MNP data

8.196 The MNP data captures the switching behaviour of customers that leave either Party's network using the number portability service – which is a regulated facility that allows customers to keep their numbers when changing provider. MNP data has the benefit of showing revealed preferences, while the main limitation of the MNP data is that it is an opt-in service and therefore does not capture switching for users who do not choose to retain their number (which is particularly common for pre-paid customers).[546] Further, the MNP data does not provide any evidence as

[546] The Parties estimate that the MNP data captures between [✂]% of consumer post-paid customers, [0-5%] of consumer pre-paid customers and between [✂]% of business post-paid customers of the overall customer churn from the Parties. FMN, 25 January 2024.

to the reasons behind customers leaving either of the Parties' networks nor the type of tariff the customer switched to.[547]

8.197 We consider that switching ratios calculated at the operator level treat all MVNOs as completely independent and can be considered as an upper bound/are likely to overstate the constraint provided by MVNOs. On the other hand, switching ratios calculated at the network level are likely to overstate closeness of competition by excluding some of the competitive pressure from MVNOs hosted on the Parties' networks. We therefore calculate and present switching ratios at both a network and an operator level.

8.198 The Parties submitted that the MNP data shows that 3UK and VUK are not the 'primary alternatives' to one another.[548] We consider that in differentiated markets, horizontal unilateral effects are more likely where the merger firms are close competitors or where their products are close substitutes but the merger firms need not be each other's closest competitors for unilateral effects to arise.[549]

8.199 Table 8.26 sets out the proportion of 3UK's customers that switched to an MNO at the network level by allocating to each MNO the switches to themselves as well as the switches to the MVNOs hosted on their respective networks in FY 2022 and FY 2023.[550] At an overall retail and consumer retail level [30-40%] and [30-40%] of 3UK's customers switched to VUK, respectively in FY 2023. [✂], [20-30%] of 3UK's business customers switched to VUK in FY 2023. The switching rates from 3UK to VUK were [✂] between the FY 2022 and FY 2023.

Table 8.26: 3UK switching rates at a network level

%

MNO	*Overall retail*		*Consumer*		*Business**	
	FY22	*FY23*	*FY22*	*FY23*	*FY22*	*FY23*
BTEE	[20-30]	[10-20]	[20-30]	[10-20]	[30-40]	[30-40]
VMO2	[40-50]	[40-50]	[40-50]	[40-50]	[30-40]	[30-40]
VUK	[30-40]	[30-40]	[20-30]	[30-40]	[30-40]	[20-30]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of Parties' MNP data.
Notes: excluded 'other' and ID mobile as it is hosted on 3UK, from the analysis. 3UK data from 2023 is only provided for the Three brand, not Smarty.
** 3UK provided business data combined as it does not record business subsegments (however it noted that [✂] of its business customers are SOHO, RFI5 Q5)*

8.200 Table 8.27 sets out the proportion of 3UK's customers that switched to other mobile operators (ie switching at an operator level) in FY 2022 and FY 2023. At both an overall retail and consumer retail level, [20-30%] of 3UK's customers

[547] The data show what segment the customer switched from and the network and operator the customer switched to, but not the segment it switched to.
[548] Annex 1 to the Parties' response to the AIS and working papers.
[549] CMA129, paragraph 4.8.
[550] Due to 3UK being unable to provide updated data for SMARTY between April 2023 and December 2023, we have presented data for the 2022 and 2023 financial years (being April to March).

switched to VUK in FY 2023. A [✂] proportion, [20-30%] of 3UK's business customers switched to VUK in FY 2023. Across the overall retail, consumer, and business segments there was a [✂] in switching from 3UK to VUK between the FY 2022 and FY 2023.

8.201 Table 8.27 also shows that VMO2 + Tesco Mobile and BTEE accounted for a [✂] portion of consumer ([30-40%] and [10-20%] respectively) and business ([20-30%] and [30-40%] respectively) switches from 3UK in FY 2023. 3UK's customers switching to the three other MNOs accounted for the [✂] of consumer switches ([60-70%] or [70-80%] when including Tesco Mobile) and the vast majority of business customer switches ([70-80%] or [80-90%] when including Tesco Mobile). No independent MVNO accounted for more than [5-10%] of consumer switches or [0-5%] of business switches.[551]

Table 8.27: 3UK switching rates at an operator level

%

Mobile operator	*Overall retail*		*Consumer*		*Business**	
	FY22	*FY23*	*FY22*	*FY23*	*FY22*	*FY23*
Asda Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
BTEE	[20-30]	[10-20]	[20-30]	[10-20]	[20-30]	[30-40]
iD Mobile	[0-5]	[5-10]	[0-5]	[5-10]	[0-5]	[0-5]
Lebara	[0-5]	[5-10]	[0-5]	[5-10]	[0-5]	[0-5]
Lyca Mobile	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]
Other	[5-10]	[0-5]	[5-10]	[0-5]	[10-20]	[5-10]
Sky Mobile	[5-10]	[5-10]	[5-10]	[5-10]	[0-5]	[0-5]
VMO2 + Tesco Mobile	[30-40]	[30-40]	[30-40]	[30-40]	[20-30]	[20-30]
VMO2	*[20-30]*	*[30-40]*	*[20-30]*	*[30-40]*	*[20-30]*	*[20-30]*
Tesco Mobile	*[0-5]*	*[0-5]*	*[0-5]*	*[0-5]*	*[0-5]*	*[0-5]*
VUK	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]	[20-30]
Total	**100**	**100**	**100**	**100**	**100**	**100**

Source: CMA analysis of Parties' MNP data.
Notes: 3UK data from 2023 is only provided for the Three brand, not Smarty.
** 3UK provided business data combined as it does not record business subsegments (however it noted that [✂] of its business customers are SOHO, Parties response to the CMA's RFI)*

8.202 Table 8.28 sets out the proportion of VUK's customers that switched to another MNO at the network level by allocating to each MNO the switches to themselves as well as the switches to the MVNOs hosted on their respective networks in FY 2022 and FY 2023. At an overall retail, consumer retail, and SoHo level the proportion of VUK's customers that switched to 3UK in FY 2023 was [20-30%], [20-30%] and [10-20%] respectively. For overall retail and consumer, switching from the VUK network to the 3UK network was [✂] from FY 2022, [✂] for SoHo it was [✂].

[551] Excluding 'Other'.

Table 8.28: VUK switching rates at a network level

MNO	Overall retail		Consumer		SOHO*	%
	FY22	*FY23*	*FY22*	*FY23*	*FY22*	*FY23*
BTEE	[20-30]	[10-20]	[20-30]	[10-20]	[40-50]	[30-40]
VMO2	[50-60]	[50-60]	[50-60]	[50-60]	[40-50]	[40-50]
3UK	[20-30]	[20-30]	[20-30]	[20-30]	[10-20]	[10-20]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of Parties' MNP data.
Notes: excluded 'other' from the analysis.
** [✂]. Parties response to the CMA's RFI)*

8.203 Table 8.29 sets out the proportion of VUK's customers that switched to another mobile operator (ie switching at an operator level) in FY 2022 and FY 2023. At both an overall retail and consumer retail level, [10-20%] of VUK's customers switched to 3UK in FY 2023. A [✂] ([10-20%]) of VUK's SoHo customers switched to 3UK in FY 2023 compared to FY 2022. Across the overall retail and consumer level there was a [✂] in switching from VUK to 3UK between FY 2022 and FY 2023, while for SoHo there was a [✂].

8.204 Table 8.29 also shows that VMO2 + Tesco Mobile and BTEE accounted for a [✂] portion of consumer ([40-50%] and [10-20%] respectively) and SoHo ([30-40%] and [30-40%] respectively) switches from VUK in FY 2023. Together the switching to the three other MNOs [✂] of consumer switches ([60-70%] or [70-80%] when including Tesco Mobile) and SoHo customer switches ([60-70%] or [70-80%] when including Tesco Mobile) in FY 2023.

8.205 Of the independent MVNOs, Sky Mobile ([10-20%]) accounted for the [✂] share of consumer switches, followed by iD Mobile ([5-10%]). For SoHo switches, Sky Mobile ([5-10%]) accounted for the [✂] share, followed iD Mobile ([0-5%]).

Table 8.29: VUK switching rates at an operator level

Mobile operator	Overall retail		Consumer		SOHO*	%
	FY22	*FY23*	*FY22*	*FY23*	*FY22*	*FY23*
Asda Mobile	NA	NA	NA	NA	NA	NA
BTEE	[20-30]	[10-20]	[20-30]	[10-20]	[30-40]	[30-40]
iD Mobile	[5-10]	[5-10]	[5-10]	[5-10]	[0-5]	[0-5]
Lebara	NA	NA	NA	NA	NA	NA
Lyca Mobile	[0-5]	[0-5]	[0-5]	[0-5]		[0-5]
Other	[0-5]	[0-5]	[0-5]	[0-5]	[5-10]	[5-10]
Sky Mobile	[10-20]	[10-20]	[10-20]	[10-20]	[5-10]	[5-10]
VMO2 + Tesco Mobile	[30-40]	[40-50]	[30-40]	[40-50]	[30-40]	[30-40]
VMO2	*[20-30]*	*[30-40]*	*[20-30]*	*[30-40]*	*[20-30]*	*[20-30]*
Tesco Mobile	*[5-10]*	*[5-10]*	*[5-10]*	*[5-10]*	*[5-10]*	*[5-10]*
3UK	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: CMA analysis of Parties' MNP data.
Notes: No data provided for [✂].
** VUK provided SOHO data only. Parties response to the CMA's RFI*

8.206 Overall, we consider that the MNP data shows that the Parties provide a constraint on each other across consumer and business (particularly the SoHo segment).

The data also shows that BTEE provides a constraint on the Parties, while VMO2 + Tesco Mobile provides a strong constraint on the Parties. While independent MVNOs collectively provide a constraint this is spread across a range of smaller suppliers, most notably Sky Mobile, iD Mobile and Lebara.

GfK data

8.207 The GfK switching data [✂]. This data [✂]. [✂]. We acknowledge that [✂], particularly if recall is inaccurate.

8.208 [✂].[552] The CMA [✂].[553]

8.209 Table 8.30 sets out the proportion of 3UK's customers that switched to an MNO at the network level by allocating to each MNO the switches to themselves as well as the switches to the MVNOs hosted on their respective networks in FY 2023. It shows [20-30%] of 3UK's customers switched to VUK, at a network level.

8.210 As with the MNP data (discussed at paragraph 8.197) we calculate switching ratios at a network and operator level.

Table 8.30: UK retail switching ratios at a network level, FY2023

MNO	*GfK data (%)*
BTEE	[20-30]
VMO2	[40-50]
VUK	[20-30]
Total	**100**

Source: CMA analysis of the GfK data from Figure 15.15 of the FMN.
Note: The CMA excluded the 'other' figures and iD Mobile given it is hosted by 3UK.

8.211 Table 8.31 sets out the proportion of 3UK's customers that switched to other mobile operators (ie switching at an operator level) in FY2023. It shows that [10-20%] of 3UK's customers switched to VUK, at an operator level. VMO2 + Tesco Mobile ([40-50%]) and BTEE ([20-30%]) accounted for the highest proportion of 3UK consumer switches. Sky Mobile accounted for [5-10%] and no other independent MVNO accounted for more than 5% of consumer switches.

[552] We consider that the information provided by the Parties about [✂] nor does it give sufficient information about sources of recruitment and the recruitment methodology to assess potential bias for the current purpose.
[553] [✂].

Table 8.31: UK retail switching rations at an operator level, FY2023

Mobile operator	*(%)*
Asda Mobile	[0-5]
BTEE	[20-30]
iD Mobile	[0-5]
Lebara	[5-10]
Lyca Mobile	[0-5]
Other	[0-5]
Sky Mobile	5-10]
VMO2 + Tesco Mobile	[40-50]
VMO2	[30-40]
Tesco Mobile	[5-10]
VUK	[10-20]
Total	**100**

Source: CMA analysis of the GfK data from Figure 15.15 of the FMN.

8.212 Table 8.32 sets out the proportion of VUK's customers that switched to another MNO at the network level by allocating to each MNO the switches to themselves as well as the switches to the MVNOs hosted on their respective networks in FY2023. It shows [10-20%] of VUK's customers switched to 3UK, at the network level.

Table 8.32: VUK retail switching ratios at a network level, FY2023

MNO	*(%)*
BTEE	[30-40]
3UK	[10-20]
VMO2	[50-60]
Total	**100**

Source: CMA analysis of the GfK data from FMN, Figure 15.14.
Note: The CMA excluded 'other'.

8.213 Table 8.33 sets out the proportion of VUK's customers that switched to another mobile operator (ie switching at an operator level) in FY2023. It shows [10-20%] of VUK's customers switched to 3UK, at an operator level. VMO2 + Tesco Mobile ([40-50]%) and BTEE ([20-30%]) accounted for the highest proportion of 3UK consumer switches. Sky Mobile accounted for [5-10%] and no other independent MVNO accounted for more than 5% of consumer switches.

Table 8.33: VUK retail switching ratios at an operator level, FY2023

Mobile operator	*(%)*
Asda Mobile	[0-5]
BTEE	[20-30]
iD Mobile	[0-5]
Lebara	[0-5]
Lyca Mobile	[0-5]
Other	[0-5]
Sky Mobile	[5-10]
VMO2 + Tesco Mobile	[40-50]
VMO2	[30-40]
Tesco Mobile	[5-10]
3UK	[10-20]
Total	**100**

Source: CMA analysis of the GfK data from Figure 15.14 of the FMN.

8.214 The Parties submitted that GfK data should be favoured over the MNP data as it is more representative of the UK population compared to the MNP data that is ‘insufficiently representative of switching in the pre-paid segment’.[554] As set out above we have some concerns with the GfK data but also recognise there are some limitations to the MNP data. However we note that overall the GfK data is broadly consistent with the MNP data. Similar to the MNP data, the GfK data shows that the Parties provide a constraint on each other for consumers, while BTEE and VMO2 + Tesco Mobile provide a strong constraint on the Parties. Sky Mobile accounts for the highest proportion of the Parties’ customers switching out of the independent MVNOs but is significantly smaller than the MNOs.

Diversion ratios

8.215 In general, we note that switching rates provided by the MNP and GfK data are not diversion ratios. Such switching rates do not inform us as to why customers switch, only that they do switch, and we consider customers could switch for different reasons including price and non-price factors (such as network quality), as set out in paragraphs 8.62 to 8.64.

8.216 A diversion ratio isolates the effect of a price rise, quality reduction or removal of an option on the sale of a product. Specifically, a diversion ratio represents the proportion of sales that would divert from one product to another in the event of a price increase, quality reduction or removal of an option, for the first product, holding all else constant. Higher diversion ratios are associated with closer competition between two firms.

8.217 We have considered diversion ratios from:

(a) the CMA customer survey; and

(b) the CMA’s econometric analysis.

CMA customer survey

8.218 As discussed at paragraph 8.19(b), we conducted a survey of new joiners to the Parties (the CMA customer survey). As part of the CMA customer survey, we asked respondents questions aimed to measure price diversion, quality diversion, and forced diversion.

8.219 The Parties’ customers were asked what they would do if:

(a) there was a 10% price increase in the tariffs they are currently purchasing;

(b) the network they were using was a bit less reliable; or

[554] Parties’ initial submission, 1 May 2024, paragraph 3.7; Annex 1 to the Parties’ response to the AIS and working papers; and Parties’ response to the CMA’s RFI .

(c) their current mobile provider ceased offering its services.

8.220 Table 8.34 shows that in the event of a 10% price increase, 19% of 3UK's customers that would change provider would switch to VUK. In the event 3UK's network became a bit less reliable, 19% of 3UK's customers that would change provider would switch to VUK. In the event that 3UK ceased offering mobile services, 17% of its customers would switch to VUK.

8.221 Table 8.34 also shows that for 3UK customers that would change provider in the event of a price increase or if its network was a bit less reliable, the highest proportion of customers would switch to BTEE, followed by VMO2 + Tesco Mobile. If 3UK ceased offering mobile services the highest proportion of customers would switch to VMO2 + Tesco Mobile, followed by BTEE. Of the 3UK customers that would switch providers, independent MVNOs account for between 15-19% of switching with Lebara and iD Mobile accounting for the majority across the three metrics.

Table 8.34: CMA customer survey – response to diversions questions – 3UK

%

Response		Price diversion*	Quality diversion†	Forced diversion ‡
Chosen the same package with provider		37	33	N/A
Chosen different package with provider		23	N/A	N/A
Chosen a different provider		20	48	97
Of which:				
	Asda Mobile	*1*	*0*	*0*
	BTEE	*26*	*27*	*24*
	iD Mobile	*7*	*4*	*4*
	Lebara	*10*	*7*	*6*
	Lyca Mobile	*0*	*1*	*1*
	Sky Mobile	*1*	*5*	*3*
	VMO2 + Tesco Mobile	*24*	*24*	*27*
	VMO2§	*22*	*22*	*23*
	Tesco Mobile	*2*	*3*	*4*
	VUK	*19*	*19*	*17*
	Other 3UK brand	*0*	*1*	*2*
	Other	*1*	*0*	*1*
	Don't know	*10*	*11*	*13*
	Total¶	***100***	***100***	***100***
Not purchased		2	2	3
Don't know/Unclear answer		18	18	N/A
Total		**100**	**100**	**100**

Source: CMA analysis of CMA customer survey.

Base sizes: n = 793 (price diversion), n = 804 (forced and quality d*iversion).*

Note: For the analyses of the quality and price diversion questions, some respondents stated they would not divert (questions 10, 11 or 12 of the CMA customers survey) but gave a diversion destination in question 13. They have been removed from the diversion calculation on the basis that we do not have sufficient information to interpret their responses. They are included in the final 'Don't Know/Unclear answer' row of the table.

** CMA analysis of question 10 and 11 of the CMA customer survey.*

† CMA analysis of question 12 of the CMA customer survey.

‡ CMA analysis of question 13 of the CMA customer survey.

§ Includes GiffGaff.

¶ The sum of each individual provider percentage may not add to 100% due to rounding.

8.222 Table 1.35 shows that in the event of a 10% price increase, 14% of VUK's customers that would change provider would switch to 3UK. In the event VUK's network became a bit less reliable, 9% of VUK's customers that would change provider would switch to 3UK. In the event that VUK ceased offering mobile services, 9% of its customers would switch to 3UK.

8.223 Table 1.35 also shows that for VUK customers that would change provider in the event of a price increase or if its network was a bit less reliable the highest proportion of customers would switch to BTEE, followed by VMO2 + Tesco Mobile. If VUK ceased offering mobile services customers would equally switch to BTEE and VMO2 + Tesco Mobile. Of VUK's customers that would switch providers, independent MVNOs would account for between 13-18% of switching with iD Mobile having the highest proportion in relation a price increase.

Table 8.35: CMA customer survey – response to diversions questions – VUK

%

Response		*Price diversion**	*Quality diversion†*	*Forced diversion‡*
Chosen the same package with provider		35	29	N/A
Chosen different package with provider		26	N/A	N/A
Chosen a different provider Of which:		20	50	96
	Asda Mobile	*0*	*0*	*0*
	BTEE	*28*	*31*	*27*
	iD Mobile	*9*	*4*	*4*
	Lebara	*4*	*3*	*3*
	Lyca Mobile	*1*	*1*	*2*
	Sky Mobile	*3*	*4*	*4*
	VMO2 + Tesco Mobile	*24*	*30*	*27*
	VMO2§	*22*	*26*	*23*
	Tesco Mobile	*2*	*4*	*4*
	3UK	*14*	*9*	*9*
	Other VUK brand	*7*	*7*	*8*
	Other	*0*	*1*	*1*
	Don't know	*9*	*10*	*14*
	Total¶	***100***	***100***	***100***
Not purchased		1	2	4
Don't know/Unclear answer		18	18	N/A
Total		**100**	**100**	**100**

Source: CMA analysis of CMA customer survey.
Base sizes: n = 708 (price diversion), n = 723 (forced and quality diversion).
Note: For the analyses of the quality and price diversion questions, some respondents stated they would not divert (questions 10, 11 or 12 of the CMA customer survey) but gave a diversion destination in question 13. They have been removed from the diversion calculation on the basis that we do not have sufficient information to interpret their responses. They are included in the final 'Don't Know/Unclear answer' row of the table.
** CMA analysis of question 10 and 11 of the CMA customer survey.*
† CMA analysis of question 12 of the CMA customer survey.
‡ CMA analysis of question 13 of the CMA customer survey.
§ Includes GiffGaff.
¶ The sum of each individual provider percentage may not add to 100% due to rounding.

8.224 Overall, we consider the CMA customer survey results show that BTEE and VMO2 + Tesco Mobile provide a strong constraint on both Parties across price and network quality. The data also shows the Parties provide a constraint on each other. Lebara and iD Mobile provide some constraint on 3UK, while iD Mobile provides some constraint on VUK (particularly in relation to price). Based on this data, other large independent MVNOs, including Sky Mobile, provide a limited constraint on the Parties.

CMA's econometric analysis

8.225 We have undertaken econometric analysis on purchases of SIM-only tariffs in the UK in the first half of 2023 (see Appendix D for details). As part of this, we have calculated operator-level price diversion ratios.[555] Compared to other estimates of diversion the econometric analysis has the advantage that it is not based on hypothetical preferences about what a consumer would do (stated preferences) but instead on the observed choices and switching behaviour of real subscribers in the UK.[556] The econometric model then works by trying to explain observed switching and consumer behaviour. In doing so it allows for flexibility in the way different consumers value different aspects of their phone contracts.

8.226 As set out in Table 8.36, we find the following price diversion ratios between the Parties:

(a) VUK to 3UK of 15%; and

(b) 3UK to VUK of 17%.

8.227 The price diversion ratios from each Party to the other mobile operators are:

(a) From 3UK to:

(i) BTEE: 26%;

(ii) VMO2 + Tesco Mobile: 35%;

(iii) Sky Mobile: 8%; and

(iv) Other: 6%.[557]

(b) From VUK to:

(i) BTEE: 28%;

(ii) VMO2 + Tesco Mobile: 37%;

[555] Note that an operator price diversion ratio is different to a brand level price diversion ratio as considers switching following a price rise for all tariffs owned by the operator not just tariffs in a given brand. Additionally, the CMA has computed quality diversion ratios see Appendix D, Diversion Ratios, for details.
[556] In particular we use a flexible model of subscriber demand to estimate price diversion ratios with a sub-sample of a dataset of choices from about 5% of the UK population in January-June 2023. See Appendix D for details.
[557] Other includes all other brands that offered pay monthly sim-only in June 2023 (see Appendix D for details).

(iii) Sky Mobile: 8%; and

(iv) Other: 5%.

Table 8.36: CMA's econometrics operator diversion ratios

		To:							
	Operator	*BTEE*	*SKY*	*VM02*	*TESCO*	*VM02+Tesco*	*OTHER*	*3UK*	*VUK*
From:	*3UK*	26%	8%	27%	9%	35%	6%	-	17%
	VUK	28%	8%	29%	9%	37%	5%	15%	-

Source: CMA analysis of Ofcom Provider Database, Ofcom Connected Nations, Pure Pricing Data and Open Signal Data.

8.228 The results from the econometric analysis are broadly similar to the price diversion ratios from the CMA customer survey and show the Parties providing a competitive constraint on each other. Compared to the CMA's survey results, the econometric results indicate higher price diversion ratios to VMO2 + Tesco and Sky Mobile from both Parties.

Evidence from the Parties' internal documents

8.229 Many of the Parties' internal documents monitor competition across a range of tariffs ([✂]), parameters ([✂]) and KPIs ([✂]), and in doing so capture all providers typically referenced in industry reports and data (eg Enders Analysis reports, [✂], and Ofcom mobile reports). Although this demonstrates that the Parties track a wide group of competitors, we consider this provides limited evidence of the strength of constraint on each of the Parties. The Parties operate in a highly differentiated market, with a wide range of tariffs, and competitors' strengths, strategies and customer focuses vary from one segment to another, and are discussed in multiple different forums. In this context, it is to be expected that the Parties will monitor trends across the whole industry. However, a competitor which the Parties track in order to assess the constraint on their value offering (eg through sub-brands) is not necessarily a strong constraint on their higher end offering, and vice versa.

8.230 It follows that we place greater weight on documents in which the Parties emphasise certain competitors, react to competitors' behaviour, benchmark their prices against competitors' or specifically comment on the strength of constraint from competitors.

8.231 We consider that internal documents in relation to competitive monitoring in the consumer retail segment do not constitute a 'bright line' source of evidence and should therefore be assessed and interpreted in light of other evidence we have gathered in the course of this investigation.

8.232 We have therefore sought to assess whether the evidence from the Parties' internal documents is consistent with other evidence in relation to the closeness of competition between the Parties and the competitive constraints from the other MNOs and MVNOs.

8.233 Our analysis of the Parties' internal documents set out in Appendix C, shows that:

(a) the Parties compete closely with each other and also with the other MNOs, including in terms of their price and brand positioning. This also holds true in relation to the business retail segment. The price positioning of other MNOs plays a critical role in terms of how the Parties [✂]; and

(b) with the exception of Sky Mobile and Tesco Mobile – although the latter cannot be treated as a fully independent competitor from VMO2 - which are emphasised in the Parties' internal documents, the overall competitive performance or strength of other MVNOs (including [✂]) is not monitored or commented on with the same intensity as other MNOs. Further, the Parties' internal documents also contain evidence that MVNOs are differentiated and underrepresented in some sub-segments in contrast with most of the MNOs which use their sub-brands, in conjunction with their primary offer, to achieve presence across the board. As an overarching point, the Parties rely on [✂] which we consider overstates the constraint exercised by MVNOs, individually and in aggregate. Finally, the Parties' internal documents relating to the business retail segment do not feature MVNOs (as part of the competitive landscape).

Evidence from MNOs and MVNOs

8.234 In this section we have considered evidence from MNOs and MVNOs on:

(a) the closeness of competition between the Parties;

(b) the competitive constraint from MNOs; and

(c) the competitive constraint from MVNOs.

MNOs' and MVNOs' evidence on closeness of competition between the Parties

8.235 All third parties that responded to the competitor questionnaire considered that the Parties are competitors in the consumer retail segment. In particular, we asked competitors to list who they believe VUK and 3UK's competitors in retail mobile services to consumers in the UK are and to indicate on a scale of 1 to 5 (where 1 is very weak and 5 is very strong) how strongly they believe each competitor listed competes with VUK and 3UK:

(a) three out of nine competitors stated that 3UK is a very strong competitor to VUK, four out of nine competitors stated that 3UK is a strong competitor to VUK, and two out of nine competitors stated that 3UK is neither a strong nor weak competitor; and

(b) four out of nine competitors stated that VUK is a very strong competitor to 3UK, four out of nine competitors stated that VUK is a strong competitor to 3UK, and one out of nine competitors stated that VUK is neither a strong nor weak competitor to 3UK.

8.236 3UK and VUK are recognised by third party competitors as:[558]

(a) being particularly close competitors in the unlimited data segment;

(b) having sub-brands, SMARTY and VOXI, which directly compete in the pre-paid subsegment; and

(c) having similar products, along with contract types and customer demographics.

8.237 In the business retail segment, third party competitors consider that VUK and 3UK currently compete closely (where 5 is very closely and 1 is not closely) in the SoHo and small SME subsegments but less closely for larger businesses. In particular:[559]

(a) all (four) competitors considered that VUK and 3UK currently compete very closely/closely in the SoHo segment while three of the competitors also considered that VUK and 3UK currently compete very closely/closely in the small SME segment;

(b) half of competitors considered that VUK and 3UK neither compete closely nor not closely in the medium SME segment, while the other half considered that they do not compete closely; and

(c) all competitors considered that VUK and 3UK currently do not compete closely in the corporate segment. Three of the competitors also considered that they do not compete closely in the public sector with the other saying neither closely nor not closely.

MNOs' and MVNOs' evidence on the competitive constraint from MNOs

8.238 We consider that, as set out in Appendix C, BTEE's internal documents show it currently provides a competitive constraint on the Parties.

(a) BTEE considers itself to have the best network in the UK and [✄] on 5G, which allows it to maintain a price premium to competitors;

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[558] Responses to the CMA competitor questionnaire from: [✄]; [✄]; and [✄]. [✄] call note. We note however that [✄] considered VUK's strategy is focused more on enterprise customers while 3UK is focused more on younger users. [✄] call note.

[559] CMA analysis of responses to the CMA competitor questionnaire from: [✄]; [✄]; [✄]; and [✄].

(b) BTEE considers that it leads on price increase initiatives and expects other MNOs (including the Parties) to follow its lead;

(c) BTEE considers that [✂]; and

(d) BTEE considers [✂].

8.239 We consider that, as set out in Appendix C, VMO2's internal documents show it currently provides a competitive constraint on the Parties.

(a) VMO2 operates a [✂] strategy, [✂] to compete [✂] most internal documents state has premium brand positioning and competes at mid-high price points;

(b) VMO2 actively monitors the pricing initiatives of its competitors, and often implements its own price initiatives and price adjustments based on this;

(c) VMO2 considers its network performance [✂]; and

(d) VMO2 considers that [✂] and sees this as an important strategy to help it grow.

8.240 All third party competitors that responded to our competitor questionnaires consider that BTEE and VMO2 are competitors to the Parties in the consumer retail segment. In particular, we asked competitors to indicate on a scale of 1 to 5 (where 1 is very weak and 5 is very strong) how strongly they believe each competitor competes with 3UK and VUK:

(a) All competitors stated that BTEE is a strong/very strong competitor to both 3UK and VUK;[560] and

(b) All competitors stated that VMO2 is a strong/very strong competitor to 3UK,[561] while eight out of nine stated that VMO2 is a strong/very strong competitor to VUK and one out of nine stated that VMO2 is neither a strong nor weak competitor to VUK.

8.241 Table 1.37 sets out third party competitor views from the competitor questionnaire response of the strengths and weaknesses of BTEE and VMO2. Both MNOs were recognised as having a large presence in the consumer retail segment and strong brand reputation. However, both MNOs were also perceived as being expensive and slow to change/innovate. BTEE was viewed as having strong network quality and operating in the premium end of the market with a lack of lower value offerings/sub-brands. VMO2, on the other hand, was recognised as having the

[560] Six out of nine respondents stated that BTEE is a very strong competitor to 3UK, and seven out of nine stated that it is a very strong competitor to VUK.
[561] Two out of nine respondents stated that VMO2 is a very strong competitor to 3UK, and four out of nine stated that it is a very strong competitor to VUK.

lowest ranked network quality but offering better prices through its sub-brand Giffgaff.

Table 8.37: Third party competitor views of strengths and weaknesses of BTEE and VMO2

MNO	*Strengths*	*Weaknesses*
BTEE	Large spectrum capacity Only network to be ranked 'Very Good' by umlaut Fastest network speeds Largest 5G population coverage Better coverage and faster data speeds, and better 5G roll-out than the Parties Strong brand with strong network and innovation association based on EE being first to launch 4G Cross-sell mobile to largest broadband base Strong relationship with handset vendors	Perceived as expensive High price (premium product) Questionable brand appeal in older demographics Slow to change Lack of sub-brand to target specific customer segments – eg digital first or lower value No rewards programme
VMO2	Strong consumer brand recognition Strong rewards programme: O2 Priority Free EU roaming Handset innovation heritage Cross-sell O2 mobile to Virgin broadband base Ability to attract different customer segments through sub-brand MVNO – Giffgaff which is a digital first business and offers better prices Flexible tariffs	Perceived as expensive Lowest ranked network quality Less innovative than EE and VUK Similar pricing to VUK and EE Outperformed in a number of network performance metrics (voice, data and crowdsourcing) Lowest mobile spectrum share No speed tiering capability

Source: CMA analysis of third party responses to the CMA's competitor questionnaires ([✂], [✂], [✂], [✂], [✂], [✂] ; [✂]; [✂]; and [✂]).

8.242 Further, MNO and MVNO views expressed in calls with the CMA are consistent with these questionnaire responses:

(a) BTEE is seen as having strong network quality[562] and operating in the premium end of the market, but unlike all of the other MNOs, BTEE does not have a sub-brand positioned in the value market. BTEE's focus is on [✂].[563] Its pricing is aligned with the [✂].[564]

(b) VMO2, on the other hand, is recognised as having the lowest ranked network quality,[565] and an established position in the sub-brand space with Giffgaff and Tesco Mobile which are challengers to MVNOs and looking to serve a different set of customers to the O2 brand.[566] O2 is positioned towards the premium end of the market with a focus on service quality.[567]

8.243 MNO and MVNO internal documents also show that BTEE and VMO2 provide a competitive constraint to the Parties (as set out in Appendix C).

[562] Notes of calls with: [✂]; and [✂].
[563] [✂] meeting slides.
[564] [✂] call note.
[565] Notes of calls with: [✂]; and [✂].
[566] Notes of calls with: [✂]; and [✂].
[567] Note of call with [✂].

MNOs’ and MVNOs’ evidence on the competitive constraint from MVNOs

8.244 We consider that the evidence received from other MNOs and MVNOs shows that independent MVNOs are differentiated, each having different strategies and consumer focuses. The majority of independent MVNOs target the value end of the market and therefore do not provide a constraint on the MNOs’ main brands (with the main exception of Sky Mobile).[568] For example:

(a) Sky Mobile competes against all four MNOs and their sub-brands, and there are significant overlaps in their target customer bases. It competes with MNOs in the lower-value end of the PAYM segment and has been particularly successful in competing for customers in the PAYM handset segment.[569] Its market position is built on cross-selling to its existing broadband and pay-TV subscriber base,[570] with the majority ([✂]%) of its mobile customers also procuring another Sky product.[571] Sky Mobile does not offer pre-paid, PAYM data-only, business or unlimited data tariffs [✂].[572] Sky Mobile [✂].[573] As set out in Appendix C, Sky’s documents also show that its competitive strategy is to drive sustainable growth through balancing price competitiveness with its cost structure. It also aims to drive cross selling [✂].

(b) Lebara has positioned itself to provide a ‘value’ proposition, where the MNOs’ main brands are not seen as competitors.[574] It does not offer PAYM SIMO, PAYM handset, PAYM data-only or business tariffs.[575]

(c) Lyca Mobile is a low-cost provider with its customer base being primarily those seeking value or those without a pre-existing relationship with a brand in the market.[576] It does not offer PAYM handset, PAYM data only or business tariffs.[577] It recently launched PAYM SIMO tariffs with a range of contract lengths.[578]

(d) iD Mobile considers that it attracts consumers from across the market and does not have a particular target segment, although most of its customer base is in the PAYM handset segment. It aims to be a disrupter and a value

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[568] Notes of calls with: [✂]; [✂]; and [✂].
[569] [✂] meeting slides. CMA, Phase 1 Decision, 29 April 2024, Tables 4 and 6 also showed that in 2022 Sky Mobile had a [0-5%] share in subscribers in the overall consumer segments compared to a [0-10%] in the PAYM handset subsegment. Sky Mobile told us that [✂].
[570] Sky Mobile submission to the CMA.
[571] Sky Mobile call note.
[572] Sky Mobile call note; and Sky Mobile response to the CMA’s questionnaire.
[573] Sky Mobile meeting note.
[574] Lebara call note. See also Sky Mobile meeting slides.
[575] Lebara response to the CMA’s questionnaire.
[576] Lyca Mobile call note. See also Sky Mobile meeting slides.
[577] Lyca Mobile response to the CMA’s questionnaire.
[578] Lyca Mobile response to the CMA’s RFI.

player, delivering simplicity, flexibility and control to its customers.[579] It does not offer businesses tariffs.[580]

(e) Utility Warehouse offers selected PAYM SIMO and PAYM handset plans but considers its offering to be [✂].[581] It also has a small business offering.[582] It looks to offer discounts to customers when they purchase a bundle of its other products including broadband, energy and insurance. Its predominant route to market is word-of-mouth which means it considers itself to be [✂].[583]

(f) Asda Mobile only offered pre-paid tariffs prior to March 2024, but it has since launched a PAYM service. [✂]. Its main competitors are the other MVNOs that also target price-conscious customers. It tends not to compete with MNOs, which typically focus on less price-sensitive customers with higher value and data tariffs, and additional extras.[584]

8.245 We also note that Tesco Mobile, whilst not a wholly independent competitor to VMO2, began as a pre-paid only provider but has since started offering a wide range of pre-paid and PAYM plans. It positions itself as a value player, with its price position below the MNOs but above the MNO sub-brands and some other MVNOs.[585] In the business segment it only offers SoHo tariffs.

8.246 We consider that the Parties' comments at a meeting during our inquiry further support that MVNOs are differentiated from MNOs, each having different strategies and consumer focuses. Specifically, VUK noted that MVNO brands 'tend to be more positioned towards the convenience, value for money space'. 3UK also said that there are certain customer segments in the market that find the MNOs' offerings more attractive than MVNOs' offerings, while MVNOs have been opportunistic 'COVID happened, cost of living crisis happened, and they [MVNOs] went after a value pitch'.[586]

8.247 Third party competitors that responded to the CMA's merger investigation questionnaire identified several independent MVNOs as competitors to the Parties in the consumer retail segment. However, with the exception of Sky Mobile, most independent MVNO competitors (Lebara, Lyca Mobile and iD Mobile) were only mentioned by around half of competitors, with Asda Mobile and Utility Warehouse only being mentioned by one. Of the competitors mentioned:

[579] iD Mobile call note.
[580] iD Mobile response to the CMA's questionnaire.
[581] Utility Warehouse call note.
[582] Utility Warehouse response to the CMA's questionnaire.
[583] Utility Warehouse call note; and [✂].
[584] Asda Mobile call note.
[585] Tesco call note.
[586] Phase 1 Decision meeting transcript.

(a) No independent MVNO was considered a very strong competitor to VUK. Sky Mobile was considered a strong competitor by four competitors,[587] Lebara was considered strong by two competitors,[588] whilst Lyca Mobile was considered strong by only one competitor.[589] Sky Mobile was considered a weak competitor by one competitor.[590] Lebara and Lyca Mobile were considered very weak in comparison to VUK by one competitor.[591]

(b) Only Sky Mobile was considered a very strong competitor to 3UK by one competitor.[592] In addition, it was considered a strong competitor by four other competitors.[593] Lyca Mobile and iD Mobile were generally seen as slightly stronger competitors to 3UK than they were to VUK with one competitor considering Lyca Mobile and iD Mobile as a strong competitor to 3UK.[594]

8.248 MVNOs that responded to the CMA's merger investigation questionnaire also indicated how strong a competitor (where 1 is very weak and 5 is very strong) they believe that they are to VUK and 3UK in the consumer retail segment for various tariff types:

(a) in the pre-paid subsegment, four independent MVNOs considered themselves very strong competitors to both VUK and 3UK;[595]

(b) in the PAYM handset subsegment, only one independent MVNO, Sky Mobile, considered itself a strong competitor to VUK. Sky Mobile was also the only independent MVNO to consider itself as a strong competitor to 3UK;[596]

(c) in the PAYM data-only subsegment, no MVNOs considered themselves strong competitors to either of the Parties;

(d) in the PAYM SIMO subsegment, only one MVNO considered itself a strong competitor to both of the Parties[597] and one MVNO considered itself a very strong competitor to both of the Parties;[598] and

(e) in the unlimited data subsegment, two MVNOs ([✂] and [✂]) considered themselves a strong competitor to VUK and one MVNO ([✂]) considered itself a very strong competitor to VUK.[599] One MVNO considered itself a

[587] Responses to the CMA competitor questionnaire from: [✂]; [✂]; [✂]; and [✂]
[588] Responses to the CMA competitor questionnaire from: [✂]; and [✂].
[589] [✂] response to the CMA competitor questionnaire
[590] [✂] response to the CMA competitor questionnaire
[591] [✂] response to the CMA competitor questionnaire
[592] [✂] response to the CMA competitor questionnaire
[593] Responses to the CMA competitor questionnaire from: [✂], [✂], [✂], and [✂]
[594] Responses to the CMA competitor questionnaire from: [✂], [✂], [✂] and [✂]
[595] CMA analysis of responses to the CMA competitor questionnaire from: [✂]; [✂], [✂] and [✂]
[596] [✂] response to the CMA competitor questionnaire
[597] [✂] response to the CMA competitor questionnaire
[598] [✂] response to the CMA competitor questionnaire
[599] [✂] response to the CMA competitor questionnaire

strong competitor to 3UK[600] and one MVNO considered itself a very strong competitor to 3UK.[601,602]

8.249 We note that Tesco Mobile was mentioned by two thirds of respondents.[603] Tesco Mobile was generally seen as a slightly stronger competitor to 3UK than to VUK, with only one competitor noting it as a strong competitor to VUK,[604] and two competitors considered Tesco Mobile as a strong competitor to 3UK.[605]

8.250 [✂] considered itself to be a very strong competitor to both Parties in the pre-paid subsegment and a very strong competitor to 3UK in the PAYM handset segment.[606]

8.251 MNO and MVNO internal documents (as set out in Appendix C) also show that:

(a) MVNOs are less expensive than MNOs' main brands (ie EE, O2, and Vodafone), and along with 3UK's Three brand and MNO sub-brands, price aggressively, particularly in value segments;

(b) MVNOs compete on lower data allowances than MNOs;

(c) Sky Mobile provides some constraint to the Parties across a wider range of tariffs than other MVNOs; and

(d) Tesco Mobile, whilst not a wholly independent competitor to VMO2, is cheaper the MNOs' main brands (except Three brand which it is similarly priced) but more expensive than most MVNOs and competes across a wider range of tariffs than other MVNOs.

8.252 Several MVNOs also considered that their ability to compete in the retail market is dependent on the wholesale terms MNOs offer them.[607] According to one MVNO's submissions its average wholesale payment to its MNO host was c.[✂]% of its ARPU per retail subscriber.[608] The Parties submitted that MVNOs have secured tracking clauses so that their prices can remain in line with those of their host MNOs, typically receive parity of access to the same network capabilities as the host MNO, and do not face the same inflationary pressure as MNOs.[609] We assess the effect of wholesale competition on MVNOs in Chapter 9 and paragraphs 8.292 and 8.293 below.

600 [✂] response to the CMA competitor questionnaire
601 [✂] response to the CMA competitor questionnaire
602 The CMA notes that several MVNOs only offer unlimited data as part of their PAYG offerings.
603 We note that VMO2 and Tesco Mobile are not fully independent.
604 [✂] response to the CMA competitor questionnaire.
605 Responses to the CMA competitor questionnaire from third parties: [✂]; [✂], [✂]; and [✂].
606 [✂] response to the CMA competitor questionnaire, [✂]
607 Notes of calls with: [✂]; and [✂].
608 [✂] submission
609 Annex 1 to the Parties' response to the AIS and working papers.

8.253 Overall, we provisionally consider that the evidence from MNOs and MVNOs shows that:

(a) the Parties are close competitors in the consumer retail, SoHo and small SME subsegments but compete less closely for larger businesses.

(b) BTEE and VMO2 compete closely with the Parties. BTEE positions itself at the premium end of the market, with a high price and high network quality offering and does not have a sub-brand positioned in the value market. Although VMO2 is considered to have the lowest network quality, its main brand still competes with the other MNOs' main brands and it also has a sub-brand which competes in the value market with the Parties' sub-brands and MVNOs.

(c) MVNOs are differentiated, each having different strategies and consumer focuses. The majority of MVNOs (including Lebara, Lyca Mobile, and iD Mobile) target the value segment of the market and therefore provide no or only a limited constraint on the Parties outside the value segment. Sky Mobile, and to a lesser extent Tesco Mobile, are the main exceptions to this as they offer a wider tariff selection and position themselves to compete more against the MNOs' main brands.

Evidence from business customers

8.254 We sent questionnaires to business customers of the Parties and received responses from 2 SoHo, 16 SME, and 14 corporate or public sector customers. Overall, of the respondents that answered the question about which mobile operators they considered or approached when they most recently considered their options:[610]

(a) VUK was mentioned by 18 out of 27 respondents, while 3UK was mentioned by 12.[611] 3UK was not mentioned by any VUK customer; and

(b) BTEE and VMO2 were mentioned by 20 and 10 respondents, respectively.

Third party views on the impact of the Merger in the supply of retail mobile services

8.255 We asked third party competitors to provide their views on how the Merger may impact competition in the supply of retail mobile services. Almost all of the

[610] Third party responses to the CMA questionnaire, questions 2 and 5.
[611] Correcting for where a customer forgot to mention the supplier it was already using. Responses to the CMA business customer questionnaire from third parties, January 2024; ([✂]: [✂], [✂], [✂], [✂], [✂], [✂], [✂], [✂], [✂], [✂], [✂], [✂] / '[✂]: [✂], [✂], [✂], [✂], [✂], [✂][✂], [✂]) and Responses to the CMA business customer questionnaire from third parties, April 2024 ([✂]: [✂], [✂], [✂], [✂], [✂], [✂], [✂] / '[✂]: [✂], [✂], [✂]).

competitor respondents expect it to worsen competition.[612] In particular, competitors said that:

(a) it is a 4 to 3 merger;[613]

(b) the Merger creates a 'giant MNO that becomes even more isolated from MVNO demands in consumer interests';[614]

(c) 'combining [VUK] and [3UK] to create a [Merged Entity] with c.61% of UK mobile capacity, will significantly lessen competition in the UK retail mobile market';[615]

(d) the Merger is likely to lead to a reduction in choice;[616]

(e) the Merger will likely lead to the removal of an aggressive priced provider in 3UK;[617]

(f) with only three MNOs active in the UK, the Merger would impact the current MVNO pool and potentially lead to prohibitive or less favourable terms to choose from for new / potential MVNOs. This could deter new players from entering the supply of retail mobile services, leaving consumers with less choice and potentially lower quality services and higher prices;[618]

(g) a converged entity of greater or similar scale to BTEE and VMO2 will potentially have less incentive to disrupt the market, and this could potentially result in higher retail prices over time. This, combined with an increased risk that services to MVNO providers may be constrained by a reduced appetite in the remaining MNOs to provide service via this route is likely to see reduced competition in the eyes of customers.[619]

8.256 One MVNO submitted economic analysis suggesting that the Merger would create upwards pricing pressure of 28% on its wholesale price which would translate into upwards pricing pressure of 12% on its retail price.[620]

8.257 Three competitor respondents expected the Merger to improve competition. One noted that cost savings on fixed services and teams could be invested and passed through in pricing.[621] Another noted that it would reduce consumer confusion and

[612] Responses to the CMA competitor and wholesale questionnaires from third parties, January 2024 ([✂]; [✂]; [✂]; [✂]; [✂]; [✂]; [✂]; [✂]; [✂]; [✂]; [✂]); and response to the CMA competitor and wholesale questionnaire from [✂], April 2024.
[613] Responses to the CMA competitor and wholesale questionnaires from [✂] and [✂].
[614] [✂] response to the CMA's competitor and wholesale questionnaire.
[615] [✂] response to the CMA's competitor and wholesale questionnaire.
[616] [✂] response to the CMA's competitor and wholesale questionnaire.
[617] [✂] response to the CMA's competitor and wholesale questionnaire.
[618] [✂] response to the CMA's competitor and wholesale questionnaire.
[619] [✂] response to the CMA's competitor and wholesale questionnaire.
[620] [✂] submission.
[621] [✂] response to the CMA competitor questionnaire.

operators could focus more on quality and differentiation rather than more of the same vanilla price-based propositions.[622] Another submitted that, subject to Beacon 4.1 and the related spectrum transfer, the Merger would deliver the best outcome for UK consumers and businesses.[623]

8.258 As set out in Appendix C, Views on the impact of the Merger:

(a) one third party's ([✂]) internal documents show that it considers that the Merger may result in synergies for the Merged Entity, and there are some documents which suggest it may lead to a [✂].

(b) Another third party's ([✂]) internal documents show that it considers that the Merger may create synergies for the Merged Entity but that it considers that its own competitive position [✂].

8.259 We also asked business customers to provide their views on how the Merger may impact competition in the supply of retail mobile services in the UK. While views expressed were more mixed, we note that a number (7 out of 18) of the SoHo and SME business customer respondents expected competition to worsen as a result of the Merger,[624] while a smaller number (3 out of 18) expected competition to improve.[625]

8.260 Third party views on the potential for REEs resulting from the Merger are discussed in Chapter 14.

Provisional conclusions on closeness of competition and current competitive constraints

8.261 For the reasons set out above, we provisionally conclude that the Parties compete closely in the supply of retail mobile services and that this would continue in the future absent the Merger. In particular:

(a) VUK and 3UK are the third and fourth largest mobile operators in the supply of retail mobile services by revenue and subscribers, respectively. 3UK has been marginally gaining market share by revenue and subscribers and VUK has been gaining market share by revenue but marginally losing share by subscribers;

(b) VUK's network quality has historically been in second place behind BTEE. More recently, due to improvements in 3UK's network, VUK's network quality appears broadly similar to 3UK's on some measures and slightly behind

[622] [✂] response to the CMA wholesale questionnaire.
[623] [✂] submission.
[624] Responses to the CMA business customer questionnaire from third parties, January 2024 ([✂]; [✂]; [✂]; [✂]); and responses to the CMA business customer questionnaire from third parties, April 2024 ([✂], [✂], [✂]; [✂]).
[625] Responses to the CMA business customer questionnaire from third parties, April 2024 ([✂]; [✂]; [✂]).

3UK's on others (notably 5G), however, it has established plans to continue to improve this network performance. 3UK has seen improvements in its network quality and is particularly strong in NSA 5G where it currently has the fastest 5G speeds where it has rolled it out;

(c) most competitors consider each Party to be a strong/very strong competitor to the other;

(d) the Parties compete particularly closely in some subsegments, including in the unlimited data, pre-paid and SoHo subsegments; and

(e) the diversion data shows that the Parties provide a constraint on each other.

8.262 We provisionally conclude that both BTEE and VMO2 compete closely with the Parties, and that this would likely continue in the future, absent the Merger. We consider that they both have a large presence in the supply of retail mobile services, high diversion from customers of the Parties, and strong brands, particularly BTEE which has consistently had the highest network quality.

8.263 However, there is also some evidence to suggest that both BTEE and VMO2 compete less aggressively than the Parties in some respects. BTEE positions itself towards the premium end of the market and third parties see it as more expensive. Whereas VMO2 operates a dual-brand strategy, using Giffgaff to compete in the value subsegment and O2 in the premium subsegment, while having the lowest network quality in the market. Both are viewed by third parties as being less innovative/slower to change than the Parties. BTEE and VMO2 have also both been losing share by both revenue and subscribers, whilst the Parties have been gaining share by revenue and have had stable shares by subscribers in the 2020 to 2023 period.

8.264 We provisionally conclude that some independent MVNOs currently exercise some constraint on the Parties, namely Sky Mobile and, especially in the value segment, Lebara and iD Mobile. Overall, however, we consider that the constraint from MVNOs is limited. We also consider that in a differentiated product market, comparing shares of supply of one operator with the aggregated share of a large number of other operators can be misleading and would likely overstate the competitive pressure that MVNOs are exerting. This is because:

(a) all independent MVNOs individually have a very small share of supply of less than 5% by subscribers and by revenue in 2023 and are dependent on wholesale contracts to compete. Most MVNOs are also not considered by third parties to be a strong/very strong competitor to the Parties.

(b) MVNOs typically only compete in some segments. Most MVNOs, including Lebara and iD Mobile, appear to generally cater more towards cost-sensitive consumers. A significant exception to this is Sky Mobile, which is the largest independent MVNO and particularly competes in the PAYM handsets segment. It has had a strong competitive strategy and recent growth. However, its share of supply in the overall retail segment is small (less than 5% by subscribers and revenue) and it does not offer pre-paid, business, or unlimited tariffs (although it is considering introducing unlimited tariffs in 2024).

Post-Merger constraints

8.265 In this section we present evidence on post-Merger constraints, excluding consideration of any efficiencies claimed by the Parties:

(a) we firstly consider how the Merger may impact the Merged Entity's incentives and the competitive constraint from MNOs and MVNOs; and

(b) we then assess quantitative evidence on the impact of the Merger on prices.

8.266 We consider the effect of any potential efficiencies in Chapter 14.

How the Merger may impact the Merged Entity's incentives and the competitive constraint from MNOs and MVNOs

8.267 We have considered how the Merger, excluding consideration of any efficiencies, would affect:

(a) the post-Merger competitive incentives of the Merged Entity;

(b) the post-Merger constraint from MNOs; and

(c) the post-Merger constraint from MVNOs.

Post-Merger competitive incentives of the Merged Entity

8.268 In this section we consider the impact of the Merger on the competitive incentives of the Merged Entity.

8.269 We consider that, excluding consideration of any efficiencies, the Merger is likely to weaken the incentives of the Merged Entity to compete on parameters of competition, including price and network quality. This is for the following reasons:

(a) The Merger will lead to the removal of the constraint which the Parties currently exert on each other. When a firm merges with a competitor that previously provided a competitive constraint, this can allow the merged entity to profitably raise prices or to degrade quality on its own and without needing to coordinate with its rivals.[626] Absent a merger, firms face a trade-off when considering whether to raise prices or reduce quality. On the one hand, the firm will incur a cost because some customers will switch away, and the firm will lose the profits it would have earned on those customers. On the other hand, the firm also gains, because it makes a bigger profit on the customers that remain (because of the higher price, or the lower cost associated with reduced quality, range or service). After the Merger, it would no longer be as costly for the Merged Entity to raise prices or reduce quality because:

(i) It would recoup the profit on recaptured sales from those customers who would switch to the products of the other Party;[627] and

(ii) The Merged Entity would also recoup some profit on recaptured sales to MVNOs of the other Party. As discussed at Chapter 9, both VUK and 3UK are wholesale suppliers to several of the largest MVNOs.

(1) 3UK supplies wholesale services to iD Mobile. As set out in Table 8.35, according to the CMA customer survey the price diversion ratio between VUK and iD Mobile is 9%; and

(2) VUK supplies wholesale services to Lebara, Asda Mobile and TalkTalk. We note that the price diversion ratio between 3UK and Lebara, as set out in Table 8.34, is 10%, between 3UK and Asda is 1%, whilst no 3UK customer's said they would switch to TalkTalk in response to the CMA customer survey.[628]

(b) As discussed in the Parties' competitive position section above, we consider that smaller MNOs may have stronger incentives to be competitive on prices and innovate to increase their customer base. The Merged Entity would have a significantly larger customer base compared to each Party on a standalone basis, and therefore may have lower competitive incentives.

(c) We further note that, to the extent the Merger reduces the post-Merger constraint from MNOs and/or MVNOs this would further reduce the Merged Entity's competitive incentives. This is considered in the following sections.

Post-Merger constraint of MNOs

8.270 We have considered how the constraint from MNOs may change as a result of the Merger, and in particular:

(a) the post-Merger competitive incentive of MNOs;

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[626] CMA129, paragraph 4.1.
[627] CMA129, paragraphs 4.6-4.7.
[628] FMN. We note that this is consistent with the fact that [✂].

(b) how the Merged Entity's participation in MBNL and Beacon could impact the constraint which BTEE and VMO2 are able to exert post-Merger; and

(c) the impact of post-Merger spectrum asymmetries on the constraint from MNOs.

Post-Merger competitive incentives of MNOs

8.271 In this section we first consider how, absent consideration of efficiencies, other MNOs may react to a price rise by the Merged Entity.

8.272 As a starting point, we note that the supply of retail mobile services is oligopolistic in nature given it is highly concentrated (as set out at section in the Customer bases section above), there are barriers to entry (as explained in Chapter 13), and MNOs closely monitor and react to each other's behaviour.[629]

8.273 We consider that in oligopolistic markets, a merger which leads to the elimination of the competitive constraint that the merging parties previously exerted upon each other and on their rivals, may result in rivals themselves having lower incentives to compete. The reason for this is as follows:

(a) As discussed above, the Merger will lead to the removal of the constraint which the Parties currently exert on each other, and therefore may increase the Merged Entity's incentives to raise prices.

(b) If the Merged Entity were to act on these incentives and raise prices, its rivals would experience an increase in demand for their services. This is both because more customers would switch to them from the Merged Entity and fewer customers would switch away from them to the Merged Entity. This increase in demand may provide them with incentives to also raise their prices. BTEE and VMO2, in particular, may respond to this weakening of competitive pressure by increasing their own prices given that:

(i) they both have large customer bases and are mainly focused on value generation rather than achieving subscriber growth (as evidenced by their declining market shares by gross adds, and their respective commercial strategies as set out in the Customer bases section above). Consistent with this, several third parties told the CMA that they expected BTEE and VMO2 would respond to a price increase by the Merged Entity by also increasing their prices or would have a reduced incentive to price aggressively;[630] and

[629] For example, Vodafone Internal Documents; and CK Hutchison Internal Document.
[630] Responses to the CMA competitor questionnaire from: [✂]; and [✂].

(ii) VMO2 currently has the lowest mobile spectrum share (excluding the impact of the Beacon 4.1 spectrum trade, which is discussed further in the efficiencies section below) and the lowest network quality of the four MNOs. Faced with an increase in demand, VMO2 may therefore be particularly incentivised to respond by increasing prices rather than trying to accommodate that demand at the prevailing prices due to the constraint additional customers may cause on its network.

(c) The Merged Entity's expectation that VMO2 and BTEE may follow its unilateral price rises due to reduced competitive pressure may also influence its incentives to raise prices. This is because the Merged Entity may expect price rises to be more profitable as they would result in it losing fewer customers to BTEE and VMO2.

(d) Even if the Merged Entity increased prices due solely to the removal of the constraint the Parties currently exert on each other and not on the expectation that VMO2 and BTEE would follow, if VMO2 and BTEE responded to this price rise by increasing their own prices, there may be some positive feedback on the Merged Entity's own prices.[631] This is because the Merged Entity would face weaker constraints, both due to the loss of competition between the Parties as well as the weakening of the constraint from BTEE and VMO2.

8.274 The nature of strategic price interactions between the MNOs is illustrated by the Parties' and third party internal documents (as set out in Appendix C, Competitive strategies) that show MNOs monitor each other, acknowledge that the prices of others will impact them, and set their prices taking into account other competitors' prices. For example, in the case of inflation-linked price rises:

(a) BTEE was first to introduce a price rise of CPI+3.9% in September 2020.

(b) After considering their options, the other MNOs introduced similar price rises. VUK and 3UK increased prices by CPI+3.9% in December 2020 and November 2022 respectively, while VMO2 introduced RPI+3.9% in March 2021.[632]

(c) This price rise was maintained for a sustained period of time despite MVNOs largely not also increasing their prices. iD Mobile (in November 2022) was

[631] This effect is the consequence of the 'strategic complementarity' of prices, and is a general characteristic of standard price-setting models of oligopoly competition.
[632] See Ofcom 'Prohibiting inflation-linked price rises', December 2023, paragraph 2.9, accessed by the CMA on 18 June 2024.

the only independent MVNO to introduce a CPI+3.9% price rise, but excluded its SIMO plans.[633]

8.275 We consider that this evidence of pricing behaviour is particularly significant as it occurred in the current market structure (with four MNOs including the lowest priced MNO, 3UK). This suggests that the MNOs may be even more likely to react to competitors' price rises by increasing their own prices if there was less competitive pressure on them.

8.276 The Parties submitted that both 3UK and VUK had [✂] rationales for implementing the CPI+3.9% price rises and this does not substantiate that one MNO raising prices would lead to the other MNOs raising their prices in the same way.[634] The Parties submitted the following rationales:

(a) For VUK:[635]

(i) [✂];

(ii) [✂];

(iii) [✂]; and

(iv) [✂].

(b) For 3UK: [✂]. It considers [✂].[636]

8.277 We consider that although the above factors may have affected the Parties' decision to introduce a price increase, the documents set out in Appendix C, Competitive strategies illustrate the nature of strategic price interactions between the MNOs. They show that MNOs monitor each other's pricing, acknowledge that competitors' prices will impact them, and set their prices taking into account other competitors' prices.

8.278 For the reasons set out above, we provisionally consider that BTEE and VMO2 may respond to a price rise by the Merged Entity by increasing their own prices. This could, in turn, weaken the constraint faced by the Merged Entity and make it more profitable for it to raise prices.

8.279 The Parties submitted that post-Merger, BTEE and VMO2's incentives to compete will increase. The Parties have submitted this based on the investments to the joint network the Merged Entity plans to make and the Beacon 4.1 spectrum trade, resulting in BTEE and VMO2 having stronger incentives to invest in their network

[633] See https://www.idmobile.co.uk/cpi accessed by the CMA on 10 June 2024. We note that Tesco Mobile also introduced a CPI+3.9% price increase in 2023.
[634] Annex 1 to the Parties' response to the AIS and working papers.
[635] Annex 1 to the Parties' response to the AIS and working papers.
[636] Annex 1 to the Parties' response to the AIS and working papers.

to limit the loss of customers to the Merged Entity.[637] We consider the likelihood and timing of any improvements of the Merged Entity's network quality – and the potential responses to any such investments by the other MNOs – in Chapter 14.

Merger impact on the constraint exerted by BTEE, through the Merged Entity's participation in MBNL, and VMO2, through the Merged Entity's participation in Beacon

8.280 As set out in Chapters 10 and 11 we have provisionally concluded that the Merged Entity's involvement in the MBNL and Beacon network sharing arrangements would not harm BTEE and VMO2's ability to exert a competitive constraint in the retail market.

The impact of post-Merger spectrum asymmetries on the constraint from MNOs

8.281 We have considered whether the Merger may result in BTEE and/or VMO2 becoming weaker competitors due to the Merged Entity having a particularly high relative share of spectrum.

8.282 A number of third parties have raised concerns about the impact of the Merger on competition through the creation of spectrum asymmetries:

(a) BTEE submitted that the Merger would result in the Merged Entity having a disproportionate share of UK mobile capacity due to its increase in spectrum share, which will distort competition and investment incentives.[638] BTEE raised concerns that the Merged Entity will have the ability to use excess capacity to deter investment, reducing overall market investment incentives. This is because the Merged Entity 'could deploy capacity quickly to defeat sunk, long-term investments by rivals. Knowing this, rival MNOs will be less likely to invest in the first place. In turn this reduces VF3's need to invest in future. This effect compounds the risks of a less effective MBNL'.[639] It also raised a concern about the spectrum asymmetry in low bands[640] (including post the Beacon 4.1 spectrum trade), as the asymmetry in those bands means that [✂].[641]

[637] Parties' initial submission, 1 May 2024, paragraph 3.31, and Annex 1 to the Parties' response to the AIS and working papers.
[638] BTEE response to the CMA's preliminary invitation to comment.
[639] BTEE meeting slides.
[640] Low band frequencies are 700-1400MHz. BTEE meeting note.
[641] BTEE meeting slides; and BTEE submission.

(b) Another third party submitted that the Merger would result in asymmetric spectrum holdings between the MNOs that would give rise to a material loss of competition in mobile services.[642]

8.283 Ofcom has previously identified similar potential competition concerns in relation to spectrum awards.[643] It identified that competition may be weaker due to asymmetry in spectrum because an operator with a high relative share of spectrum:[644]

(a) may be able to offer superior services that its competitors are unable to replicate, which could weaken competition in the longer term;

(b) could credibly threaten to respond with aggressive price cuts if competitors sought to grow their market share through lower prices, reducing the incentive of competitors to compete aggressively on price; and/or

(c) could use its spare spectrum to launch new services before its competitors, leaving its other services unaffected. Whereas competitors might need to re-purpose some of their existing spectrum, potentially to the detriment of their legacy services which could result in weaker competition in the longer term.

Our assessment

8.284 We note the following two points which relate to our framework of assessment:

(a) In previous spectrum auctions Ofcom has considered that in a four-player market concerns may arise if one MNO has a share of around 40% and the other three MNOs each have 20% of overall spectrum on average.[645] We do not consider these to be relevant thresholds for our assessment given these thresholds were in the context of a four-player market and we consider that in a three-player market, the thresholds that may raise competition concerns would be different.

(b) We consider that the concern over asymmetries in overall spectrum is driven by the relationship between spectrum shares and the ability to provide capacity.[646] The capacity of mobile networks is affected by factors including the amount of spectrum available to an operator and the number of sites an operator has.[647] In our assessment we have focused on spectrum asymmetries given that it is uncertain how many sites the Merged Entity would retain and the timing of this because of uncertainty over the JBP (as

642 [✂] submission.
643 Ofcom award of the 700MHz and 3.6-3.8 GHz spectrum bands, March 2020, paragraphs 4.52-4.53.
644 Ofcom award of the 700MHz and 3.6-3.8 GHz spectrum bands, March 2020, paragraph 4.27.
645 Ofcom award of the 700MHz and 3.6-3.8 GHz spectrum bands, March 2020, paragraph 4.76-4.81.
646 Ofcom award of the 700MHz and 3.6-3.8 GHz spectrum bands, March 2020, paragraph 4.103.
647 [✂] meeting note.

discussed further in Chapter 14). It is also uncertain how many sites VMO2 would get access to through the Beacon 4.1 agreement and the timing of this as, in some cases, this is [✂] (as discussed further in Chapter 10). We note that to the extent any spectrum asymmetry creates a concern, this could be exacerbated by differences in MNO technologies deployed and site numbers.

8.285 We have firstly considered the extent of spectrum asymmetry between MNOs across all types of spectrum before considering spectrum asymmetry within low-band spectrum (as we received specific third party concerns about this).

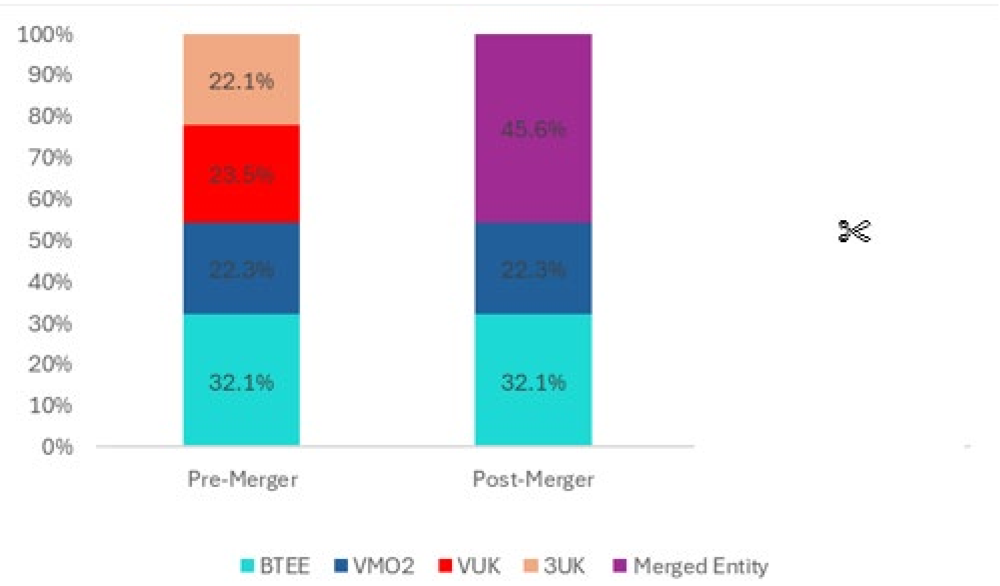
8.286 As set out in Figure 8.17, the overall spectrum shares are as follows:

(a) Pre-Merger: 23.5% VUK, 22.1% 3UK, 32.1% BTEE, and 22.3% VMO2;

(b) Post-Merger: 45.6% Merged Entity, 32.1% BTEE, and 22.3% VMO2; and

(c) Post-Merger with Beacon 4.1 spectrum trade: [✂]% Merged Entity, 32.1% BTEE, and [✂]% VMO2.

Figure 8.17 Overall spectrum shares by MNO pre-Merger, post-Merger and post-Merger with Beacon 4.1



Source: CMA analysis of Ofcom's Frequency allocations: mobile and wireless Broadband below 5 GHz.
Notes: We have not included 3UK's holdings in the 3800 - 4200 MHz band as it is not usable for mobile services (FMN) and allocations expiring on 15 October 2024 and 31 December 2025.

8.287 We consider that these shares show that after the Merger, the Merged Entity would have the greatest share of total spectrum both with and without the Beacon 4.1 spectrum trade.

(a) Without the spectrum trade, the Merged Entity's spectrum share is 13 percentage points greater than the next competitor (BTEE) and

23 percentage points greater than the competitor with the least spectrum (VMO2).

(b) With the spectrum trade, the Merged Entity's spectrum share is [✂] percentage points greater than [✂] (BTEE) and [✂] percentage points greater than [✂] (VMO2). We note that these differences are smaller than the current asymmetry where BTEE has 9 percentage points greater spectrum than its next competitor (VUK) and 10 percentage points more spectrum than the competitor with least spectrum (3UK). We note that, in line with the reasoning in Chapter 10, Our approach to contractual protections, we have taken account of the spectrum trade in our competitive assessment where appropriate.

8.288 We note that Ofcom has told us that:

(a) Its concerns around spectrum asymmetry in general have reduced. '[✂]'.[648]

(b) Capacity on the C-band spectrum is large compared to current usage levels and there would need to be a very high increase in demand for capacity to become an issue.[649]

8.289 In terms of spectrum shares in low band holdings, as set out in Figure 8.18 these are:

(a) Pre-Merger: [✂]% VUK, [✂]% 3UK, [✂]% BTEE, and [✂]% VMO2;

(b) Post-Merger: [✂]% Merged Entity, [✂]% BTEE, [✂]% VMO2; and

(c) Post-Merger with Beacon 4.1 spectrum trade: [✂]% Merged Entity, [✂]% BTEE, and [✂]% VMO2.

Figure 8.18 Low band spectrum shares by MNO pre-Merger, post-Merger and post-Merger with Beacon 4.1

[✂]

Source: [✂] response, 23 July 2024; and CMA analysis of Ofcom's Frequency allocations: mobile and wireless Broadband below 5 GHz.

8.290 We consider that these shares are more asymmetric, although post spectrum trade the Merged Entity's spectrum share is only [✂] percentage points greater than the next competitor (VMO2). Ofcom also considered the possibility of spectrum asymmetries in low frequency spectrum in its award of the 700 MHz and 3.6-3.8 GHz spectrum bands but decided that MNOs with little low frequency spectrum (BTEE and 3UK at the time) would likely remain strong competitors even

[648] Ofcom call note
[649] Ofcom call note

if they did not win any low frequency spectrum in the award. This was because although low band frequency is important for indoor coverage, this is only one factor customers consider when choosing a provider and MNOs were already performing similarly on indoor coverage where data-intensive uses can be provided by other means (ie Wi-Fi), while it was not clear that low band spectrum was essential for 5G. It therefore decided not to impose a specific cap on low frequency spectrum in the award.[650] Ofcom submitted to us that it is not clear that future use cases for low band (such as IoT) will have a significant impact on the future shape of competition for mobile services and other technologies can be deployed on alternative frequences to provide IoT.[651]

8.291 Overall, our provisional view is that we do not consider that spectrum asymmetry is likely to result in a substantial lessening of the competitive constraint of the other MNOs. This is because we consider that it is likely that the spectrum trade under Beacon 4.1 will occur following the Merger, and therefore the degree of overall spectrum asymmetry will be less than the current asymmetry. We do not consider that asymmetries within low-band spectrum would significantly weaken the competitive position of other MNOs.

Post-Merger constraint from MVNOs

8.292 We have considered the impact of the Merger on the constraint from MVNOs. Our provisional view is that:

(a) As outlined in paragraph 8.252, the competitiveness of an MVNO will be significantly impacted by the terms it is able to secure from its MNO host.

(b) As set out in Chapter 9, we provisionally consider there is scope for an SLC as a result of the Merger in the supply of wholesale mobile services in the UK. We consider it likely that the Parties would both compete for large MVNO opportunities that may be up for renegotiation in the near future absent the Merger. We note that, in the next two years, MVNO contracts serving almost 30% of the MVNO market, including MVNOs currently hosted by the Parties ([✂] and [✂])[652] may be subject to renewal. This may lead to MVNOs receiving worse price and/or non-price terms. A number of MVNOs expressed this concern to us.[653]

8.293 On this basis, our provisional conclusion is that the Merger may lead to MVNOs receiving worse terms from MNOs and therefore being less of a constraint at the retail level post-Merger.

650 Ofcom award of the 700MHz and 3.6-3.8 GHz spectrum bands, March 2020, paragraphs 4.112-4.113.
651 Ofcom submission
652 Based on CMA analysis, retail shares of supply by subscribers of the MVNO market only.
653 Responses to the CMA competitor questionnaire from third parties, January 2024 ([✂], [✂], [✂]).

Provisional conclusion on Merger impact on the Merged Entity's incentives and the competitive constraint from MNOs and MVNOs

8.294 Overall, before consideration of any potential efficiencies, we provisionally consider that the Merged Entity would have greater incentives to raise prices or degrade non-price aspects of its offerings in retail mobile services because:

(a) the Merger removes the competitive constraint between the Parties;

(b) the Merged Entity will also recapture some MVNO sales;

(c) BTEE and VMO2 may react to a price rise by the Merged Entity by also increasing their prices, which would result in it being more profitable for the Merged Entity to raise prices as it would result in it losing fewer customers to BTEE and VMO2;

(d) the Merged Entity would have a significantly larger customer base compared to each Party on a standalone basis, and therefore may have a weaker incentive to be competitive on prices and innovate to increase its customer base; and

(e) the Merger is likely to result in a reduction in wholesale competition which could reduce the competitiveness of MVNOs. A reduction in the competitiveness of MVNOs would reduce the constraint they pose on the Merged Entity, allowing it to increase prices further.

8.295 We consider that the constraint posed by BTEE and VMO2 is not likely to be weakened due to the Merged Entity participating in both network sharing agreements or spectrum asymmetries.

Quantitative evidence on the impact of the Merger on prices

8.296 In this section we consider quantitative evidence on the impact of the Merger on prices, excluding consideration of any efficiencies which are considered below, namely:

(a) Previous concentration studies;

(b) the CMA's GUPPI analysis;

(c) the CMA's merger simulations; and

(d) the Parties' merger simulations.

Previous concentration studies

8.297 The Parties submitted a 2023 review of research by Compass Lexecon,[654] 3UK's economic advisors for the Merger, which considered studies on previous four-to-three MNO mergers in various countries. The review concluded that these mergers typically had little impact on prices, usually having no effect or resulting in increased prices for some customers for a short period of time. We note that most, if not all, the mergers considered by Compass Lexecon involved commitments by the merging parties to address competition concerns identified as arising from the merger; and hence are not necessarily probative of merger outcomes in the absence of remedies. We also note that the Compass Lexecon study represents 'meta-research' involving a substantial measure of judgment about previous studies.

8.298 We also observe that there is conflicting economic evidence about the overall competitive effects of four-to-three MNO mergers.[655] A recent price-concentration study by Lear et al. (2024) commissioned by the European Commission for its 'Protecting competition in a changing world' report found 'a strong and significant positive relationship between market concentration and prices'. The study covered 29 countries (23 EU countries as well as Canada, USA, Japan, South Korea, Australia and New Zealand) from 2009-2019. In particular, it estimated that 'one additional MNO is associated with a reduction in average revenues per user (ARPU) by 7%. The impact is mostly driven by EU countries, in which one additional MNO is associated with a 9% reduction in ARPU'.[656]

8.299 The CMA's Merger Assessment Guidelines (CMA129), reflecting the case law of the Competition Appeal Tribunal, note that the CMA's task in analysing mergers is context specific, and in particular: (i) each case turns on its own facts; and (ii) the characteristics of one market may be very different from those of another.[657] The effect of the Merger will turn on its specific circumstances, rather than the outcome of empirical studies.[658]

8.300 Moreover, we believe that differences in the characteristics of mobile markets (such as geographic, demographic and regulatory differences) across countries limits the probative value of any analysis of the effects of mergers outside the UK in assessing the effects of this Merger. While we note the evidence from international studies of the mobile sector, we have taken a cautious approach to

[654] Padilla et al. (2023), Do four-to-three mobile mergers harm consumers? A review of post-merger effects and concentration studies (referred to at FMN, paragraph 24.48(ii)).
[655] Business and Trade Committee, [Oral evidence: Three-Vodafone merger: implications for competition, HC 1869](), 17 October 2023.
[656] European Commission report '[Protecting competition in a changing world]()', 2024, pages 124-126.
[657] *Ecolab Inc. v Competition and Markets Authority* [2020] CAT 12, quoted at [CMA129](), footnote 13.
[658] This was also noted by Ofcom in [Ofcom's future approach to mobile markets and spectrum, Conclusions paper](), December 2022, paragraph 5.33.

placing weight on any comparisons of the UK mobile industry to other countries' markets in our assessment of the Merger.

CMA analysis on the impact of the Merger on prices

8.301 We note that it is difficult to estimate the impact of a Merger on retail pricing with precision in this industry for a range of reasons – these include the interaction between the retail and wholesale markets, operators making decisions about both price and quality simultaneously, and the profitability of customers changing over their tenure. However, to understand the likely magnitude of the impact of the Merger on the prices of retail mobile services (in the absence of efficiencies) we have applied two complementary economic techniques, namely:

(a) **Gross Upwards Price Pressure Index (GUPPI).** This is a commonly used measure which combines information on diversion ratios and margins to give an indication of the incentives for parties to raise their price as a result of the Merger. It does not attempt to predict the exact extent of post-Merger price rises, rather to measure the extent of the upward price pressure.[659]

(b) **Merger simulation.** This is a more complex quantitative technique which, by building on our econometric model, seeks to predict the impact of the Merger on prices. Merger simulation has previously been used by other competition authorities and in academia to study mergers in telecoms.[660] Unlike GUPPI, merger simulations allow competitors to react to price changes by the Merged Entity.

8.302 We make three initial comments on our overall approach:

(a) First, our analysis focuses on assessing the impact of the Merger on prices and we hold quality fixed. We consider that trying to model the impact of a Merger on both price and quality presents significant challenges. These include, but are not limited to, mapping firms' investment to realised changes in network quality and modelling the impact of quality changes on consumers' behaviour. We note that the Parties have undertaken two merger simulations which, unlike our analysis, have the stated goal of modelling the impact of the Merger on prices and quality. However, as outlined in Appendix F, we have concerns about these approaches.

(b) Second, we consider that both our GUPPI and merger simulation are likely to understate the impact of the Merger on prices. This is because neither takes account of the impact of the Merger on the competitiveness of MVNOs through weakened wholesale competition or that post-Merger pricing will take

[659] CMA Retail Merger Guidance CMA62, 10 April 2017, paragraph 5.12.
[660] For a review see for example: Valletti, T., & Zenger, H. (2021). Mergers with Differentiated Products: Where Do We Stand? In Review of Industrial Organization (Vol. 58, Issue 1, pp. 179–212).

into account the fact that in the event of a price increase certain MVNO sales (on the other Party's network) will be recaptured post-Merger.

(c) Third, the value of a customer to an operator varies considerably over their tenure. Initially the existence of high acquisition costs and discounts means the margin on a new customer is at its lowest level. However, as their tenure extends, including through contract renewals, the profitability of that customer increases (not least as acquisition costs are less relevant). This means that short-term margins may underestimate the longer-term value of a customer. We have focused on estimating the short-run impact of the Merger on new customers rather than attempting to explicitly model such complex multi-contract demand dynamics. However, to explore the possible effect that the Merger may have on consumers across multiple contracts, we draw on different types of margins in our analysis noting the profit earned on customers beyond their first contract is higher.

8.303 Our assessment is structured as follows:

(a) GUPPI analysis.

(b) CMA's Merger Simulation.

(c) Overall provisional assessment of our pricing analysis.

GUPPI analysis

8.304 As set out above, GUPPI combines information on diversion ratios and margins. We have calculated GUPPI estimates using two methods:

(a) As set out in Appendix E, we have calculated the GUPPI for VUK and 3UK using diversion ratios from the CMA survey and a range of margin estimates provided by the Parties. Using acquisition margins, the GUPPI is [5-10%] for 3UK and [5-10%] for VUK.

(b) We have also calculated GUPPI based on diversion ratios and margins derived from the CMA's econometric analysis based on a sample of customers who are able to switch (as set out in Appendix D). These estimates are [5-10%] for 3UK and [0-5%] for VUK.

8.305 As set out above, we consider that the value of a customer is likely to vary considerably over their tenure and the relatively short-term margins which we have used in our analysis may underestimate the longer-term value of winning a customer. Therefore, we have also calculated GUPPIs using diversion ratios from the CMA survey and contribution margins, which are higher, and which we view as a better proxy for this longer-term value.[661] This shows that the GUPPI could be as high as 10-20%] for 3UK and 5-10%] for VUK.

8.306 Our provisional view is that both approaches suggest that there is likely to be significant upwards pricing pressure as a result of the Merger in the absence of efficiencies.

CMA's Merger Simulation

8.307 As set out in Appendix D, we have undertaken a merger simulation based on our econometric model to analyse the impact of the Merger on prices. When interpreting these results, it is important to note the limitations and caveats of the demand model apply as set out in Appendix D. Further, the merger simulation model also depends on assumptions of how competition works in the market. Here we use a standard assumption that the market follows static, multiproduct differentiated price competition.

8.308 As shown in Table 8.38, the model predicts that the Merged Entity would raise the prices of 3UK's tariffs by 7.0% on average and VUK's tariffs by 3.8%. This translates into an annual price increase of GBP 13.04 for the average 3UK customer and GBP 9.76 for the average VUK customer. Rivals would respond to the Merged Entity raising prices by also raising prices. BTEE and VMO2 would increase prices by 0.6% and 0.5% respectively. Other providers such as Tesco Mobile and MVNOs would also raise prices.

Table 8.38: Merger simulation results from the CMA's subscriber demand model for MNOs

	Price change post-Merger (%)	*Estimated change in market share (percentage points)*
3UK	7.0%	-1.8pp
VFUK	3.8%	-1.4pp
BTEE	0.6%	+0.9pp
VMO2	0.5%	+1pp
Change in consumer welfare	-1.5%	

Source: CMA analysis based on the CMA's estimated subscriber demand model for SIMO tariffs

8.309 In addition to considering the pricing impacts of the Merger we have estimated the impact of the Merger on consumer welfare. Table 8.38 reports that the Merger would lead to a 1.5% decrease in consumer welfare. We have calculated that this translates into an average annual reduction in the welfare of each subscriber of GBP 3.66 (in 2023 GBP's). If we assume that the model's results hold for the whole consumer retail segment (not just the SIM-only segment on which the model

[661] Contribution margins measure revenues less variable costs (costs which vary by sales volumes) for all consumer retail subscribers. In contrast, the shorter-term margins used above only consider the revenues and variable costs associated with a subset of customers. Acquisition margins capture revenue and variable costs for new ('gross adds') subscribers over the average length of new customers' first contract, whereas the econometric margins are based on a sample of contestable customers (ie those who have just chosen a new contract or are out of contract). For more detail see Appendices D and E.

is estimated) this would imply an annual cost to UK consumers of approximately GBP 328 million (in 2023 GBP's) resulting from the Merger excluding consideration of any cost efficiencies, product repositioning or network quality changes.[662]

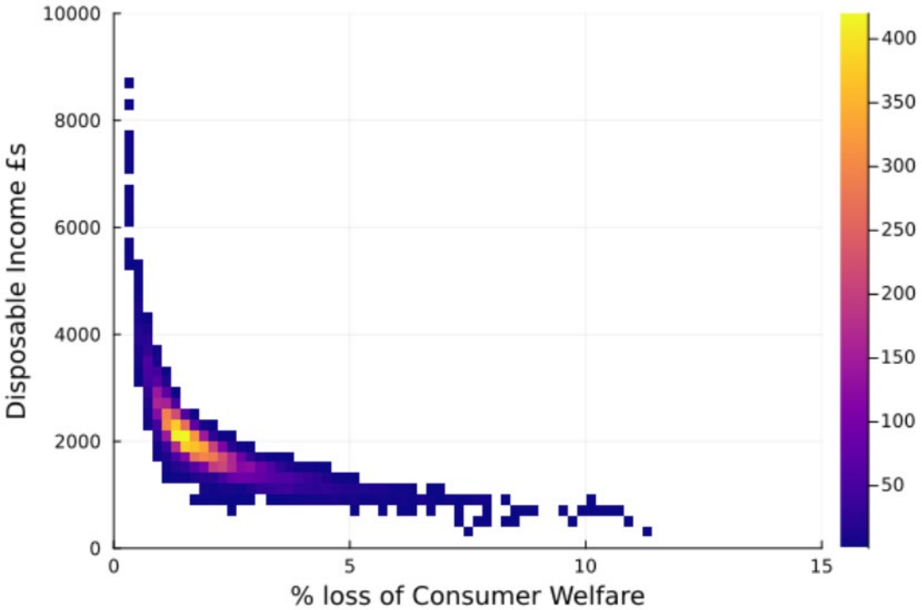
8.310 An important input to the merger simulation is our estimated model of subscriber demand which allows for variation in valuations of tariffs by location, income and age. As such, we have also been able to consider how the change in welfare impacts different types of subscribers.

8.311 Figure 8.19 shows the estimated consumer welfare changes for different income groups. The Figure is a 2D histogram where the lighter colours indicate a higher number of consumers at a given point. The Figure shows a larger percentage fall in the welfare of subscribers with lower incomes. This is driven by the fact that:

(a) in the estimated model lower income consumers are more price sensitive so dislike higher prices more and are more likely to switch to less desirable products post-Merger than higher income consumers; and

(b) in the sample there is a higher proportion of low-income consumers who subscribe to 3UK and thus face larger price rises.[663]

Figure 8.19: Impact on consumer welfare by subscribers' monthly disposable incomes



Source: CMA analysis based on the CMA's estimated subscriber demand model for SIMO tariffs

662 This number multiplies the per subscriber consumer welfare change in the model by the number of subscribers in the UK retail market.
663 In the 10k sample of subscribers used in these results subscribers of tariffs under the Three brand have a median monthly income of GBP 1,787 which is only higher than O2 and Tesco and is lower than the seven other brands in the sample.

8.312 As set out above, we consider that the value of a customer may vary over their tenure and the relatively short-term margins used in our econometrics model may underestimate the longer-term value of winning a customer. As a sensitivity, we have therefore considered the annual cost to UK consumers under alternative modelling assumptions and using different inputs (see Appendix D, Sensitivity of harm estimates, for details). As part of this we have considered the impact of using contribution margins (as in the GUPPI analysis). This suggests an average price increase of 10% for the Merged Entity which translates into a harm to UK consumers of up to GBP 1.123 billion a year.

Overall provisional assessment of our pricing analysis

8.313 We provisionally consider that our analysis, using a range of economic techniques, shows that the Merger is likely to have a material impact on retail prices.

(a) Our Merger Simulation suggests that, as a lower bound, the Merged Entity would raise the prices of 3UK's tariffs by 7.0% on average and VUK's tariffs by 3.8%. BTEE and VMO2 would also increase their prices by 0.6% and 0.5% respectively on average. We have found that this would imply an annual cost to UK consumers of approximately GBP 328 million a year (in 2023 GBP's). We have further found that those consumers on the lowest incomes would see the greatest fall in their welfare.

(b) We note that this uses relatively short-term margins and so may underestimate the impact of the Merger. Our sensitivity analysis suggests that using a longer-term margin would result in price increases of 10% on average for the Merged Entity and the cost to UK consumers could be up to GBP 1.123 billion a year (in 2023 GBP's).

(c) These results are consistent with our GUPPI analysis. Our survey-based GUPPIs suggests that the Merger would lead to pricing pressure of between [5-10%] and [10-20%] for 3UK and between 5-10%] and [5-10%] for VUK.

(d) We further consider that these estimates are underestimates as they do not take account of the impact of the Merger on the competitiveness of MVNOs through weakened wholesale competition or that post-Merger pricing will account for the fact that in the event of a price increase certain MVNO sales (on the other Party's network) will now be recaptured post-Merger.

8.314 We consider that these price increases are significant as the Parties collectively have over 27 million subscriptions which would be directly affected by any price rises. We also note that an increase in prices would likely impact the whole retail market which in 2023 comprised almost 90 million mobile subscriptions, and generated GBP 13.7 billion in revenues.

Parties' Merger Simulations

8.315 The Parties submitted two merger simulations to model the impact of the Merger on consumers. According to both of these models, excluding consideration of any efficiencies, the Merger would lead to increases in price.

(a) According to the quality focused model by Compass Lexecon, in the absence of efficiencies:

(i) On Day 0 of the Merger – the Merged Entity's average prices would be [✂]% higher, BTEE and VMO2's prices would be [✂]% lower and market prices would be [✂]% higher. Consumer welfare would be [✂]% lower.

(ii) In 2030 – the Merged Entity's prices would be [✂]% higher, BTEE and VMO2's prices would be unchanged and market prices would be [✂]% higher. Consumer welfare would be [✂]% lower.

(b) According to the capacity focused model by Frontier Economics, in the absence of efficiencies, the Merged Entity's nominal prices would be [✂]% higher. BTEE and VMO2's prices would each be [✂]% higher. Market prices would be [✂]% higher.

8.316 The Parties submit that the models show that efficiencies are sufficient to offset any upwards pricing pressure. In particular they state that:

(a) The quality-focused model by Compass Lexecon predicts an average (ie market-wide) reduction in quality-adjusted prices of 15.4% when accounting for cost and quality efficiencies. The Parties state that this corresponds to a market-wide welfare gain of GBP 1.8 billion per year.

(b) The capacity-focused model by Frontier Economics is consistent with this finding and predicts an average reduction in market-wide prices of -0.3%, when accounting for the congestion 'cost' felt by customers.

8.317 However, as explained in Appendix F, we do not put any weight on these models or their predictions.

(a) We have significant, wide-ranging concerns about the quality focused model by Compass Lexecon. We have concerns about the survey-based approach used to generate willingness to pay estimates and the Parties have not provided us with convincing evidence that their novel, ad-hoc demand calibration methodology can produce a credible model of consumer preferences. Further, key results of the merger simulations are highly counterintuitive, have not been adequately explained by the Parties, and rely on strong and unrealistic assumptions - notably that rivals cannot respond to the Merger by improving their network quality. We further consider that the network quality improvements resulting from the Merger are imposed on the model rather than derived from it and would likely be less extensive in reality.

(b) We provisionally consider that we are unable to place weight on the capacity focused model by Frontier Economics as there is a lack of convincing evidence that the external data used to calibrate the model are appropriate for the analysis of the effect of the Merger on long-run market outcomes. Nor are we currently convinced that the capacity model's results are robust to the use of equally plausible alternative assumptions on functional forms, their assumed curvature and input margins.

Provisional conclusion on the quantitative evidence on the impact of the Merger on prices

8.318 Our provisional conclusion is therefore that the quantitative evidence shows that, in the absence of efficiencies, the Merger is likely to lead to a material increase in prices and decrease in consumer welfare. The evidence suggests that those consumers on the lowest incomes would see the greatest fall in their welfare.

Provisional conclusion on horizontal unilateral effects in the supply of retail mobile services

8.319 For the reasons set out above, our provisional conclusion in relation to this theory of harm is that the Merged Entity – and its competitors – are likely to have incentives to raise prices or degrade non-price aspects of their offerings (including by reducing network investment). This is because:

(a) Firstly, the Merger would remove the constraint between 3UK and VUK. We consider that the Parties compete closely with each other across consumer and the SoHo business subsegment. This means that it will be less costly for the Merged Entity to raise prices/lower quality as customers who would have been lost to the other Party (and, to a lesser extent, MVNOs operating on the other Party's network) before the Merger, may be recaptured by the Merged Entity post-Merger.

(b) Secondly, we consider that the Parties, and in particular 3UK, also have strong incentives to be competitive on prices and innovate to increase their customer bases. The Merged Entity would have a significantly larger customer base compared to each Party, and in particular 3UK, on a standalone basis, and therefore may have weaker competitive incentives.

8.320 We also provisionally conclude that the other MNOs are close competitors to the Parties but there is also some evidence to suggest that both BTEE and VMO2 compete less aggressively than the Parties in some respects. Some independent

MVNOs currently exercise some constraint on the Parties, namely Sky Mobile and, especially in the value segment, Lebara and iD Mobile. However, the constraint from MVNOs is limited because they are dependent on the wholesale terms that they receive from the MNOs and, to a large extent, cannot compete on network quality. As a result, MVNOs tend to focus on particular segments (with no or little presence in other segments).

8.321 We further provisionally conclude that the remaining competitive constraints the Merged Entity would face may be further reduced as a result of the Merger. This is because:

(a) the other MNOs may respond to a price rise by the Merged Entity by also increasing their own prices, which in turn could have some positive feedback on the Merged Entity's prices and therefore magnify the effect of the Merger on price (which is the most important parameter of competition) in the market; and

(b) the Merger may lead to the constraint from MVNOs being reduced due to the impact of the reduction in competition in the supply of wholesale mobile services.

8.322 Our quantitative analysis shows that, in the absence of efficiencies, the Merger is likely to lead to an increase in prices and decrease in consumer welfare. The evidence suggests that the decrease in welfare could be greatest for those on the lowest incomes.

8.323 Therefore, before consideration of any potential countervailing factors (which are discussed in the latter chapters of these Provisional Findings), we provisionally conclude that there is scope for an SLC as a result of the Merger due to horizontal unilateral effects in the supply of retail mobile services in the UK.

9. TOH2: HORIZONTAL UNILATERAL EFFECTS IN THE SUPPLY OF WHOLESALE MOBILE SERVICES

Introduction

9.1 This Chapter sets out our provisional assessment of the impact of the Merger on the supply of wholesale mobile services in the UK.

9.2 Theories of harm describe the possible ways in which an SLC may be expected to result from a merger and provide the framework for analysis of the competitive effects of a merger.

9.3 One of the theories of harm that we have considered is horizontal unilateral effects in the supply of wholesale mobile services in the UK.

9.4 Horizontal unilateral effects can arise where one firm merges with a competitor that previously provided a competitive constraint, allowing the merged entity profitably to raise prices or degrade non-price aspects of its competitive offering (such as quality, range, service or innovation).

9.5 In order to assess this theory of harm, we have considered the extent of competition that currently exists in the supply of wholesale mobile services. This is because, in considering whether a lessening of competition resulting from a merger is substantial, we may take into account whether there is only limited competition in the market to begin with.[664]

9.6 The concern under horizontal unilateral effects essentially relates to the elimination of a competitive constraint by removing an alternative to which customers could switch. In differentiated markets, horizontal unilateral effects are more likely where the merger firms are close competitors or where their products are close substitutes. We have therefore considered the extent to which the Parties are close competitors.

9.7 We do not need to find that the Parties are each other's closest competitors for unilateral effects to arise.[665] In particular, where we find evidence that competition mainly takes place among few firms, any two of them would normally be sufficiently close competitors, such that the elimination of competition between them would raise competition concerns, subject to evidence to the contrary.[666]

9.8 We have also considered whether there will be sufficient remaining good alternatives to constrain the Merged Entity post-Merger.[667] Where there are few

[664] CMA129, paragraph 2.9.
[665] CMA129, paragraph 4.8.
[666] CMA129, paragraph 4.10.
[667] CMA129, paragraph 4.3.

existing suppliers, the merger firms enjoy a strong position or exert a strong constraint on each other, or the remaining constraints on the merger firms are weak, competition concerns are likely.[668]

9.9 Finally, we have considered the impact of the Merger on alternative constraints, namely:

(a) the extent to which the Merged Entity may have the ability and incentive post-Merger to disrupt the effective functioning of the MBNL network sharing agreement and whether this could have the effect of limiting the constraint exerted by BTEE in the wholesale market, and

(b) the impact of the Merger on the Beacon network sharing arrangements and whether this could affect the constraint exerted by VMO2 post-Merger in the wholesale market.

9.10 In this Chapter we have therefore considered:

(a) the extent of existing competition in the supply of wholesale mobile services;

(b) the extent to which the Parties are close competitors, ie whether they act as a competitive constraint on one another; and

(c) the alternative competitive constraints the Merged Entity would face following the Merger from other MNOs.

9.11 We have considered the effect of any potential efficiencies in Chapter 14, Rivalry-Enhancing Efficiencies.

9.12 This chapter is structured as follows:

(a) Market context.

(b) The Parties' main submissions.

(c) Our assessment of:

(i) market shares;

(ii) MVNO opportunity data;

(iii) competitive dynamics in recent large MVNO opportunities;

(iv) the level of existing competition for the supply of wholesale mobile services;

[668] CMA129, paragraph 4.3.

(v) MNOs' competitive incentives and strategies; and

(vi) other third party submissions.

(d) Our provisional conclusion.

Market context

9.13 Before setting out our assessment of the evidence, we provide an overview of the competitive process in the Wholesale Market and the parameters over which MNOs compete.

The competitive process

9.14 Access agreements for MVNOs, MVNEs and MVNAs[669] can be negotiated through formal tender processes or informal negotiations:

(a) Formal tender process: an MVNO issues a formal request for bids from MNOs. Once bids have been received, the MVNO typically identifies a subset of bidders it wants to engage with in more in-depth negotiations. There may be multiple rounds of bidding and negotiations. Based on data submitted by the Parties for the period Q1 2020 to Q1 2024, no more than [10-20%] of MVNO opportunities were formal.[670]

(b) Informal negotiations: based on data submitted by the Parties for the period Q1 2020 to Q1 2024, informal negotiations made up at least [80-90%] of MVNO opportunities.[671]

9.15 Formal tender processes are more likely to be used by larger MVNOs than smaller MVNOs. Of the five largest MVNO opportunities during this period, as set out in Table 9.4 below, [✂] involved formal tender processes or had process which were considered formal by MNOs ([✂]) (40%). In contrast, based on data submitted by the Parties for the period Q1 2020 to Q1 2024, just over [5-10%] of opportunities involving smaller MVNOs and new entrants involved formal tender processes.[672]

[669] MVNEs and MVNAs comprise a relatively small proportion of the supply of wholesale mobile services based on the number of opportunities submitted by the Parties.
[670] Based on the Parties' data, excludes non-MVNOs. Includes opportunities where the Parties were aware of the nature of the process (ie formal or informal). Formal opportunities made up [✂]% ([✂]) of opportunities for VUK and [✂]% ([✂]) of opportunities for 3UK. See Parties response to the CMA's s109 notice; and Vodafone response to the CMA's s109 notice.
[671] Based on the Parties' data, excludes non-MVNOs. Includes opportunities where the Parties were aware of the nature of the process (ie formal or informal). Informal opportunities made up [✂]% ([✂]) of opportunities for VUK and [✂]% ([✂]) of opportunities for 3UK. See Parties response to the CMA's s109 notice; and Vodafone response to the CMA's s109 notice.
[672] Includes opportunities where the Parties were aware of the nature of the process (ie formal or informal). Formal opportunities for small MVNOs and new entrants made up [✂]% ([✂]) opportunities for VUK and [✂]% ([✂]) opportunities for 3UK. See Parties response to the CMA's s109 notice; and Vodafone response to the CMA's s109 notice.

9.16 VMO2 told us that MVNOs rarely engage MNOs through formal tender processes. Instead MVNO terms are determined on a case-by-case basis through bilateral negotiation between the parties.[673]

9.17 MVNOs also engage with MNOs on possible contract extensions or renegotiations during the contract term. Sky Mobile submitted that these negotiations, which may take the form of informal discussions, are an important part of the competitive process before and during contract renewals.[674]

9.18 The Parties and third parties submitted that there is limited transparency over which MNOs are bidding or discussing a potential opportunity with an MVNO, or the terms offered:

(a) the Parties submitted that this allows MVNOs to increase uncertainty and extract better terms.[675]

(b) in the Main Party Hearing VUK noted that 'it's not a visible process. So I might be told, which is the case, that everybody else is participating. But I have no idea. So we always operate under the assumption that it is a competitive process.'[676]

(c) VMO2 told us that it typically does not know which other MNOs may also be engaged in any bidding process but assumes that all MNOs will have similar strategies and therefore that all MNOs will bid for any MVNO that is, or is likely to be, significantly successful in the UK mobile market.[677]

(d) An MVNO submitted that 'the uncertainty caused by the fact that other MNOs will be unaware of whether a particular competing MNO elects to accept an invitation to participate in a tender and (if so) the terms of its proposal, helps to ensure that the other MNOs which do participate are appropriately incentivised to submit proposals that are as competitive as possible'.[678]

9.19 However, there is some suggestion in the Parties' internal documents that it is possible to reverse engineer a rough estimate of agreed wholesale supply terms based on publicly available information on an MVNO's retail prices and published financial information.[679]

9.20 Further, there seems to be some transparency over:

[673] VMO2 response to the CMA's RFI.
[674] Sky Mobile, Initial submission to the CMA.
[675] Annex 2 to the Parties' response to the AIS and working papers.
[676] Vodafone Main Party Hearing transcript.
[677] VMO2 response to the CMA's request for information.
[678] Company C submission on Parties' response to CMA's Issues Statement, 21 August 2024, paragraph 2.4.
[679] CK Hutchison internal document.

(a) which other MNOs may be participating in tenders: [✂].[680]

(b) when MVNOs are due to come off contract and re-tender: both VUK and 3UK's internal documents suggest that the MNOs are aware of MNOs' larger MVNO customers and will make assumptions of when their contracts are up for renewal/due to expire.[681]

9.21 Based on the evidence above, we consider overall that there is limited transparency in the Wholesale Market. In particular, there is limited transparency over which MNOs are bidding and the terms offered, which increases the incentive of the MNOs which do participate to submit competitive offers.

Parameters of competition at the wholesale level

9.22 We understand that both price and network quality are important to MVNOs, although there may be some differences between MVNOs in the relative importance that they attach to these. This is supported by the views of MVNOs and MNOs:

(a) six out of 13 MVNOs (including three large MVNOs) stated that price was the most important factor when selecting an MVNO host.[682]

(b) five out of 13 MVNOs (including two large MVNOs) stated that network quality (including equal access to the network and latest technologies) was the most important factor.[683]

(c) one out of 13 MVNOs stated that strategic fit was the most important factor.[684]

(d) one out of 13 MVNOs stated that technical ability to service was the most important factor.[685]

(e) [✂] told us that 'an MVNO's assessment is to a large extent based on commercials, network performance and how the MNO can service them. [✂] endeavours to evidence how it can be the best partner for the MVNO business. The bigger MVNOs [✂], whereas the smaller MVNOs tend to [✂]'.[686]

680 [✂]. [✂].
681 For example, Vodafone internal documents, VUK notes in its [✂] that the '[✂]'. For example, CK Hutchison Internal Document, show existing MVNOs on other MNO's network and the assumed date of contract expiry.
682 Responses to the CMA's questionnaire from: [✂].
683 Responses to the CMA's questionnaire from: [✂].
684 Responses to the CMA's questionnaire from: [✂].
685 Responses to the CMA's questionnaire from: [✂].
686 [✂] call note.

(f) BTEE told us that MVNOs want equal access to the mobile network as the MNO's retail customers and that MVNOs playing in different market segments have different requirements.[687]

(g) In comparing the MNOs' strengths and weaknesses in its internal documents, BTEE benchmarks MNOs against a range of criteria including wholesale strategy, market sentiment, price, mobile network leadership, convergence and MVNO capability.[688]

(h) We also set out in 'Competitive dynamics in MVNO opportunities' the views of some of the largest MVNOs, which suggest that both price and network quality are important to MVNOs. For example, during the Sky Mobile opportunity, MNOs were assessed against criteria including [✂].[689]

9.23 MVNOs told us that wholesale network quality is important because it forms part of the retail customer proposition and that it can include a range of dimensions:

(a) one large MVNO submitted that network quality is important because 'network quality perceptions affect brand perceptions'.[690]

(b) one large MVNO submitted that when it carried out renewal negotiations, a key factor in choosing a supplier going forward would be the ability to secure ongoing access to the latest mobile technologies as they were introduced.[691]

(c) one large MVNO stated that the aspects of network quality it considers are '4G and 5G coverage, voice quality, and throughput (ie speed) of data in Mb/s'.[692]

(d) another [✂] MVNO stated that it has 'a focus on strong network access and coverage'.[693]

9.24 One MVNO told us that while price and network quality are also key, ultimately the most important factor in determining whether it switches provider will be proposition and service to the customer. This included having a contact centre, and the ability of the MNO to support the MVNO doing the right thing for vulnerable customers.[694]

[687] BTEE call note.
[688] BTEE internal document.
[689] [✂] internal document.
[690] [✂] call note.
[691] [✂] response to the CMA's RFI.
[692] [✂] call note.
[693] [✂] call note.
[694] [✂] call note.

Parties' main submissions

9.25 In relation to 3UK, the Parties submitted that:

(a) the characterisation in working papers of 3UK as playing an important role in the Wholesale Market cannot credibly be supported in light of the evidence before the CMA. The reality is that 3UK [✂].[695]

(b) MVNOs' actions speak more tellingly and convincingly of their real views and motivations than any remarks they may have made to the CMA during its merger investigation. It is not plausible that MVNOs consider 3UK [✂].[696]

(c) 3UK is [✂] on network quality and this has not been [✂].[697]

(d) MVNOs have provided extensive feedback to 3UK that [✂]. For example, in the context of the Sky Mobile opportunity process, Sky Mobile made clear to 3UK that [✂]. [698]

(e) 3UK's track record in tenders and reputation for poor network quality means that it is [✂].[699]

(f) The view than 3UK has ambitions to grow its market share in the Wholesale Market disregards [✂]. It has [✂].[700]

9.26 In relation to VUK, the Parties submitted that VUK [✂].[701]

9.27 The Parties submitted that they are not close competitors, as demonstrated by:

(a) the limited overlap in MVNO opportunities and by internal documents.[702]

(b) the fact that in the 2020/21 Sky Mobile opportunity both 3UK and VUK lost on [✂].[703]

9.28 In relation to alternative competitive constraints, the Parties submitted that the wholesale market is currently dominated by BTEE, which has won almost all recent tenders, and VMO2, which hosts the largest MVNOs but whose ability to compete will be increasingly hampered by a lack of capacity.[704]

[695] Parties' response to the AIS and working papers. Annex 2 to the Parties' response to the AIS and working papers. For example, CK Hutchison Internal Document
[696] Parties' response to the AIS and working papers. Annex 2 to the Parties' response to the AIS and working papers.
[697] Parties' response to the AIS and working papers. Annex 2 to the Parties' response to the AIS and working papers.
[698] Parties' response to the AIS and working papers. Annex 2 to the Parties' response to the AIS and working papers.
[699] Annex 2 to the Parties' response to the AIS and working papers.
[700] Annex 2 to the Parties' response to the AIS and working papers.
[701] Annex 2 to the Parties' response to the AIS and working papers.
[702] Annex 2 to the Parties' response to the AIS and working papers.
[703] Parties' response to the AIS and working papers.
[704] Annex 2 to the Parties' response to the AIS and working papers.

9.29 The Parties submitted that the Merger will have a pro-competitive effect on the wholesale market given:

(a) 3UK is not (and will not be) a credible player in the wholesale market.[705]

(b) the Joint Network Plan will deploy standalone 5G across the nation, giving the Merged Entity a greater ability to offer network capacity to MVNOs, and a greater incentive to monetise spare capacity by competing for more wholesale traffic. This, in turn, will provoke a competitive response from both BTEE, which already has the means to do so, and VMO2, whose ability to invest and compete will also be enhanced by the Beacon 4.1 Agreement which has been reached with the Parties.[706]

(c) MVNOs on the Merged Entity and VMO2's network will benefit from a more attractive offering.[707]

9.30 The Parties submitted that the CMA does not present any compelling evidence to demonstrate that MNOs, in particular larger MNOs, may have less incentive to compete aggressively due to concerns about cannibalisation (where cannibalisation refers to the switching of end-customers from the MNO to the MVNO). [708]

9.31 In relation to barriers to switching from one MNO to another, the Parties submitted that:[709]

(a) any barriers to switching are not significant;

(b) advancements in technology such as eSIMs and over-the-air switches have reduced the barriers to switching for light MVNOs and will continue to do so; and

(c) the ability to switch MNO host provides a significant competitive constraint on all MNOs and will continue to exist to constrain the Merged Entity post-Merger.

9.32 The Parties submitted that the bargaining power of MVNOs has increased significantly over the years as evidenced by the increase in their market share and larger customer bases, which continue to grow, and the commercially advantageous terms secured at the wholesale level.[710] This is expected to

[705] Parties' response to the AIS and working papers.
[706] Parties' response to the AIS and working papers. Annex 2 to the Parties' response to the AIS and working papers.
[707] Annex 2 to the Parties' response to the AIS and working papers.
[708] Parties' response to the AIS and working papers. Annex 2 to the Parties' response to the AIS and working papers.
[709] Annex 2 to the Parties' response to the AIS and working papers.
[710] Annex 2 to the Parties' response to the AIS and working papers.

increase post-Merger in light of their anticipated growth in the retail market and technological advancements (such as eSIMs).[711]

Our assessment

9.33 Below we set out our assessment of:

(a) market shares;

(b) MVNO opportunity data;

(c) competitive dynamics in recent large MVNO opportunities;

(d) level of existing competition for the supply of wholesale mobile services;

(e) MNOs' competitive incentives and strategies; and

(f) other third party submissions.

Market shares

9.34 The (pre-Merger) market is comprised of only four MNOs meaning that at most four MNOs compete for any given wholesale opportunity.

9.35 We have estimated market shares based on MVNO subscriber and revenue data submitted by the Parties and the other two MNOs.

9.36 Tesco Mobile is a 50/50 JV between VMO2 and Tesco. The JV was recently renewed for a further 10 years,[712] and as such Tesco Mobile is not currently a potential wholesale customer for other MNOs. However, we currently consider that upon expiration of the JV, Tesco Mobile will be a contestable wholesale customer. There is also an opportunity for VMO2 and Tesco to revisit the agreement in [✂], at which point Tesco has the option of exiting the joint venture [✂] (see further paragraph 9.73).[713] This is [✂] to the contract length of other MVNOs, as set out in paragraph 9.46.

9.37 Tesco told us that before renewing the JV agreement with VMO2, it conducted an internal high-level review of the market to assess appetite from other MNOs, but did not run a formal tender or evaluate wholesale offers.[714] VMO2's internal documents from the period before the recent JV renewal state that Tesco '[✂]'.[715]

[711] Annex 2 to the Parties' response to the AIS and working papers.
[712] Virgin Media O2 and Tesco agree 10-year renewal of Tesco Mobile joint venture - Virgin Media O2, accessed by the CMA on 11 June 2024.
[713] Tesco Mobile call note.
[714] Tesco Mobile call note.
[715] VMO2 response to the CMA's RFI; and VMO2 internal document.

9.38 We therefore include Tesco Mobile in our assessment of market shares. However we note that although Tesco Mobile will in principle become contestable, we consider that the switching costs and therefore incumbency advantage for VMO2 are likely to be greater for Tesco than for other MVNOs given the deep integration that Tesco Mobile has with VMO2's network due to the JV structure, also mentioned at paragraph 9.65. Tesco told us that although there is an opportunity for VMO2 and Tesco to revisit the agreement in [✂], it would be very difficult and complicated to do so in reality.[716]

Table 9.1: Market shares of wholesale mobile services in the UK, subscribers and revenue, 2020-2023

%

MNOs	*Subscribers*				*Revenue*	
	2020	*2021*	*2022*	*2023*	*2022*	*2023*
VUK	[5-10]	[10-20]	[10-20]	[10-20]	[20-30]	[10-20]
3UK	[5-10]	[5-10]	[10-20]	[10-20]	[5-10]	[10-20]
Combined	**[10-20]**	**[20-30]**	**[20-30]**	**[20-30]**	**[30-40]**	**[20-30]**
VMO2	[50-60]	[50-60]	[70-80]	[50-60]	[60-70]	[60-70]
BTEE	[20-30]	[10-20]	[0-5]	[10-20]	[5-10]	[10-20]
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: CMA analysis of data submitted by the Parties and other MNOs.
Note: Due to data availability, revenue figures are only presented from 2022 onwards.

Table 9.2: Market shares of wholesale mobile services in the UK, number of MVNOs, 2020-2023

% (number of MVNOs)

MNOs	*2020*	*2021*	*2022*	*2023*
VUK	[5-10] [✂]	[20-30] [✂]	[20-30] [✂]	[10-20] [✂]
3UK	[5-10] [✂]	[10-20] [✂]	[10-20] [✂]	[10-20] [✂]
Combined	[10-20] [✂]	[30-40] [✂]	[20-30] [✂]	[20-30] [✂]
VMO2	[20-30] [✂]	[20-30] [✂]	[20-30] [✂]	[10-20] [✂]
BTEE	[50-60] [✂]	[40-50] [✂]	[40-50] [✂]	[60-70] [✂]
Total	100[✂]	100[✂]	100 [✂]	100 [✂]

Source: CMA analysis of data submitted by the Parties and other MNOs.
Note: We include MVNOs on each MNO's network based on subscriber data.

9.39 Although there has been some variation in market shares over the period 2020-2023, we consider that the data shows that all four MNOs have historically been successful in winning MVNO opportunities.

9.40 The Merger would reduce the number of players from four to three in the supply of wholesale mobile services in the UK. The Merged Entity would have a market share by subscribers of [20-30%] with an increment of [10-20%] and a market share by revenue of [20-30%] with an increment of [10-20%].

9.41 BTEE hosted the highest number of MVNOs ([✂]) out of all the MNOs in 2023. However, it had the [✂] market share by subscribers and [✂] market share by revenue in 2023. This is consistent with BTEE [✂]. VMO2 hosted the fewest MVNOs (3), [✂], however, it had the highest market share by both subscribers and revenue in 2023. This is because VMO2 hosts both Sky Mobile and Tesco

[716] Tesco Mobile call note.

Mobile, two of the largest MVNOs. 3UK hosted two MVNOs on its network in 2023, including one large MVNO (iD Mobile), slightly fewer than VUK.

9.42 The Parties submitted that:

(a) shares of supply provide limited insight into the extent of competition in the Wholesale Market.[717]

(b) any growth in 3UK's [✂] is attributable to [✂] iD Mobile.[718]

Our assessment of the market shares

9.43 Measures of concentration such as market shares can be useful evidence when assessing closeness of competition.[719]

9.44 However the extent and speed at which MNOs can grow their market share depends on a number of factors including:

(a) the nature of wholesale contracts (including duration and the size of the MVNO's customer base);

(b) the number of MVNOs switching (driven by factors including incumbency advantage) and entering the market; and

(c) the growth of MVNOs (ie the extent to which MVNOs grow their customer base over time).

9.45 We consider each of these factors in more detail below.

9.46 Based on the Parties' existing contracts with MVNOs, contract lengths vary between [✂] for VUK[720] and between [✂] for 3UK.[721] As recognised by VUK in its internal documents [✂].[722] This means that opportunities for MNOs to grow their market share by winning an MVNO from another MNO are infrequent.

9.47 The Wholesale Market is also characterised by a limited number of large contracts and a long tail of smaller contracts for existing MVNOs and new entrants. This is recognised in VUK's internal documents which state that the [✂].[723] This means that the award of a single contract by a large MVNO can lead to large changes in market shares.

[717] Annex 2 to the Parties' response to the AIS and working papers.
[718] Annex 2 to the Parties' response to the AIS and working papers.
[719] CMA129, paragraph 4.14.
[720] Vodafone internal document. Noting that [✂].
[721] CK Hutchison internal document. Noting this [✂].
[722] Vodafone internal document.
[723] Vodafone internal document.

9.48 Where a market is characterised by a small number of large, long-term contracts, market shares may not fully reflect the degree of competitive constraint which rivals impose on one another at a given point in time, because current shares principally reflect historic performance rather than current conditions of competition. However, we consider that in this case the likelihood of changes in market shares occurring is reduced by limited switching (driven in turn by the existence of incumbency advantages and barriers to switching), and successful MVNO entry (limited numbers of MVNOs gaining material market share), and therefore that in this case market shares do provide a reasonable approximation of competitive constraints:

(a) As recognised by VUK in its internal documents, wholesale is a [✄].[724] Lyca Mobile was the only large MVNO (out of the five largest MVNOs that engaged in negotiations during 2020-2024) that switched MNOs (in 2023). The other large MVNOs (Tesco Mobile, Sky Mobile, [✄]) were retained by their host MNOs. This suggests that MNOs have an incumbency advantage and is consistent with the evidence set out in paragraphs 9.233 to 9.240.

(b) Based on evidence collected from the Parties and MVNOs, in the next two years, MVNO contracts serving [20-30%] of the MVNO market[725] will be subject to re-negotiation. MNOs therefore have the potential to increase their market share in the next two years by winning MVNOs from other MNOs (however we note that the evidence suggests the existence of barriers to switching and an incumbency advantage, as set out in paragraphs 9.233 to 9.240).

9.49 In principle, MNOs can grow their market share by attracting new entrants, which then grow in size while on the host's network. However, we consider that this is a difficult way of growing wholesale market share. MVNOs have struggled to gain material retail market share, even those with the ability to cross-sell to existing customer bases:

(a) Even when combined, independent MVNOs while growing still supply a small proportion of retail mobile subscribers ([10-20%]). No independent MVNO has a market share greater than [0-5%] by revenue or subscribers and only two independent MVNOs have market share >[0-5%] by subscribers (Sky Mobile at [0-5%], and Lebara at [0-5%]).[726] This is despite the fact that as many as 150 MVNOs have been reported by Ofcom to have launched in the UK in the last ten years.[727]

[724] Vodafone internal document.
[725] Based on CMA analysis, retail shares of supply by subscribers of the MVNO market only.
[726] Based on CMA analysis of retail market shares data provided by the Parties and third parties.
[727] Annex 2 to the Parties' response to the AIS and working papers.

(b) TalkTalk stopped acquiring new mobile customers from 2017 and now has a retail market share of [0-5%], despite having the ability to cross-sell to its fixed line customer base. [✂].[728]

(c) Asda Mobile has only grown its retail market share to [0-5%] since its launch in 2007 despite its ability to leverage its brand. Asda Mobile told us that prior to March 2024, it only operated in the pre-pay market which has been contracting over the years. Its pay monthly service is in its very early stages with a low number of customers.[729]

9.50 We consider that:

(a) the Parties' market shares are consistent with the Parties being close competitors historically.

(b) 3UK has had a relatively stable market share over the period between 2020 and 2023, which suggests that it exerts a competitive constraint in the market.

(c) the market shares of BTEE and VMO2 are consistent with them exerting a competitive constraint on the Parties.

(d) MNOs (including 3UK) will have the potential to increase their market share by winning MVNOs from other MNOs in the coming years.

MVNO opportunity data

9.51 Data on past competitive interactions can be informative of conditions of competition.[730] Evidence of VUK and 3UK participating in the same opportunities, for example, may indicate that VUK and 3UK compete closely.

9.52 We have used opportunity data covering the period Q1 2020 to Q1 2024 (inclusive) in our analysis, to reflect recent competitive conditions. Although we have focused only on opportunities within this period, given the data is necessarily backward-looking it may still not be reflective of the MNOs' future position in the supply of wholesale mobile services. We are therefore considering this evidence in the round with the other evidence we have collected to date (for example, third party views) to inform our assessment of the Parties' and the other MNOs' future competitive position.

9.53 We consider that the data submitted by the Parties and the other MNOs has the following limitations:

[728] [✂] call note.
[729] Asda Mobile call note.
[730] CMA129, paragraph 4.13.

(a) It may not include all opportunities that took place during the relevant period.

(b) It may incorrectly identify some opportunities as competitive.

(c) ‘Participation’ may be defined inconsistently (for example, some MNOs may have counted initial discussions as participation while other MNOs may have only counted submitting an offer as participation).

9.54 As set out in paragraph 9.232 below, we have placed more weight on the experience of large MVNOs given their relative competitive importance as customers of wholesale mobile services. However, we consider the market-level opportunity data provides a useful starting point for assessing competition between MNOs (notwithstanding the limitations).

9.55 Using the data submitted by the Parties and the other MNOs, we are considering:

(a) the percentage of MVNO opportunities that each was invited to and participated in, out of the opportunities it was aware of;

(b) the percentage of MVNO opportunities that both Parties were invited to and participated in (ie they overlapped with each other); and

(c) the percentage of MVNO opportunities each MNO won out of all the opportunities each MNO was aware of, for which there was an outcome.

Table 9.3: MVNO opportunity data analysis, Q1 2020- Q1 2024

	VUK	*3UK*	*BTEE*	*VMO2*
Opportunities the MNO was aware of	[✂]	[✂]	[✂]	[✂]
MNO was invited to (of total)	[✂]	[✂]	[✂]	[✂]
MNO participated in (of those invited to)	[✂]	[✂]	[✂]	[✂]
MNO participated in (of total)	[✂]	[✂]	[✂]	[✂]
Both Parties were invited to	[✂]	[✂]	N/A	N/A
Both Parties participated in	[✂]	[✂]	N/A	N/A
MNO won (total opportunities with a result)	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis of data submitted by the Parties and other MNOs (CK Hutchison response to the CMA’s s109 notice. Vodafone response to the CMA’s s109 notice. BTEE response to the CMA’s RFI. VMO2 response to the CMA’s RFI.
Note: Opportunities with a result exclude those which were in progress or on hold, not progressing, and those that had an unknown outcome. Excludes known MVNE/MVNA and M2M opportunities. Excludes Tesco Mobile. [✂].

9.56 We also present the MVNO opportunity analysis based on the five largest MVNO opportunities between Q1 2020 and Q1 2024, to reflect the relative competitive importance of these MVNOs as customers of wholesale mobile services.

(a) Collectively these five MVNOs had an overall retail market share of [10-20%] in 2023 (by subscribers),[731] as shown in Table 5.1.

[731] CMA analysis based on Parties’ and third parties’ data.

(b) These five MVNOs collectively accounted for [50-60%] of all subscribers served by MVNOs in 2023.[732]

Table 9.4: MVNO opportunity data analysis – five largest MVNO opportunities, Q1 2020-Q1 2024

				% (number of MVNOs)
	VUK	*3UK*	*BTEE*	*VMO2*
Opportunities the MNO was aware of	[✂]	[✂]	[✂]	[✂]
MNO was invited to (of total)	[✂]	[✂]	[✂]	[✂]
MNO participated in (of those invited to)	[✂]	[✂]	[✂]	[✂]
MNO participated in (of total)	[✂]	[✂]	[✂]	[✂]
Both Parties were invited to	[✂]	[✂]	N/A	N/A
Both Parties participated in	[✂]	[✂]	N/A	N/A
MNO won	[✂]	[✂]	[✂]	20% (1/5)

Source: CMA analysis of data submitted by the Parties and other MNOs. (*CK Hutchison response to the CMA's s109 notice. Vodafone response to the CMA's s109 notice. BTEE response to the CMA's RFI. VMO2 response to the CMA's RFI.*)
Note: Based on the five largest MVNO opportunities that were up for negotiations between the period of Q1 2020 and Q1 2024 by subscriber base. These were Sky Mobile, *[✂]*, Lyca Mobile, *[✂] [✂]*. We focus on each of the most recent opportunities for these MVNOs and therefore include only the 2023 opportunity for Lyca Mobile. [✂].

9.57 Based on the opportunity data, we consider that:

(a) Based on the five largest MVNO opportunities,

(i) [80-90%] ([✂]) were retained by their host MNO, suggesting a strong incumbency advantage.

(ii) Not all MNOs participated in each of the five largest opportunities, however, at least [✂] MNOs did so.

(b) The Parties are both actively competing to supply wholesale mobile services, including participating in the larger MVNO opportunities.

(i) VUK participated in [✂] ([✂]% ([✂])) MVNO opportunities it was invited to. 3UK participated in [✂] ([✂] ([✂])) MVNO opportunities it was invited to.

(ii) 3UK has a [✂] participation rate than VUK when looking at the total MVNO opportunities the Parties were aware of:

(1) VUK was aware of [✂] MVNO opportunities, of which it participated in [✂]% ([✂]).

(2) 3UK was aware of [✂] MVNO opportunities, of which it participated in [✂]% ([✂]).

(iii) Out of the five largest MVNO opportunities:

[732] CMA analysis based on Parties' and third parties' data.

(1) VUK participated in [✂]% ([✂]/5) of opportunities. This included opportunities to supply Sky Mobile, Lebara, and [✂].

(2) 3UK participated in [✂]% ([✂]/5) of opportunities. This included opportunities to supply Sky Mobile, [✂]

(c) The Parties have both been successful in winning MVNO opportunities, in particular some of the larger MVNO opportunities. 3UK's win rate is [✂] VUK's for large MVNO opportunities:

(i) VUK won [✂]% ([✂]) of the total MVNO opportunities it was aware of, for which there was a result. Although the overall win rate for VUK was [✂], it won [✂]% ([✂]/5) of the five largest MVNO opportunities, ie Lebara, which is the second largest MVNO. This is consistent with VUK having a relatively high market share by revenue, as set out in Table 9.1 ([10-20%]).

(ii) 3UK won [✂]% ([✂]) of the total MVNO opportunities it was aware of, for which there was a result. It won [✂]% ([✂]/5) of the five largest MVNO opportunities ie [✂]. It also won [✂].

(iii) Although not included in the MVNO opportunity data, we note that [✂]. [✂]. The Parties submitted that the choice of [✂].[733]

(d) The Parties have [✂] competed against each other:

(i) VUK and 3UK competed against each other in [✂]% ([✂]) of the MVNO opportunities that they were aware of. In particular, the Parties both took part in [✂]% ([✂]/5) of the five largest MVNO opportunities. These were Sky Mobile [✂];

(ii) VUK and 3UK competed against each other in [✂] of MVNO opportunities if we consider only the MVNO opportunities in which at least one of the Parties actually participated. We consider that this measure better reflects the competitive constraint actually exerted by one Party on the other as it excludes opportunities in which neither Party participated:

(1) of the MVNO opportunities VUK participated in, 3UK also participated in [✂]% ([✂]) of the same MVNO opportunities.

(2) of the MVNO opportunities 3UK participated in, VUK also participated in [✂]% ([✂]) of the same MVNO opportunities.

[733] Parties response to the CMA's RFI.

(e) BTEE is an active participant and has been successful in winning MVNO opportunities, in particular the smaller MVNO opportunities:

(i) BTEE won [✂]% ([✂]) of MVNO opportunities it was aware of, for which there was a result. [✂]% ([✂]) [✂]. BTEE also won [✂]% ([✂]/5) of the five largest MVNO opportunities, Lyca Mobile and [✂].

(ii) BTEE was aware of [✂] MVNO opportunities than all other MNOs. However, BTEE submitted that for many MVNO opportunities [✂]. [✂].[734]

(f) VMO2 participates [✂] than the other MNOs, [✂] has been [✂] in winning MVNO opportunities than VUK and 3UK:

(i) VMO2 won [✂]% ([✂]) of MVNO opportunities it was aware of, for which there was a result, [✂] than the Parties' win rate [✂] than BTEE's.

(ii) VMO2 won [✂]% ([✂]) of the largest MVNO opportunities in this period. It won Sky Mobile.

(iii) VMO2 was aware of [✂] opportunities than all other MNOs. VMO2 was selective when participating in MVNO opportunities, and only participated in [✂]% ([✂]) of the opportunities it was invited to, [✂].

9.58 In relation to the data on MVNO opportunities, the Parties submitted that the CMA mischaracterises [✂], and [✂] as competitive tenders, which results in a significant overstatement of the Parties' competitive significance and the extent to which they have overlapped in tenders.[735] The Parties submitted that:

(a) Lebara was not a truly competitive process in which multiple MNOs bid for an opportunity. [✂]. [✂].[736]

(b) iD Mobile's renegotiation with 3UK in 2020 [✂]:[737]

(i) [✂].

(ii) [✂].

(iii) [✂].

[734] BTEE response to the CMA's RFI.
[735] Parties' response to the AIS and working papers. Annex 2 to the Parties' response to the AIS and working papers. [✂].
[736] Annex 2 to the Parties' response to the AIS and working papers.
[737] Annex 2 to the Parties' response to the AIS and working papers.

(c) [✂].[738]

(d) The renewal of Tesco Mobile's agreement with VMO2 is not classified as an opportunity and [✂].[739]

9.59 We consider that:

(a) in relation to [✂], [✂]:

(i) [✂]. Due to the limited transparency in the Wholesale Market (described in paragraphs 9.20 and 9.21 above), MNOs are usually unaware of which other MNOs are participating in an opportunity, which can nonetheless exert a competitive constraint. We consider that [✂] (based on evidence from [✂], as set out in paragraphs 9.113 and 9.114);

(ii) We rely on [✂]. We also note that:

(1) [✂].[740]

(2) [✂].[741]

(b) although we [✂]. We also rely on the view of third parties in reaching this view. [✂].[742]

(c) the renewal of the JV between Tesco Mobile and VMO2 was not an opportunity as Tesco conducted an internal high-level review of the market only and did not run a formal tender process or evaluate wholesale offers, as set out in paragraphs 9.65 to 9.72.

9.60 The Parties also submitted that:

(a) Using the total number of opportunities the Parties were aware of as the denominator instead of the total number of opportunities all MNOs were aware of overstates the proportion of opportunities the Parties were invited to, participated in, and won.[743]

(b) Considering only the largest opportunities (by subscriber base) inflates 3UK's win rate, does not acknowledge the plethora of MVNOs that have entered the retail market in the last ten years, nor does it factor in the real growth and expansion potential of existing MVNOs.[744] This approach excludes an

[738] Annex 2 to the Parties' response to the AIS and working papers.
[739] Annex 2 to the Parties' response to the AIS and working papers.
[740] FMN.
[741] [✂] internal document.
[742] [✂] call note. [✂].
[743] Parties' response to the AIS and working papers. Annex 2 to the Parties' response to the AIS and working papers.
[744] Parties' response to the AIS and working papers. Annex 2 to the Parties' response to the AIS and working papers.

analysis of which MNOs are winning emerging MVNOs and are, therefore, competing most aggressively. The CMA specifically understates the competitive strength of BTEE by not acknowledging its wins of many new entrants while at the same time finding that 3UK exercises a competitive constraint by its ‘wins’ of new entrant MVNOs.[745]

(c) 3UK [✂] and [✂] of the tenders that 3UK is aware of.[746] The tender data analysis shows that small or new entrant MVNOs, which may be reasonably expected to be attracted to lower prices, do not award their tenders to 3UK but predominantly to BTEE. Similarly, the tender data shows that none of the larger MVNOs choose 3UK.[747]

(d) There has been no competitive interaction between the Parties in more than 84% of the tenders that have taken place over the last four years. This is irrefutable evidence that the Parties cannot be described as close competitors.[748]

9.61 We consider that:

(a) Whilst BTEE [✂]. VMO2 [✂]. We therefore consider that using the opportunities the Parties were aware of as the denominator of analysis for the Parties’ data provides a robust basis for our analysis.

(b) It is appropriate to place greater weight on the five largest MVNO opportunities that took place between Q1 2020 and Q1 2024 as these MVNOs collectively account for [80-90%] of all subscribers served by independent MVNOs only, as at 2023.

(c) Our assessment of what the data shows regarding 3UK’s credibility as a wholesale supplier and closeness of competition between the Parties is set out below.

Our assessment of the MVNO opportunity data

9.62 We consider that the MVNO opportunity data shows that:

(a) Competition is already limited as not all MNOs bid for all opportunities (either because they are not invited or, particularly in the case of VMO2, because they sometimes choose not to bid even when invited). This means that while theoretically there are a maximum of four MNOs for any given opportunity, in practice fewer than four may compete for it.

[745] Parties’ response to the AIS and working papers. Annex 2 to the Parties’ response to the AIS and working papers.
[746] Annex 2 to the Parties’ response to the AIS and working papers.
[747] Annex 2 to the Parties’ response to the AIS and working papers.
[748] Parties’ response to the AIS and working papers. Annex 2 to the Parties’ response to the AIS and working papers.

(b) 3UK is seen as a credible competitor, by at least some MVNOs:

(i) [✄].

(ii) Whilst 3UK has won [✄] MVNO opportunities in the period Q1 2020 to Q1 2024 (inclusive), it has won one of the largest MVNOs (iD Mobile), [✄].

(iii) As set out below in our discussion of the internal documents, even where 3UK does not win, it can exert a competitive constraint. Given MNOs' perceptions of 3UK as being competitive on wholesale price, as mentioned in paragraphs 9.83, 9.169 and 9.173, MNOs may be more incentivised to offer attractive pricing and terms when they believe they may be competing with 3UK.

(c) The Parties are close competitors:

(i) Whilst the Parties did not compete in 84% of opportunities they were aware of, they competed against each other more often for the five largest MVNO opportunities ([✄]%).

(ii) 3UK competed in [✄]% ([✄]) of all opportunities VUK competed in and VUK competed in [✄]% ([✄]) of all opportunities 3UK competed in.

(d) BTEE and VMO2 exert a constraint on the Parties:

(i) BTEE has [✄] win rate than the other MNOs, [✄]. This is consistent with BTEE having the [✄] market shares by subscriber, as shown in Table 9.1 ([10-20%]). It also won [✄] of the 5 largest MVNO opportunities ([✄]).

(ii) VMO2 is more selective in the opportunities it participates in compared to the other three MNOs [✄]. VMO2 also won one of the large MVNO opportunities ([✄]).

Competitive dynamics in MVNO opportunities

9.63 In addition to the market-wide opportunity data set out above, we have considered the competitive dynamics in specific MVNO opportunities, drawing on a range of evidence including submissions from the Parties, the other MNOs and MVNOs, and contemporaneous internal documents. We consider this analysis complementary to the opportunity data set out above and informative of the conditions of competition experienced by MVNOs, including:

(a) the extent to which the Parties competed against each other;

(b) the role (if any) played by 3UK, including the extent to which the participation of 3UK in MVNO opportunities enabled MVNOs to extract better prices and other terms from MNOs (given the Parties' submissions that 3UK is not a credible competitor); and

(c) the strength of competition from the other two MNOs.

9.64 We have looked at the five largest MVNO opportunities between Q1 2020 – Q1 2024 (Sky Mobile, [✂], Lyca Mobile, [✂] and [✂]). We have also described the steps taken by Tesco before renewing the Tesco Mobile JV given that the Parties submitted that this should be included in the opportunity data.[749]

Tesco Mobile

9.65 Tesco Mobile has a share of MVNOs by subscribers of [30-40%].[750] As set out in paragraph 9.36 above, Tesco Mobile is a 50/50 JV between VMO2 and Tesco. The JV was renewed in 2023 for a further 10 years.[751]

9.66 Tesco told the CMA that before renewing the JV with VMO2 in December 2023, it conducted an internal high-level review of the MNO market to assess appetite from other MNOs, but did not run a formal tender or evaluate wholesale offers.[752]

9.67 Tesco's shareholder representative was aware from previous discussions with MNOs that [✂], and Tesco therefore considered competition in the market to be strong.[753]

[✂]

9.68 Tesco's shareholder representative had some high-level discussions [✂] but this did not go beyond assessing whether [✂] had an appetite to work with Tesco Mobile.[754]

9.69 During that same process, [✂] also expressed an interest in working with Tesco Mobile.[755] A VUK internal document [✂]. The document, [✂]. The document [✂].[756]

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749 Annex 2 to the Parties' response to the AIS and working papers.
750 ie including only MVNO subscribers in the denominator.
751 Virgin Media O2 and Tesco agree 10-year renewal of Tesco Mobile joint venture - Virgin Media O2, accessed by the CMA on 11 June 2024.
752 Tesco call note.
753 Tesco call note.
754 Tesco call note.
755 Tesco call note.
756 VUK Internal Document.

[✄]

9.70 During the internal review conducted by Tesco's shareholder representative, they did not engage personally with [✄] but they were aware of [✄] having expressed an interest in working with Tesco Mobile.[757]

9.71 Tesco told us that it would be very challenging for Tesco Mobile to switch MNO given the significant amount of investment it has made in building its customer base and the deep integration with VMO2's network. It added that Tesco was in [✄].[758]

9.72 Tesco told us that it was pleased with the deal it agreed with VMO2. During negotiations with VMO2 an overarching principle was agreed under which Tesco Mobile customers should have [✄].[759]

9.73 [✄]. Tesco told us that at that point, [✄].[760]

Our assessment

9.74 Based on the evidence set out above, we consider that there is a possibility of Tesco Mobile switching to another MNO in the future however, this would be a complicated process. Based on the evidence from the Parties and from Tesco, we consider that if Tesco was to engage in a competitive process, it is likely that all MNOs would take part [✄].

Sky Mobile

9.75 Sky Mobile has a share of MVNOs by subscribers of [20-30%] as at 2023. It is currently hosted on VMO2's network. Sky Mobile also provides fixed broadband and entertainment services.

9.76 When Sky Mobile began supplying retail mobile services in 2017, it had a wholesale contract with Telefonica UK. [✄].[761] For simplicity, we refer to Telefónica UK as VMO2 when discussing the Sky Mobile opportunity. From 2020 to 2021, Sky Mobile engaged in a formal industry-wide tender process, which drew participation from VMO2, VUK, 3UK and BTEE.[762]

Parties' submissions

9.77 The Parties submitted that:

[757] Tesco call note.
[758] Tesco call note.
[759] Tesco call note.
[760] Tesco call note.
[761] Sky Mobile submission.
[762] Sky Mobile submission.

(a) During the tender, Sky Mobile [✂].[763]

(b) The fact that the Parties lost the bid [✂] demonstrates a lack of closeness:[764]

(i) VUK's internal documents indicate it lost the Sky Mobile opportunity due to [✂]:

(1) An internal briefing dated [✂] discusses feedback received from Sky Mobile that [✂].[765]

(2) Sky Mobile told VUK that it had been eliminated from the process due to [✂].[766]

(ii) 3UK received clear feedback that Sky Mobile [✂].[767]

(c) Throughout the tender process, VUK [✂] consider 3UK to be [✂] for the Sky Mobile tender. In VUK's view, 3UK [✂] in the Sky Mobile tender because of [✂].[768]

(d) 3UK was never considered as [✂] and [✂] at 3UK [✂] that the Sky Mobile tender was a '[✂]'.[769]

Closeness of competition

9.78 3UK's [✂] response to the Sky Mobile tender emphasised [✂][770] [✂],[771] and provided Sky Mobile [✂].[772] 3UK's internal documents from this period show that it suspected it would be competing with [✂], and that it was considering offering a [✂], noting '[✂]'.[773] It also offered Sky Mobile a [✂].[774]

9.79 VUK's initial response to the Sky Mobile tender proposed [✂].[775] VUK's internal documents from this period describe 3UK as '[✂]'.[776]

9.80 In [✂], Sky Mobile provided feedback to 3UK and VUK on their [✂] offers and [✂]:

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763 Annex 2 to the Parties' response to the AIS and working papers.
764 Annex 2 to the Parties' response to the AIS and working papers.
765 Annex 2 to the Parties' response to the AIS and working papers.
766 Annex 2 to the Parties' response to the AIS and working papers.
767 Annex 2 to the Parties' response to the AIS and working papers.
768 Annex 2 to the Parties' response to the AIS and working papers.
769 CK Hutchison internal document.
770 These plans are discussed in paragraph 9.82 below.
771 CK Hutchison internal document.
772 CK Hutchison internal document.
773 CK Hutchison internal document.
774 CK Hutchison internal document.
775 Vodafone Internal Document.
776 Vodafone internal document. See also Vodafone internal document.

(a) A 3UK internal document shows that Sky Mobile wanted to [✂]. The 'key piece of feedback' was that [✂]. Sky Mobile asked 3UK to '[✂]. In response, [✂] Sky Mobile's feedback.[777]

(b) A VUK internal document notes that its commercial offer [✂]. However, the feedback from Sky Mobile asked VUK to [✂]. In response to the feedback, VUK presented [✂].[778]

9.81 Although [✂] for 3UK raised concerns in an internal email exchange in February 2021 that the tender process could be a '[✂]' following a newspaper article suggesting that Sky Mobile was close to an agreement with VMO2,[779] he said that [✂].[780]

9.82 Between February and March 2021, Sky Mobile requested further information around 3UK's plans for its network [✂].

(a) In response to questions from Sky Mobile on whether 3UK [✂], 3UK closely engaged with Sky Mobile's technical team to explain its network improvement plans.[781] 3UK's internal documents show that [✂].[782]

(b) 3UK's internal documents from this time show that 3UK expected its [✂] and that it considered it had '[✂]'.[783] 3UK's internal documents suggest that [✂] by Sky Mobile.[784]

9.83 In [✂], Sky Mobile provided feedback to VUK on its pricing offer.[785] In particular [✂].[786] In response:

(a) A VUK internal document shows [✂] and that VUK's [✂].[787] The same document demonstrates that VUK's intention with this bid was to '[✂].[788]

(b) Another VUK document notes that [✂].[789] VUK's internal documents from this time suggest that it presumed that it was competing against [✂] to be the MNO that Sky Mobile [✂].[790]

9.84 Both Parties' internal documents from February 2021 indicate that [✂].[791]

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777 CK Hutchison internal document.
778 VUK Internal Documents.
779 O2 signals no competition danger with new Sky deal (telegraph.co.uk), accessed by the CMA on 27 August 2024.
780 CK Hutchison internal document.
781 For example, CK Hutchison Internal Documents.
782 CK Hutchison Internal Documents.
783 CK Hutchison internal document.
784 CK Hutchison internal documents.
785 Vodafone internal document.
786 Sky Mobile internal document.
787 Vodafone Internal Document.
788 Vodafone Internal Document.
789 Vodafone Internal Document.
790 Vodafone Internal Document. [✂].
791 Vodafone internal document ; and CK Hutchison internal document.

9.85 [✂], in response to being told by Sky Mobile that VUK was out of the process due to its [✂], an internal VUK email exchange considers [✂].[792] It also considers [✂] to have made it to [✂].

9.86 A Sky Mobile internal document shows that 3UK and VUK competed 'hard' to win and '[✂]'. The document notes that 'Vodafone and Three offered [✂]' but their 'offers weren't compelling enough to [✂]'.[793]

9.87 BTEE's internal documents relating to the opportunity suggest that:[794]

(a) In terms of the potential of other MNOs winning the contract for Sky Mobile, it scored VUK and 3UK [✂], with total scores of [✂] compared to a BTEE score of [✂] and VMO2 score of [✂].

(b) VUK's strengths in competing for Sky Mobile included its wholesale credibility and wholesale pricing, whereas its weaknesses included its lack of existing relationship with Sky Mobile and lack of incumbent commercial advantage.

(c) 3UK's strengths in competing for Sky Mobile included its 5G network and wholesale pricing. Its weaknesses included its 4G network and lack of incumbent commercial advantage.

Impact of 3UK in the process

9.88 Sky Mobile's internal documents show that in [✂], offers from [✂] were used to leverage better offers from [✂]:

(a) One document from [✂] shows Sky Mobile using [✂] offer to ask [✂] for [✂].[795]

(b) In [✂], Sky Mobile reminded VMO2 that [✂].[796]

(c) In [✂], Sky Mobile noted that VMO2 had [✂]. This appears to also have been driven [✂].[797]

(d) Another document from [✂] shows [✂] was asked to reduce rates by [✂]% to stay in the process.[798]

[792] VUK internal document.
[793] Sky Mobile internal document.
[794] BTEE internal document.
[795] Sky internal document.
[796] Sky internal document.
[797] Sky internal document.
[798] Sky internal document.

9.89 A Sky Mobile internal document from [✂] shows that 3UK was [✂] competitor [✂] VMO2, [✂] VUK [✂].[799] VUK [✂].[800]

9.90 A Sky Mobile internal document from [✂] suggests a number of reasons why 3UK was ultimately not selected including [✂].[801]

9.91 As noted above, in an internal document from May 2021 Sky Mobile noted that BTEE, VUK and 3UK had competed ‘hard’ for the business and ‘[✂]’.[802]

Alternative constraints

9.92 [✂] Sky Mobile engaged with VMO2 [✂]. It [✂].[803]

9.93 VMO2 responded that it [✂]. VMO2 also responded that it would not [✂].[804]

9.94 Sky Mobile engaged in further negotiations on the [✂] by VMO2 throughout its tender process.[805] VMO2’s offer was [✂].[806] [✂] the Sky Mobile team [✂] VMO2 [✂].[807] We understand, based on the fact that discussions with the MNOs continued after this point, that [✂].

9.95 In [✂] Sky Mobile noted that VMO2 [✂] despite VUK, 3UK and BTEE [✂].[808] At this point Sky Mobile rated VMO2 [✂] across [✂] of the [✂] criteria it was using to assess offers.[809]

9.96 As set out above, a Sky Mobile document from [✂] shows that in response to [✂], VUK submitted [✂] than VMO2. [✂].[810]

9.97 In [✂] Sky Mobile was able to [✂] VUK’s [✂].[811]

9.98 Sky Mobile’s internal documents note that BTEE [✂].[812] In [✂], BTEE’s [✂] offer was rated [✂] by Sky Mobile across [✂] of the [✂] criteria (compared to [✂] out of [✂] for each of VUK and 3UK) with Sky Mobile noting that the BTEE response [✂]. The only criteria Sky Mobile rated as [✂] for BTEE was [✂].[813]

799 Sky Mobile internal document.
800 Sky Mobile internal document.
801 Sky Mobile internal document.
802 Sky Mobile internal document.
803 Sky Mobile internal document. Sky Mobile submission.
804 Sky Mobile internal document.
805 Sky Mobile internal document.
806 Sky Mobile internal document.
807 Sky Mobile internal document.
808 Sky Mobile internal document.
809 Sky Mobile internal document.
810 Sky Mobile internal document.
811 Sky Mobile internal document.
812 Sky Mobile internal document.
813 Sky Mobile internal document.

9.99 VUK's internal documents from this initial period considered [✂] likely to be [✂].[814]

9.100 In [✂], Sky Mobile considered [✂] for BTEE to [✂]. Sky Mobile noted that BTEE's [✂].[815]

9.101 In [✂] a Sky Mobile internal document noted that BTEE [✂], and that to match VMO2 [✂].[816] Sky Mobile considered the reasons why BTEE's [✂] than the other offers. Sky Mobile considered that BTEE's [✂]. It also considered that [✂] for BTEE, [✂], and that BTEE [✂].[817] In an internal document from [✂] Sky Mobile noted that '[✂]'.[818]

9.102 As set out below at paragraphs 9.262(c) and 9.264(a)(i), [✂].[819] It submitted that [✂], BTEE [✂].[820] Sky Mobile told us that BTEE [✂], and Sky Mobile believes this is due to its customer base and BTEE's customer base being very similar and that BTEE is 'simply not incentivised to strengthen us'.[821]

9.103 BTEE's internal documents suggest that [✂]:

(a) BTEE recognised that [✂] but scored itself [✂] than the other MNOs because of other factors including [✂]. It also considered its [✂].[822]

(b) BTEE noted in relation to [✂] offer to Sky Mobile [✂].[823]

(c) A BTEE internal document notes that BTEE submitted [✂].[824] [✂]. Based on five historical bids (Virgin Mobile, Sky Mobile, iD Mobile, Lyca and Utility Warehouse), BTEE concluded that [✂].[825] BTEE also considered that its [✂]'.[826]

9.104 One BTEE internal document suggests that it considered VMO2 the weakest competitor for the Sky Mobile opportunity. It gave VMO2 an overall score of [✂] compared to [✂] for VUK and 3UK, and [✂] for BTEE. It gave [✂] the highest score available per criterion ([✂]) on [✂], and the lowest score available per criterion ([✂]) on [✂].[827]

[814] Vodafone internal document.
[815] Sky Mobile internal document.
[816] Sky Mobile internal document.
[817] Sky Mobile internal document.
[818] Sky Mobile internal document.
[819] Sky Mobile hearing transcript.
[820] Sky Mobile hearing transcript.
[821] Sky Mobile hearing transcript.
[822] BTEE internal document.
[823] BTEE internal document.
[824] BTEE internal document.
[825] BTEE internal document.
[826] BTEE internal document.
[827] BTEE internal document.

9.105 In a May 2021 Sky Mobile internal document setting out the outcome of the RFP process, Sky Mobile noted that:[828]

(a) BTEE competed 'hard' for the business (alongside 3UK and VUK as mentioned above) and '[✂]'.

(b) [✂] noting that VMO2 offered [✂]. [✂].

(c) ultimately BTEE was [✂]

9.106 Although Sky Mobile's agreement with VMO2 [✂].[829] There is some evidence that BTEE and VMO2 are beginning to consider this:

(a) A BTEE internal document from [✂] notes that it is understood (by BTEE) that Sky Mobile can [✂].[830] BTEE also expects Sky Mobile to [✂].[831]

(b) A VMO2 slide deck outlines 'Priority Red Risks' with one of the risks being [✂]. VMO2 plans to mitigate the risk by [✂]. However, it notes that 'the risk is [✂]. [832]

Our assessment

9.107 On the basis of the evidence set out above, we consider that:

(a) the Parties competed closely for the Sky Mobile opportunity. [✂].[833] [✂] is not evidence that the Parties are not close competitors. Evidence from the Sky Mobile documents suggests that the Parties [✂].

(b) [✂]. Whilst there were [✂] Sky Mobile to move to 3UK's [✂] (besides VMO2) [✂].[834]

(c) BTEE [✂].

(d) VMO2 [✂], with VMO2 ultimately retaining Sky Mobile's wholesale business.

[✂]

9.108 [✂] has a share of MVNOs by subscribers of [✂]%. It is currently hosted on [✂] network.

828 Sky Mobile internal document.
829 Sky Mobile meeting note. Sky Mobile meeting slides.
830 BTEE internal document.
831 BTEE internal document.
832 VMO2 internal document.
833 [✂] internal document.
834 Sky Mobile internal document.

9.109 [✂] told us that it made informal approaches to all MNOs in [✂], when its contract with [✂] was up for renewal. It [✂] with [✂], [✂] (following [✂] from VMO2 and [✂] from 3UK and BTEE).[835]

9.110 An important underlying factor in these discussions was [✂].[836]

9.111 More recently [✂] has [✂], rather than run a competitive tender process.[837] [✂] submitted that as a light MVNO, its ability to switch is very limited given the significant damage that could be caused by a move to a new MNO, [✂].[838]

9.112 [✂] also submitted that MVNOs do not have substantial countervailing bargaining power, noting that 'MNOs could do without [✂] – and likely do not welcome competition from [✂] – but [✂] cannot do without the MNOs'. [✂] submitted that its lack of ability to exercise countervailing buyer power against the large MNOs is aptly illustrated by [✂] (discussed in more detail in paragraph 9.120).[839] We focus below on [✂] as [✂] is not currently negotiating with MNOs other than [✂].

[✂]

9.113 [✂] told us that 3UK showed an interest in bidding for its [✂] opportunity but indicated that [✂]. 3UK informed [✂] it would be capable and be ready to bid in a future opportunity, [✂].[840]

9.114 A [✂] internal document notes that 3UK is interested but [✂]. The same document states that [✂] will continue to '[✂]'.[841]

9.115 The Parties have confirmed that there are currently [✂].[842]

9.116 A 3UK internal document from August 2022 includes a slide which sets out a list of [✂] 3UK's 'competitor targets', [✂].[843]

9.117 [✂].[844]

9.118 A [✂] internal document from [✂]prepared for the review of [✂] notes 'following [✂], [✂].[845]

[835] [✂] call note.
[836] [✂] submission.
[837] [✂] submission.
[838] [✂] submission.
[839] [✂] submission.
[840] [✂] call note.
[841] [✂] Internal Document.
[842] Parties response to the CMA's RFI.
[843] CK Hutchison internal document.
[844] [✂].
[845] VUK internal document.

9.119 A [✂] internal document notes that [✂] contract [✂] includes improved commercial terms compared with [✂].[846]

9.120 As set out above, [✂]. [✂] submitted that while it has managed to [✂] its terms with [✂][847] its negotiations have also involved [✂].[848]

[✂]

9.121 [✂] told the CMA that BTEE [✂],[849] [✂].[850] [✂] view is that BTEE was not interested in hosting MVNOs at that time.[851]

9.122 [✂] internal documents also suggest that [✂]:

(a) A [✂] slide deck from [✂] notes that [✂].

(b) The same document notes that [✂] will continue to engage with [✂].[852]

(c) An [✂] between [✂] and [✂] dated [✂] shows that [✂] engaged in discussions related to [✂].[853]

(d) A further email from September 2020 states that [✂] would [✂]. The document also states that [✂] could not [✂].[854]

9.123 BTEE submitted that:[855]

(a) [✂].

(b) [✂].

(c) [✂].

(d) BTEE communicated that it would submit a commercial offer. However [✂] suggested halting discussions before any offer was submitted stating that BTEE [✂].

9.124 In a slide deck from [✂] states that it will '[✂] with Three and BTEE … [✂]'.[856]

846 [✂] Internal Document.
847 [✂] call note.
848 [✂] submission.
849 [✂] response to the CMA's questionnaire.
850 [✂] submission.
851 [✂] call note.
852 [✂] Internal Document.
853 [✂] Internal Document.
854 [✂] Internal Document.
855 BTEE RFI.
856 [✂] Internal Document.

9.125 [✂] told us that VMO2 [✂]:[857]

(a) In a [✂] internal document [✂] notes that it had '[✂] Telefónica (O2), [✂]'.[858]

(b) Another [✂] internal document also states that VMO2's [✂]. It [✂].[859]

(c) Despite attempts by [✂] to negotiate [✂]. This left it with no choice but to [✂] with [✂].[860]

Our assessment

9.126 We consider that all four MNOs engaged with the [✂] opportunity [✂] to some extent, however, [✂] experienced limited interest from MNOs other than its host MNO, [✂].

Lyca Mobile

9.127 Lyca Mobile has a share of MVNOs by subscribers of [5-10%]. Until 2023, Lyca Mobile was hosted on VMO2's network, at which point it switched to BTEE.

9.128 Lyca Mobile told us that from 2012 until 2022, it continually [✂].[861]

9.129 Lyca Mobile submitted that MNOs hold a position of strength in negotiations and are typically only willing to offer self-preferential terms.[862]

9.130 While price is important, it was not the main factor for Lyca Mobile when it switched BTEE, instead greater weight was placed on network quality and access to a new range of customers.[863]

[✂]

9.131 Lyca Mobile confirmed that [✂] was not contacted as part of its latest tender process.[864] As part of the process, Lyca Mobile undertook a network quality analysis of each MNO, which determined that BTEE would be the best network for quality.[865]

857 [✂] call note.
858 [✂] submission.
859 [✂] Internal Document.
860 [✂] call note.
861 Lyca Mobile call note.
862 Lyca Mobile call note.
863 Lyca Mobile call note.
864 Lyca Mobile call note.
865 Lyca Mobile call note.

9.132 A 3UK internal document from July 2021 shows that Lyca Mobile [✂].[866] 3UK submitted that [✂].[867]

9.133 [✂] was not invited to participate in the Lyca Mobile opportunity.[868]

9.134 VUK's internal documents suggest [✂]:

(a) VUK internal documents show that VUK [✂].[869]

(b) A VUK internal document from [✂] shows that VUK had some interaction with [✂] but [✂].[870]

9.135 However, VUK's internal documents also suggest that its incentives to compete for [✂] might be affected [✂]:

(a) A VUK slide deck from November 2022 notes that [✂]. The same document [✂].[871]

(b) A strategy document from August 2023 shows that VUK [✂].[872]

[✂]

9.136 Lyca Mobile told the CMA that during its most recent negotiations, it principally held discussions with VMO2, its host MNO at the time, to attempt to renegotiate its arrangement, but that VMO2 was unwilling to agree to terms Lyca Mobile said it needed in order to grow its business and [✂].[873]

9.137 Following its engagement with VMO2, Lyca Mobile said that it approached BTEE, which led to a wholesale access agreement which Lyca Mobile considers to be highly competitive and offers greater freedom. As part of the process, Lyca Mobile also undertook a network quality analysis of each MNO, which determined that [✂]. Out of all four MNOs, Lyca Mobile considered [✂] to have higher network quality than [✂], with [✂] being far superior. Network quality perceptions affect brand perceptions, which is an element that Lyca Mobile is striving to improve.[874]

9.138 Lyca Mobile was satisfied with the terms offered by BTEE and believes that it will also benefit from the increase in network quality and reliability offered by BTEE. As set out above, while price is important, it was not the main factor for Lyca Mobile, instead greater weight was placed on network quality and access to a new range

866 CK Hutchison Internal Document.
867 CK Hutchison response to putback.
868 [✂] call note.
869 VUK Internal Documents.
870 VUK Internal Document.
871 VUK Internal Document.
872 VUK Internal Document.
873 Lyca Mobile call note.
874 Lyca Mobile call note.

of customers. Lyca Mobile noted that its success with BTEE was aided by strategic partnerships and connections it had built with BTEE over the years.[875]

9.139 A BTEE internal document from June 2023 refers to the successful bid for Lyca Mobile as being [✂].[876] BTEE also told us that [✂],[877] and that Lyca Mobile '[✂]'.[878] We understand that after the Lyca Mobile deal, BTEE [✂].[879]

9.140 A VMO2 internal document from July 2023 notes that all previous negotiations with Lyca Mobile [✂]. The document notes VMO2 was informed [✂] that Lyca Mobile would not be renewing with VMO2, citing [✂].[880]

Our assessment

9.141 We consider that:

(a) [✂] was not invited to participate in the Lyca Mobile opportunity, [✂].

(b) [✂] was also not formally invited to participate in the Lyca Mobile opportunity. However, [✂]. This suggests that existing relationships between MVNOs and MNOs might affect MNOs' incentives to compete.

(c) BTEE exerted a significant competitive constraint in this process, [✂].

(d) Lyca Mobile struggled to reach an agreement with VMO2 on the terms it wanted and VMO2's offer [✂].

[✂]

9.142 [✂] has a share of MVNOs by subscribers of [✂]%. It is currently hosted on [✂].

9.143 [✂][881], ran a process to move away from its existing arrangement, [✂].[882] During this process [✂] negotiated with 3UK, BTEE and VUK, but ultimately decided to [✂].[883]

9.144 [✂].[884] [✂].[885]

[875] Lyca Mobile call note.
[876] BTEE Internal Document.
[877] BTEE call note.
[878] BTEE hearing transcript.
[879] BTEE Internal Document.
[880] VMO2 Internal Document.
[881] [✂].
[882] [✂] internal document.
[883] [✂] call note.
[884] [✂] call note.
[885] [✂] call note.

Closeness of competition

9.145 [✂] received offers from VUK and 3UK. [✂].[886] [✂] told us it was able to negotiate a better deal with [✂] following the offers from the other MNOs [✂].[887]

9.146 The same internal document compares the offers received from VUK and 3UK, [✂].[888] An [✂] internal document notes that the offers received from both VUK and 3UK at this stage would '[✂]'.[889]

9.147 [✂] engaged in several rounds of calls with [✂] to negotiate [✂].[890]

9.148 At the same time, [✂] engaged in several calls with [✂].[891] 3UK also told us that [✂].[892]

9.149 A [✂] document shows ongoing [✂]. This is consistent with the Parties' submission as mentioned in paragraph 9.58(b). [✂]. [✂] stated that it would compare VUK's [✂] offer with the offers received from 3UK and BTEE [✂].[893]

9.150 An [✂] internal document from [✂]. It compares offers from VUK and 3UK [✂].[894]

9.151 The Parties' internal documents suggest [✂]:

(a) A 3UK internal document from December 2020 discussing the renewal of iD Mobile's contract considered iD Mobile to be [✂] which has the [✂].[895]

(b) A VUK slide deck from March 2021 [✂].[896] A VUK slide deck from [✂] recommended [✂].[897]

Impact of 3UK in the process

9.152 [✂] told us 3UK's [✂]:

(a) [3UK] was [✂].[898]

(b) [✂] noted that both VUK and BTEE [✂]. Unlike 3UK, the other [✂].[899]

886 [✂] internal document.
887 [✂] call note.
888 [✂] internal document.
889 [✂] internal document .
890 [✂] internal document.
891 [✂] internal document.
892 CK Hutchison main party hearing transcript.
893 [✂] internal document.
894 [✂] internal document.
895 CK Hutchison internal document.
896 Vodafone internal document.
897 Vodafone internal document.
898 [✂] response to the CMA's questionnaire.
899 [✂] call note.

(c) From a network quality perspective, [✂] considers 3UK to be [✂]. [✂] also noted that VUK [✂] and VMO2 [✂].[900]

Alternative constraints

9.153 [✂] internal documents suggest that BTEE was involved in the process but that [✂] compared to 3UK's (set out above):

(a) [✂] shows that BTEE is [✂]. We understand based on [✂] internal documents [✂] a response from BTEE [✂].[901]

(b) [✂] gave BTEE feedback, including:[902]

(i) [✂].

(ii) [✂].

(iii) [✂].

(c) A progress update slide from [✂] shows BTEE as '[✂]'. It also states that '[✂]'.[903]

(d) A progress update slide dated [✂] states '[✂]' from BTEE [✂].[904] The document also notes that partnering with BTEE [✂].

(e) However, a document dated [✂] shows that '[✂]'. [✂] recommends [✂] with BTEE. At the same time, [✂] were being negotiated with [✂].[905]

9.154 In relation to VMO2, [✂] internal document shows that [✂]. VMO2 [✂] from [✂] suggesting that [✂].[906]

Our assessment

9.155 We consider that:

(a) the [✂] opportunity was a competitive process as [✂]. It received offers from 3UK, VUK, and BTEE and the Parties competed closely.

(b) [✂] internal documents suggest that BTEE was [✂] and that BTEE's offer was [✂] compared to the offers from 3UK and VUK.

[900] [✂] call note.
[901] [✂] internal document.
[902] [✂] internal document.
[903] [✂] internal document.
[904] [✂] internal document.
[905] [✂] internal document.
[906] [✂] internal document. [✂] call note.

(c) VMO2 [✄].

[✄]

9.156 [✄] has a share of MVNOs by subscribers of [✄]%. In 2020, it ran a formal process engaging with [✄].

9.157 We note that VUK was not invited to participate and therefore the Parties did not compete for the [✄] opportunity. We have therefore focused on the evidence regarding the role of 3UK in the process.

9.158 In the period Q1 2020 to Q1 2024, [✄] Board was informed that it was in the last year of its wholesale mobile contract with [✄]. [✄] then began renewal negotiations with [✄].[907]

9.159 At the time it was noted that a key factor in choosing a supplier would be based on the ability to secure ongoing access to the latest mobile technologies as they were introduced.[908]

9.160 Eight months later, [✄] renewed its contract with [✄].[909]

[✄]

9.161 Towards the end of its contract with [✄], [✄] noted that the retail [✄] could therefore be a potentially suitable wholesale supplier to achieve its goals.[910]

9.162 [✄] told us that [✄] offer had a number of advantages compared to [✄] (initial) offer:

(a) [✄].[911]

(b) it included [✄].[912]

(c) it included technical equivalence. [✄].[913]

9.163 [✄] told us that switching to [✄] would involve risks, and that it initially considered that [✄] coverage did not match [✄]. [914] These concerns were later alleviated following an assessment which demonstrated [✄] network covered [✄]% of [✄]

907 [✄] response to the CMA's RFI.
908 [✄] response to the CMA's RFI.
909 [✄] response to the CMA's RFI.
910 [✄] call note.
911 [✄] response to the CMA's RFI.
912 [✄] call note.
913 [✄] response to the CMA's RFI .
914 [✄] response to the CMA's RFI.

customers.[915] [✂] told us that it considered it probable, in [✂], that it would migrate to [✂] following the expiration of its contract with [✂].[916]

9.164 In [✂], [✂] had further discussions both internally and with [✂] regarding the possibility of migrating to [✂]:

(a) By [✂], [✂] had agreed terms with [✂] regarding migrating its customer base and an agreement in principle including [✂] reached.[917]

(b) A question was raised at a Board meeting as to whether the [✂] network [✂]. It was confirmed that [✂] had [✂], but there was a possibility of [✂].[918]

(c) Further Board discussions took place regarding MVNO models which would prevent [✂] having to complete further SIM swaps should it migrate to [✂].[919]

(d) [✂] engaged [✂] to undertake a review of the draft agreement it had negotiated with [✂].[920]

(e) It was determined at the Board that [✂] offer was strong enough to outweigh the considerable short-term cost and disruption that would be inevitable when migrating to a new network.[921]

9.165 At this point, [✂] received a revised offer from [✂] that it considered attractive (see paragraphs 9.173 to 9.175 below) and decided to renew its contract with [✂] rather than switch to [✂].

9.166 [✂].[922]

9.167 [✂].[923]

9.168 [✂] submitted that [✂] has [✂] in the last few years, [✂].[924]

9.169 Although it ultimately decided not to switch, [✂] submitted that [✂] played an important role in negotiating [✂]:[925]

(a) [✂] received an improved offer from [✂] after engaging with [✂].

915 [✂] response to the CMA's RFI.
916 [✂] response to the CMA's RFI.
917 [✂] response to the CMA's RFI.
918 [✂] response to the CMA's RFI.
919 [✂] response to the CMA's RFI.
920 [✂] response to the CMA's RFI.
921 [✂] response to the CMA's RFI.
922 Annex 2 to the Parties' response to the AIS and working papers.
923 CK Hutchison internal document.
924 [✂] call note.
925 [✂] call note.

(b) [✂] submitted that had it not received an improved offer from [✂], it was prepared to switch to [✂] due to better terms [✂].

(c) [✂] considered that having an actual offer from another MNO with the terms it wanted was highly important when negotiating with [✂] as it demonstrated that [✂] was serious about the terms and features it required to renew with [✂].

9.170 [✂] ([✂] was not mentioned on either the call or in any of [✂] internal documents).

[✂]

9.171 [✂] told us that it had maintained its relationship with [✂] for many years [✂].[926]

9.172 [✂] told us that following initial engagement with [✂], early indications suggested that [✂] would only improve terms by between [✂]% and [✂]%. Moreover, [✂]. This was in contrast to [✂] offer, set out above.[927]

9.173 [✂] submitted that by [✂], [✂] realised it was about to lose the account and started to engage in further contract extension discussions.[928] A [✂] document from [✂] shows '[✂]'.[929]

9.174 Following these negotiations, [✂] provided an improved offer, including revised commercials (which would allow [✂] to [✂]) and [✂]. It also included a non-discrimination clause to ensure [✂] customers were treated no less favourably than [✂] retail customers, [✂].[930]

9.175 [✂] considered that the new offer from [✂] provided an all-round better deal compared to [✂], including a number of specific advantages:[931]

(a) [✂] would be able to take advantage of the terms earlier, in [✂].

(b) [✂] could [✂] from a large-scale migration of the existing customer base to a different network.

(c) It would allow [✂].

9.176 [✂].[932]

[926] [✂] call note.
[927] [✂] response to the CMA's RFI.
[928] [✂] response to the CMA's RFI.
[929] [✂] response to the CMA's RFI.
[930] [✂] response to the CMA's RFI.
[931] [✂] response to the CMA's RFI.
[932] CK Hutchison internal document.

9.177 [✂] also told us that it did not engage with [✂]. Having engaged with it previously, it was already aware of its wholesale offerings.[933]

Our assessment

9.178 We consider that [✂] represented a significant competitive force in the [✂] opportunity, having enabled [✂] to extract better pricing/terms from its [✂]. For example, [✂] was initially reluctant to offer [✂] however it eventually agreed once it became aware that [✂] was a serious contender for [✂].

Our assessment of competitive dynamics in MVNO opportunities

9.179 Based on the evidence above we provisionally consider that:

(a) the Parties have competed closely for some large MVNO opportunities, in particular Sky Mobile [✂].

(b) 3UK has played an important role in a number of opportunities, even where it has not won, creating competitive pressure that has led other MNOs to improve their offers. Some MVNOs may perceive 3UK's network quality to be its weakness.

(c) BTEE [✂].

(d) VMO2 [✂].

Level of existing competition for the supply of wholesale mobile services

9.180 We have considered evidence on the level of existing competition for the supply of wholesale mobile services (including, for example, the level of interest expressed by MNOs to host MVNOs, and the ability of new entrants to secure wholesale agreements with MNOs).

9.181 The Parties submitted that:

(a) the third party views gathered during the CMA's merger investigation confirm that competition in the market is strong, and that MVNOs are able to leverage offers from one MNO against another, where necessary, to secure better commercial terms.[934]

(b) the third party views gathered during the CMA's merger investigation confirm that MVNOs typically secure both parity of access and tracking clauses.[935]

[933] [✂] call note.
[934] Annex 2 to the Parties' response to the AIS and working papers.
[935] Annex 2 to the Parties' response to the AIS and working papers.

(c) the bargaining power of MVNOs has increased significantly over the years as evidenced by the increase in their market share and larger customer bases, which continue to grow, and the commercially advantageous terms secured at the wholesale level.[936]

(d) Lebara and VUK recently agreed an extension to Lebara's current contract with VUK (to 2026). As part of this, Lebara has secured [✂] including [✂].[937]

(e) VUK's [✂] agreements with [✂] have resulted [✂].[938]

Views of MVNOs

9.182 Consistent with the evidence set out in the 'Competitive dynamics in MVNO opportunities' section, feedback from large MVNOs on the competitiveness of recent wholesale opportunities is mixed:

(a) A [✂] MVNO said that there was a 'lack of serious interest expressed' from all MNOs, apart from its host MNO, and hence it had 'no realistic opportunity to switch'.[939]

(b) Another large MVNO told us that although it was eventually able to negotiate a competitive agreement with an MNO, its host MNO was unwilling to agree to the terms it needed to be competitive.[940]

(c) Another [✂] MVNO told us that aside from 3UK, the MNOs were quite uncompetitive in their wholesale pricing.[941]

(d) Another large MVNO told us that strong MNO competition was critical in obtaining its current MVNO deal.[942]

(e) Another large MVNO told us that in the past all four MNOs expressed an interest in working with it. It considered competition in the market to be strong.[943]

9.183 A number of potential entrants told us they had experienced limited interest when seeking an MNO host:

(a) One potential entrant noted that [✂].[944] [✂].[945]

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936 Annex 2 to the Parties' response to the AIS and working papers.
937 Parties response to the CMA's RFI.
938 Annex 2 to the Parties' response to the AIS and working papers.
939 [✂] response to the CMA's questionnaire.
940 [✂] call note.
941 [✂] call note.
942 [✂] submission.
943 [✂] call note.
944 [✂] response to the CMA's questionnaire.
945 [✂] response to the CMA's questionnaire.

(b) Another potential entrant noted that it had ‘been unable to secure a viable wholesale MVNO supply agreement’ to support its competitive ambition and was concerned that the supply of wholesale mobile services was ‘not functioning effectively’. It noted that its negotiations with all four MNOs failed, either for operational reasons, ‘when the potential merger was mooted’ or due to ‘uneconomic offers’.[946]

9.184 Our engagement with MVNOs suggests that some established MVNOs can achieve better offers from their host MNOs by negotiating with other MNOs, and by using the threat of offers (even where no actual offer has been received) from other MNOs:

(a) one large MVNO told us it was able to use the comparative bids to indicate to rivals how far off the bidders were from others, resulting in continually improved terms. This MVNO said that in its tender process, it observed complex competitive dynamics among the MNOs and that its incumbent MNO provider was unwilling to engage in productive conversations until the MVNO engaged with competitor MNOs.[947]

(b) another large MVNO told us it was able to negotiate better terms when it renewed its agreement with its existing host MNO after engaging with other MNOs. It told us it had secured a better offer from another MNO ([✂]) which prompted its existing host MNO to offer similar and improved terms. The MVNO also told us that it was willing to switch to this other MNO ([✂]) had its host MNO not offered similar terms. It also added that having a serious offer from another MNO played an important role when negotiating the terms it required from its host MNO.[948]

(c) another [✂] MVNO told us it was able to negotiate a better deal with its host MNO ([✂]) following offers from other MNOs and indicated that its success in the market led to better wholesale economics, with less onerous ([✂]) commitments. The MVNO told us it experienced restricted pricing on its wholesale offer [✂]. It also told us [✂].[949]

(d) one [✂] MVNO told us that it considered its host MNO would likely have believed another MNO to have also been an active and credible bidder.[950] We understand that the MVNO considered this enabled it to extract better terms from its host MNO.

[946] [✂] response to the CMA’s questionnaire.
[947] [✂] submission.
[948] [✂] call note.
[949] [✂] call note.
[950] [✂] call note.

9.185 Some MVNOs told us that in order to maintain pricing competitiveness over time, they have negotiated tracking clauses with their host MNOs:

(a) One large MVNO told us that it negotiated a tracking mechanism with its host MNO which enables it to benefit from lower costs over time as consumption grows on the host's network.[951]

(b) One [✂] MVNO told us that its agreement [✂] which enables the price it is charged to reduce [✂],[952] although the agreement also enables the MVNO's costs to increase [✂].

9.186 A number of MVNOs told us that they find it particularly challenging to offer competitive unlimited tariffs:

(a) Several MVNOs told us that, in their experience, some MNOs are unwilling to offer prices that enable them to offer competitive high usage tariffs ([✂]).[953] This is [✂] with the 3UK internal document described in paragraph 9.197(a) below which states that [✂].[954]

(b) One large MVNO told us that it was only able to offer competitive unlimited plans through cross-subsidisation or targeting customers who tend to use less than the average amount of data.[955] This MVNO told us that it considers the offers it received from MNOs make it more difficult for it to offer unlimited deals compared to other types of offers, and that it thinks this is at least partly due to the cannibalisation concerns of MNOs. It told us that in its view some MVNOs might be able to extract more favourable pricing than others if the MVNOs do not compete directly with the MNOs because of their brand positioning.[956]

9.187 The majority of large MVNOs told us that they manage to obtain parity of access to the same network capabilities (including, for example, access to 5G) offered to the host MNO's subscribers:

(a) A number of large MVNOs told the CMA that they achieved parity in their negotiations:

(i) One of these large MVNOs told us that not all MNOs were willing to offer it parity of access.[957]

[951] [✂] meeting note.
[952] [✂] call note.
[953] Call notes from: [✂]; [✂]; [✂] and [✂].
[954] CK Hutchison internal document.
[955] [✂] meeting note.
[956] [✂] meeting note
[957] [✂] call note; and [✂] call note.

(ii) Another told us that in its recent negotiations an overarching principle which was agreed was that its customers should have access to the same network capabilities and quality of service, including any capabilities/services rolled out in the future, that are provided to its host MNO's own customers. The MVNO's customers would receive these new capabilities within a short timeframe – around 3 months.[958]

(iii) Another told us that parity of service and network capabilities was a pre-requisite of its agreement with its current host MNO. It told us its customers receive the same service as its host MNO's customers. It added that, at a cost, it is able to take advantage of new network capabilities offered by its host.[959]

(b) A number of large MVNOs told the CMA that they did not achieve parity:

(i) One MVNO told the CMA there is a general restriction on [✂] received by its customers [✂] and it receives [✂] compared to when its host [✂] offer them to its customers.[960]

(ii) Another MVNO told the CMA that its contract included a non-discrimination clause to ensure its customers were treated no less favourably than its host's retail customers, however this excluded the fastest 5G speeds as these were reserved for the host's customers.[961]

Internal documents and views of the other MNOs

9.188 The internal documents and submissions from the other MNOs suggest that they consider the wholesale market to be competitive:

(a) One BTEE internal document suggests that 'there is a competitive MVNO market in the UK'.[962]

(b) One BTEE internal document notes that MVNO ARPU 'is already likely at the bottom'.[963]

(c) One BTEE internal document notes that 'MVNO bids are highly competitive'.[964]

(d) VMO2 told us that regardless of cost, VMO2 [✂].[965]

958 [✂] call note.
959 [✂] call note.
960 [✂] call note.
961 [✂] response to the CMA request for information.
962 BTEE internal document, and BTEE internal document.
963 BTEE internal document.
964 BTEE internal document.
965 VMO2 response to the CMA's RFI.

9.189 BTEE told us that the amount of information given to it is controlled by the MVNO, in order to increase negotiation leverage and ensure confidentiality is not breached.[966]

MVNO pricing

9.190 We have considered the extent to which MVNOs' ability to negotiate competitive wholesale terms is reflected in their retail pricing (although we note that differences in retail price may also be driven by other factors, for example some MVNOs may choose to have a lower-priced, value proposition, and others may choose to have higher-priced, premium offerings):

(a) As set out in Chapter 8, Figure 8.9, based on Pure Pricing data, the cheapest provider of unlimited data pre-paid tariffs was iD Mobile. However, the other MVNOs included in the data (Sky Mobile and Tesco Mobile) did not offer any unlimited pre-paid tariffs.

(b) As set out in Chapter 8, Figure 8.10, based on Pure Pricing data, the cheapest tariffs across PAYM SIMO 12-month tariffs with capped data allowances were offered by MVNOs including Tesco Mobile, Sky Mobile and iD Mobile.

(c) A 2022 VUK internal document comparing the prices of MVNOs and [✂] shows that [✂] of the [✂] listed in the document [✂], with the exception of [✂]. The document also shows [✂] has the [✂] in the overall market, followed by [✂], and [✂].[967]

(d) Sky's internal documents also suggest that Lyca Mobile and iD Mobile are the cheapest providers of unlimited tariffs.[968] We note that Sky Mobile does not offer unlimited tariffs [✂].[969]

9.191 One VUK internal document relating to the 2021 Lebara opportunity also notes that [✂].[970]

Our assessment

9.192 We provisionally consider that:

(a) the views of MVNOs suggest the intensity of wholesale competition can vary over time and/or by MVNO.

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[966] BTEE call note.
[967] Vodafone internal document.
[968] Sky Mobile internal document.
[969] Sky Mobile meeting note.
[970] Vodafone internal document.

(b) most large MVNOs manage to obtain parity with their host MNO:

(i) the majority of large MVNOs manage to obtain parity of access to the same network capabilities (including, for example, access to 5G) offered to the host MNO's own customers.

(ii) most large MVNOs target the value end of the market and appear able to offer competitive retail pricing based on their wholesale contracts.

(iii) [✂].

(c) Sky Mobile is in a unique position amongst MVNOs:

(i) This is due to its strong brand, ability to cross-sell to a large, fixed customer base and strong growth. Sky Mobile's status also provides it with significantly more resources and leverage in negotiations with MNOs, as described in paragraphs 9.75 to 9.107 above, which note that all four MNOs engaged with Sky Mobile during its last tender and [✂].

(ii) We therefore do not consider Sky Mobile's experience of strong competition between all four MNOs as representative of the experience that other MVNOs would have.

(iii) Notwithstanding Sky Mobile's experience of strong competition in wholesale negotiations, we note that Sky Mobile currently does not offer high data packages, including unlimited, which may be driven in part by its ability to negotiate competitive pricing with MNOs. We note that [✂].

(d) post-Merger, the MVNOs' buyer power will be reduced. This is because the MVNOs' buyer power will depend on the availability of good alternatives they can switch to, which will have been reduced as a result of the Merger. We also note that there are barriers to switching in this market, as set out in paragraphs 9.233 to 9.240 below.

MNOs' competitive incentives and strategies

9.193 In this section we set out our provisional assessment of:

(a) MNOs' competitive incentives; and

(b) MNOs' competitive strategies.

MNOs' competitive incentives

9.194 We have considered the extent to which MNOs' retail activities and other factors affect their incentives to compete to supply wholesale mobile services. This draws on a range of evidence including the internal documents of the Parties and third parties, and third party views.

9.195 As set out further below, the Parties' and third party MNOs' internal documents, produced in the context of negotiations with MVNOs or which otherwise relate to the wholesale mobile market, refer to:

(a) the overlap between the MNO and the MVNO's retail businesses;

(b) the impact on the MNOs' retail business (including the network quality experienced by customers) of winning an MVNO opportunity;

(c) the ability of an MVNO to compete in the retail market given wholesale pricing/terms;

(d) their existing relationships with MVNOs;

(e) the risk that an MVNO will be won by another MNO and/or the net benefit of winning an MVNO; and

(f) the costs of providing an MVNO's wholesale service.

The Parties

9.196 In relation to cannibalisation, the Parties submitted that:

(a) The prospect of cannibalisation will not reduce the Merged Entity's incentives to compete strongly in the wholesale market. MNOs have an incentive to host an MNO as the cannibalisation effect is unavoidable. This is supported by VUK's internal documents.[971]

(b) The view that larger MNOs have weaker incentives to compete aggressively due to greater cannibalisation concerns, is inconsistent with commercial reality and contradicted by the fact that BTEE wins the most tenders and VMO2 hosts the largest MVNOs.[972] The Parties' internal documents support the fact that large MNOs compete aggressively.[973]

(c) Rather than being concerned about the growing size of the customer bases of its MVNOs leading to greater cannibalisation, [✂].[974]

(d) The capacity constraints currently faced by the Parties ultimately limit the extent to which they are able to compete for MVNOs. This is because acquiring additional wholesale customers/traffic on a capacity-constrained

[971] Annex 2 to Parties' response to the AIS and working papers.
[972] Parties' response to the AIS and working papers.
[973] Annex 2 to Parties' response to the AIS and working papers.
[974] Annex 2 to Parties' response to the AIS and working papers.

network is costly to the Parties, as it triggers the need for additional network investments to avoid increased congestion and/or leads to a deterioration in quality for existing customers. This is demonstrated in the Parties' internal documents.[975]

(e) The argument that the Merged Entity will have less incentive to compete than VUK and 3UK in the counterfactual amounts to a prediction that the Merged Entity will engage in input foreclosure, but the CMA has not engaged with the Parties' previous submissions on this point other than to express disagreement, nor set out any economic analysis that would be required to substantiate a concern on this basis.[976]

9.197 We have considered a range of the Parties' internal documents in relation to these factors. We have found that:

(a) A number of the Parties' internal documents refer to the overlap between the MNO and MVNOs' retail businesses, the impact on MNOs' retail business (including the network quality experienced by customers) of winning an MVNO opportunity and/or the ability of an MVNO to compete in the retail market given wholesale pricing/terms:

(i) During negotiations with Sky Mobile VUK conducted an [✂] which suggested that [✂].[977]

(ii) In the context of a Lebara negotiation, VUK's internal documents stated:

(1) [✂].[978]

(2) A VUK internal document in relation to the 2021 Lebara opportunity notes that [✂].[979]

(3) A VUK internal document in relation to the 2021 Lebara opportunity notes [✂].[980]

(iii) In the context of negotiations with [✂].[981]

(iv) A 2022 VUK internal document in relation to its MVNO commercial strategy notes that [✂].[982]

[975] Annex 2 to Parties' response to the AIS and working papers. For example, Vodafone internal document.
[976] Annex 2 to Parties' response to the AIS and working papers.
[977] Vodafone internal document.
[978] Vodafone internal document.
[979] Vodafone internal document.
[980] Vodafone internal document.
[981] Vodafone internal document.
[982] Vodafone internal document.

(v) A 2022 VUK internal document in relation to Lebara and VUK's MVNO business notes that [✂].[983]

(vi) A 3UK internal document in relation to the [✂] states that [✂].[984]

(vii) A 3UK internal document states that [✂].[985]

(viii) A 3UK internal document in relation to the Sky Mobile opportunity states that 'it is expected that Sky Mobile's [✂].[986]

(b) A number of the Parties' internal documents refer to their existing relationships with MVNOs when considering whether/how to compete for other MVNOs:

(i) A VUK document from November 2022 notes that a [✂]. The same document lists [✂].[987]

(ii) A VUK document from August 2023 shows that VUK [✂].[988]

(c) A number of the Parties' internal documents refer to the risk that an MVNO will be won by another MNO and/or the net benefit of winning an MVNO:

(i) VUK considered that [✂].[989]

(ii) A 2022 VUK document noted [✂].[990]

(iii) A VUK internal document in the context of [✂] states that the recommendation is to [✂].[991]

(iv) A 3UK internal document states that one of its principles is to [✂].[992]

(v) A VUK internal document refers to the [✂].[993]

(vi) A VUK internal document [✂].[994]

(d) A number of the Parties' internal documents refer to the costs of providing an MVNO's wholesale service:

983 Vodafone internal document.
984 CK Hutchison internal document.
985 CK Hutchison internal document.
986 CK Hutchison internal document.
987 Vodafone Internal Document.
988 Vodafone Internal Document.
989 Vodafone internal document.
990 Vodafone internal document.
991 Vodafone internal document.
992 CK Hutchison internal document.
993 Vodafone internal documents.
994 Vodafone internal document.

(i) a VUK internal document evaluated the impact of [✂] deal in terms of [✂].[995]

(ii) a VUK internal document evaluated the Lebara two year extension and as part of that considered [✂].[996]

(iii) [997]a 3UK internal document in relation to the Sky Mobile opportunity notes that [✂].[998]

(iv) A VUK internal document suggests that it considers adding MVNOs to its network provides [✂].[999]

9.198 We have also considered the views and internal documents of the other two MNOs and MVNOs in relation to these factors. We set out our findings below.

BTEE

9.199 BTEE told us that cannibalisation can be viewed as a potentially negative aspect of doing wholesale deals, and that it considers the risk of cannibalisation as part of its wholesale strategy. [✂]. However it can also make sense for BTEE to work with MVNOs who directly compete against its own brands. It would be more economic for BTEE to benefit from supporting an MVNO on its own network rather than allow another MNO to benefit.[1000]

9.200 A number of BTEE's documents refer to the overlap between the MNO and MVNO's retail business, and/or the impact on the MNOs' retail business of winning an MVNO opportunity:

(a) BTEE noted in respect of [✂] that [✂]. BTEE noted in respect of [✂] that [✂].[1001]

(b) BTEE's internal document [✂].[1002]

(c) A document from [✂].[1003]

(d) [✂].[1004]

[995] Annex VF REE WP 2 to Annex 3 to the Parties' response to the AIS and working papers.
[996] Vodafone internal document.
[997] CK Hutchison internal document.
[998] CK Hutchison internal document.
[999] Vodafone internal document.
[1000] BTEE call note.
[1001] BTEE internal document.
[1002] BTEE Internal Document.
[1003] BTEE Internal Document.
[1004] BTEE Internal Document.

(e) A BTEE internal document discussing previous deals shows: [✂].[1005] This suggests that MNOs with particular customer demographics may be able to extract better terms.

9.201 BTEE's internal documents also refer to other factors, including the risk that an MVNO will be won by another MNO and the costs of providing an MVNOs' wholesale service:

(a) In one internal document BTEE noted that [✂] but recognised that this [✂]. It also recognises that [✂].[1006]

(b) In one internal document in relation to Sky Mobile, BTEE considered [✂].[1007]

(c) In one internal document BTEE noted that winning Nitrogen [Sky] would [✂].[1008]

(d) One BTEE internal document states [✂].[1009]

(e) The section below on BTEE's competitive strategy (paragraphs 9.220 to 9.223) discusses how BTEE's wholesale strategy [✂].

VMO2

9.202 VMO2 told the CMA that [✂].[1010]

9.203 One VMO2 internal document notes that [✂].[1011]

MVNOs

9.204 A number of MVNOs also told us that they believe that MNOs consider the risk of cannibalisation when deciding on the price and non-price terms to offer them:

(a) One large MVNO estimated, based on revenue data, that MNO subscribers were more valuable to MNOs than wholesale MVNO subscribers.[1012]

(b) In relation to BTEE specifically, the same large MVNO told us that it believes BTEE's incentives are such that it is unlikely to offer it competitive terms in the future.[1013]

[1005] BTEE internal document.
[1006] BTEE Internal Document.
[1007] BTEE internal document.
[1008] BTEE internal document.
[1009] BTEE internal document.
[1010] VMO2 response to the CMA's RFI.
[1011] VMO2 internal document.
[1012] [✂].
[1013] [✂].

(c) One MVNO told us that in its view MNOs partner with MVNOs for several strategic and financial reasons but ultimately, in doing so, it allows MNOs to reach customer segments they themselves may not wish to or be able to effectively target on their own.[1014]

9.205 In contrast, one [✂] MVNO told us that it considers 3UK's approach has been to maximise capacity through offering favourable terms to MVNOs.[1015]

9.206 We have also considered internal document evidence from MVNOs:

(a) A number of Sky's internal documents refer to cannibalisation as a potential factor considered by MNOs:

(i) In one internal document kicking off its RFP process, Sky considered that both VUK and BTEE [✂].[1016]

(ii) In another internal document Sky considered why the offer BTEE submitted in response to its RFP was [✂]. The first potential reason Sky cited was [✂].[1017]

Our assessment

9.207 MNOs are vertically integrated in the supply of wholesale and retail mobile services which may affect their incentives to supply MVNOs. Supplying wholesale mobile services allows MNOs to generate additional revenue and therefore spread network costs across a larger customer base. However, MNOs may consider a number of factors when deciding whether to compete for an MVNO's business, including:

(a) the costs of onboarding and servicing the MVNO as compared to the potential revenues the MVNO might generate;

(b) the level of overlap between the MNO's and the MVNO's customers (including whether the MNO and MVNO supply fixed as well as mobile services) and therefore the extent to which the MVNO may 'cannibalise' the MNO's retail customers;

(c) the impact of onboarding an MVNO's customers on the user experience of the MNO's own customers;

(d) the likelihood of winning and likely costs involved in competing for an opportunity;

[1014] [✂] call note. [✂] response to the CMA's putback.
[1015] [✂] response to [✂] follow-up.
[1016] Sky internal document.
[1017] Sky internal document.

(e) the likelihood that the MVNO will obtain wholesale services from another MNO if the MNO does not offer competitive pricing and terms (meaning that the MNO still risks losing retail customers, but without any revenue upside); and

(f) the potential impact on retail market pricing, resulting from offering cheaper wholesale pricing to MVNOs.

9.208 We consider that:

(a) a number of the Parties' and third parties' internal documents show that the factors outlined above can affect an MNO's willingness to bid for a particular MVNO opportunity (and how aggressively it competes for that MVNO) if invited.

(b) cannibalisation is often not the determinative factor in whether the Parties decide to bid for a given MVNO. However:

(i) MNOs may be incentivised to offer less competitive pricing or terms where the MVNO competes more closely with the MNOs' own retail business. This is likely to be affected by the segment of the market the MVNO competes in and/or the scale of the MVNO. The MNO may be incentivised to behave in this way even if the MVNO ultimately obtains wholesale services from another MNO, if offering less competitive pricing or terms results in the MVNO receiving less competitive pricing or terms.

(ii) [✂].

(c) MNOs' incentives to compete for MVNOs can be affected by existing relationships with MVNOs, which could reduce the incentive of larger MNOs to compete aggressively for more MVNO opportunities.

(d) some of the Parties' internal documents suggest that the Parties consider the costs of providing an MVNO's wholesale service when competing for an opportunity. However, we have not seen evidence from the Parties' internal documents that they are currently facing capacity constraints which limit the extent to which they are able to compete for MVNOs. We also note that BTEE, which is not currently capacity constrained, [✂].

9.209 We also do not agree with the Parties' argument that our consideration of cannibalisation amounts to a prediction that the Merged Entity will engage in input foreclosure. We have considered cannibalisation in the context of the impact it has on MNOs' incentives to participate and offer competitive pricing/terms when competing against other MNOs.

MNOs' competitive strategies

9.210 We have obtained evidence from the Parties, BTEE and VMO2 on their competitive strategies in wholesale, including their strengths and weaknesses. This draws on a range of evidence including internal documents, evidence obtained on calls and other submissions made by the Parties and the other MNOs during our investigation.

The Parties

9.211 The Parties submitted that:

(a) the view that 3UK has ambitions to grow its market share in wholesale mobile services disregards [✂]. It [✂].[1018] We consider this point in paragraphs 9.212(e) to 9.212(g).

(b) VUK's internal documents indicate that [✂].[1019]

(c) the Parties' internal documents do not suggest that they are close competitors.[1020]

9.212 We have considered the internal documents from both VUK and 3UK which discuss their wholesale strategy.

(a) A number of VUK's internal documents discuss [✂]:

(i) 'In 2018, VUK reviewed and changed its commercial approach to MVNOs, with a new ambition to grow to a [✂].[1021]

(ii) A 2021 internal document notes that one of its strategic priorities [✂]. In particular by [✂].[1022]

(iii) A VUK internal document from 2022 states that an element of its plan is [✂] as well as creating [✂].[1023]

(iv) A VUK internal document from 2022 states that [✂]. The same document notes that VUK targets (or considers viable to progress) [✂].[1024]

1018 Annex 2 to Parties' response to the AIS and working papers.
1019 Parties' response to the AIS and working papers. Annex 2 to the Parties' response to the AIS and working papers
1020 Annex 2 to the Parties' response to the AIS and working papers.
1021 Vodafone internal document.
1022 Vodafone internal document.
1023 Vodafone internal document.
1024 Vodafone internal document.

(v) A VUK internal document from 2023 states that its FY24 Priorities (Wholesale Mobile) include [✄].[1025]

(b) A VUK internal document from 2022 comments on its strategic approach by type of MVNO:[1026]

(i) [✄].

(ii) [✄].

(iii) [✄].

(iv) [✄].

(c) Recognising that large MVNOs are typically in longer term contracts and winning MVNOs from another MNO can be challenging, VUK also focuses on [✄]. One VUK internal document refers to these as the [✄].[1027]

(d) A VUK internal document in relation to the [✄].[1028]

(e) A number of 3UK documents also discuss ambitions to grow:

(i) One strategy document from 2021 states that the 'aim is to [✄]'.[1029]

(ii) One document from 2022 states that winning new MVNO business is '[✄]'.[1030]

(iii) One internal document from 2021 produced during the Sky Mobile opportunity states that hosting Sky Mobile would [✄].[1031]

(iv) One internal document from 2021 states that attracting MVNOs to its network is [✄]. The same internal document states that 3UK has a [✄].[1032]

(v) In 2022, 3UK's internal documents suggest there was a [✄] and [✄], requiring a [✄]. 3UK considers [✄].[1033]

(vi) 3UK's 2024 budget pack notes that 3UK has [✄] through [✄]. [1034]

[1025] Vodafone internal document.
[1026] Vodafone internal document.
[1027] Vodafone internal document.
[1028] Vodafone internal document.
[1029] CK Hutchison internal document.
[1030] CK Hutchison Internal Document.
[1031] CK Hutchison Internal Document.
[1032] CK Hutchison Internal Document.
[1033] CK Hutchison Internal Document.
[1034] CK Hutchison Internal Document.

(f) One 3UK internal document from 2021 states that 3UK's strategy includes [✂],[1035] and another document from 2021 states that 3UK is [✂].[1036]

(g) A 3UK internal document from 2022 also states that it has plans to [✂].[1037]

9.213 BTEE considers that 'every MNO is active in the consumer MVNO space'.[1038] BTEE stated that 3UK is typically proactive in the supply of wholesale mobile services, visible as a competitor on bids and engages with the industry including sponsorship of MVNO conferences. It stated that VUK does not appear as proactive as 3UK on smaller MVNOs and has not typically been visible at MVNO conferences and believes VUK is now focused on the bigger deals. [1039]

9.214 BTEE's internal documents from 2021 suggest that: [1040]

(a) it has considered VUK has historically not been supportive of MVNO, driven by Group position, whereas more recently (as at 2021) it has been aggressive in targeting the MVNO market.

(b) it has considered 3UK has historically been aggressive on pricing, but that its management team have been more recently (as at 2021) less focused on MVNO.

(c) it ranks VUK [✂] on a range of criteria, giving it an overall score of [✂], compared to a score of [✂] for 3UK, [✂] for itself and [✂] for VMO2.[1041]

(d) it considers VUK's strengths to [✂]. [✂].[1042]

(e) it considers 3UK's main strength to be [✂]. [✂].[1043]

9.215 VMO2 noted that VUK has a pedigree in the wholesale business, is a credible partner to MVNOs and has made significant improvements in terms of network performance. With respect to 3UK, the same MNO stated that 3UK's level of 5G spectrum holdings has allowed it to materially improve its network performance in recent years and, in turn, to become a more credible supplier of wholesale mobile services, including to larger MVNOs. [1044]

[1035] CK Hutchison Internal Document.
[1036] CK Hutchison Internal Documents.
[1037] CK Hutchison Internal Document.
[1038] BTEE Internal Document.
[1039] BTEE call note.
[1040] BTEE internal document.
[1041] BTEE internal document.
[1042] BTEE internal document.
[1043] BTEE internal document.
[1044] VMO2 call note.

9.216 A VMO2 internal document notes that 3UK performs [✂]. It also notes that VUK is [✂].[1045]

BTEE and VMO2

9.217 The Parties submitted that:[1046]

(a) BTEE's strategy is well known to be focused on wholesale: it has very recently won the tender for Lyca Mobile and hosts more than 50 MVNOs on its network.

(b) VMO2 is the largest provider in the wholesale market by some way, hosting the largest MVNO customers – Sky Mobile and Tesco Mobile.

(c) their internal documents [✂]..[1047]

9.218 The Parties' internal documents suggest that [✂].

(a) VUK's internal documents suggest that BTEE and VMO2 have historically '[✂]' the supply of wholesale mobile services with [✂]

(b) Both Parties recognise that [✂]; for instance 3UK notes that [✂],[1048] and VUK notes that [✂].[1049]

(c) VUK has speculated that [✂].[1050]

(d) Similarly, 3UK has speculated that [✂].[1051]

9.219 The Parties' internal documents also suggest that BTEE and VMO2 have a number of competitive weaknesses:

(a) Both Parties have speculated that [✂].[1052]

(b) A 3UK internal document also suggests that: [1053]

(i) [✂].

(ii) [✂].

(iii) [✂].

1045 VMO2 internal document.
1046 Annex 2 to the Parties' response to the AIS and working papers.
1047 Annex 2 to the Parties' response to the AIS and working papers.
1048 CK Hutchison Internal Document.
1049 Vodafone Internal Document.
1050 For example, Vodafone Internal Documents, [✂] [✂].
1051 CK Hutchison Internal Document.
1052 CK Hutchison Internal Documents; Vodafone Internal Document.
1053 CK Hutchison internal document.

(c) [✂].[1054]

BTEE

9.220 BTEE submitted that:

(a) it plays an active role in wholesale to ensure MVNO value is maximised. BTEE works with all of its MVNO customers with the aim of maintaining the MVNO's competitive position, as well as attracting new MVNO customers.[1055]

(b) BTEE has a general principle of [✂]. [✂].[1056]

9.221 BTEE also told us that:[1057]

(a) [✂] it carried out a review of [✂].

(b) As a result, BT now has [✂]. [✂].

(c) [✂].

(d) Working with MVNOs can benefit BT with [✂]. For example, the Lyca Mobile business (which recently migrated from VMO2 to BT) [✂]. [✂].

9.222 This is consistent with BTEE's internal documents. We consider that over time, BTEE has [✂]. BTEE's internal documents suggest that [✂]. For example:

(a) A March 2024 document [✂].[1058]

(b) A June 2023 document noted that [✂].[1059]

9.223 In one of BTEE's internal documents it compares itself to other MNOs on a range of criteria. It ranks itself [✂], compared to [✂] for VUK, [✂] for 3UK, and [✂] for VMO2. It considers its strengths to include [✂].[1060]

VMO2

9.224 VMO2 submitted that its wholesale strategy is to [✂] in the UK mobile market. In practice, this means its current focus is [✂].[1061] For existing MVNOs, their success is clearly apparent. For new MVNOs, VMO2 considers factors such as:

[1054] CK Hutchison internal document.
[1055] BTEE call note.
[1056] BTEE call note.
[1057] BTEE call note.
[1058] BTEE Internal Document.
[1059] BTEE internal document.
[1060] BTEE internal document.
[1061] VMO2 response to the CMA's RFI.

(a) [✂];

(b) [✂];

(c) [✂];

(d) [✂];

(e) [✂]; and

(f) [✂].[1062]

9.225 VMO2 has favoured bidding for [✂]. However VMO2 has recently [✂].[1063]

9.226 VMO2 submitted that it has a number of strengths and weaknesses compared to other MNOs:[1064]

(a) VMO2 considers it has an edge compared to other MNOs [✂]. [✂].

(b) VMO2 considers itself weaker in terms of [✂]. [✂].

(c) VMO2 enjoys no inherent advantage in terms of [✂].

(d) VMO2 has no inherent advantages in how it [✂].

(e) VMO2 does not have an MVNE in place and so does not currently do business with MVNAs.

(f) VMO2 enjoys no advantage over any other MNO [✂]. [✂].

9.227 VMO2's internal documents suggest that [✂]:

(a) One VMO2 internal document notes that [✂]. The same document notes that VMO2 has [✂]. It also notes that [✂].[1065]

(b) One internal document notes that there is a risk of [✂].[1066]

(c) Feedback from [✂] noted that it [✂] because of [✂].[1067]

9.228 BTEE considers that VMO2 is focused on large MVNOs that are complementary to its retail business (for example, Sky, Lyca Mobile).[1068]

1062 VMO2 response to the CMA's RFI.
1063 VMO2 response to the CMA's RFI.

1064 VMO2 response to the CMA's RFI.
1065 VMO2 internal document.
1066 VMO2 internal document.
1067 VMO2 internal document.
1068 BTEE internal document.

9.229 BTEE's internal documents ranked VMO2 [✂] other MNOs on a range of criteria. It ranks it [✂], compared to [✂] for itself, [✂] for VUK, and [✂] for 3UK. It did not give VMO2 [✂]. BTEE considered VMO2's weaknesses to include [✂].[1069]

Our assessment

9.230 We consider that:

(a) 3UK and VUK's strategies both suggest that they compete for existing MVNOs as well as new entrants and have ambitions to grow. This is also consistent with our assessment of the MVNO opportunity data set out above.

(b) BTEE [✂].

(c) VMO2 is the largest MNO in terms of wholesale subscribers but is selective in which MVNOs it bids for.

Third party submissions

9.231 We have considered submissions from third parties on:

(a) barriers to switching wholesale suppliers;

(b) closeness of competition between the Parties;

(c) alternative competitive constraints; and

(d) the impact of the Merger on competition in the supply of wholesale mobile services.

9.232 While we have taken account of all submissions from MVNOs (including potential entrant MVNOs), we have placed particular weight on the submissions from larger MVNOs. This is to reflect the competitive importance of these MVNOs as customers of wholesale mobile services and suppliers of retail mobile services. We received submissions from nine of the 10 largest MVNOs (including Tesco Mobile), which collectively accounted for [90-100%] of all MVNOs' subscribers in 2023.[1070]

Barriers to switching

9.233 Switching network host is simpler for full MVNOs than for light MVNOs.[1071] As set out in Table 5.1, based on the ten largest MVNOs, full MVNOs supply [60-70%] of

[1069] BTEE internal document.
[1070] CMA analysis based on Parties' and third parties' data. Superdrug was not contacted as it is a CK Hutchison subsidiary and is excluded from our market share calculations.
[1071] FMN.

all subscribers supplied by MVNOs and light MVNOs supply [20-30%] as at 2023.[1072] Three of the ten largest MVNOs are full MVNOs.

9.234 However MVNOs have told us that transitioning from a light to a full MVNO is costly:

(a) Lyca Mobile transitioned to a full MVNO model in 2009 and told us that it required substantial upfront investments.[1073]

(b) [✂] told us that it has 'invested very significantly' into its [✂] platform.[1074]

9.235 MVNOs told us they experience barriers to switching:

(a) Two out of four full MVNOs said that switching is either difficult or very difficult.[1075]

(b) Four out of five light MVNOs said that switching is either difficult or very difficult.[1076]

9.236 Light MVNOs (one of which has recently switched MNO providers) explained the difficulties of switching:

(a) One light MVNO said that switching would require it 'to supply each customer with a new SIM (for the new network) and ask each customer manually to replace the SIM in their phone' which would risk significant customer loses.[1077]

(b) Another light MVNO said that 'implementation [of a switch] is difficult, costly, time-consuming and resource heavy'.[1078] However, this MVNO did not feel completely tied to its host MNO. It said that it would consider whether switching would enable it to benefit from competitive pricing, as well as other factors including network quality.[1079]

(c) Another light MVNO said that 'it would be a difficult and complex process to switch providers as the impact would be to both customers and operationally. There likely would be an increase in churn. Operationally moving systems could become very costly due to integrating with the MVNO's wider business.'[1080]

[1072] Based on CMA analysis.
[1073] Lyca Mobile call note.
[1074] [✂] submission.
[1075] Response to the CMA's questionnaire from: [✂]; and [✂].
[1076] Responses to the CMA's questionnaire from: [✂]; [✂]; [✂]; and [✂].
[1077] [✂] response to the CMA's questionnaire.
[1078] [✂] response to the CMA's questionnaire.
[1079] [✂] call note.
[1080] [✂] response to the CMA competitor questionnaire.

(d) Another light MVNO made similar comments. The MVNO noted that it received similar offers from two MNOs, including its host, but chose to stay with its host MNO to avoid carrying out a SIM migration. However, it added that it did not consider SIM migration to be a substantial barrier to switching MNO providers, and that it was confident the other MNO it had engaged with would have supported the transition well had it decided to switch.[1081]

9.237 Full MVNOs also said that switching is difficult:

(a) One full MVNO that switched MNO providers commented that switching is easier and quicker with less disruption to customers as a full MVNO, but that there are nevertheless significant costs to switching and rated the difficulty of switching as 'very difficult'.[1082]

(b) Another full MVNO rated the difficultly of switching as three out of five and commented that switching involves significant costs and disruption which must be weighed carefully against the benefits of doing so.[1083]

(c) Another full MVNO told us that it would be a hugely costly, complex and risky exercise for it to switch networks. Such an exercise could involve 'a cost of about £[✄]' and take [✄] to implement the migration.[1084]

(d) Another full MVNO considered service disruption when migrating customers to a different network was not something it wanted to undertake, however, this was not the main reason for staying with its host MNO.[1085] The MVNO noted that switching providers would have meant migrating customers to a different network, with the risk of disruption. Whilst this was not the most important factor in its decision to remain with its host, within the overall business case, it was not something the MVNO wanted to undertake citing time, cost, customer disruption, and risk of customer churn.[1086]

(e) Another full MVNO told us that switching a base from one MNO to another MNO would require hefty customer migration and swapping SIMs.[1087]

9.238 This is also supported by evidence from third parties' internal documents and the submissions from third party competitors:

(a) A number of Sky's internal documents refer to the 'effort and risks of migration':

1081 [✄] response to the CMA's questionnaire.
1082 [✄] response to the CMA's questionnaire.
1083 [✄] response to the CMA's questionnaire.
1084 [✄] call note.
1085 [✄] call note.
1086 [✄] call note.
1087 [✄] call note.

(i) One document states that the objective of its tender was to secure significantly better terms that would 'justify the effort and risks of migration'.[1088]

(ii) One document states that the 'new deals needs to be materially better deal than O2 in order to warrant effort, disruption and risks of the switch'.[1089]

(iii) One document refers to the fact that continuing the [✂] partnership with VMO2 would avoid a 'high-risk migration process'.[1090]

(b) Sky's internal documents suggest that these risks include:

(i) [✂].[1091]

(ii) [✂].[1092]

(iii) [✂].[1093]

(iv) [✂].[1094]

(c) Sky's internal documents suggest that even if there are barriers to switching, the threat of switching can be used to extract better terms from incumbent MNOs. In one internal document Sky Mobile noted that [✂].[1095]

(d) As set out in paragraph 9.163 above, [✂] noted that switching to [✂] would involve risks including considerable short-term cost and disruption that would be inevitable when migrating to a new network.

(e) A BTEE internal document notes 'other opportunities are limited due to incumbent power and unlikely to win on price alone without another reason to change'.[1096]

(f) A BTEE internal document notes that [✂].[1097]

(g) BTEE told us that 'MVNO migrations from other MNOs are hard to win due to the incumbent MNO's leverage'.[1098]

1088 Sky internal document.
1089 Sky internal document.
1090 Sky internal document.
1091 For example, Sky internal document.
1092 For example, Sky internal document.
1093 For example, Sky internal document.
1094 For example, Sky internal document.
1095 Sky Internal Document.
1096 BTEE internal document.
1097 BTEE internal document.
1098 BTEE call note.

9.239 We note that some MVNOs have recently switched MNO providers, suggesting that, although switching is difficult, these difficulties are not insurmountable. However, based on the five largest MVNO opportunities between Q1 2020 and Q1 2024, [✂] out of five opportunities ([✂]%) were retained by the MVNOs' incumbent MNO.

Our assessment

9.240 We consider that:

(a) there are barriers to switching for both full and light MVNOs;

(b) switching is easier for full MVNOs than light MVNOs; and

(c) light MVNOs can transition to a full MVNO model but there are costs involved.

3UK as a significant competitive force

9.241 We have considered MVNOs' views on whether 3UK is a significant competitive force. We consider that a firm may be a close competitor if it represents a significant competitive force or exerts a strong constraint on other firms.[1099]

9.242 In this regard and consistent with the approach explained in paragraph 9.232, we have placed more weight on the feedback from large MVNOs given that a small number of key MVNOs account for a high proportion of overall supply.

9.243 The Parties submitted that:

(a) The MVNOs' actions speak more tellingly and convincingly of their real views and motivations than any remarks they may have made to the CMA during its merger investigation. It is not plausible that MVNOs consider 3UK [✂][1100] and [✂].[1101]

(b) Third party views do not support a finding that MVNOs perceive 3UK's network quality to be reliable.

(i) The approach of placing more weight on the feedback of large MVNOs artificially limits the evidence base and is flawed. As well-informed industry players, smaller MVNOs are equally well positioned to form valid views on an MNO's network quality. For example, [✂].[1102]

[1099] CMA129, paragraph 4.9.
[1100] Parties' response to the AIS and working papers and Annex 2 to the Parties' response to the AIS and working papers.
[1101] Annex 2 to the Parties' response to the AIS and working papers.
[1102] Annex 2 to the Parties' response to the AIS and working papers.

(ii) Individual retail customers are also able to provide valuable views on network quality. For instance, comparison websites have cited 3UK's network quality as a reason against choosing iD Mobile at the retail level, and Superdrug subscribers regularly identify network quality as an issue. [✂].[1103]

(iii) The reality is that [✂].[1104]

9.244 We set out the views of some large MVNOs in paragraphs .63-.179 above, which suggest that some large MVNOs have historically had negative perceptions of 3UK's network quality, but others have had positive perceptions.

9.245 3UK is also recognised by multiple MVNOs as having improved its network quality over time, especially through its 5G offering:

(a) One large MVNO commented that although it had historic concerns about 3UK's network quality, it considers that its network quality has significantly improved and considers 3UK to be a 'very credible network host'. [1105] The same MVNO commented that it considered 3UK's network quality to be [✂].[1106]

(b) Another large MVNO commented that it considered 3UK's network quality to be 4 out of 5 and had the 'fastest and most widespread 5G coverage'.[1107]

(c) By contrast, one [✂] MVNO commented that it considered 3UK's network quality to be 2 out of 5. The same MVNO noted that once 3UK had achieved its planned technical capability, it would put forward a 'very competitive offering in a tender process'.[1108]

(d) One third party told us 3UK is well-positioned from a network quality perspective given its 5G spectrum holdings and its recent improvements in 5G speeds.[1109]

(e) One third party noted that 3UK has improved its network quality significantly in the last few years, with a focus on 5G.[1110]

[1103] Annex 2 to the Parties' response to the AIS and working papers.
[1104] Annex 2 to the Parties' response to the AIS and working papers.
[1105] [✂] submission.
[1106] [✂] response to the CMA's questionnaire.
[1107] [✂] response to the CMA's questionnaire.
[1108] [✂] response to the CMA's questionnaire.
[1109] [✂] call note.
[1110] [✂] call note.

(f) One third party said it considers 3UK's data network to be the best, depending on location and that in contrast, other networks seem less reliable.[1111]

(g) One third party told us that the 3UK network is very good, with independent surveys, eg Opensignal, reporting that it has the highest availability of any of the UK networks. This third party also told us that it provides services based on both 3UK and BTEE's network because no network has ubiquitous coverage.[1112]

(h) In relation to roaming specifically, one third party told us it has wholesale agreements with all licensed mobile operators in the UK for roaming purposes. It mentioned that [✂]. This suggests that 3UK's network may offer acceptable network quality for roaming customers compared to other MNOs in some areas. However, the same third party noted that [✂].[1113]

9.246 3UK is also recognised by a number of MVNOs as offering competitive pricing/terms compared to the other MNOs:

(a) One large MVNO commented that 3UK was the closest to its incumbent MNO on price and played a pivotal role in bringing down prices for other MNOs.[1114]

(b) One [✂] MVNO and one potential MVNO entrant commented that 3UK was the most competitive MNO on price.[1115] Although its recent negotiations, the potential MVNO had not carried out a full market test.[1116]

(c) One [✂] MVNO commented that as part of its negotiations with MNOs that included both 3UK and VUK, 3UK presented the '[✂].'[1117] The MVNO told us that in comparison to 3UK, the other MNOs (VUK and BTEE) were [✂]. [✂].[1118]

(d) One large MVNO told us that [✂] was [✂] than its host MNO to offer [✂] as well as a more favourable pricing structure and played an important role in enabling it to secure a better offer in terms of [✂] and pricing from other MNOs.[1119]

[1111] [✂] call note.
[1112] [✂] email to the CMA.
[1113] [✂] call note
[1114] [✂] submission to the CMA.
[1115] [✂] response to the CMA's questionnaire. [✂] response to the CMA's questionnaire.
[1116] [✂] putback response (TOH2).
[1117] [✂] response to the CMA's questionnaire.
[1118] [✂] call note.
[1119] [✂] call note.

9.247 Our customer engagement also suggests that in some cases 3UK was the only MNO (other than the host provider) the MVNO engaged with:

(a) One large MVNO told us that when it considered switching, the only MNO it held high-level discussions with was 3UK, despite other MNOs previously expressing interest in hosting it. However, the discussions did not go beyond assessing whether 3UK had an appetite to work with the third party. The third party added that moving wholesale supplier is disruptive, and whilst it carried out a limited review of the market, it did not consider it necessary to approach other MNOs at the time.[1120]

(b) One large MVNO told us that negotiations with [✂] prompted its host MNO to offer similar terms. The same third party told us it would have been willing to switch to [✂] for better terms despite the need to carry out a SIM migration.[1121]

9.248 Further, one large MVNO commented that 3UK is an important competitor as the only non-fixed MNO, meaning it has different incentives to VUK and third party MNOs.[1122]

Our assessment

9.249 We consider that:

(a) the views of MVNOs suggests 3UK is a significant competitive force in the supply of wholesale mobile services.

(b) whilst we have placed more weight on the views of larger MVNOs in relation to network quality (as we consider the larger MVNOs are well positioned to make an informed assessment of 3UK's network quality and network reputation given their significant technical expertise relative to individual retail customers), the views of smaller MVNOs also suggest 3UK's network quality is credible. We also note that larger MVNOs appear to engage in a more detailed assessment of an MNO's network quality than smaller MVNOs. For example, Sky Mobile's [✂] engaged [✂] with 3UK's team to understand [✂].[1123]

(c) Whilst retail customers of MVNOs do have views on network quality, it is unclear the extent to which they are aware of which underlying MNO is providing the wholesale service when choosing an MVNO. We also note that

[1120] [✂] call note.
[1121] [✂] call note.
[1122] [✂] response to the CMA's questionnaire.
[1123] For example, CK Hutchison Internal Documents.

3UK's network quality has been improving as set out in the Chapter 8, Network Quality.

Closeness of competition and alternative constraints

9.250 We have considered MVNOs' views on:

(a) closeness of competition; and

(b) whether BTEE and VMO2 exert a competitive constraint on the Parties.

9.251 As above, we have placed more weight on the feedback from large MVNOs given that a small number of key MVNOs account for a high proportion of overall supply.

Closeness between the Parties

9.252 We have considered the extent to which submissions made by MVNOs (including potential entrant MVNOs) indicate that the Parties are close competitors:

(a) In relation to the extent to which 3UK competes with VUK:

(i) five out of 11 MVNOs (including four large MVNOs) indicated that 3UK competes strongly or very strongly with VUK;[1124]

(ii) three out of 11 MVNOs (including one large MVNO) indicated that 3UK competes weakly or very weakly with VUK;[1125] and

(iii) three out of 11 MVNOs (including one large MVNO) gave a neutral response.[1126]

(b) In relation to the extent to which VUK competes with 3UK:

(i) six out of 11 MVNOs (including four large MVNOs) indicated that VUK competes strongly or very strongly with 3UK;[1127]

(ii) four out of 11 MVNOs (including one large MVNO) indicated that VUK competes weakly or very weakly with 3UK;[1128] and

(iii) out of 11 MVNOs, one large MVNO gave a neutral response.[1129]

1124 Response to the CMA competitor questionnaire from: [✂], [✂], [✂], [✂], [✂].
1125 Response to the CMA competitor questionnaire from: [✂], [✂], [✂].
1126 Response to the CMA competitor questionnaire from: [✂], [✂], [✂].
1127 Responses to the CMA competitor questionnaire from: [✂], [✂], [✂], [✂], [✂] and [✂].
1128 Responses to the CMA competitor questionnaire from: [✂], [✂], [✂], [✂].
1129 [✂] response to the CMA competitor questionnaire.

(c) A large MVNO noted that both 3UK and VUK are 'strong competitors with similar focus as both are large MNOs providing similar services'.[1130]

(d) Consistent with the MVNO opportunity data set out above, a number of MVNOs told us that the Parties have directly competed against each other, including in key opportunities:

(i) As set out in paragraphs 9.78 to 9.87 above, the evidence from the Sky Mobile opportunity is that the Parties directly competed against each other.

(ii) As set out in paragraphs 9.145 to 9.150, one MVNO [✄] told us that it negotiated with 3UK, BTEE and VUK and that it was able to negotiate better terms following these offers.[1131]

(iii) Asda Mobile told us that it received proposals from 3UK, VUK and BTEE.[1132]

9.253 Although MVNOs have limited transparency over MNOs' wholesale strategies, when MVNOs were asked for their views on VUK's and 3UKs's strategy, strengths and weaknesses, the responses are consistent with our interpretation of the Parties' internal documents. For example:

(a) One [✄] MVNO stated that both VUK's and 3UK's strategy is to drive growth through independent MVNOs and to gain share in order to use excess capacity to generate incremental revenue.[1133]

(b) Similarly, another large MVNO indicated that 3UK's wholesale strategy is to 'collaborate with various MVNOs to expand its market presence'. The same MVNO commented that, as the MNO with the smallest market share, the chances of an MVNO cannibalising 3UK's customer base is less than for the other MNOs.[1134]

(c) Another large MVNO submitted that VUK's interest has historically been low but has been very strong recently, while 3UK is actively looking to build its wholesale business.[1135]

Our assessment

9.254 We provisionally consider, based on the evidence above, that notwithstanding that 3UK has not won a significant number of recent wholesale opportunities, it

[1130] [✄] response to the CMA's questionnaire.
[1131] [✄] call note.
[1132] Asda Mobile call note
[1133] [✄] response to the CMA's questionnaire.
[1134] [✄] response to the CMA's questionnaire.
[1135] [✄] response to the CMA's questionnaire.

competes closely with VUK. In particular, we place particular weight on feedback from the large MVNOs. The majority of these large MVNOs consider 3UK and VUK to compete strongly or very strongly against each other.

Alternative constraints

9.255 We have considered submissions made by MVNOs on the extent of the constraint from BTEE and VMO2 on the Parties.

9.256 With respect to BTEE:

(a) We gathered views on the extent to which BTEE competes with VUK:

(i) Five out of 12 MVNOs (including three large MVNOs) indicated that BTEE competes strongly or very strongly with VUK.[1136]

(ii) Seven out of 12 MVNOs (including three large MVNOs) indicated that BTEE competes weakly or very weakly with VUK.[1137]

(b) We gathered views on the extent to which BTEE competes with 3UK:

(i) Four out of 11 MVNOs (including three large MVNOs) indicated that BTEE competes strongly or very strongly with 3UK.[1138]

(ii) Six out of 11 MVNOs (including two large MVNOs) indicated that BTEE competes weakly or very weakly with 3UK.[1139]

(iii) Out of 11 MVNOs, one gave a neutral response.[1140]

(c) One [✂] MVNO indicated that in its negotiations 'BTEE [✂]. The same MVNO indicated that [✂].[1141]

(d) Another large MVNO submitted that based on its interactions, BTEE shows limited interest in large non-niche MVNO deals and tends to offer less competitive rates that are significantly worse than the other MNOs and tends not to offer technological parity.[1142]

(e) One large MVNO told us that BTEE is seen as having the strongest and fastest network because it has heavily invested in spectrum.[1143]

[1136] Responses to the CMA's questionnaire from: [✂], [✂], [✂], [✂ and [✂].
[1137] Responses to the CMA's questionnaire from [✂], [✂], [✂], [✂], [✂], [✂].
[1138] Responses to the CMA's questionnaire from: [✂], [✂], [✂] and [✂].
[1139] Responses to the CMA's questionnaire from: [✂], [✂], [✂], [✂], [✂] [✂].
[1140] [✂] response to the CMA's questionnaire.
[1141] [✂] response to the CMA's questionnaire.
[1142] [✂] response to the CMA competitor questionnaire.
[1143] [✂] call note.

(f) Another MVNO noted that while it believed BTEE was ambitious to grow in the supply of wholesale mobile services and had been encouraging MVNOs to also sell, for example, BT fixed line to drive overall growth, BTEE wants to do so 'very much on its own terms' and by seeking to charge a premium for its network.[1144]

(g) One new entrant told us that when considering its wholesale supply strategy, which included helping to launch MVNEs (Mobile Virtual Network Enablers), it had some concerns about the fact that there were very few MVNEs on the BTEE network.[1145]

(h) As noted above, we have also heard from potential new entrants:

(i) In one potential entrant's experience it was unable to enter the supply of wholesale mobile services owing to failed negotiations with all four MNOs. In particular, BTEE did not engage due to 'other priorities'.[1146]

(ii) In another's experience, while it considered BTEE to be active in the supply of wholesale mobile services, it noted that BTEE did not offer 'low prices' (based on pricing received from BT Wholesale using the BTEE network).[1147]

9.257 With respect to VMO2:

(a) We gathered views on the extent to which VMO2 competes with VUK:

(i) Five out of 12 MVNOs (including three large MVNOs) indicated that VMO2 competes strongly or very strongly with VUK.[1148]

(ii) Four out of 12 MVNOs (including one large MVNO) indicated that VMO2 competes weakly or very weakly with VUK.[1149]

(iii) Three out of 12 MVNOs (including one large MVNO) indicated that VMO2 is a neutral competitor to VUK.[1150]

(b) We gathered views on the extent to which VMO2 competes with 3UK:

(i) Six out of 10 MVNOs (including four large MVNOs) indicated that VMO2 competes strongly or very strongly with 3UK.[1151]

1144 [✂] response to the CMA competitor questionnaire.
1145 [✂] call note.
1146 [✂] response to the CMA wholesale questionnaire.
1147 [✂] response to the CMA wholesale questionnaire and [✂] response to the CMA's putback request.
1148 Responses to the CMA competitor questionnaire from: [✂], [✂], [✂], [✂] and [✂].
1149 Responses to the CMA competitor questionnaire from: [✂], [✂], [✂] and [✂].
1150 Responses to the CMA competitor questionnaire from: [✂], [✂] and [✂].
1151 Responses to the CMA competitor questionnaire from: [✂], [✂], [✂], [✂], [✂], [✂].

(ii) Two out of 10 MVNOs indicated that VMO2 competes weakly or very weakly with 3UK.[1152]

(iii) Two out of 10 MVNOs gave a neutral response.[1153]

(c) One large MVNO told us that VMO2 is strong in the MVNO business and has more MVNO partners than other MNOs. However, considering the amount of spectrum that VMO2 holds, and as the customer bases of VMO2 and its existing MVNO customers use more data, it would have concerns about the potential network quality it could offer MVNO customers.[1154]

(d) In another [✄] MVNO's experience, VMO2 submitted a bid which [✄]. [✄].[1155]

(e) One large MVNO commented that VMO2 has proven capability hosting MVNOs, but its network quality has degraded over time. The same large MVNO submitted that VMO2's strategy was historically favourable towards wholesale, but its interest has reduced over time, possibly due to the VM/O2 merger. [1156]

(f) In another large MVNO's experience during its most recent wholesale tender, VMO2 was 'unwilling to agree to the terms' the MVNO deemed it needed in order to grow its business.[1157]

(g) Another large MVNO told us VMO2 has an understanding of what MVNOs are interested in due to its previous experience with Virgin Mobile.[1158]

(h) One MVNO told us that VMO2 are not benefiting from the MBNL partnership and therefore risk falling behind (based on their current position in independent network benchmarking tests as the worst performing operator).[1159]

(i) Another MVNO submitted that whilst VMO2 has a history of supporting MVNOs, it tends to do so in segments where its 'retail brand is comparatively weak' and that there are certain segments where VMO2 'would rather not support the competition'.[1160]

(j) As noted above, we have also heard from potential new entrants:

[1152] Responses to the CMA competitor questionnaire from: [✄], [✄].
[1153] Responses to the CMA competitor questionnaire from: [✄], [✄].
[1154] [✄] call note.
[1155] [✄] response to the CMA competitor questionnaire.
[1156] [✄] response to the CMA competitor questionnaire.
[1157] [✄] response to the CMA competitor questionnaire.
[1158] [✄] call note.
[1159] [✄] email to the CMA.
[1160] [✄] response to the CMA competitor questionnaire.

(i) In one potential entrant's experience it was unable to enter the supply of wholesale mobile services owing to failed negotiations with all four MNOs. In particular, VMO2 presented an 'uneconomic' commercial offer.[1161]

(ii) Another noted that, VMO2 has not recently supported the market entry of new, lower cost MVNO providers. In its experience VMO2 was not interested in wholesaling to new entrants who would seek low wholesale prices that would allow competition with its established and co-owned Tesco Mobile and Giffgaff.[1162]

(iii) Another noted that VMO2 requires 'bespoke development for any new MVNOs' and as such requires MVNOs to be 'of significant size and investment' for it to host the MVNO on its network.[1163]

(iv) One told us that when considering its wholesale supply strategy, which included helping to launch MVNEs (Mobile Virtual Network Enablers), it had some concerns about networks including VMO2 becoming quite congested.[1164]

9.258 One large MVNO ([✂]) also noted that MVNO pricing is typically higher where the MVNO uses the networks of BTEE and VMO2 compared to MVNOs using the VUK network.[1165]

Our assessment

9.259 We provisionally consider that feedback from MVNOs (including large MVNOs which the CMA places more weight on), suggests that although MVNOs may consider BTEE and VMO2 as potentially strong competitors to the Parties, these third party MNOs may not always bid or bid competitively.

Impact of the Merger on competition in the supply of wholesale mobile services

9.260 The Parties submitted that:

(a) It is not correct, in considering the impact of the Merger on competition, to place additional weight on third party evidence from larger MVNOs. By doing so, it disproportionately discounts the views of MVNOs hosted by BTEE.[1166]

[1161] [✂] response to the CMA wholesale questionnaire.
[1162] [✂] response to the CMA wholesale questionnaire. [✂] response to the CMA's putback (TOH2).
[1163] [✂] response to the CMA wholesale questionnaire.
[1164] [✂] call note.
[1165] Company C's response to the Parties' initial submission, 21 August 2024, paragraph 3.2.4.
[1166] Annex 2 to the Parties' response to the AIS and working papers.

(b) MVNOs have been unaware of the Beacon 4.1 Agreement given it was only announced publicly on 3 July 2024. When asked for their views, MVNOs did not understand that the effects of the Merger go far beyond the Merged Entity. Absent the Merger and Beacon 4.1, VMO2 will likely be a weaker competitor given its capacity constraints.[1167]

9.261 As set out in Chapter 10 and Chapter 11, we have provisionally concluded that the Merged Entity's involvement in the MBNL and Beacon network sharing arrangements would not harm BTEE and VMO2's ability to exert a competitive constraint in the wholesale market.

9.262 We have considered the views of MVNOs on how the Merger may impact competition in the supply of wholesale mobile services. We gathered the following views prior to the announcement of the Beacon 4.1 Agreements:

(a) 11 out of 16 MVNOs consider that the Merger would worsen competition.[1168]

(b) 4 out of 16 MVNOs consider that the Merger would improve competition.[1169]

(i) One MVNO said that whilst competition in the supply of wholesale mobile services would improve, it had concerns around the Parties' ability to have stronger control over wholesale prices due to their increased market position.[1170]

(ii) Another MVNO said that although there would be less choice as a result of the Merger, 'the choice will be more balanced and there will be more network parity to make a decision on.'[1171]

(c) Of the MVNOs who consider the Merger would worsen competition:

(i) One large MVNO commented that the Merger would result in a less competitive market to supply MVNOs, creating jeopardy in its ability to maintain attractive input costs once its current deal expires.[1172]

(ii) One large MVNO commented that although the Parties have stated that the Merger will 'provide more choice in wholesale partners for the UK's already competitive MVNOs', its view is that this is the diametrical opposite of the impact of the proposed JV. In its view, the loss of any of the MNOs would significantly reduce the level of competition.[1173]

[1167] Annex 2 to the Parties' response to the AIS and working papers.
[1168] Responses to the CMA's questionnaire from: [✂], [✂], [✂], [✂], [✂], [✂], [✂], [✂], [✂], [✂], [✂].
[1169] Responses to the CMA's questionnaire from: [✂], [✂]. [✂] email. [✂] email.
[1170] [✂] response to the CMA wholesale questionnaire.
[1171] [✂] response to the CMA wholesale questionnaire.
[1172] [✂] meeting slides
[1173] Company C's response to the Parties' initial submission, 21 August 2024, paragraphs 1.4-1.5.

(iii) One large MVNO had concerns that a reduction of wholesale suppliers may lead to difficulty in securing a competitive wholesale deal. It also had concerns that the Merged Entity would prioritise integrating the two businesses and deprioritise MVNO hosting.[1174]

(iv) One large MVNO told us that the Merger would reduce choice for consumers and wholesale partners. It added it was uncertain whether the claimed benefits of the Merger would be felt by wholesale partners and end-consumers. The same third party told us that previous mergers between MNOs have led to fewer MVNOs and operators [✂], with business models to constrain prices having subsequently disappeared.[1175]

(v) One MVNO told us that a reduction in MNOs might result in less competitive terms being available for MVNOs.[1176]

(d) One MVNO said that the Merger would have little impact as in its view the costs may remain the same and its customers would have access to better coverage, benefitting the MVNO's offering.[1177]

(e) One large MVNO had mixed views, stating that 'it is difficult to predict with any certainty what the impact of the transaction will be on the retail and wholesale mobile services in the UK. To a large extent, it will depend on the merged entity's strategy. However, it should be noted that the transaction will result in 4 to 3 MNOs in the UK market. A reduction of 4 to 3 will lead to reduced choice for both retail and wholesale customers. We also note that a consolidation of 4 to 3 might lead to an investment in network infrastructure.'[1178]

9.263 A BTEE's internal documents says 'ARPU here is already likely at the bottom and there are not that many other large deals other than [✂],in the market so impact is limited'.[1179] This suggests that BTEE expects the impact of the Merger on wholesale ARPUs to be limited.

9.264 In light of the Beacon 4.1 Agreement reached between VUK and VMO2, discussed in Chapter 5, CTIL/Beacon, we have gathered views from MVNOs on how this might affect competition in the supply of wholesale mobile services:

(a) Out of seven MVNOs (including one potential MVNO) who previously had concerns:

[1174] [✂] call note.
[1175] [✂] call note.
[1176] [✂] call note.
[1177] [✂] response to the CMA competitor questionnaire.
[1178] [✂] response to the CMA's questionnaire.
[1179] BTEE internal document.

(i) Six remained concerned despite the existence of the agreement [✄],[✄],[✄],[✄],[✄],[✄].

(1) One large MVNO told us that, 'from a wholesale perspective, the risk to MVNOs arises from a reduction in the number of MNOs willing to wholesale'.[1180]

(2) One large MVNO told us that 'competition in the wholesale market will still reduce from four to three parties'.[1181]

(ii) One large MVNO told us that the agreement was a positive development, as it should result in rebalancing of spectrum and improving VMO2's network in terms of capacity and network quality.[1182]

(b) One MVNO who previously told us the Merger would improve competition, told us that the agreement was positive.[1183]

(c) One MVNO who previously told us that the Merger would have no impact told us that its views have not changed as a result of the recent announcement.[1184]

(d) Some MVNOs noted that the agreement could affect VMO2's network quality, but that there is uncertainty around this:

(i) One large MVNO told us that 'for customers of VMO2 there are likely to be some benefits from there being more capacity available'.[1185]

(ii) One MVNO told us that there is not enough information provided to confirm if the agreement would improve the competitive performance of VMO2 as a future network option. The MVNO stated that it assumes VMO2 are not benefiting from the MBNL partnership and therefore risk falling behind based on their current position in independent network benchmarking tests as the worst performing operator.[1186]

9.265 VMO2 told us that it considers that the Beacon 4.1 Agreements, including the spectrum transfer, will improve its competitiveness in the wholesale market, noting that its [✄].[1187]

[1180] [✄] email.
[1181] [✄] email.
[1182] [✄] email.
[1183] [✄] email.
[1184] [✄] email.
[1185] [✄] email.
[1186] [✄] email.
[1187] VMO2 letter to CMA.

Our assessment of the third party submissions

9.266 We provisionally consider the evidence from third party submissions shows that:

(a) some MVNOs find it difficult to offer high usage tariffs based on the pricing offered by MNOs;

(b) most large MVNOs manage to obtain parity of access to the same network capabilities (eg 5G) offered to the host MNO's own customers;

(c) MVNOs can receive better offers from their host MNOs by negotiating with other MNOs;

(d) while the intensity of wholesale competition can vary, all MNOs exert a degree of competitive constraint.

(i) BTEE and VMO2 exert a competitive constraint on the Parties; and

(ii) the Parties are also close competitors;

(e) 3UK is seen by most MVNOs as a credible competitor, with most MVNOs recognising its recent improvements in network quality; and

(f) most MVNOs have concerns about the impact of the Merger, in particular on their ability to negotiate competitive terms with MNOs.

9.267 We consider that the Beacon 4.1 Agreement between VUK and VMO2 will improve VMO2's network quality, enabling it to become a stronger competitive constraint post-Merger (we discuss this, and the Parties' efficiencies submissions, in more detail in Chapter 14).

Provisional conclusion on horizontal unilateral effects in the supply of wholesale mobile services

9.268 Based on our assessment of the evidence set out above, we provisionally conclude that:

(a) There is currently limited competition in the supply of wholesale mobile services. There are only four MNOs in the UK, meaning that at most four MNOs compete for any given wholesale opportunity. The evidence set out above also suggests that MNOs have incumbency advantages and that the intensity of competitive outcomes has varied over time and by type of MVNO.

(b) VUK and 3UK are close competitors in the supply of wholesale mobile services. The Parties' internal documents [✂]. Moreover, the Parties competed against one another for a number of large MVNO opportunities, including the Sky Mobile opportunity, by far the largest independent MVNO opportunity, which saw particularly close competition between the Parties, [✂].

(c) Based on evidence collected from the Parties and MVNOs, in the next two years, MVNO contracts serving almost [✂]% of MVNO subscribers, including MVNOs currently hosted by the Parties ([✂], which alone make up [✂]% of MVNOs' subscribers)[1188] may be subject to renewal. Based on the opportunity data and previous engagement between the Parties and the MVNOs (as set out in the competitive dynamics section), we consider it likely that the Parties will both compete for large MVNO opportunities that may be up for renegotiation in the near future.

(d) 3UK's improvements in network quality (described in the retail section) have been recognised by MVNOs. This should enable it to compete more effectively for the upcoming MVNO opportunities.

(e) There are only two alternative suppliers of wholesale mobile services to the Parties in the UK: BTEE and VMO2. It appears that both MNOs exert a competitive constraint on the Parties, although we note that they do not necessarily compete in all opportunities, even where invited.

(f) We also note that BTEE's internal documents suggest [✂]. BTEE also appears [✂].

(g) VMO2 has told us it is selective in participating for MVNO opportunities. We consider that the Beacon 4.1 Agreement between VUK and VMO2 will improve VMO2's network quality, enabling it to become a stronger competitive constraint post-Merger (we discuss this in more detail in Chapter 14,). However we consider it may have a reduced incentive to act on this ability as a result of the removal of the constraint which the Parties currently exert.

(h) We note that the market will be highly concentrated post-Merger. We expect that the Merged Entity may have a reduced incentive to compete for MVNO opportunities than the Parties individually because the Merger will lead to the removal of the constraint which the Parties currently exert on each other (we discuss this in more detail in Chapter 14).

(i) We consider that there may also be an indirect effect resulting from the fact that the Merged Entity will also have an expanded presence in the supply of retail mobile services, which may mean it may have less of an incentive to bid for wholesale business. However, we note that the weight an MNO places on cannibalisation as a factor in deciding whether to bid can also depend on

[1188] Based on CMA analysis, retail shares of supply by subscribers of MVNOs only.

its choice of wholesale strategy. If the Merged Entity were to act on these incentives by bidding less and/or offering less competitive prices/terms, its rivals would experience an increase in demand for their services. This increase in demand may also provide rivals with incentives to compete less aggressively.

(j) Finally, the Merged Entity would have a market share by subscribers of [20-30%], with an increment of [10-20%] and a market share by revenue of [20-30%] with an increment of [10-20%]. The Merged Entity would therefore be the second largest supplier of wholesale mobile services, after VMO2.

9.269 Therefore, before consideration of any potential countervailing factors (which are discussed in the latter chapters of these Provisional Findings), we provisionally conclude that there is scope for an SLC as a result of the Merger due to horizontal unilateral effects in the supply of wholesale mobile services in the UK.

10. IMPACT OF THE MERGER ON THE CONSTRAINT FROM VMO2 THROUGH THE MERGED ENTITY'S PARTICIPATION IN BEACON

10.1 In this section, we consider:

(a) whether, following the Merger, the Merged Entity would have the ability to use its participation in Beacon to limit the constraint from VMO2;

(b) whether the Merged Entity would have the incentive to do so; and

(c) whether any impact on the constraint exerted by VMO2 would harm VMO2's ability to exert a competitive constraint in the retail and wholesale markets.

10.2 In the Phase 1 decision, the CMA found that the Merged Entity may have the ability and incentive to use its participation in Beacon to disrupt the effective functioning of the network sharing agreement which could lead to a reduction in VMO2's ability to exert a competitive constraint in the supply of retail and wholesale mobile services post-Merger.

10.3 As set out in Chapter 5, Spectrum and respective spectrum holdings, on 5 June 2024 VUK and VMO2 entered into the Beacon 4.1 Agreements. This includes the Beacon 4.1 Long Form Amendments, setting out a framework governing the future of Beacon, and a Spectrum Transfer Agreement (**STA**), pursuant to which VUK is to sell [✄] of spectrum to VMO2 for an agreed price.[1189]

10.4 The rest of this section is structured as follows:

(a) Background to Beacon;

(b) The Beacon 4.1 Agreements and their impact on our assessment;

(c) The Parties' main submissions;

(d) VMO2's main submissions;

(e) Our assessment, structured as follows:

(i) Ability

(ii) Incentive

(iii) Effect

[1189] Parties response to the CMA's RFI. This excludes [✄] of '[✄]' spectrum. Vodafone PFs putback response.

(f) Our provisional conclusion.

Background to Beacon

10.5 As set out in Chapter 5, through the Beacon network sharing arrangement, VUK and VMO2 share active infrastructure (2G, 3G, 4G and 5G MORAN infrastructure). VUK and VMO2 also share passive infrastructure through CTIL.

10.6 The original Beacon agreement envisaged completion of a single grid with VUK as 'host' operator (ie the operator with the responsibility for providing active RAN services and deploying each operator's spectrum on that RAN) in the West of the UK and South London and VMO2 as host in the East of the UK, including Scotland and North London.[1190]

10.7 In 2017, VUK and VMO2 agreed to unwind active sharing in certain areas, meaning they no longer rely on each other for the provision of active network services in these areas (although they continue to passive share via CTIL). This was initially done for all active sharing in London (known as Beacon 2) and then in 2019 they agreed to unwind all active sharing in the major population centres in the UK (known as Beacon 3).[1191]

10.8 The Beacon parties continued acting as 'host' in the rest of the West and East MORAN areas. VMO2 currently uses approximately [✂] sites hosted by VUK in the West,[1192] which is [30-40]% of VMO2's total sites.[1193]

10.9 Acting as host involves:[1194]

(a) [✂].

(i) [✂].[1195]

(ii) The Beacon parties have agreed [✂] as part of the Beacon 4.1 Agreements. However this relates to [✂] spectrum assets only. Most sites will be upgraded beyond [✂].[1196]

(b) [✂].

(i) [✂].

[1190] FMN.
[1191] FMN.
[1192] Parties response to the CMA's RFI.
[1193] FMN.
[1194] FMN.
[1195] FMN.
[1196] [✂] response to CMA's RFI.

(ii) [✂].[1197]

10.10 The Beacon 4.1 Agreements include various provisions related to the delivery of the Merged Entity's joint network and its integration within the Beacon grid:

(a) a joint upgrade plan, known as the Consolidated Works Programme (**CWP**), [✂] with financial incentives [✂].[1198] This is an [✂]-year delivery plan, covering about [✂] of the network, which is aimed at synergising the deployment of new equipment across the shared MORAN areas.[1199] The full suite of configurations that can accommodate each of the Beacon parties' [✂] spectrum has been agreed but the precise configuration deployed at each site will [✂].[1200] As part of this plan, the Merged Entity intends to integrate [✂] existing 3UK sites into the Beacon network in the MORAN areas and VMO2 will have the right to [✂];[1201]

(b) [✂];[1202]

(c) [✂][1203] [✂];[1204]

(d) enhanced governance, with [✂].[1205] If the Beacon parties cannot agree the site design for each CWP configuration, [✂].[1206]

(e) provisions relating to the planning, testing and deployment of the MOCN solution. For example, the Beacon parties [✂]. [✂].[1207]

Parties' main submissions

10.11 The Parties submitted that:

(a) there is no ability for the Merged Entity to use its participation in Beacon to disrupt the effective functioning of Beacon and thereby limit the competitive constraint from VMO2.[1208]

(b) all parties to the Beacon 4.1 Agreements have entered into the arrangement on the basis that their respective commercial interests are protected in the

[1197] FMN
[1198] Parties submission, Beacon 4.1,
[1199] [✂].
[1200] VMO2 response to the CMA's RFI.
[1201] Parties, Beacon 4.1 CMA briefing.
[1202] Parties submission.
[1203] Parties submission.
[1204] FMN.
[1205] VMO2 meeting slides.
[1206] Parties submission.
[1207] Parties submission.
[1208] Parties' response to the AIS and working papers.

revised arrangements and that there will be no realistic means for any party to materially disrupt the other. [1209]

10.12 The Parties submitted that the Phase 1 Decision[1210] mischaracterises the Merged Entity's intentions for Beacon post-Merger; that the Merged Entity will have no ability or incentive to disrupt VMO2's network development because:

(a) The Merged Entity will be reliant on VMO2 in the East. Given the geographical divide of Beacon, the Merged Entity would be reliant on VMO2 for the current [✂] sites VMO2 manages to which will be added the 3UK densification sites in the East.

(b) It will need to work closely with VMO2 to achieve its JBP.[1211]

(c) [✂].[1212]

10.13 The Parties submitted that, far from contributing to any SLC, the Beacon 4.1 Agreement will be significantly pro-competitive.[1213]

VMO2's main submissions

10.14 VMO2 told us that the Beacon 4.1 Agreements address any concerns previously shared with the CMA in relation to the effective functioning of the Beacon network sharing agreement.[1214]

10.15 VMO2 stated that:

(a) in order for the network sharing agreement to function effectively they require broad (not perfect) symmetry in terms of spectrum and aligned incentives in terms of rollout, which is provided by the Beacon 4.1 Agreements.[1215]

(b) one party having significantly greater spectral capacity and/or access to sites outside of a network sharing agreement would create an imbalance and remove mutual co-dependence, potentially reducing their incentive to cooperate.[1216]

(c) over the years, VUK and VMO2's incentives have [✂], and their mutual dependence has evolved over time. For example, [✂]. However, with similar

1209 Parties' response to the AIS and working papers.
1210 We note that at the time of the Phase 1 Decision, the Parties had not signed the Beacon 4.1 Agreements.
1211 The JBP incorporates the JNP.
1212 Parties' initial submission, 1 May 2024, paragraphs 5.2 and 5.16.
1213 Parties' response to the AIS and working papers.
1214 VMO2 call note; VMO2, Incentives submission; and VMO2, letter.
1215 VMO2 call note.
1216 VMO2 meeting slides.

allocations of spectrum in Ofcom's most recent auction for the 3.4-3.6 GHz band, [✂].[1217]

(d) by re-aligning the Merged Entity and VMO2's incentives to cooperate, Beacon 4.1 removes the Merged Entity's incentives to harm VMO2.[1218]

(e) Beacon 4.1 will enable VMO2 to compete more effectively post-Merger, reducing the Merged Entity's ability to harm VMO2 by not cooperating in Beacon, [✂].[1219]

10.16 We note that we have received internal documents from VMO2 which are consistent with their submissions that the Beacon 4.1 Agreements solve their network sharing concerns:

(a) A VMO2 November 2023 Board document states that it was concerned that the Merger, including the resulting spectrum asymmetry, would undermine its existing network sharing agreement (Beacon), but that these concerns would be addressed by signing the Beacon 4.1 Agreements. It noted that it had managed to [✂].[1220]

(b) A VMO2 November 2023 Board document states that '[✂]'.[1221]

Our approach to contractual protections

General approach

10.17 As a starting position, the CMA considers that there are typically limitations in the extent to which contracts, including contracts entered into by parties during our investigation, are capable of resolving competition concerns identified by the CMA. Paragraph 7.15 of CMA129 outlines some of these limitations, in particular:[1222]

(a) Scope and implementation of the contract – the contract may not cover all the ways in which the anticompetitive effect may arise. In particular, the contractual terms may not be sufficiently specified or may not be fully implemented.

(b) Duration – the contract may not cover the entire period during which the SLC is expected to persist. Its term may be limited or it may be terminated.

[1217] VMO2 Incentives submission.
[1218] VMO2 meeting slides.
[1219] VMO2 meeting slides.
[1220] VMO2 internal document.
[1221] VMO2 internal document.
[1222] CMA129 refers to these limitations in the context of vertical foreclosure concerns but we consider that the principles stated have wider application and are relevant to the issues we are considering this case, including in relation to the Beacon network sharing arrangement.

(c) Renegotiation – the contract may be renegotiated such that it no longer addresses the competitive concern.

(d) Waiver / non-enforcement – the counterparty may waive its rights under the contract or not seek to enforce it in case of breach.

(e) Consequences of breach – the financial and other (eg, reputational) consequences of breach may not outweigh the benefits for the merging party of non-compliance.

10.18 Accordingly, the CMA's assessment of the ability of the Merged Entity to foreclose its rivals is unlikely to place material weight on contractual protections. However, CMA129 makes it clear that the CMA may consider any financial or reputational costs of terminating contracts in its assessment of foreclosure incentives. We consider it is possible in principle that the financial or reputational impacts of breaching contracts could impact the merged entity's incentive to foreclose. However, we consider that the impact depends on the likely consequences in the event the Merged Entity did adopt a foreclosure strategy and therefore breached the contracts, and the materiality of the consequences. We consider the Merged Entity's market power and the third party's bargaining power post-Merger relevant to this assessment.

10.19 In any case, the impact of a contract with a third party, including a contract entered into by parties during our investigation, will depend on the particular circumstances of the case, including the nature of the contract. In principle, it may impact the competitive assessment directly, for example by affecting the ability or incentive of the merged entity to foreclose. This may be more likely where the bargaining position of the merged entity and the counterparty is more balanced. It may also do so indirectly, by giving rise to efficiencies that countervail the SLC.

The Beacon 4.1 Agreements

10.20 The CMA takes a forward-looking approach when assessing mergers. It takes account of foreseeable developments that would occur post-merger to evaluate post-merger competitive dynamics. Where a contract is entered into between a merger party and a third party during the CMA's assessment of a merger, the CMA must therefore consider the extent to which it impacts the competitive assessment.

10.21 In the present case, we consider that VUK had longer-term commercial incentives to enter into the Beacon 4.1 Agreements, as opposed to purely short-term regulatory incentives to address potential competition concerns arising from the Merger. Indeed, whilst entered into during our review of the Merger, the Beacon 4.1 Agreements are the latest iteration of the long-standing Beacon network sharing arrangements. Moreover, it was necessary for VUK to enter into these Agreements with VMO2, given the Parties intend for the Beacon network to be the base grid for the Merged Entity's network, including by integrating some of the sites currently belonging to 3UK (and the Merged Entity thus needed to ensure its network integration post-Merger was contractually possible under the Beacon arrangements, as set out in paragraph 10.10 above) .

10.22 We have considered the extent to which the typical limitations that may apply to contracts (as outlined in paragraph 10.17 above) apply to the Beacon 4.1 Agreements. We consider that the scope and dynamics of the Beacon 4.1 Agreements mean that many of the typical limitations are not present. In particular:

(a) following the implementation of the Beacon 4.1 Agreements, the Merged Entity will continue to rely on VMO2 for the provision of mobile telecommunication services in the East of the country (given the geographical divide of Beacon). Terminating the network sharing arrangement would therefore likely be costly and undesirable, as it would require the Merged Entity to build or access a new grid in half of the country.

(b) the risk of a failure to fully implement or breach the Beacon agreements, including the Beacon 4.1 Agreements, is also reduced as a result of the mutual dependency of the network sharing partners, in particular as the Merged Entity will need VMO2's cooperation for merger integration and to roll out its joint network.

10.23 As a result, we expect that the Merged Entity will continue to be committed to Beacon 4.1 post-Merger and that VMO2 will maintain sufficient bargaining power when ensuring compliance with the agreements and negotiating any future amendments. In addition, we also consider it relevant that the Beacon 4.1 Agreements include a spectrum divestment from VUK to VMO2, which increases spectral symmetry between VMO2 and the Merged Entity and enhances VMO2's ability to compete. Once the totality of the spectrum is transferred, there will not be any ongoing contractual obligations between VUK and VMO2 in relation to the STA.[1223]

10.24 In light of the above, the CMA has taken into account the Beacon 4.1 Agreements where relevant in its assessment of the ability and incentive of the Merged Entity to disrupt the effective functioning of the Beacon network sharing arrangement.

Our assessment

10.25 The evidence base for our assessment includes submissions from the Parties and VMO2, VMO2's internal documents and our own assessment of the Beacon 4.1 Agreements.

[1223] The spectrum will be released [✂].

10.26 We consider whether the Merged Entity has the ability and incentive to disrupt the effective functioning of the Beacon network sharing arrangement, thereby limiting the constraint exerted by VMO2 on the Merged Entity post-Merger. In doing so, we consider the impact of the Beacon 4.1 Agreements.

10.27 At the outset, we note that we attach material weight to VMO2's submissions that the Beacon 4.1 Agreements address any concerns previously shared with the CMA in relation to the effective functioning of the Beacon network sharing agreement. This is because:

(a) VMO2 would be the only third party that could potentially be harmed by any disruption of the Beacon network sharing arrangement.

(b) We expect that the current level of mutual dependency between the Beacon parties will remain post-Merger for the reasons mentioned in paragraph 10.22 above, and that, therefore, the Merged Entity will continue to be committed to Beacon 4.1 post-Merger.

(c) VMO2 will maintain sufficient bargaining power when ensuring compliance with the Beacon 4.1 Agreements and negotiating any future amendments. This is distinguishable from other contexts where a weaker contract party may not feel able to express its concerns to the CMA.

Ability

10.28 We set out our view of the ability of the Merged Entity to disrupt the Beacon network sharing arrangement. In particular we set out:

(a) our view of the potential mechanisms for harm; and

(b) our view on the protection offered by the contractual arrangements.

Parties' submissions

10.29 The Parties submitted that:

(a) the view that the Merged Entity could frustrate VMO2 through setting a plan for deployment of VMO2 demand with protracted timescales does not reflect the reality of the Beacon arrangements [✂]. VUK and VMO2 have also agreed [✂] the Merged Entity and VMO2 of the CWP programme which includes [✂]. The CMA also does not take into account the significant financial and operational penalties that would incur if it were to fail to meet agreed timescales;[1224]

[1224] Parties' response to the AIS and working papers.

(b) at existing Beacon sites, the Merged Entity and VMO2 will [✂];[1225]

(c) [✂];[1226]

(d) there is no ability to [✂]. Under the Beacon arrangements neither the Merged Entity nor VMO2 will be able to [✂];[1227] and

(e) VMO2 and the Merged Entity do not have active sharing in a material part of the country, as VMO2 deploys for itself in London and in the 'unwind' areas (covering [✂]% of the UK population). VMO2 deploys for itself and VUK in the East region.[1228]

Mechanisms for harm

10.30 We have considered a range of potential mechanisms through which the Merged Entity could potentially disrupt the effective functioning of Beacon and thereby limit the constraint from VMO2.

10.31 As set out in paragraph 10.8, VUK is responsible for the West of the UK and VMO2 currently uses approximately [✂] sites hosted by VUK in the West, which is [30-40]% of VMO2's total sites. We consider that this amounts to a material proportion of VMO2's total sites. VMO2 would therefore be dependent on the Merged Entity to roll out upgrades to the shared MORAN in the West, [✂].[1229]

10.32 We note that the Beacon 4.1 Agreements include a joint upgrade plan for the Merged Entity's and VMO2's deployment requirements, as set out in paragraph 10.11 above. As part of this:

(a) the Merged Entity and VMO2 have committed to upgrade approximately [✂] existing Beacon sites in the MORAN areas; [1230]

(b) at the existing Beacon sites, the Merged Entity and VMO2 [✂]; [1231] and

(c) the Merged Entity intends to integrate c. [✂] existing 3UK sites into the Beacon network in the MORAN areas and provide VMO2 with [✂].[1232]

[1225] Parties, Beacon 4.1 CMA briefing.
[1226] FMN; and Parties' response to the Issues Letter
[1227] Parties' response to the AIS and working papers.
[1228] Parties' initial submission, 1 May 2024, paragraph 5.14.
[1229] FMN.
[1230] Parties Beacon 4.1 CMA briefing.
[1231] Parties submission, Beacon 4.1, .
[1232] Parties Beacon 4.1 CMA briefing.

10.33 However, whilst the intention of the Beacon 4.1 Agreements is to synergise the Beacon parties' demand requirements, there are some circumstances in which their demand may still progress separately (for example, [✄]).[1233]

10.34 We consider that there are several potential mechanisms for harm. For example, the Merged Entity could disrupt VMO2's network roll-out by:

(a) failing to deliver on the CWPs, including by failing to meet agreed timescales or failing to provide VMO2 access to the retained 3UK sites;

(b) providing VMO2 with a plan for deployment of any additional demand (over and above the CWP) which has protracted delivery timescales; and/or

(c) failing to meet agreed timescales for deployment of any additional demand (over and above the CWP).

Protection offered by the contractual arrangements

10.35 There are penalties for failing to fulfil the CWPs, [✄]. VMO2 also submitted that Beacon 4.1 protects it against harmful behaviours by creating financial and other incentives to adhere to the Beacon principles.[1234]

10.36 We have considered whether the Beacon 4.1 Agreements provide sufficient contractual protection such that the Merged Entity would not have the ability to disrupt the Beacon network sharing arrangement. We have considered:

(a) the duration of the Agreements; and

(b) the clarity of the provisions in the Agreements and the extent to which they are likely to prevent the Merged Entity from disrupting network sharing with VMO2.

Duration

10.37 Beacon 4.1 has extended the term of Beacon to [✄]. Beacon 4.1 shall continue to be in effect [✄].[1235] While we therefore consider that VMO2 may have sufficient notice to protect its commercial position, we consider that this does not completely remove the ability to disrupt the Beacon network sharing arrangements.

The clarity of the provisions in the Agreements

10.38 The main relevant contractual provisions in this regard are:

[1233] VMO2, Beacon 4 Term Sheet.
[1234] VMO2 meeting slides.
[1235] Parties submission, Beacon 4.1, .

(a) the spectrum divestment to VMO2;

(b) the CWPs, which include financial incentives to promote prompt delivery of the agreed network deployment and upgrade plans and penalties for under-delivery; and

(c) access for VMO2 to 3UK sites which are being retained by the Merged Entity with a penalty regime to incentivise the Merged Entity to secure access.

10.39 While the Beacon 4.1 Agreements set out precise obligations, mechanisms and timelines for both parties, particularly in relation to the integration of the Merged Entity's network into Beacon and VMO2's access to 3UK sites and may thus provide some level of protection to VMO2, we place limited weight on these contractual protections when assessing the Merged Entity's ability to disrupt the Beacon network sharing arrangement given they might not protect all ways in which Beacon 4.1 could be disrupted, and they could be renegotiated or breached.

Our view on ability

10.40 Based on the evidence set out above, we have provisionally found that the Merged Entity has the ability to use its participation in Beacon to disrupt the effective functioning of the network sharing arrangement, despite the contractual protections in the Beacon 4.1 Agreements.

Incentive

10.41 We set out our view of the incentive of the Merged Entity to disrupt the Beacon network sharing arrangement.

10.42 For the reasons mentioned in paragraphs 10.18, 10.22 and 10.23 above, we consider that it is appropriate to take into account the Beacon 4.1 Agreements in our assessment of the incentive of the Merged Entity to disrupt the effective functioning of the Beacon network sharing arrangement.

10.43 The Beacon network sharing arrangement relies on relative symmetry between VMO2 and VUK. That symmetry currently incentivises both VUK and VMO2 to deliver on the requirements of the other because they have similar requirements in terms of capacity upgrades, meaning that they are equally dependent on one another.

10.44 The parties to a network sharing arrangement can be symmetric in relation to:

(a) factors affecting capacity (for example, sites or spectrum);

(b) outside options (including access to other sites); and

(c) wider business strategy (for example, 5G roll-out strategy).

10.45 The Beacon 4.1 Agreements impact:

(a) spectrum symmetry between the Beacon parties (via the STA discussed above, whereby VUK is to sell [✂] of spectrum to VMO2 for an agreed price[1236]); and

(b) site symmetry between the Beacon parties (including the number of sites, and equipment on those sites, via the CWPs (which we understand includes access for VMO2 to 3UK sites which will be retained by the Merged Entity).

10.46 The Parties submitted that the Phase 1 Decision overstates the degree of symmetry between VUK and VMO2 today, and that Beacon has always allowed VUK and VMO2 to promote network independence and asymmetry where their network strategies and/or capex commitments change.[1237]

10.47 VMO2 submitted that the Beacon 4.1 Agreements remove the Merged Entity's incentives to harm VMO2.[1238] In particular it submitted that the Beacon 4.1 Agreements ensure that there will be sufficient balance and mutual co-dependence between VMO2 and the Merged Entity resulting from:

(a) provisions that materially improve VMO2's competitive position post-Merger by limiting the gains that the Merged Entity might make from acting to harm or frustrate VMO2 (including the spectrum divestment, [✂]); and

(b) provisions that increase the costs of the Merged Entity acting non-cooperatively ([✂]).[1239]

10.48 VMO2 also submitted that the Beacon 4.1 Agreements include further provisions which protect its competitive position. Under the Beacon 4.1 Agreements, [✂].[1240] In particular, the Beacon 4.1 provisions establish that [✂]. The Merged Entity has committed to [✂].[1241]

10.49 As set out in paragraph 10.43 above, the Beacon network sharing arrangement relies on relative symmetry between the Beacon parties. Where the Beacon parties have similar requirements for capacity upgrades, they are incentivised to co-operate because they are equally dependent on each other. The Beacon 4.1 Agreements include:

(a) provisions which directly affect the symmetry between the parties (STA and site access provisions); and

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1236 This excludes of '[✂]' spectrum.
1237 Parties' initial submission, 1 May 2024, paragraph 5.17.
1238 VMO2 Incentives submission.
1239 VMO2 Incentives submission.
1240 VMO2 meeting slides.
1241 VMO2 Incentives submission.

(b) provisions which are the result of that change in symmetry (CWP site upgrade plan).

10.50 As set out below, the STA and site access provisions in the Beacon 4.1 Agreements increase alignment in the Beacon parties' spectrum and site holdings. We have therefore considered the impact of these provisions on their incentives to co-operate. The CWP site upgrade plan demonstrates that the Beacon parties expect to have an incentive to co-operate post-Merger. This is enabled by the increased symmetry in terms of spectrum and sites.

Impact of STA on spectrum symmetry

10.51 As set out in paragraph 10.3, VUK and VMO2 have now entered into the Beacon 4.1 Agreements. This includes a Spectrum Transfer Agreement, whereby VUK is to sell [✂] of spectrum to VMO2 for an agreed price.

10.52 It also includes an agreement between the Merged Entity and VMO2 to [✂]. This would [✂] VMO2 holds, improving VMO2's spectral efficiency and enabling it to compete more effectively with the spectrum it has available.[1242]

10.53 We have considered the extent to which the STA affects the symmetry between the Beacon parties in relation to spectrum by changing:

(a) number of shared bands;

(b) total amount of spectrum held by each party; and

(c) amount of spectrum held by each party in a given band.

10.54 The Parties submitted that [✂].[1243]

VMO2's submissions

10.55 VMO2 submitted that:

(a) where both Beacon parties have similar spectrum holdings in the same frequency bands it is easier to agree on a site configuration which works for both (eg the antennas which offer the best performance for operator A are also likely to offer the best performance for operator B) [✂].

(b) the alignment is particularly important where [✂]. This is because [✂]. [✂].[1244]

[1242] VMO2 response to CMA's RFI.
[1243] Parties' initial submission, 1 May 2024, paragraph 5.17.
[1244] VMO2 response to the CMA's RFI.

10.56 VMO2 submitted that the Merger does not result in overall reduced spectrum alignment compared to the pre-Merger situation because of the STA which brings greater alignment in terms of:

(a) the number of shared bands ([✂]).[1245]

(b) the total volume of spectrum between VMO2 and the Merged Entity. The most important alignment [✂].[1246]

10.57 In relation to symmetry in the low-band specifically, VMO2 submitted that:

(a) there are no changes to VMO2's [✂] as a result of the STA. While the Merged Entity will have [✂].[1247]

(b) however the Beacon parties already have the same low-band spectrum assets (ie they both have spectrum in the 700, 800 and 900MHz bands). This enables the use of shared kit to radiate all three bands for both of the Beacon parties and a common baseline configuration to be deployed on every active shared site. [✂].[1248]

(c) the common baseline configuration can support [✂].[1249]

10.58 In relation to symmetry in [✂] specifically, VMO2 submitted that the STA increases the symmetry between the Beacon parties:

(a) [✂];[1250] and

(b) as a result, agreement of [✂] via the CWP is expected to be [✂].[1251] The symmetry will also enable faster delivery.[1252]

10.59 VMO2 submitted, in relation [✂] spectrum, that [✂]:

(a) improvement in VMO2's [✂];[1253]

(b) the most important alignment [✂];[1254] and

(c) the benefits and efficiencies, both in terms of the CWP [✂] (see paragraph 10.52 above), outweigh any issues that may otherwise have arisen.[1255]

1245 VMO2 response to CMA's RFI.
1246 VMO2 response to CMA's RFI.
1247 VMO2 response to CMA's RFI.
1248 VMO2 response to CMA's RFI; and VMO2 email.
1249 VMO2 response to CMA's RFI.
1250 VMO2 response to CMA's RFI.
1251 VMO2 response to CMA's RFI.
1252 VMO2 meeting slides.
1253 VMO2 meeting slides.
1254 VMO2 response to CMA's RFI.
1255 VMO2 response to CMA's RFI.

Our assessment

10.60 We have considered the impact of the Merger on spectrum symmetry between the Beacon parties.

10.61 For the reasons mentioned in paragraph 10.27(c) above, we attach material weight to VMO2's submissions.

10.62 We have first considered the extent to which the Merger increases spectrum symmetry between the Beacon parties by increasing alignment between the parties in terms of the number of shared bands of mid-band spectrum. Greater alignment in shared bands enables the Beacon parties to more effectively and efficiently agree site designs and share cell site equipment and enables joint deployment across all bands.

10.63 The STA will increase alignment between the Beacon parties in terms of the number of shared bands [✂]. There is no impact on the number of shared bands in low-band or high-band spectrum. The Beacon parties' holdings of spectrum bands post-Merger are set out in Figure 10.1 below.

Figure 10.1: Number of shared bands post-Spectrum Transfer Agreement

[✂]

Source: VMO2 meeting slides.

10.64 We have also considered the extent to which the Merger (including the STA) affects spectrum symmetry more broadly between the Beacon parties. As set out in Figure 10.2 below:

(a) currently the Beacon parties have broadly similar spectrum holdings (with an overall ratio of 1.1).

(b) the Merger will increase the total spectrum asymmetry between the Beacon parties (from 1.1 to [✂]).

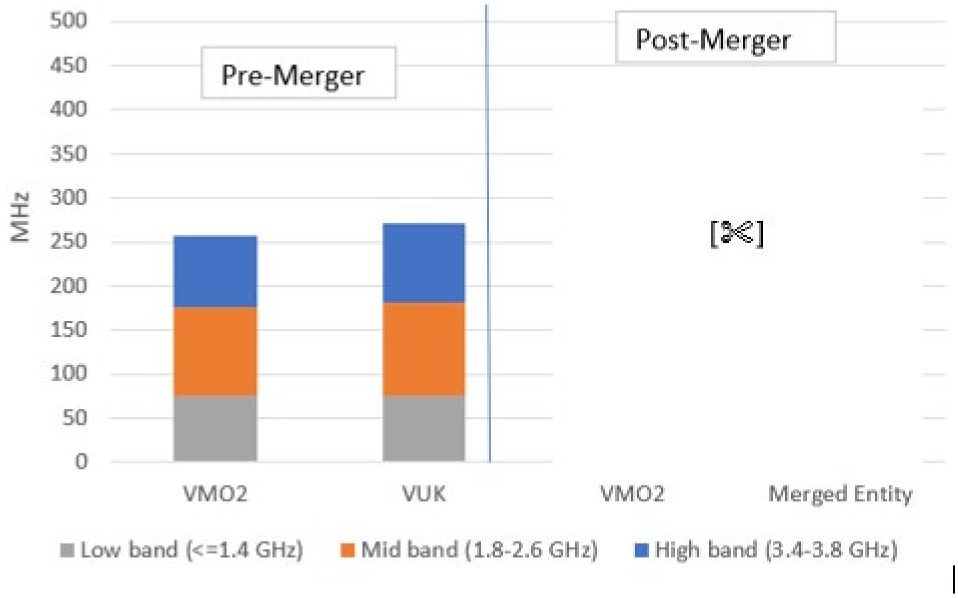
(c) the impact varies by spectrum band:

(i) low-band: the Beacon parties' spectrum asymmetry reduces from 1.0 to [✂].

(ii) mid-band: the Beacon parties' spectrum asymmetry [✂].

(iii) high-band: the Beacon parties' spectrum asymmetry increases from 1.1 to [✂].

Figure 10.2: Impact of the Merger on spectrum symmetry



Source: CMA analysis of Ofcom's [Frequency allocations: mobile and wireless Broadband below 5 GHz]() and the Spectrum Trade Agreement, Parties submission, Beacon 4.1.
Notes: We have not included 3UK's holdings in the 3800-4200MHz band as it is not usable for mobile services (FMN) and allocations expiring on 15 October 2024 and 31 December 2025.

10.65 We consider that:

(a) spectrum asymmetry between the Beacon parties is increased as a result of the Merger, particularly spectrum asymmetry in the high-band; and

(b) notwithstanding this, sufficient alignment will remain between the Beacon parties. We note that the Beacon parties' spectrum holdings do not need to be symmetric for the Beacon network sharing arrangement to function effectively and that total spectrum asymmetry is only increased from 1.1 to [✂].

10.66 We also note that VMO2 does not have concerns in relation to the spectrum asymmetry, and that as set out in paragraph 10.59 above, the asymmetry in high-band spectrum is less of a concern for VMO2.

Incentive of Merged Entity to divest spectrum

10.67 We might still be concerned if the Merged Entity was not sufficiently incentivised to deliver on the STA. We have therefore considered its incentives to comply with the Agreement.

Parties' submissions

10.68 The Parties submitted that the Merged Entity will have no ability or incentive to disrupt VMO2's network development because:

(a) The Merged Entity will be reliant on VMO2 in the East. Given the geographical divide of Beacon, the Merged Entity would be reliant on VMO2 for the current [✂] sites VMO2 manages to which [✂]. [1256]

(b) It will need to work closely with VMO2 in the context of Beacon to achieve its JBP. The proposed Merged Entity site grid [✂]. The need to carry out [✂], is critical to delivering the benefits of the Merger.[1257]

10.69 The Parties also submitted, in relation to the STA specifically, that:

(a) the Merged Entity has a contractual obligation to divest the spectrum, including [✂];[1258] and

(b) [✂].[1259]

VMO2's submissions

10.70 VMO2 submitted that it will need to support the Merged Entity's MOCN rollout. The Beacon 4.1 Agreements include financial incentives for it to achieve certain MOCN delivery milestones.[1260]

10.71 In relation to the STA specifically, VMO2 submitted:

(a) it doesn't see the spectrum transfer as being uncertain, and noted the incentive for VUK to transfer the spectrum to benefit from the GBP [✂] million payment from VMO2.[1261]

(b) the Merged Entity has committed [✂].[1262] [✂].[1263]

Our assessment

10.72 As set out in paragraph 10.27, we first note that we attach material weight to VMO2's submission that the Beacon 4.1 Agreements alleviate its concerns, considering we expect that the current level of mutual dependency between the Beacon parties will remain post-Merger and, that, therefore, the Merged Entity will continue to be committed to Beacon 4.1 post-Merger and VMO2 will maintain sufficient bargaining power.

10.73 We note that the nature of the spectrum divestment (a one-off transaction) means that VMO2 does not require the Merged Entity to have ongoing incentives to

[1256] Parties' initial submission, 1 May 2024, paragraphs 5.2 and 5.16.
[1257] Parties' initial submission, 1 May 2024, paragraphs 5.2 and 5.16.
[1258] Vodafone internal document. Parties submission, Beacon 4.1,
[1259] Parties, Beacon 4.1 CMA briefing
[1260] VMO2 meeting slides; and VMO2 Incentives submission.
[1261] VMO2 call note.
[1262] VMO2 Incentives submission
[1263] VMO2 meeting slides.

cooperate with VMO2 and respect its contractual obligations under Beacon 4.1 once the totality of the spectrum has been released. We have therefore considered the extent to which the Merged Entity has the incentive to cooperate with VMO2 in the period before the spectrum has been released.

10.74 The spectrum transfer is allocated and phased as set out in Tables 10.1 and 10.2 below. In this context, 'Day 1', as defined in the STA, is the first working day after the date that is [✂] after Merger Completion, or [✂].[1264]

10.75 The Parties submitted that the rationale for [✂].[1265]

Table 10.1: Spectrum allocation

Band	*Amount (MHz and % of total)*	*Allocation (£m and % of total)*
[✂]	[✂]	[✂]
[✂]	[✂]	[✂]
[✂]	[✂]	[✂]
[✂]	[✂]	[✂]
[✂]	[✂]	[✂]

Source: Parties submission, Beacon 4.1. This includes [✂] of 'power restricted' spectrum in [✂] band.

Table 10.2: Spectrum release timetable

Spectrum band	*Day 1*	*Yr1*	*Yr2*	*Yr3*	*Yr4*	*Yr5*	*Yr6*
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Vodafone response to the CMA's s109 notice

10.76 There are a number of reasons why we consider the Merged Entity would be incentivised to divest the spectrum:

(a) The Parties estimate it will take approximately nine years to fully integrate their networks.[1266] This implies that the Merged Entity will be reliant on VMO2's cooperation for the entire period of the spectrum transfer (as set out in Table 10.2) (the Merged Entity will need VMO2 to rollout the MOCN solution in the East MORAN area on its behalf). We consider this will give the Merged Entity the incentive to divest the spectrum, as VMO2 will have leverage over the Merged Entity if it does not comply with its obligations. For example, as part of Beacon 4.1, VMO2 has committed to [✂].[1267] In other words, we expect that the current level of mutual dependency between the Beacon parties will remain post-Merger and, that, therefore, the Merged Entity will continue to be committed to Beacon 4.1 post-Merger and VMO2 will maintain sufficient bargaining power.

[1264] Parties submission, Beacon 4.1,
[1265] Parties, Beacon 4.1 CMA briefing.
[1266] FMN.
[1267] VMO2 meeting slides. Parties submission, Beacon 4.1.

(b) The Parties intend to [✂].[1268] VMO2 is also responsible for maintaining and upgrading the shared network in the East MORAN areas. Currently this represents [✂][1269] ([✂]% of the Merged Entity's total sites based on the JBP), although we note that the number of sites will likely increase over time as VMO2 also becomes responsible for some of the retained 3UK sites in the East MORAN area.[1270]

10.77 We have received internal documents from VMO2 which are consistent with the Merged Entity being reliant on VMO2, in particular during the early years after Merger completion:

(a) A VMO2 November 2023 Board document states that in exchange for securing [✂].[1271]

(b) A VMO2 November 2023 Board document also notes that VMO2 is to support delivery of MOCN for the Merged Entity [✂].[1272]

10.78 We also consider that there are other benefits to the Merged Entity divesting the spectrum as planned:

(a) as set out in Table 10.1, the Merged Entity gains from divesting the spectrum via the payment from VMO2 (GBP [✂] million).

(b) [✂] set out in the STA, VUK will receive [✂] from VMO2 and VMO2 will receive [✂]. This [✂] will allow VUK to reconfigure its own spectrum holdings and benefit from a more efficient spectrum holding. This in turn will allow it to use less equipment and reduce interference.[1273]

10.79 As set out above, we note that:

(a) the Merged Entity has a contractual obligation to divest the spectrum, [✂].

(b) [✂].

(c) it would be very costly for the Merged Entity to breach the STA given the [✂], the payment of £[✂] million which it would forgo, and the negative impact it would have on VMO2's willingness to cooperate with the Merged Entity (i) in the East MORAN area where it is the host and (ii) for merger integration and to roll out its joint network.

[1268] FMN.
[1269] Parties response to the CMA's RFI.
[1270] As part of the Beacon 4.1 Agreements VMO2 will become the 'host operator' for the Retained 3UK sites in East MORAN areas (ie it will become responsible for maintaining and upgrading the sites as it is currently for sites in the East MORAN area). If the Merged Entity does not manage to get VMO2 the relevant hosting rights, this triggers a liability ([✂] described below).
[1271] VMO2 internal document.
[1272] VMO2 internal document.
[1273] Parties, Beacon 4.1 CMA briefing. Parties submission, Beacon 4.1,

10.80 Based on the evidence above we consider that the Merged Entity will have an incentive to give VMO2 access to the 3UK sites it will retain in MORAN areas.

Impact of Beacon 4.1 Agreements on site symmetry

10.81 The Beacon 4.1 Agreements affect the symmetry between the Beacon parties in relation to sites by changing the total number of sites each has access to.

10.82 The Parties submitted that, [✂].[1274]

VMO2's submissions

10.83 VMO2 submitted that:[1275]

(a) VMO2 will have the opportunity to [✂] under Beacon 4.1 ([✂]). This will improve VMO2's [✂].

(b) The spectrum transfer will, amongst other things, rebalance the need for [✂].

Our assessment

10.84 We have considered the extent to which the Merger affects symmetry between the Beacon parties by affecting the total number of sites each has.

10.85 As set out in paragraph 10.27, we attach material weight to VMO2's submission that the Beacon 4.1 Agreements alleviate its concerns.

10.86 Currently, both VMO2 and VUK have access to about [✂] sites in shared MORAN areas and [✂] sites in total.[1276]

10.87 Under the JBP, the Merged Entity's combined network will have [✂] sites.[1277] As part of this the Merged Entity plans to retain about [✂] 3UK sites in shared MORAN areas and about [✂] 3UK sites in [✂].[1278]

10.88 As part of the Beacon 4.1 Agreements, the Merged Entity has agreed to give VMO2 access to the 3UK sites it will retain in MORAN areas. As set out in paragraph 10.10, the Merged Entity intends to integrate about [✂] existing 3UK sites into the Beacon network. Assuming the Merged Entity does integrate [✂] 3UK sites into the Beacon network (which, as discussed below is not certain), VMO2 would have access to [✂]% more sites in shared, MORAN areas and [✂]

1274 Parties' initial submission, 1 May 2024, paragraph 5.17. Parties submission, Beacon 4.1, .
1275 VMO2 Incentives submission.
1276 Vodafone response to the CMA's RFI; and VMO2 response to the CMA's RFI.
1277 FMN.
1278 Parties response to the CMA's RFI .

sites in total (compared to the Merged Entity's [✂]).[1279] We consider this would broadly re-establish the symmetry that exists absent the Merger.

10.89 We note that there is a degree of uncertainty around:

(a) the number of 3UK sites the Merged Entity will retain (ie the JBP); and

(b) whether BTEE and multiple site providers (MSPs) will grant VMO2 access to the retained 3UK sites.

10.90 In relation to the uncertainty around the number of 3UK sites the Merged Entity will retain, we note that:

(a) the Merged Entity has committed to the principle of giving VMO2 access to all retained 3UK sites in shared MORAN areas,[1280] and therefore the Beacon parties will retain symmetry (in terms of access to sites) in these areas.

(b) the Merged Entity could add more sites in the London and Unwind areas than planned, leading to increased asymmetry between the Beacon parties. The London and Unwind areas currently amount to [✂]% of VUK's total sites,[1281] and cover [✂]% of the UK population.[1282] In that regard we consider:

(i) As set out in paragraph 10.83 above, VMO2 has submitted that the spectrum transfer will rebalance the need for new sites between VMO2 and the Merged Entity and that even without access to 3UK sites (which is achieved under Beacon 4.1), VMO2's demand for new sites is materially reduced due to the additional spectrum available to it.

(ii) VMO2 told us that as part of the negotiation it put together a list of about [✂] it was interested in [✂].[1283] We consider this suggests that the Beacon parties do not require perfect alignment in sites for the network sharing arrangement to work, and that the Merged Entity could therefore increase the number of 3UK sites it retains in London and Unwind areas without disrupting the network sharing arrangement.

(iii) We think the Merged Entity's incentive is likely to be to cut back on the number of sites planned in the JBP (see Chapter 14, Incentive to deliver the full JBP); therefore, the Merged Entity would be likely to add fewer, not more, sites in the London and Unwind areas than planned.

10.91 As indicated above, BTEE and MSP consent may be required in order for VMO2 to access the retained 3UK sites and this could lead to a concern that VMO2 might

[1279] Vodafone internal document.
[1280] Parties submission, Beacon 4.1,
[1281] Parties response to the CMA's RFI.
[1282] FMN.
[1283] VMO2 call note

be prevented from accessing some of these sites by their refusals. However, we do not consider this a concern:

(a) BTEE: Where a BTEE consent issue arises, the Beacon parties have agreed a process, [✂].[1284] VMO2 also noted that they had agreed a process in the event of [✂], which in any event they noted was time-limited.[1285] We note that as part of the STA, [✂].[1286] This may provide BTEE with incentives to co-operate with the Beacon parties.

(b) MSPs eg Cellnex, WIG: We consider that MSPs are incentivised to grant VMO2 site permissions in order to increase their revenue.

(i) VMO2 told us that MSPs have a natural incentive to have VMO2 on the sites because their business model is to make revenue. They also noted that the initial engagement with [✂] had been positive.[1287] We note that VUK and VMO2 signed a new agreement with Cellnex on [✂].[1288]

(ii) [✂].[1289]

(iii) VUK and VMO2 signed a new agreement with Cellnex on [✂].[1290]

10.92 A TowerCo told us that there can be practical challenges to adding another operator to a site, depending on how they are added but that an active RAN share has limited impact on the physical infrastructure, providing no additional antenna are required for the spectrum (if further antenna are needed to accommodate additional spectrum bands, the tower may need strengthening or replacing in the extreme).[1291] However, the same TowerCo also noted that operational practicalities of integrating an MNO [3UK] onto Beacon sites could be categorised as ‘business as usual’, ie getting landlord consent, installing more equipment onto sites, upgrading the infrastructure etc.[1292]

10.93 We consider that:

(a) site asymmetry between the Beacon parties will be increased as a result of the Merger, in particular given the Merged Entity will have access to additional sites in London and Unwind Areas.

1284 Vodafone internal document; and Parties submission, Beacon 4.1.
1285 VMO2 call note; and Parties submission, Beacon 4.1.
1286 Parties, Beacon 4.1 CMA briefing; and Parties submission, Beacon 4.1.
1287 VMO2 call note.
1288 See Cellnex UK, Vodafone UK and Virgin Media O2 agree new long-term partnership to boost UK mobile connectivity - Cellnex, accessed by the CMA on 10 September 2024.
1289 [✂] call note.
1290 Vodafone response to the CMA’s section 109 notice.
1291 [✂] call note
1292 [✂] call note

(b) notwithstanding this, sufficient alignment will remain between the Beacon parties. We note that the Beacon parties' site holdings do not need to be symmetric for the Beacon network sharing arrangement to function effectively and that VMO2 has submitted that the spectrum transfer reduces the need for site alignment.

Incentive of Merged Entity to improve VMO2's site access

10.94 Although we recognise that the Beacon parties do not require perfect alignment for the network sharing arrangement to function, and that, as set out at paragraph 10.83 above, the spectrum transfer will rebalance the need for new sites between VMO2 and the Merged Entity, we might still be concerned if the Merged Entity had no incentive to deliver on the Beacon 4.1 Agreements (ie get VMO2 access to the retained 3UK sites). We have therefore considered its incentives to comply with the Agreement.

Parties' submissions

10.95 As set out in paragraph 10.68, the Parties submitted that the Merged Entity will have no ability or incentive to disrupt VMO2's network development because it will be reliant on VMO2 in the East and will need to work closely with VMO2 in the context of Beacon to achieve its JBP.

10.96 The Parties also submitted that VUK and VMO2 will enter into legally binding amendments to the Beacon agreements, including [✄].[1293]

VMO2's submissions

10.97 As set out in paragraph 10.70, VMO2 submitted that:

(a) it will need to support the Merged Entity's MOCN rollout.

(b) the Beacon 4.1 Agreements include financial incentives for it to achieve certain MOCN delivery milestones.

10.98 VMO2 also submitted that the Merged Entity is incentivised to provide it with site access because:

(a) the Merged Entity's failure to comply with [✄] would cause it to be subject to [✄] payments [✄].[1294]

(b) sharing sites with VMO2 enables it to share the costs of those sites.[1295]

[1293] Parties' initial submission, 1 May 2024, paragraphs 5.2 and 5.16.
[1294] VMO2 meeting slides
[1295] VMO2 call note

Our assessment

10.99 As set out in paragraph 10.27, we attach material weight to VMO2's submissions that the Beacon 4.1 Agreements alleviate its concerns.

10.100 As set out in paragraph 10.22, we note that the Merged Entity will continue to rely on VMO2 for the provision of telecoms services in the East of the country and will need VMO2's cooperation for merger integration and to roll out its joint network, which means that the current level of mutual dependency between the Beacon parties will remain post-Merger. As a result, we expect that the Merged Entity will continue to be committed to Beacon 4.1 post-Merger and that VMO2 will maintain sufficient bargaining power when ensuring compliance with the Beacon 4.1 Agreements and negotiating any future amendments.

10.101 We note that [✂]:[1296]

(a) [✂];[1297]

(b) [✂];[1298] and

(c) [✂].[1299]

10.102 We received internal documents from VMO2 which note the role of these '[✂]'. A VMO2 November 2023 Board document notes that:

(a) '[✂]'.[1300]

(b) '[✂]'.[1301]

10.103 We therefore consider that the Merged Entity has the incentive to comply with the Beacon 4.1 provisions in relation to the retained 3UK sites given the [✂] and the Merged Entity's reliance on VMO2's co-operation post-Merger.

Our view on incentive

10.104 Based on the evidence set out above, we have provisionally found that the Merged Entity does not have the incentive to use its participation in Beacon to disrupt the effective functioning of the network sharing arrangement.

1296 Parties submission, Beacon 4.1, .
1297 Parties submission, Beacon 4.1, .
1298 Parties submission, Beacon 4.1, .
1299 Parties submission, Beacon 4.1, .
1300 VMO2 internal document
1301 VMO2 internal document

Effect

10.105 As we have not found that the Merged Entity has the incentive to disrupt the Beacon network sharing arrangement, we have not assessed the effect on competition.

Provisional conclusion on the impact of the Merger on the constraint from VMO2 through the Merged Entity's participation in Beacon

10.106 Based on our assessment of the evidence set out above, we have provisionally found that the Merged Entity will not have the incentive to disrupt the Beacon network sharing arrangement and thereby harm VMO2's ability to exert an effective competitive constraint in the retail and wholesale markets.

11. IMPACT OF THE MERGER ON THE CONSTRAINT FROM BTEE THROUGH THE MERGED ENTITY'S PARTICIPATION IN MBNL

11.1 In this section, we consider:

(a) whether, following the Merger, the Merged Entity would have the ability to use its participation in MBNL to limit the constraint from BTEE;

(b) whether the Merged Entity would have the incentive to do so; and

(c) whether any impact on the constraint exerted by BTEE would harm BTEE's ability to exert a competitive constraint in the retail and wholesale markets.

11.2 The rest of this section is structured as follows:

(a) Background to MBNL;

(b) BTEE's high-level concerns;

(c) Parties' main submissions;

(d) Our assessment, structured as follows:

(i) Ability;

(ii) Incentive;

(iii) Effect; and

(e) Our provisional conclusion.

Background to MBNL

11.3 As set out in Chapter 5, MBNL was established as a 50/50 joint venture in December 2007. It now primarily manages existing passive infrastructure and joint sites on behalf of BTEE and 3UK. [✄]% of BTEE's sites are currently shared with 3UK via MBNL.[1302] The MBNL joint venture is due to be terminated in 2031.

11.4 MBNL has its own staff who are independent from the shareholders and who have delegated responsibility for the day-to-day operations.[1303]

[1302] BTEE meeting with Ofcom.
[1303] FMN.

11.5 BTEE and 3UK are each obliged under the MBNL Agreements to pay their share of amounts [✂] to MBNL.[1304] The amount [✂].[1305] MBNL's operating costs include rent, rates, operational services, electricity and transmission.[1306]

11.6 [✂] which has been approved by [✂].[1307] It has also been approved by [✂],[1308] and was ratified by the Board on [✂].[1309]

11.7 Both shareholders sit on MBNL's board of directors and MBNL's governing committees ([✂]). [✂].[1310] [✂].[1311]

11.8 There are also a number of other, working-level forums/bodies, for example the [✂], which are involved in operationalising the JV.[1312]

11.9 Strategic decision-making and the overall control and direction of MBNL is exercised by [✂].[1313]

11.10 We understand that MBNL's dispute resolution process includes [✂]. Therefore, [✂].[1314] There are [✂]:

(a) The day-to-day operations [✂]. [✂].[1315]

(b) The managing director of MBNL – [✂] and has a fiduciary duty to MBNL – [✂][1316] [✂].[1317] We understand that [✂].[1318]

11.11 The stated core principles of the latest agreement entered into between the MBNL shareholders came into effect in [✂] 2023 (known as the Stanley Agreement[1319]), include:[1320]

(a) transition to a simplified operating model for MBNL as a provider of cost-efficient services to the shareholders, focussed primarily on estates management; and

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[1304] CK Hutchison internal document.
[1305] [✂].
[1306] MBNL call note
[1307] Parties' response to the phase 1 Issues Letter.
[1308] BTEE response to the CMA's RFI
[1309] BTEE email
[1310] CK Hutchison response to CMA question by email.
[1311] FMN.
[1312] CK Hutchison, MBNL call transcript, 31 July 2024 page 4; and MBNL call note
[1313] CK Hutchison internal document.
[1314] CK Hutchison internal document
[1315] CK Hutchison internal document
[1316] [✂].
[1317] CK Hutchison internal document.
[1318] BTEE response to the issues statement, 16 May 2024, Box 3.1; and MBNL call note
[1319] Referred to as within 3UK.
[1320] CK Hutchison internal document.

(b) facilitate, and continue to facilitate, the shareholders' ability to pursue their separate technical and operational objectives for their networks, independently of each other.

11.12 Under the Stanley Agreement, BTEE and 3UK have ceased jointly upgrading sites through MBNL and now perform all upgrades independently of each other and predominantly at their own, rather than shared, expense.[1321]

11.13 Notwithstanding this, there are a number of processes by which shareholders manage upgrades to sites via MBNL, which we discuss in more detail below, including:

(a) Shareholders need to declare their high-level technology upgrade plans to MBNL's [✂]. This relates to 'once in a generation' technologies (eg [✂])[1322], and new equipment designs.[1323]

(b) A change control process is used when a shareholder wishes to make changes to the configuration of a site which could have an impact on the operation of the other shareholders' service. Both shareholders play a role in reviewing and approving (or rejecting) proposed changes.[1324]

(c) MBNL's change management process (**CMP**) is a separate process used by shareholders to raise permits to undertake work at a site. The CMP is wholly administered by MBNL.[1325]

(d) The [✂] are working-level MBNL bodies responsible for managing situations where both shareholders wish to do works at the same location at similar times, and coordinating between the shareholders to avoid clashes.[1326]

11.14 On 10 November 2022, Cellnex completed the acquisition of the passive infrastructure assets of CK Hutchison and its subsidiaries in the UK (including 3UK) (the **Cellnex Transaction**).[1327] Upon termination of MBNL under the MBNL Agreements (in 2031), the sites that are allocated to 3UK will be transferred to Cellnex in accordance with the provisions of the agreements between 3UK and Cellnex.[1328]

11.15 [✂].[1329] [✂].

[1321] FMN.
[1322] MBNL call note
[1323] MBNL call note
[1324] MBNL call note.
[1325] MBNL call note
[1326] MBNL call note
[1327] FMN.
[1328] FMN.
[1329] CK Hutchison internal document.

BTEE's high-level concerns

11.16 BTEE submitted that MBNL is a successful network sharing arrangement and that it is highly dependent on MBNL to invest and innovate in its network.[1330] In particular, BTEE submitted that:

(a) MBNL is key to the success of BTEE's mobile business;[1331]

(b) it relies on MBNL to build sites and roll out technologies;[1332] and

(c) MBNL manages both its shared and unilateral sites.[1333]

11.17 BTEE submitted that the contractual relationship between BTEE and 3UK in relation to MBNL is, in part, [✂]. BTEE submitted that [✂].[1334]

11.18 BTEE submitted that without aligned incentives, MBNL cannot function effectively, [✂].[1335]

11.19 BTEE identified a range of potential mechanisms of harm which it considers that the Merged Entity could use to disrupt the effective functioning of MBNL.[1336] These include:

(a) The Merged Entity could limit the funding of MBNL. For example, the Merged Entity could limit or block the funding of [✂];[1337]

(b) The Merged Entity could block and/or delay upgrades to MBNL sites by, for example:

(i) slowing down, or blocking BTEE's proposed unilateral deployments on shared sites;

(ii) disengaging with (approvals [✂]) [✂] on shared sites; and

(iii) disengaging with or delaying carrying out unilateral deployments on shared sites ([✂]).[1338]

(c) The Merged Entity could increase BTEE's costs after 2031, by reducing the extent of site sharing with BTEE. Indeed, BTEE told us that [✂] MBNL, as it is currently structured, would come to an end in 2031 (owing to 3UK's sale of

[1330] BTEE response to the issues statement, 16 May 2024, paragraph 3.2.
[1331] BTEE call note
[1332] BTEE response to the CMA's invitation to comment
[1333] BTEE call note
[1334] BTEE response to the issues statement, 16 May 2024, paragraph 3.31.
[1335] BTEE meeting slides
[1336] BTEE response to the issues statement, 16 May 2024, paragraph 3.45.
[1337] BTEE response to the issues statement, 16 May 2024, paragraph 3.48.
[1338] BTEE response to the issues statement, 16 May 2024, paragraph 3.45.

infrastructure to Cellnex). BTEE submitted that in the absence of the Merger [✂], but post-Merger it was concerned that [✂].[1339]

(d) The Merged Entity could overload MBNL sites with VUK traffic.[1340]

Parties' high-level submissions

11.20 The Parties submitted that the Merged Entity does not have the ability or incentive to frustrate BTEE via MBNL.[1341]

11.21 In particular, the Parties submitted that:

(a) MBNL is a passive sharing arrangement and has been significantly scaled back to an 'EstatesCo', with very limited activities which largely involve managing the shared estate of sites and passive infrastructure.[1342]

(b) MBNL has been designed to facilitate operational independence as between the shareholders and BTEE currently has, and will continue to have, full freedom to develop its network entirely independently of 3UK. This has enabled BTEE to roll out its 4G and 5G networks in advance and independently of 3UK, and to become recognised as the best quality mobile network in the UK with very different network characteristics to 3UK.[1343]

11.22 We address the Parties' submissions in relation to the specific mechanisms for harm raised by BTEE below.

Analytical framework

11.23 We have considered a range of ways by which the Merged Entity could disrupt the effective functioning of MBNL and thereby limit the constraint from BTEE ('mechanisms for harm'):

(a) The Merged Entity could block and/or limiting funding.

(b) The Merged Entity could block and/or delay BTEE's network upgrades via MBNL.

(c) The Merged Entity could increase BTEE's costs after 2031, by reducing the extent of site sharing with BTEE.

[1339] BTEE; and BTEE response to the CMA's RFI
[1340] BTEE response to the issues statement, paragraph 3.45.
[1341] Parties' response to the AIS and working papers.
[1342] Parties' initial submission, 1 May 2024, paragraph 5.2(i).
[1343] Parties' initial submission, 1 May 2024, paragraphs 5.2(i) and 5.4.

(d) The Merged Entity could increase BTEE's costs, by overloading MBNL sites.

11.24 We have assessed each of these by considering whether following the Merger:

(a) the Merged Entity would have the ability to use its participation in MBNL to limit the constraint from BTEE;

(b) the Merged Entity would have the incentive to do so; and

(c) whether any impact on the constraint exerted by BTEE would harm BTEE's ability to exert a competitive constraint in the retail and wholesale markets.

11.25 As noted at paragraph 11.18, BTEE made the broad submission that without aligned incentives, MBNL cannot function effectively. We consider that the CMA can only take into account any potential harm to BTEE arising from misaligned incentives if this capable of being reflected in identifiable mechanisms for harm.

11.26 BTEE submitted that:

(a) for the purposes of determining the Merged Entity's ability to harm the effective functioning of MBNL and thereby limit the competitive constraint from BTEE, no material weight should be placed on protections available to BTEE under the relevant MBNL contracts.

(b) The contracts may not in any case protect against all mechanisms through which MBNL's effective functioning could be harmed.

(c) The contracts are complex, subject to technological change and may need to be renegotiated to accommodate for changes in the purpose and scope of the network sharing arrangement.[1344]

11.27 For the reasons mentioned in Chapter 10, we currently consider that the existence of contractual protections (including the existence of an agreed business plan) does not of itself eliminate the ability of the Merged Entity to harm the effective functioning of MBNL.

11.28 However, as indicated in Chapter 10, we consider it is possible in principle that the financial or reputational impacts of breaching MBNL agreements would impact the Merged Entity's incentive to disrupt the MBNL network sharing arrangement in a manner that breaches the MBNL agreements. However, we consider this depends on the likely consequences of disrupting the network sharing arrangement and breaching the MBNL agreements, and the materiality of those consequences in all the circumstances, including the Merged Entity's market power and BTEE's bargaining power post-Merger.

[1344] BTEE response to the issues statement, 16 May 2024, paragraph 1.17.

Ability

11.29 We consider each of the potential mechanisms for harm in turn.

Whether the Merged Entity could block and/or limit funding

11.30 In this section we consider whether the Merged Entity would have the ability to limit the constraint from BTEE by blocking and/or limiting funding.

11.31 As set out in paragraph 11.5, BTEE and 3UK are each obliged under the MBNL Agreements to pay their share of amounts [✂] to MBNL. The MBNL Co-operation Agreement sets out the [✂][1345] and the obligation for each shareholder to fund or pay its share of funding under various provisions identified under the MBNL Co-operation Agreement:

(a) Some of these funding obligations concern the operation of the MBNL JV, [✂]. For example, [✂].

(b) [✂].

11.32 [✂].

11.33 The MBNL Agreements provide a process [✂].[1346] We discuss the details of this process in more detail in paragraph 11.121.

BTEE's submissions

11.34 BTEE submitted that:

(a) MBNL funding is agreed through a combination of a [✂].[1347]

(b) there are [✂].[1348]

(c) apart from [✂].[1349,1350]

(d) in reality therefore, MBNL [✂].[1351]

(e) [✂].[1352]

11.35 BTEE submitted that the Merged Entity could block and/or limit funding by:

[1345] CK Hutchison internal document.
[1346] CK Hutchison internal document; and BTEE response to RFI
[1347] BTEE response to the CMA's RFI
[1348] BTEE call note
[1349] BTEE call note
[1350] BTEE response to the CMA's RFI
[1351] BTEE response to the CMA's RFI
[1352] BTEE call note

(a) obstructing the process by which funding [✂].[1353]

(b) refusing approval of [✂].[1354]

(c) limiting funding of [✂] specifically. As MBNL's [✂].[1355]

11.36 BTEE submitted that the proposed business plan for [✂] was approved by [✂],[1356] and [✂].

11.37 BTEE also submitted that signing of the Business Plan [✂].[1357]

Parties' submissions

11.38 The Parties have submitted that:

(a) the view that the Merged Entity could frustrate the functioning of MBNL by blocking and/or limiting MBNL's funding is not grounded in fact. It fails to acknowledge the overriding obligation to fund MBNL within the MBNL Agreements. [✂].[1358]

(b) [✂].[1359]

(c) [✂].[1360]

(d) [✂].[1361]

(e) [✂].[1362]

MBNL's submissions

11.39 MBNL submitted that:

(a) funding for MBNL is set out across various plans that are updated regularly.[1363]

1353 BTEE response to the CMA's RFI
1354 BTEE response to the CMA's RFI
1355 BTEE response to the CMA's invitation to comment
1356 BTEE response to the CMA's RFI
1357 BTEE response to the CMA's RFI
1358 FMN; and Parties' response to the AIS and working papers.
1359 Parties' response to the phase 1 Issues Letter.
1360 Parties' response to the phase 1 Issues Letter; Parties' initial submission, 1 May 2024, paragraph 5.9(ii)(b); and Parties' response to the AIS and working papers.
1361 CK Hutchison meeting slides.
1362 CK Hutchison response to the CMA's s109.
1363 MBNL call note

(b) MBNL has prepared a new ten-year business plan. Both shareholders are required to be committed to the JV until 2031.[1364] MBNL noted that the ten-year plan is relatively high-level. [1365]

(c) the majority of MBNL costs are non-discretionary and relatively fixed (eg rent, rates, operational services, electricity, transmission), which makes long-term forecasting more reliable than for other companies. The main thing that could impact the budget significantly is a major remediate programme necessitated by a systemic issue with the infrastructure on a number of sites. The probability of this is low and an impact of [✂]% of total opex plus capex costs for a [✂] year period would be a reasonable estimate of the maximum impact.[1366]

(d) an annual operating plan is also proposed by MBNL each year which sets out the funds required for maintaining and improving the network and is thoroughly reviewed by the shareholders.[1367]

Our assessment

11.40 We consider that the overall costs of activities undertaken through MBNL remain significant:

(a) In total, across both capex and opex, spending on MBNL represented about [✂]% of BTEE's total mobile spend in 2023.[1368]

(b) BTEE told us that it expects its opex through MBNL to be GBP [✂] million a year between [✂]. This represents [✂]% of its total mobile opex spend.[1369]

(c) BTEE's told us that it expects its capex through MBNL to be GBP [✂] million a year between [✂]. This represents about [✂]% of its total mobile capex.[1370]

11.41 We note that [✂].[1371] It also [✂]:[1372]

(a) [✂][1373] [✂]. [✂]. The Parties submitted that [✂]. Based on BTEE's submissions, the new Business Plan covers [✂] of its expected opex via MBNL (GBP [✂] million).

[1364] MBNL call note.
[1365] MBNL call note
[1366] MBNL call note
[1367] MBNL call note
[1368] CMA analysis based on BTEE Annex to RFI. We note that [✂].
[1369] CMA analysis based on BTEE Annex to RFI
[1370] CMA analysis based on BTEE Annex to RFI
[1371] Parties' response to the phase 1 Issues Letter.
[1372] CK Hutchison internal documents.
[1373] [✂].

(b) [✂]. Based on BTEE's submissions this covers [✂]of its expected capex via MBNL (GBP [✂] million).

11.42 As set out above, we note that BTEE's [✂] have approved the new Business Plan. A 3UK internal document [✂].[1374]

11.43 Notwithstanding this, we consider that the Business Plan may not eliminate the ability of the Merged Entity to limit and/or block the funding of MBNL because:

(a) The Merged Entity could refuse to agree changes to the Business Plan through the annual plan process without breaching its contractual obligations. This is because the annual plan is negotiated at the [✂]. However, the significance of this depends on how likely it is that changes are needed to the business plan and how large these changes are. We consider that it is unclear the extent to which funding will be unpredictable, especially given MBNL's new focus on estates management and its submissions set out in paragraph 11.39 above.

(b) We understand that some types of funding are not covered by the Business Plan process. For example, BTEE submitted that [✂].[1375] However, we note that:

(i) MBNL's new Business Plan does include [✂].[1376]

(ii) In any case, the costs involved with [✂] appear very limited:

(1) We understand that [✂].[1377]

(2) BTEE told us that of the GBP [✂] million of total MBNL capex spend for [✂], GBP [✂] million is allocated to [✂] sites (this is the [✂]).[1378] For context, whilst it is true that this is the [✂], it represents a [✂] proportion of BTEE's total mobile capex spend (c. [✂]%, [✂]) and an [✂] of BTEE's total mobile capex and opex spend (c. [✂]%).[1379]

11.44 One of BTEE's internal documents outlines its concern that the Merged Entity could frustrate the operation of MBNL and identifies a potential remedy to this as being a [✂].[1380] This suggests that BTEE considers that the Business Plan could alleviate its concerns in relation to MBNL, but that this would need to be accompanied with [✂].

[1374] CK Hutchison internal document.
[1375] BTEE response to the CMA's invitation to comment
[1376] MBNL response to the CMA's RFI
[1377] CK Hutchison response to the CMA's s109.
[1378] BTEE response to the CMA's RFI
[1379] CMA analysis based on BTEE Annex to RFI
[1380] BTEE internal document; and BTEE response to the CMA's RFI

11.45 As set out in paragraph 11.35, BTEE submitted that the Merged Entity could block and/or limit funding by obstructing the process by which funding [✂]. Based on our review of the Agreements, one shareholder does not appear to be able to obstruct the process in this way.

11.46 Our view therefore is that the Merged Entity would have some ability to harm BTEE by frustrating the functioning of MBNL by blocking or limiting funding. This is because the scope of MBNL remains significant and shareholders are responsible for key decisions such as approving funding. Whilst there is a recently agreed Business Plan which [✂] than the previous Business Plan we do not consider that such contractual provisions eliminate the ability for the Merged Entity to harm BTEE.

Whether the Merged Entity could block and/or delay BTEE's network upgrades via MBNL

11.47 In this section we consider whether the Merged Entity would have the ability to limit the constraint from BTEE by blocking and/or delaying BTEE's network upgrades via MBNL.

11.48 As set out in paragraph 11.13, there are a number of processes by which shareholders manage upgrades to sites via MBNL. We discuss each of these in turn, first setting out some background to the process, before setting out the views of BTEE, the Parties and MBNL, and finally our assessment.

New technology notification

Background

11.49 Shareholders need to declare their high-level technology upgrade plans to MBNL's [✂] and [✂]. This relates to 'once in a generation' technologies (eg 6G),[1381] and new equipment designs.[1382] The introduction of new equipment designs (eg new antenna/radio products) is usually driven by new technologies (eg 5G active antennas) or the use of new spectrum bands.[1383]

11.50 The [✂] is not a governing committee, and therefore any decisions taken need to be ratified by the [✂], on which both shareholders have equal representation.

11.51 Where the proposal is for shared equipment, the [✂] has a role in approving the design.[1384]

1381 MBNL call note
1382 MBNL call note
1383 MBNL call note
1384 MBNL call note

11.52 Where the proposal is for unilateral equipment (ie not shared), the [✂] is informed, but its approval is not required. In this scenario, shareholders instead rely on MBNL to assess whether the plans comply with certain minimum criteria. These focus on the physical attributes of the equipment eg the quality and dimensioning of the fixings. This process requires the shareholders to provide key information and undertake tests and trials of new unilateral equipment before it is deployed on shared sites.[1385]

BTEE's submissions

11.53 BTEE has submitted that the Merged Entity could block and/or delay BTEE's network upgrades by blocking any new programmes of work that BTEE wishes to carry out on the shared network (for example, [✂]): [1386]

(a) if the proposed deployment is technically capable of being shared, it must first be submitted to a formal review process which requires [✂]; and

(b) if the proposal is blocked, it may still be allowed to progress as a unilateral deployment. However this then requires the shareholder to [✂].

11.54 BTEE told us that [✂].[1387]

Parties' submissions

11.55 The Parties submitted that:

(a) there is a process which BTEE or 3UK need to follow if they wish to enhance or deploy new antennas for the first time on a shared network site. The process involves [✂].[1388]

(b) [✂].[1389]

(c) [✂].[1390]

(d) [✂].[1391]

MBNL's submissions

11.56 MBNL submitted that:

[1385] MBNL call note
[1386] BTEE response to the issues statement, 16 May 2024, paragraph 1.18 and Box 3.1.
[1387] BTEE response to the issues statement, 16 May 2024, Box 3.1.
[1388] CK Hutchison response to the CMA's s109 notice
[1389] CK Hutchison response to the CMA's s109 notice
[1390] CK Hutchison email relating to MBNL
[1391] CK Hutchison, MBNL call transcript

(a) historically there has been a high degree of commonality in the products unilaterally selected by each shareholder;[1392]

(b) where shareholders are deploying a new technology or equipment design unilaterally, they are required to notify the [✂] and [✂], but the other shareholder does not have any approval role via this process;[1393]

(c) historically when a new piece of equipment was deployed on an MBNL site eg an antenna or piece of base station equipment – it needed to go through a process called [✂]. More recently, as more of the equipment is being procured by the shareholders directly, the role of MBNL has changed ie it is now more concerned about ensuring that the equipment can be deployed and maintained safely; [1394]

(d) however, under both the old, [✂], and the new process which is expected to come into force later in 2024, the shareholders' plans are not subject to approval from the other shareholder. The exception to this is shared equipment.[1395]

11.57 MBNL has also submitted that:

(a) [✂];[1396] [✂];[1397] and

(b) [✂].[1398]

Our assessment

11.58 We first note, as set out in paragraph 11.11, that the stated core principles of the latest agreement entered into between the Parties (known as the Stanley Agreement), include; 'facilitate, and continue to facilitate, the shareholders' ability to pursue their separate technical and operational objectives for their networks, independently of each other'.

11.59 We also consider that:

(a) MBNL submitted the shareholders do not have any role in approving new technologies/equipment, unless the equipment is shared;

(b) based on our review of the contracts we understand that:

[1392] MBNL call note
[1393] MBNL call note; MBNL call note
[1394] MBNL call note
[1395] MBNL call note
[1396] MBNL call note
[1397] MBNL call note
[1398] MBNL response to the CMA's RFI

(i) [✄].[1399]

(ii) [✄].[1400]

(iii) [✄].[1401]

(c) in the event that there is a role for the shareholders via the [✄], and there is a dispute between the shareholders, as set out in paragraph 11.10 the [✄].

11.60 We therefore consider that the Merged Entity does not have the ability to limit the constraint from BTEE by blocking proposals for new technologies/equipment:

(a) as set out in paragraph 12.25, BTEE and 3UK have ceased jointly upgrading sites through MBNL and now perform all upgrades independently of each other and predominantly at their own, rather than shared, expense. We therefore expect there to be very limited circumstances of equipment sharing in the future.

(b) in the event that there is a role for the shareholders approving via the [✄], and there is a dispute between the shareholders, as set out in paragraph 11.10, the [✄].

Change control and change management processes

Background

11.61 The change control process is used when a shareholder wishes to make changes to the configuration of a site:[1402]

(a) This may be a change to the information or data associated with the site – eg location information, the address of the site, the National Grid reference, or;

(b) A change to the on-site equipment – eg a lateral or vertical change to the direction of the antenna.

11.62 The change control process is [✄].[1403]

11.63 MBNL's change management process (**CMP**) is a separate process used by shareholders to raise permits to undertake work at a site where, in order to facilitate this work, [✄]. The CMP also governs access to sites so that staff and

[1399] CK Hutchison internal document.
[1400] CK Hutchison internal document.
[1401] CK Hutchison internal document.
[1402] MBNL call note
[1403] MBNL call note

other stakeholders (eg organisations carrying out surveys) can carry work out safely and effectively. The CMP is wholly administered by MBNL.[1404]

BTEE's submissions

11.64 BTEE has submitted that the Merged Entity could block and/or delay BTEE's network upgrades by disengaging with ([✂]) upgrades to shared sites via the change control process:

(a) [✂].[1405]

(b) [✂].[1406]

11.65 As set out in paragraph 11.54, BTEE submitted that [✂].

11.66 BTEE also submitted that [✂].[1407]

Parties' submissions

11.67 The Parties submitted that:[1408]

(a) [✂].

(b) [✂].

(c) [✂].

MBNL's submissions

11.68 MBNL submitted, in relation to the change control process that:[1409]

(a) in most cases historically, if shareholders have not approved a change request, this has been agreed through further negotiation between the shareholders.

(b) if, hypothetically, a shareholder did not respond to the dialogue, MBNL would look to make the change decision timebound or follow the escalation route.

11.69 MBNL also submitted that [✂]. The view was that [✂].[1410]

1404 MBNL call note
1405 BTEE response to the CMA's invitation to comment
1406 BTEE response to the CMA's s109
1407 BTEE call transcript
1408 CK Hutchison, MBNL call transcript.
1409 MBNL call note
1410 MBNL call note

11.70 MBNL submitted that the CMP is a separate process used by shareholders to raise permits to undertake work at a site where, in order to facilitate this work, the [✂]. MBNL submitted that this process is wholly administered by MBNL.[1411]

Our assessment

11.71 We consider that the number of change control requests made per month appears material:

(a) BTEE told us that it submits c.[✂] requests for antenna changes per month.[1412]

(b) The Parties told us that in the last 18 months, there were approximately [✂] changes between 3UK and BTEE, approximately [✂] of which were from 3UK.[1413] This amounts to c. [✂] requests made by BTEE per month.

(c) MBNL told us that in the first half of 2024, approximately [✂] requests were submitted, with [✂]% of these submitted by [✂].[1414]

11.72 However, we consider that because the [✂] reports to the [✂], the [✂]. We therefore consider that the Merged Entity does not have the ability to limit the constraint from BTEE by blocking change control requests.

11.73 We also note that because the change management process is wholly administered by MBNL, the Merged Entity does not have the ability to limit the constraint from BTEE via this process.

[✂]

Background

11.74 As set out in paragraph 11.13, the [✂] are working-level MBNL bodies responsible for managing situations where both shareholders wish to do works at the same locations at similar times, and coordinating between the shareholders to avoid clashes. The [✂] and the [✂]. [✂].[1415]

11.75 [✂].[1416]

11.76 [✂].[1417]

[1411] MBNL call note
[1412] BTEE response to the CMA's invitation to comment
[1413] CK Hutchison call transcript.
[1414] MBNL call note
[1415] FMN.
[1416] Parties response to RFI.
[1417] FMN.

BTEE's submissions

11.77 BTEE submitted that the Merged Entity could block and/or delay BTEE's network upgrades by disengaging with or delaying BTEE carrying out unilateral deployments on shared sites, in which case BTEE would need to [✂].[1418]

11.78 In relation to the [✂] BTEE submitted that:[1419]

(a) the [✂]. As a result, [✂].

(b) BTEE expects [✂].

11.79 As set out in paragraph 11.54, BTEE submitted that [✂].

Parties' submissions

11.80 In relation to each of the above, the Parties have submitted that:

(a) [✂].[1420] If it is escalated to [✂].[1421]

(b) they expect [✂] because the Merged Entity [✂]. [1422]

11.81 In addition, the Parties submitted that in any event, any theoretical ability on the part of 3UK to disrupt BTEE's unilateral deployment programmes would not realistically affect its ability to compete because BTEE's [✂]% share of MBNL's annual capex accounts for less than [✂]% of BTEE's overall annual mobile capex.[1423]

MBNL's submissions

11.82 MBNL has submitted that where upgrades have only been requested by one party, this process is managed by a staff-led team at MBNL and shareholders do not play any role in each other's unilateral deployments.[1424]

11.83 MBNL also submitted that the [✂]. The view was that [✂].[1425]

Our assessment

11.84 We first note, as set out in paragraph 11.11, that the stated core principles of the latest agreement entered into between the Parties (known as the Stanley

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[1418] BTEE response to the CMA's invitation to comment
[1419] BTEE response to RFI
[1420] Parties' initial submission, 1 May 2024, paragraph 5.10.
[1421] CK Hutchison, MBNL call transcript.
[1422] Parties' initial submission, 1 May 2024, paragraph 5.10.
[1423] Parties' initial submission, 1 May 2024, paragraph 5.7.
[1424] MBNL call note
[1425] MBNL call note

Agreement), include; ‘facilitate, and continue to facilitate, the shareholders' ability to pursue their separate technical and operational objectives for their networks, independently of each other’.

11.85 In relation to overtake requests we also consider that:

(a) the [✂] is involved in parts of the upgrades process. In particular, our understanding is that [✂].[1426]

(b) [✂].[1427]

(c) overtake requests have been used relatively infrequently in the past. BTEE submitted [✂] overtake requests in the period [✂].[1428]

(d) while there is uncertainty over the level of overtake requests in the future, we consider that the level would need to increase significantly to lead to an impact on BTEE’s ability to exert a competitive constraint (BTEE told us that it would require about [✂] requests a month to significantly delay it, and that the minimum delay would be [✂]).[1429]

11.86 Our view therefore is that the Merged Entity would not have the ability to block and/or delay BTEE’s network upgrades via MBNL.

Whether the Merged Entity could increase BTEE’s costs after 2031, by reducing the extent of site sharing with BTEE

11.87 In this section we consider whether the Merged Entity would have the ability to limit the constraint from BTEE by reducing the extent of site sharing with BTEE after 2031.

11.88 In 2022 3UK sold its passive infrastructure assets to Cellnex. Under the terms of the sale agreement, 3UK will transfer to Cellnex [✂] sites which are allocated to it following the division of MBNL network assets in 2031.[1430] [✂].[1431]

11.89 The MBNL JV will expire on 31 December 2031.[1432] The Co-operation Agreement[1433] provides that termination can result in [✂].

[1426] CK Hutchison internal document.
[1427] CK Hutchison internal document.
[1428] BTEE response to the CMA’s RFI
[1429] BTEE response to the CMA’s RFI
[1430] FMN.
[1431] Parties response to RFI .
[1432] CK Hutchison internal document.
[1433] CK Hutchison internal document.

BTEE's submissions

11.90 BTEE has told us that in the absence of the Merger it does not expect MBNL to continue [✄].

(a) [✄].

(b) [✄].[1434]

11.91 BTEE submitted that the Merged Entity could limit the constraint from BTEE post-2031 by reducing the extent of site sharing with BTEE. [✄].[1435] Based on BTEE's internal analysis discussed in more detail at paragraph 11.97 below, the largest impact comes from [✄], followed by [✄].

Parties' submissions

11.92 The Parties submitted that;

(a) the practical and legal implication of the Cellnex transaction is that the MBNL JV [✄].[1436]

(b) 3UK is contractually committed to transfer a portion of its share of the MBNL sites to Cellnex upon exit of the MBNL JV post-2031, and there is an obligation to deliver a minimum number of sites.[1437]

(c) BTEE will obtain access to these sites from Cellnex. Cellnex has no ability to frustrate BTEE's access to these sites (nor would frustration by Cellnex make any commercial sense given Cellnex revenues are dependent on hosting MNOs on its passive infrastructure).[1438]

MBNL's submissions

11.93 MBNL expects the continuation of the JV would be influenced by the outcome of the Merger. MBNL would expect network sharing to continue were the Merger to not take place due to the financial benefits from sharing sites. [✄].[1439]

Cellnex's submissions

11.94 Cellnex is not a party to the current MBNL agreement between BTEE and 3UK but expects to effectively gain operational control of the 3UK MBNL sites when the

[1434] BTEE response to RFI
[1435] BTEE meeting with Ofcom
[1436] FMN; and Parties' initial submission, 1 May 2024, paragraph 5.2(i).
[1437] Parties' initial submission, 1 May 2024, paragraph 5.9.
[1438] Parties' initial submission, 1 May 2024, paragraph 5.9.
[1439] MBNL call note

agreement expires in 2031, when the sites will be divided between 3UK and BTEE, and Cellnex will gain full ownership and control of 3UK's share. [✄].[1440]

11.95 With regards to the MBNL sites that will transfer to Cellnex, [✄].[1441]

Our assessment

11.96 BTEE's internal documents are consistent with its submissions that in the absence of the Merger, it expects some form of network sharing to continue post-2031, and therefore anticipates that the Merger will have a negative impact on its future costs [✄]:

(a) In one document, BTEE states that absent the Merger [✄].[1442] In the same document, BTEE states that it expects the impact of the Merger to be [✄]. It states that it considers that this would impact [✄].[1443]

(b) In [✄], BTEE estimated the impact of the Merged Entity pulling out of MBNL sites [✄] at GBP [✄]million.[1444] This assumes that post-Merger the Merged Entity will not contribute to [✄] sites (the Merged Entity plans to exit approximately [✄] MBNL sites,[1445] and therefore GBP [✄]million would be an underestimate).

(c) In another document from [✄], BTEE outlines that it is unclear how many BTEE sites the Merged Entity would stay on after 2031. However, based on an estimate of the Merged Entity removing [✄] sites ([✄]), BTEE estimates it would face a cost of GBP [✄] million.[1446] BTEE estimated that this would amount to an impact [✄].[1447]

11.97 BTEE has since submitted that it has revised its estimate of the impact to GBP [✄] million, to reflect its more recent assessment of BTEE owned sites that the Merged Entity would require post network division. The GBP [✄] million figure:

(a) assumes [✄]. In particular, BTEE has assumed that [✄] (its previous estimate).

(b) takes a [✄] view of BTEE's [✄]. BTEE submitted that [✄].[1448]

11.98 Given that the Merged Entity intends to retain only [✄] of the [✄] sites currently shared via MBNL, the assumption that the Merged Entity will use fewer sites

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[1440] Cellnex call note.
[1441] Cellnex call note
[1442] BTEE internal document
[1443] BTEE internal document
[1444] BTEE internal document
[1445] Parties response to RFI.
[1446] BTEE internal document
[1447] BTEE, Annex to RFI
[1448] BTEE response to RFI

appears reasonable (it implies that the Merged Entity will not use many of the sites currently shared via MBNL post-2031, other than those it retains itself post the dissolution of the JV).

11.99 We estimate that this revised estimate of GBP [✄] million would amount to an impact on BTEE's total network spend NPV of c. [✄]% on average across a 20-year period. We do not consider the impact of [✄]% likely to limit the constraint from BTEE post-2031, and in any case consider this likely to be an upper-bound estimate for a number of reasons:

(a) BTEE may have understated its bargaining power given the CMA found in its Cellnex decision that MNOs may use the threat of self-supply to improve the terms they receive,[1449] and it appears that [✄].[1450]

(b) in 2031 3UK's sites will transfer to Cellnex which will have commercial incentives to provide site access to BTEE.

(c) As well as MNOs, passive infrastructure is also used by other organisations who require wireless coverage and capacity for their services (for example Airwave and Network Rail).[1451] BTEE may, therefore, be able to reduce its costs post-2031 by replacing 3UK with a different network sharing partner, which does not appear to be accounted for in its analysis (although we note that non-MNO customers are much smaller. For example, [✄],[1452] and therefore these customers are unlikely to replace 3UK at a significant number of sites).

11.100 Our view, therefore, is that we do not think the Merged Entity has the ability to limit the constraint from BTEE by increasing its costs following the dissolution of the MBNL joint venture in 2031.

Whether the Merged Entity could increase BTEE's costs, by overloading MBNL sites

11.101 In this section we consider whether the Merged Entity would have the ability to limit the constraint from BTEE by overloading MBNL sites.

BTEE's submissions

11.102 BTEE submitted that:

(a) the Merged Entity could [✄]. In particular, post-Merger, [✄].[1453]

1449 Cellnex / CK Hutchison phase 1 decision, paragraph 191.
1450 BTEE internal document. BTEE response to RFI
1451 CMA, Cellnex / CK Hutchison final report, paragraph 3.11.
1452 Cellnex call note
1453 BTEE response to the CMA's invitation to comment

(b) in the past [✂].[1454]

(c) if network integration were to occur, [✂].[1455]

(d) BTEE would be [✂]. [1456]

(e) Although [✂].[1457]

Parties' submissions

11.103 The Parties submitted that:

(a) [✂].[1458]

(b) [✂].[1459]

(c) [✂].[1460]

(d) [✂].[1461]

Our assessment

11.104 BTEE's internal documents are consistent with its submissions that it is concerned the Merged Entity may overload shared sites. In particular, one BTEE internal document quantifies the potential impact at GBP [✂] million.[1462]

11.105 This estimate is based on [✂].[1463] BTEE submitted that this approach was conservative because:

(a) [✂].

(b) BTEE has only considered [✂].

11.106 BTEE's estimate of GBP [✂] million may overestimate the impact because:

(a) it does not appear to include the benefit to BTEE of there being MBNL sites which would have run out of capacity in the counterfactual which may no longer do so post-Merger because the Merged Entity is using Beacon as its base grid.

1454 BTEE response to the CMA's invitation to comment
1455 BTEE response to the CMA's invitation to comment
1456 BTEE response to the CMA's invitation to comment
1457 BTEE response to RFI
1458 CK Hutchison, MBNL call transcript.
1459 Parties response to RFI.
1460 CK Hutchison email.
1461 CK Hutchison, MBNL call transcript.
1462 BTEE internal document
1463 BTEE response to RFI

(b) it assumes the Merged Entity only exits [✂] sites. Based on the JNP, the Merged Entity intends to exit approximately [✂] MBNL sites.[1464]

(c) it does not include potential mitigations (eg BTEE bringing forward in time upgrades on sites, which would reduce the potential cost by GBP [✂] million).[1465]

(d) it assumes macrocells are never available. As BTEE acknowledges, adding small cells is a less efficient way of adding capacity to a network.

11.107 BTEE submitted that its estimate of GBP [✂] million [✂].[1466]

11.108 However it may also underestimate the impact, for example, if the Merged Entity decides to exit fewer sites.

11.109 Based on the evidence above we have provisionally found that the Merged Entity has the ability to limit the constraint from BTEE by overloading sites. However we consider that BTEE's analysis does not appear to take into account the potential benefit of there being MBNL sites which would have run out of capacity in the counterfactual which may no longer do so post-Merger. We also consider that this concern is likely to arise from the [✂], as set out in paragraph 11.103.

Our view on the Merged Entity's ability to limit the constraint from BTEE through MBNL

11.110 Based on the evidence above, we have provisionally found that the Merged Entity would have some ability to harm BTEE by frustrating the functioning of MBNL in the period before 2031, including by blocking or limiting funding and by overloading MBNL sites.

Incentive

11.111 In this section we present our assessment of the incentive of the Merged Entity to use its participation in MBNL to limit the constraint from BTEE. The rest of this section is structured as follows:

(a) We first present the high-level submissions from BTEE and the Parties;

(b) We then present, for each mechanism for harm (blocking and/or limiting funding, and overloading MBNL sites):

(i) BTEE's submissions;

[1464] Parties response to the CMA's RFI.
[1465] BTEE internal document
[1466] BTEE response to RFI

(ii) Parties’ submissions; and

(iii) Our assessment.

11.112 We note that the assessment of incentives typically involves a combination of qualitative and quantitative evidence, though the balance will vary between cases. In this case, where the relationships between competitors is complex, a more qualitative approach is appropriate. Nevertheless, we have collected various data to support our assessment, for example on the direct financial savings to the Merged Entity which would result from a reduction in the funding of MBNL.

BTEE’s submissions

11.113 BTEE submitted that:

(a) the Merged Entity will have drastically reduced incentives compared with 3UK to invest in MBNL or, more generally, engage co-operatively with BTEE on matters essential to MBNL’s proper functioning.[1467]

(b) contractual enforcement is often expensive and time-consuming, and it may not be worthwhile for BTEE to take on the risk of enforcing the MBNL contractual arrangements.[1468]

(c) it will remain reliant on 3UK’s co-operation in MBNL through the life of the network sharing arrangement, which may act as a disincentive to enforce any contractual protections.[1469]

(d) the Merged Entity would be incentivised to interpret the MBNL contractual arrangements in the way which is most favourable to its own interests, including where this would harm the effective functioning of MBNL.[1470]

(e) the Merged Entity has a greater prospect of capturing customers from BTEE, access to CTIL infrastructure means that it has [✄].[1471]

Parties’ submissions

11.114 The Parties submitted that:

(a) the Merged Entity would not have the incentive to disrupt BTEE through the MBNL network sharing arrangements. This is because [✄].[1472]

[1467] BTEE response to the issues statement, 16 May 2024, paragraph 3.43.
[1468] BTEE response to the issues statement, 16 May 2024, paragraph 1.17.
[1469] BTEE response to the issues statement, 16 May 2024, paragraph 1.17.
[1470] BTEE response to the issues statement, 16 May 2024, paragraph 1.17.
[1471] BTEE response to the CMA’s RFI
[1472] Parties’ initial submission, 1 May 2024, paragraph 5.12.

(b) BTEE is a sophisticated commercial counterparty and would have ensured that the protections it negotiated as part of the recent [✂] amendments were future-proof and appropriate. For example, BTEE did not consider it necessary to have a '[✂]' despite it being in full awareness of the proposed Merger.[1473]

Whether the Merged Entity could block and/or limit funding

11.115 We have considered whether the Merged Entity has the incentive to block and/or limit the funding of MBNL.

BTEE's submissions

11.116 BTEE submitted that:

(a) it does not consider that clauses [✂], [✂] and [✂] of the MBNL Cooperation Agreement are likely to deter 3UK from complying with or withholding its funding obligations. [✂]. [✂] relies on there being aligned incentives [✂] whereas, in a post-Merger scenario, 3UK may [✂].[1474]

(b) the Merged Entity would have the incentive to withhold funding that is essential for replacement of [✂]. [✂] compared to the position absent the Merger, leading to [✂]. In turn, this will result in [✂] the Merged Entity could expect to benefit.[1475]

(c) [✂]. Its 1800MHz spectrum licence contains obligations to maintain coverage of the UK geography, UK nations and roads at certain levels. Whilst VUK and 3UK also have coverage obligations, the Merged Entity's coverage would exceed those 'from day one'. It would therefore not have the same need to maintain coverage, or [✂].[1476]

Parties' submissions

11.117 The Parties submitted that:

(a) A failure by 3UK [✂].[1477]

(b) [✂].[1478] Under the terms of agreements with Cellnex, 3UK is [✂] the MBNL sites that are subject to the exit provisions in the MBNL JV agreements.[1479]

[1473] Parties' initial submission, 1 May 2024, paragraph 5.11.
[1474] BTEE response to RFI
[1475] BTEE response to the CMA's invitation to comment
[1476] BTEE response to the issues statement, 16 May 2024, paragraph 3.48.
[1477] Parties' initial submission, 1 May 2024, paragraph 5.12.
[1478] Parties' response to the phase 1 Issues Letter.
[1479] Parties' initial submission, 1 May 2024, paragraph 5.12.

(c) There are severe cost consequences for not meeting MBNL obligations, which far outweigh any potential benefit to the Merged Entity in withholding funding.[1480]

(d) There are [✂].[1481]

(e) There would be no benefit to the Merged Entity in taking any actions relating to not funding MBNL since this would have adverse consequences for its own network.[1482]

Our assessment

11.118 In this section we consider the potential costs and benefits to the Merged Entity from blocking and/or limiting the funding of MBNL.

Assessment of costs

11.119 We have assessed the potential financial and competitive costs to the Merged Entity of blocking and/or limiting the funding of MBNL

- *Financial costs*

11.120 If the Merged Entity was to block and/or limit funding this could amount to a breach of contract. This would mean that BTEE and some third party suppliers could take enforcement action including claiming damages. We consider that if BTEE and/or third parties pursued enforcement or sought damages, it would likely be costly, time consuming and risky for the Merged Entity, and would likely cause it reputational harm (as discussed at paragraph 11.28).

11.121 We understand that [✂] is as follows:[1483]

(a) [✂].[1484]

(b) [✂].[1485]

(c) [✂].[1486]

(d) [✂].[1487]

[1480] Parties' response to the AIS and working papers.
[1481] FMN; and CK Hutchison putback response.
[1482] Parties' initial submission, 1 May 2024, paragraph 5.12.
[1483] CK Hutchison internal document.
[1484] CK Hutchison internal document.
[1485] CK Hutchison internal document.
[1486] CK Hutchison internal document.
[1487] CK Hutchison internal documents.

11.122 We consider that it is likely to be difficult for the Merged Entity to avoid the cost, time-delays and risks associated with enforcement or damages claims:

(a) In theory, the Merged Entity could block/limit its funding of MBNL whilst meeting its MBNL contractual obligations, which would likely limit the financial costs. However:

(i) As set out in paragraph 11.41, the new Business Plan will cover a larger proportion of its MBNL opex and capex ([✂]) As set out in paragraph 11.6, the new Business Plan has [✂]. We therefore place some weight on this.

(ii) As set out in paragraph 11.39, MBNL told us that 'the majority of MBNL costs are non-discretionary and relatively fixed which makes forecasting more reliable than for other companies'. We consider that this means that it is unlikely that there will be significant additional funding requirements in the future which are not captured within the existing and planned Business Plans.

(b) There is a chance that BTEE may not be willing to enforce the funding obligation, given the time, cost and risk involved and as it would be reliant on the Merged Entity for ongoing participation in MBNL. However, we consider that this is unlikely to be the case in practice given the significance of the funding amounts concerned and the sophistication of BTEE.

11.123 We further note that, as set out in Chapter 10, under Beacon 4.1 [✂]. [✂].[1488] We consider that this would add to the financial cost of such a mechanism.

11.124 We note that an [✂] internal document from BTEE suggests that its default assumption is that the Merged Entity [✂] in relation to MBNL until 2031.[1489] We place weight on this and consider that it is consistent with the Merged Entity having the incentive to fulfil its contractual obligations.

11.125 We have considered the Parties' submission that 3UK is contractually obliged to transfer a portion of its share of the MBNL sites to Cellnex upon exit post-2031, and there is an obligation to deliver a minimum of [✂] sites.[1490] We consider that this would increase the costs to the Merged Entity of blocking and/or reducing funding, eg by not funding NTQ sites on a one-for-one basis. We consider that this is likely to act as a further disincentive to block and/or limit funding. However, we note that the Merged Entity may be able to disrupt MBNL whilst still meeting its

[1488] Parties submission and Parties' briefing slides.
[1489] BTEE internal document
[1490] Parties response to RFI.

obligation to deliver at least [✄] sites to Cellnex – for example, if it blocked or limited funding which related to the quality of MBNL sites.

- *Competitive costs*

11.126 We consider that blocking and/or reducing funding through MBNL could result in the degradation of the quality of the MBNL network.

11.127 The Parties' plans show that whilst the Merged Entity intends to rely more on Beacon it will initially use both Parties' sites, before switching off approximately [✄] 3UK sites between 2025 and 2029, after which it will continue to use [✄] 3UK sites (including [✄] MBNL sites).[1491] We consider that this means that the quality of the shared sites will have an impact on the Merged Entity's own network quality both in the short-term and longer-term. We consider that the magnitude of this cost is difficult to predict. Whilst these are the Merged Entity's plans and this was part of its JNP and JBP, this may not be the course of action the Merged Entity would necessarily adopt in practice.

11.128 As outlined above, network quality is an important parameter of competition in the supply of retail and wholesale mobile services, and so a reduction in the Merged Entity's network quality could reduce its competitiveness.

Assessment of benefits

11.129 We have identified two potential benefits to the Merged Entity of blocking and/or limiting the funding of MBNL.

11.130 Firstly, the Merged Entity could make financial savings from blocking and/or limiting the funding of MBNL. 3UK is forecast to contribute a significant amount of funding to MBNL between 2024 and 2033. Under the [✄] (as submitted to the CMA in February 2024), the funding of MBNL (including shared capex and opex) [✄].[1492] 3UK is expected to contribute GBP [✄] billion of this. The Parties submitted that a new version was approved in August 2024, in which the funding of MBNL [✄]. 3UK is expected to contribute £[✄] billion of this.[1493]

11.131 Secondly, if the Merged Entity blocked and/or reduced the funding of MBNL, BTEE may have to directly fund initiatives itself rather than sharing these with 3UK. In principle, this could reduce BTEE's ability to invest in its network and/or lead to it having to raise prices to recoup these costs. In turn this could lead to a greater proportion of BTEE's retail consumers and/or wholesale MVNOs switching,

[1491] Parties response to RFI; and FMN.
[1492] CK Hutchison internal document .
[1493] CK Hutchison putback response (Network Sharing – MBNL).

including to the Merged Entity. We, however, consider that the extent of any additional funding would have to be significant for this potential benefit to occur.

11.132 In this regard we note that price and network quality are both important parameters of competition in the supply of retail and wholesale mobile services:

(a) In retail mobile services, as set out in Chapter 8, price is a key parameter of competition. Whilst customers require a minimum level of network quality, and network quality plays an important role in customer decisions, it is less important than price.

(b) We further note that the importance of price and network quality also likely varies across consumers. BTEE, in particular, is likely to have a significant number of customers who value network quality. This is because, as described in Chapter 8, it considers itself to have the best network in the UK and [✂], allowing it to maintain a price premium to competitors and mitigate churn.

(c) In wholesale mobile services, as set out in Chapter 9, both price and network quality are important to MVNOs, although there may be some differences between MVNOs in the relative importance that they attach to these.

Our provisional view

11.133 Our provisional view is that the Merged Entity would not have the incentive to use its participation in MBNL to substantially lessen competition by weakening the competitive constraint from BTEE through blocking and/or limiting funding to MBNL. We consider that in order to materially benefit, the Merged Entity would have to risk incurring significant financial costs by breaching contractual obligations. We further consider that the fact that the Merged Entity will continue to use 3UK sites both in the short and longer-term and would require BTEE to secure rights for VMO2 to access 3UK sites would further act as a disincentive.

Whether the Merged Entity could increase BTEE's costs, by overloading MBNL sites

11.134 We have considered whether the Merged Entity has the incentive to overload MBNL sites by causing the sites to become blocked to upgrades ([✂]). For the reasons set out in paragraph 11.109, we do not consider the [✂].

BTEE's submissions

11.135 BTEE submitted that even if the Merged Entity [✂] post-Merger, there would be [✂].[1494]

11.136 BTEE estimated that of the [✂] MBNL shared sites, the Merged Entity could be expected to retain [✂]. Of these, [✂].[1495]

Parties' submissions

11.137 The Parties submitted that:

(a) they plan to [✂];[1496]

(b) they plan to exit approximately [✂] MBNL sites;[1497] and

(c) there is [✂] in the amount of space the Merged Entity expects to use compared to today ([✂]).[1498]

Our assessment

11.138 In this section we consider the potential costs and benefits to the Merged Entity from overloading MBNL sites.

Assessment of costs

11.139 We have assessed the potential costs to the Merged Entity of overloading MBNL sites.

11.140 We do not consider that there would be competitive costs to the Merged Entity from overloading sites, as to the extent that it was engaging in this behaviour it could increase its network quality by making greater use of MBNL sites. We therefore focus on the potential financial costs.

11.141 We consider that there may be financial costs to the Merged Entity overloading MBNL sites:

(a) We note that the Parties plan to put VUK traffic on the [✂] retained MBNL sites, as well as VMO2 traffic (post-2031).[1499] This could potentially lead to overload of some retained MBNL sites without additional financial costs for

[1494] BTEE response to the CMA's invitation to comment
[1495] BTEE response to RFI
[1496] FMN.
[1497] Parties response to RFI.
[1498] CK Hutchison, MBNL call transcript.
[1499] See Chapter 14.

the Merged Entity, as a result of the extra traffic maxing out the site's power capability.

(b) However we note the Parties' submission at paragraph 11.137 that there is [✂] in the amount of space the Merged Entity expects to use compared to today. Therefore, overloading by using the physical space would result in the Merged Entity incurring costs it would not otherwise expect to incur.

Assessment of benefits

11.142 We have assessed the potential benefits to the Merged Entity of overloading MBNL sites.

11.143 We do not consider there to be any financial benefits to the Merged Entity from overloading MBNL sites and have therefore focused on the potential competitive benefits.

11.144 If the Merged Entity were to overload MBNL sites, this would lead to BTEE facing higher costs and/or having lower network quality (where the upgrade is not carried out either at the existing, overloaded site, or at an alternative site).

11.145 As set out in paragraph 11.132, we consider that price and network quality are important parameters of competition in the supply of retail mobile services and of wholesale mobile services.

11.146 However we consider that the competitive benefit to the Merged Entity of overloading sites is unlikely to be material:

(a) The Merged Entity plans to exit [✂] MBNL sites, and retain [✂] MBNL sites, which limits the scope for overload and therefore the competitive benefits.

(b) BTEE estimated that overloading MBNL sites would amount to an impact on BTEE's total network spend NPV of [✂].[1500]

(c) Whilst the Merged Entity plans to continue using [✂] 3UK sites, this may not be the course of action the Merged Entity would adopt in practice. We consider that, if there was a reduction in the number of sites shared via MBNL, this would further limit the scope for overloading of sites and therefore potential competitive benefits.

Our provisional view

11.147 Our provisional view is that the Merged Entity would not have the incentive to use its participation in MBNL to substantially lessen competition by weakening the

[1500] BTEE response to RFI.

competitive constraint from BTEE through overloading MBNL sites. In particular we note that the likely competitive benefits, in terms of the impact on BTEE, appear limited.

Our view on the Merged Entity's incentive to limit the constraint from BTEE through MBNL

11.148 Based on the evidence above, we have provisionally found that the Merged Entity would not have the incentive to limit the constraint from BTEE by blocking or limiting funding or overloading sites:

(a) We consider that, in order to materially benefit from blocking/limiting funding, the Merged Entity would have to risk incurring significant financial costs by breaching contractual obligations.

(b) We further consider that the fact that the Merged Entity will continue to use 3UK sites both in the short and longer-term and would require BTEE to secure rights for VMO2 to access 3UK sites would further act as a disincentive as it will mean that there is a degree of mutual dependency between BTEE and the Merged Entity, incentivising both to act constructively and in accordance with their contractual obligations.

(c) BTEE's default assumption, based on its internal documents, is also that the Merged Entity honours its commitments in relation to MBNL until 2031.

(d) In relation to overload we note that the likely competitive benefits, in terms of the impact on BTEE, appear limited and the Merged Entity may have to incur additional costs in terms of extra equipment which it would not otherwise have done.

Effect

11.149 In light of our provisional conclusion that the Merged Entity does not have the incentive to limit the constraint from BTEE via MBNL, we have not assessed the effect on competition.

Our provisional conclusion on the impact of the Merger on the constraint from BTEE through MBNL

11.150 For the reasons set out above, our provisional conclusion is that:

(a) the Merged Entity would not have the ability to limit the constraint from BTEE through MBNL by blocking and/or delaying BTEE's upgrades, or by reducing the extent of site sharing post-2031;

(b) the Merged Entity would have the ability but not the incentive to limit the constraint from BTEE through MBNL by blocking/reducing funding or overloading sites; and

(c) therefore, the Merged Entity's involvement in MBNL would not harm BTEE's ability to exert a competitive constraint in the retail and wholesale markets.

12. POTENTIAL COMPETITIVE EFFECTS FROM SHARING OF COMMERCIALLY SENSITIVE INFORMATION VIA THE MERGED ENTITY’S PARTICIPATION IN BOTH NETWORK SHARING ARRANGEMENTS

12.1 This section sets out our provisional conclusions regarding the potential competitive effects of the Merger resulting from the sharing of commercially sensitive information (**CSI**) via the Merged Entity’s participation in both network sharing arrangements. In particular, we have considered whether the Merged Entity’s participation in both network sharing arrangements could result in it being able to gain access to CSI of the two other MNOs, notably concerning their investment plans.

12.2 The rest of this section is structured as follows:

(a) How sharing of CSI could impact incentives.

(b) Background to the network sharing arrangements (MBNL and Beacon).

(c) MBNL’s submissions.

(d) Parties’ submissions.

(e) Third party submissions.

(f) Our assessment.

(g) Our provisional conclusion on the potential competitive effects from sharing of CSI via the Merged Entity’s participation in both network sharing arrangements.

How sharing of commercially sensitive information could impact incentives

12.3 As set out in the retail and wholesale chapters, we consider that quality is an important parameter of competition for wholesale and retail mobile services in addition to price and other factors, which means that MNOs are incentivised to invest in their networks.

12.4 There could be a risk that by getting access to information on network investments planned by the only other MNOs, the Merged Entity could decide how to time and target its own investments.[1501] This may reduce or postpone investments by the Merged Entity and the other MNOs compared to the scenario absent the Merger:

(a) For example, absent the Merger, VUK might have plans to roll out 5G in a particular area because it predicts that BTEE has plans to do so (and absent the Merger, VUK would not have any information about BTEE's investment plans because it is part of a different network sharing arrangement). In order to limit the risk that it loses retail share to BTEE, VUK would be incentivised to invest. Following the Merger, the Merged Entity might be able to deduce that BTEE does not have 5G roll-out plans in that particular area (or that its plans are delayed), and therefore may cancel or postpone the previous plans of VUK. Based on our review of the Parties' internal documents, we understand that MNOs' network plans identify [✂] for 5G roll-out as part of [✂], evident in 3UK's network strategy for example.[1502] Therefore, we believe there is a hypothetical risk that the Merged Entity could cancel or postpone the Parties' previous roll-out plans on the basis of receiving information regarding competing MNOs' roll-out plans.

(b) In addition, BTEE and VMO2's incentives to invest in their networks may also be reduced. Indeed, if BTEE and VMO2 know that the Merged Entity can use information in relation to their investment plans to develop its own investment plans, this may weaken their incentive to invest in the first place.

(c) Knowing that its competitors may have reduced incentives to invest as a result of the increased information sharing, the Merged Entity might respond in turn by reducing its own investment plans.

12.5 The result of any reduction in MNOs' incentives to invest in their networks could be that the quality of services offered may be lower than would otherwise have been the case absent the Merger.

Background to the network sharing arrangements (MBNL and Beacon)

12.6 As set out in Chapter 5, there are two network sharing arrangements in the UK:

(a) MBNL, which includes primarily passive network sharing between 3UK and BTEE; and

(b) CTIL/Beacon, which includes passive and active network sharing between VUK and VMO2.

[1501] CMA129, paragraph 7.3.
[1502] CK Hutchison internal documents.

12.7 We set out below a description of the key teams and forums involved in information sharing within each of the network sharing arrangements.

MBNL

12.8 MBNL was established in 2007 and is a private company, jointly owned by BTEE and 3UK.

12.9 As set out in Chapter 5, MBNL has ongoing responsibilities on behalf of both BTEE and 3UK to support the management of the passive infrastructure, including [✂].

12.10 MBNL has its own staff who are independent from the shareholders and who have delegated responsibility for day-to-day operations.[1503] MBNL's leadership team includes [✂].[1504]

12.11 [✂].[1505]

12.12 [✂],[1506] and facilitate a degree of information sharing between BTEE and 3UK. [✂] is notified, for example, where a shareholder intends to deploy a new technology for the first time.[1507]

12.13 [✂][1508] [✂].[1509] [✂]are responsible for managing situations where both shareholders wish to do works at the same locations at similar times, and coordinating between the shareholders to avoid clashes.[1510] In order to fulfil this function, shareholders need to share with them certain information regarding their rollout plans, some of which is then shared with the other shareholder, as discussed in more detail below.

12.14 The MBNL Cooperation Agreement contains the principles and key obligations regarding the sharing of CSI within MBNL.[1511] The Key principles are as follows:

(a) [✂].

(b) [✂].

[1503] FMN.
[1504] MBNL call note.
[1505] CK Hutchison response to CMA question by email.
[1506] FMN.
[1507] MBNL call note.
[1508] Parties response to the CMA's RFI.
[1509] CK Hutchison call transcript.
[1510] MBNL call note.
[1511] CK Hutchison internal document. CK Hutchison internal.

Beacon

12.15 As set out in Chapter 5, Cornerstone Telecommunications Infrastructure Ltd is a joint venture concerning passive infrastructure between Vodafone (through its subsidiary Vantage Towers) and VMO2 (**CTIL**).

12.16 However, in contrast to MBNL, the Beacon network sharing arrangement relating to the active infrastructure is managed bilaterally (ie between the Beacon parties directly rather than through an independent party). The Beacon parties have agreed guidelines regarding the sharing of CSI in order to restrict information sharing: the Beacon Competition Law Guidelines.[1512]

12.17 The Beacon Competition Law Guidelines are premised on the key principle of limiting the sharing of any information to what is strictly necessary to enable the implementation of the Beacon arrangements. Their purpose of the Beacon Competition Law Guidelines is ensuring that any exchange of CSI is strictly controlled and that both the Beacon parties [✂] comply with their competition law obligations.[1513] To achieve this, the Beacon Competition Law Guidelines set out detailed protocols [✂].

12.18 Information sharing is managed within Beacon by restrictions on both the type of information shared and who that information is shared with. In relation to the latter, the most sensitive information is handled by a joint '[✂]', made up of staff from the Beacon parties. This team is ring-fenced from the respective businesses and is subject to strict information sharing requirements.[1514] [✂].[1515] The Beacon parties [✂].[1516]

12.19 Information [✂].[1517] The Beacon Competition Law Guidelines also state that '[✂]'.[1518]

12.20 VUK and VMO2 [✂] in the Beacon Competition Law Guidelines.[1519] [✂].[1520]

12.21 These safeguards were approved by Ofcom in 2012 in the course of its review of the original Beacon arrangements.[1521]

[1512]Vodafone internal document.
[1513] Vodafone internal document.
[1514] FMN.
[1515] Vodafone internal document.
[1516] Parties' response to the phase 1 Issues Letter.
[1517] Parties' response to the phase 1 Issues Letter.
[1518] Parties' response to the phase 1 Issues Letter.
[1519] Vodafone response to the CMA's s109 notice.
[1520] Vodafone response to the CMA's s109 notice.
[1521] FMN.

12.22 We note that as part of the Beacon 4.1 Agreements, the Beacon parties have agreed a [✄]. We understand that the Beacon information sharing [✄] and ring-fencing arrangements [✄].

MBNL's submissions

12.23 MBNL has its own staff who are independent from the shareholders. Given this, we place particular weight on the submissions of MBNL.

12.24 MBNL submitted that there are three types of information shared by MBNL with the shareholders:[1522]

(a) Information regarding the current configuration of sites

(b) Forecast rollout plans

(c) High-level technology upgrade plans

12.25 Under the Stanley Agreement (the most recent iteration of the MBNL agreements which came into effect in April 2023), BTEE and 3UK have ceased jointly upgrading sites through MBNL and now perform all upgrades independently of each other and predominantly at their own, rather than shared, expense.[1523] MBNL still undertakes work on the shared estate in its role as infrastructure manager including maintenance, remediation, and site replacements both for NTQs and emergency site reinstatements. As part of the site replacement activity, work is done on behalf of the shareholders to replace their unilateral RAN equipment. MBNL also manages and maintains the shared transmission estate.[1524]

12.26 Now that the majority of deployment and upgrade work is being undertaken by the shareholders, MBNL has reviewed and reduced the scope of the information that the shareholders are required to share with MBNL.[1525] When the majority of deployment or upgrade work on site was undertaken by MBNL on behalf of the shareholders, a greater level of information and documentation was required.[1526]

Current configuration of sites

12.27 MBNL told us that information regarding the current configuration of sites needs to be provided to the other shareholder so that if they are undertaking design work on a site, they can factor the current configuration of the sites into their designs. As

[1522] Notes of calls with MBNL.
[1523] FMN.
[1524] MBNL call note. MBNL putback response.
[1525] MBNL call note.
[1526] MBNL call note.

new designs are completed, they are provided to MBNL and at that point they become available to each shareholder should they be required.[1527]

12.28 In particular, for each shareholder to undertake design or deployment work on a given site they need to understand the current configuration of the site in terms of [✂] as a basis for their own design.[1528]

12.29 Information regarding the configuration of a site was intended to become available to both shareholders [✂] days after work had been completed. However this deadline was often not met and MBNL is now working with the shareholders to streamline the information sharing process with new targets for when this information needs to be provided to MBNL.[1529]

12.30 [✂]:[1530]

(a) [✂].

(b) [✂].

12.31 MBNL told us that it is currently replacing the legacy databases with a modern set of inventory tools ([✂] and [✂] referred to above). MBNL told us that neither the current nor planned tools enable shareholders to see information regarding the others' forecast rollout plans:

(a) In its current form, the [✂] does not capture or share any forward-looking, demand sequencing/optimisation information and one of the key requirements of [✂] development is the ability to segregate shareholder information.[1531]

(b) [✂] (which it is looking to move away from, also known as '[✂]') nor the [✂] (its new system) contain any forward-looking information; this information is currently stored in [✂] reports, discussed below.[1532]

Forecast rollout plans

12.32 MBNL submitted that 3UK and BTEE submit demand forecasts to [✂]. This enables MBNL to coordinate between the shareholders to avoid clashes in a situation where both shareholders wish to do works at the same locations at similar times.[1533]

1527 MBNL call note.
1528 MBNL call note.
1529 MBNL call note.
1530 MBNL call note.
1531 MBNL call note.
1532 MBNL call note.
1533 MBNL call note.

12.33 This process emerged from the Stanley Agreement. As a lot of the work was now being undertaken by the shareholders individually, there needed to be a mechanism whereby MBNL could have sight of the shareholders' demand forecasts. This allowed MBNL to identify overlaps and opportunities for cost saving and demand optimisation/sequencing.[1534]

12.34 The process entails the shareholders [✂].[1535]

12.35 The forecasts include committed demand for the next [✂] (which has committed budget) as well as forecast demand for the next [✂] (which does not yet have committed budget).[1536]

12.36 MBNL told us that historically its reports have also included information about the [✂], see paragraph 12.50 below), but that this has been recently revisited:

(a) [✂].[1537]

(b) MBNL told us that [✂].[1538]

(c) [✂],[1539] and is not an essential requirement for shareholders.[1540]

(d) Furthermore, MBNL was not comfortable that sharing this [✂]. As a result, MBNL decided [✂].[1541]

(e) MBNL noted that if both shareholders' competition teams are comfortable for the [✂] to be shared, it can reinstate the information sharing immediately.[1542]

(f) MBNL noted that [✂].[1543] MBNL's emails to the shareholders suggest that [✂].[1544]

12.37 Since the new process was introduced under the Stanley Agreement, MBNL has reviewed the submissions of the shareholders to check whether forecasts have actually translated into real deployments, in order to assess whether there has been an abuse of the process. In particular, MBNL recently reviewed the volume of activity, type of activity and unique sites where activity was forecasted to be undertaken. It then compared this to the actual activity that had been undertaken by the shareholders. The headline findings of MBNL's review included that the total volume of activities reaching 'build complete' status was [✂]% of the volume

[1534] MBNL call note.
[1535] MBNL call note.
[1536] MBNL call note.
[1537] BTEE response to the CMA's s109.
[1538] MBNL call note.
[1539] CK Hutchison response to the CMA's section 109 notice.
[1540] MBNL call note.
[1541] MBNL call note.
[1542] MBNL call note.
[1543] MBNL call note.
[1544] BTEE response to the CMA's s109 notice.

forecasted, the volume of specific sites was [✂]% of the forecast, and the volume of specific activities was [✂]% of the forecast.[1545]

12.38 MBNL told us that if BTEE thought the Merged Entity was abusing the process and/or not meeting its obligations relating to [✂] as set out in the JV agreements it could either informally ask MBNL to investigate the matter and report via working forums, formally request MBNL to investigate the matter and report via JV governance forums or follow the escalation procedure set out in the JV agreements. MBNL also told us that it is possible that BTEE could reduce the level of information that it provides to [✂] but this could result in BTEE not meeting its own obligations relating to [✂] as set out in the JV agreements and, depending on the nature of the information, could impact MBNL's ability to undertake its role.[1546]

12.39 MBNL told us that in addition to the information which is shared by [✂] in order to manage clashes, the shareholders receive up to [✂] days' notice of when their spectrum on a given site needs to be switched off because the other shareholder has plans to undertake work on that site. This is managed by a separate process (CMP) and ensures that each shareholder has sufficient time to mitigate any issues caused by a scheduled outage. MBNL told us that it would be a very involved process to try and create a pattern or plan from these planned outages.[1547]

High-level technology upgrade plans

12.40 MBNL submitted that shareholders need to declare their high-level technology upgrade plans to [✂].[1548] This relates, firstly, to the introduction of a technology (eg 6G), which occur roughly every [✂] years (referred to as a [✂]) and, secondly, new solution or product design documents to support the implementation and upgrade of a new technology.[1549]

12.41 MBNL submitted that the information requirements for [✂] are set out in the JV agreements and would typically include:[1550]

(a) Name of the project.

(b) A description of the project (including confirmation that it was unilateral and that the other shareholder would not have the option to buy into the project or equipment), if it was a trial or deployment project, the technology or

[1545] MBNL response to CMA RFI.
[1546] MBNL response to CMA RFI.
[1547] MBNL call note. MBNL call note.
[1548] MBNL call note.
[1549] MBNL call note. MBNL call note.
[1550] MBNL call note. See also the MBNL [✂].

frequency bands involved and confirmation that the criteria for unilateral deployments had or would be met.

12.42 MBNL submitted that the declaration does not include details of which sites the shareholder is rolling out to and when. [1551]

12.43 MBNL also submitted, in relation to new equipment designs, that the majority of antenna/radio products have already been developed, and that to date there is a high degree of commonality between the shareholders. The introduction of new antenna/radio products is usually triggered by or driven by new technologies (eg 5G Active Antennas) or the use of new spectrum bands.[1552]

Parties' submissions

12.44 The Parties submitted that:

(a) this theory of harm does not take into account the reality that the Merger will lead to an increase in network investments across the industry, as evidenced by the pre-agreed network strategy for the Merged Entity and [✂]. This in turn will incentivise BTEE and VMO2 to improve their network quality in response.[1553]

(b) the concern ignores the rationale for the Merger which is to achieve the scale necessary to increase network investment significantly.[1554]

12.45 The Parties submitted in relation to MBNL that:

(a) the limited scope of the information exchanged since Project Stanley, [✂], does not provide any basis to discern BTEE's investment strategy and therefore inform 3UK's network decisions.[1555]

(b) the limited information sharing within MBNL is subject to robust safeguards governing the disclosure of any CSI between the shareholders. Under the MBNL Cooperation Agreement, 3UK and BTEE are [✂]. A key principle is that [✂].[1556]

(c) the only occasion where information ([✂]) is shared [✂] (we understand that 'clash' refers to the scenario in which both shareholders have submitted planned demand for the same site, in which case MBNL needs to manage

[1551] MBNL call note.
[1552] MBNL call note.
[1553] Parties' initial submission, 1 May 2024, paragraphs 5.19, 5.26.
[1554] Parties' initial submission, 1 May 2024, paragraphs 1.13, 5.19, 5.23.
[1555] Parties' response to the AIS and working papers.
[1556] FMN.

the process by which it is decided which shareholder rolls out first, assuming they do not want to jointly roll out).[1557]

(d) the factual premise on which this theory of harm is based is incorrect as the ‘clash’ is only identified after the investment decision is made (ie the Merged Entity cannot reduce or postpone its investment in response to the CSI it receives via the MBNL ‘clean team’).[1558]

(e) [✂].[1559]

(f) [✂].[1560]

(g) [✂].[1561]

(h) [✂].[1562] [✂]% of 3UK’s total network capex in 2023 was 3UK unilateral spend.[1563]

(i) 3UK has access to publicly available information in respect of BTEE’s unilateral sites from its planning applications.[1564]

12.46 The Parties submitted in relation to Beacon that:

(a) information sharing under Beacon is closely controlled by [✂].[1565]

(b) [✂]. [1566]

(c) [✂]. [1567]

(d) these safeguards were developed in consultation with Ofcom. [✂].[1568]

(e) a contractual breach of this nature would cause significant damage to the Merged Entity’s own business and reputation. [1569]

(f) even in the unlikely event that the information sharing safeguards failed, and information relating to VMO2’s deployment plans was inadvertently shared with VUK strategy teams (or vice versa) [✂] ahead of deployment, this information would not be commercially useful to the MNO in receipt of that

[1557] Parties’ initial submission, 1 May 2024, paragraphs 5.19.
[1558] Parties’ initial submission, 1 May 2024, paragraphs 5.19.
[1559] CK Hutchison response to the CMA’s section 109 notice.
[1560] CK Hutchison response to the CMA’s section 109 notice.
[1561] Parties’ initial submission, 1 May 2024, paragraphs 5.20.
[1562] Parties’ initial submission, 1 May 2024, paragraphs 5.20.
[1563] CK Hutchison response to the CMA’s RFI.
[1564] Parties response to the CMA’s RFI.
[1565] Parties’ initial submission, paragraphs 1.13, 5.19, 5.23. Parties’ response to the AIS and working papers.
[1566] Parties’ initial submission, paragraphs 1.13, 5.19, 5.23. Parties’ response to the AIS and working papers.
[1567] Parties’ initial submission, paragraphs 1.13, 5.19, 5.23. Parties’ response to the AIS and working papers.
[1568] Parties’ initial submission, 1 May 2024, paragraphs 5.19(ii) and 5.24. Parties’ response to the AIS and working papers.
[1569] Parties’ initial submission, 1 May 2024, paragraph 5.23(iv).

information. MNOs set their network strategy and deployment plans several years ahead of physical deployment. The amount of work that is needed to develop these plans means that it is not possible to change them at short notice.[1570]

Third party submissions

12.47 We have considered the submissions of the other MNOs which are participants in the MBNL and Beacon network sharing arrangements: BTEE and VMO2.

BTEE's submissions

12.48 BTEE submitted that the sharing of CSI within the network sharing arrangements could impact incentives to invest:

(a) the Merged Entity could take into account information it accesses regarding network investments planned by the other MNOs when deciding how to time and target its own investments, and in particular, could cancel or postpone previous roll-out plans on the basis of information it receives regarding competing MNOs' roll out plans. Put simply, if the Merged Entity becomes aware that both rivals are unlikely to make certain investments, it would no longer need to do so.[1571]

(b) BTEE's and VMO2's incentives to invest may also be reduced.[1572]

12.49 BTEE submitted that the Merged Entity could access CSI via MBNL and Beacon:

(a) the Merged Entity's position in both network sharing arrangements may afford it significant visibility as to the network upgrades and/or launch of new technologies planned by BTEE and VMO2.[1573]

(b) while safeguards in place may provide some protection, the Merged Entity could breach these safeguards, and there is scope for information sharing without the safeguards being breached. [1574]

12.50 BTEE submitted that MBNL provides [✂]:

(a) This allows BTEE [✂].[1575]

[1570] Parties' response to the AIS and working papers.
[1571] BTEE response to the issues statement, 2 May 2024, paragraph 1.11.
[1572] BTEE response to the issues statement, 2 May 2024, paragraph 1.11.
[1573] BTEE response to the issues statement, 2 May 2024, paragraph 1.11.
[1574] BTEE response to the issues statement, 2 May 2024, paragraph 1.11.
[1575] BTEE response to the CMA's RFI.

(b) The output also allows each shareholder [✂], including:[1576]

(i) [✂].

(ii) [✂].

(iii) [✂].

(iv) [✂].

(c) MBNL has recently [✂].[1577]

(d) BTEE [✂].[1578]

(e) BTEE submitted that this information could be used on its own or in combination with other information to make commercial decisions.[1579] For example, by [✂].[1580]

12.51 BTEE also submitted that [✂]:

(a) MBNL shareholders receive information regarding [✂]. [✂].[1581]

(b) The Merged Entity will also [✂].[1582] [✂].[1583]

12.52 BTEE submitted that:

(a) the contracts governing MBNL are insufficient to ensure the proper functioning of the network sharing arrangements without aligned incentives.[1584]

(b) if 3UK either intentionally or negligently breached the terms of the contracts, [✂].[1585]

VMO2's submissions

12.53 VMO2 submitted that:[1586]

1576 BTEE response to the CMA's RFI.
1577 BTEE response to the CMA's section 109 notice.
1578 BTEE response to the CMA's s109 notice.
1579 BTEE response to the issues statement, 2 May 2024, paragraph 3.17.
1580 BTEE response the CMA's RFI.
1581 BTEE call note.
1582 BTEE response to the CMA's section 109 notice.
1583 BTEE response to the CMA's RFI.
1584 BTEE response to the issues statement, 16 May 2024, paragraphs 3.20-3.23.
1585 BTEE response to the issues statement, 16 May 2024, paragraph 3.23.
1586 VMO2 response to the CMA's RFI.

(a) in order for the Beacon network sharing arrangements to operate effectively and efficiently, it is necessary for VUK and VMO2 to share a certain degree of information. This includes information on [✀].

(b) due to the contractual and practical safeguards relating to information exchanges, the Merged Entity should not be able to use VMO2 Beacon information for any purpose other than the operation of the Beacon agreements.

(c) as a mandatory and integral part of the Beacon network sharing arrangements, VUK and VMO2 agreed and implemented detailed Competition Law Guidelines.[1587]

Our assessment

12.54 In the absence of the Merger, the Parties are each participants in one of the two network sharing arrangements, MBNL and Beacon. As discussed above, 3UK already has access to certain CSI pertaining to BTEE through MBNL. Whilst certain teams within VUK have access to CSI pertaining to VMO2, as discussed at paragraphs 12.18 and 12.19 above, this information is ring-fenced from the retail, wholesale and strategy teams in particular.

12.55 Given there is already a certain level of information sharing pre-Merger between BTEE and 3UK, on the one hand, and VUK and VMO2, on the other hand, in our assessment we have focused on the potential Merger impact, ie whether the Merged Entity would have an incentive to combine the CSI received through MBNL with the CSI received through Beacon. Given the Merged Entity would only be able to share VMO2's information with its retail, wholesale and strategy teams by breaching the Beacon information sharing safeguards, we have considered whether post-Merger, the Merged Entity would have the incentive to breach the Beacon safeguards.

12.56 To assess this, we first consider the importance of the CSI shared within MBNL to the Merged Entity's investment plans. As explained below, we find that the CSI shared via MBNL is of limited use. Therefore, we consider that the potential benefit from combining the information the Merged Entity would receive on the MBNL side and the Beacon side is limited. Accordingly, we do not consider that the Merged Entity would have an increased incentive to breach the Beacon information sharing safeguards in order to share VMO2's information with its retail, wholesale and strategy teams compared to VUK's current incentives in the counterfactual.

[1587] VMO2 response to the CMA's RFI.

12.57 Currently, the following types of information are shared between BTEE and 3UK via MBNL:

(a) Current configuration of sites;

(b) Forecast rollout plans; and

(c) High-level technology upgrade plans.

12.58 We consider below the importance of each of these types of information to the Merged Entity's investment plans (by considering, where relevant, both the scale and characteristics of the information shared).

12.59 As part of our assessment regarding forecast rollout plans, we also consider whether more CSI will be shared via MBNL post-Merger, which could make it more useful to the Merged Entity. We note that there is no change to the CSI shared via Beacon post-Merger. As set out in paragraphs 12.18 to 12.19 and 12.22, the Beacon parties currently submit all of their forecast demand at a site level [✂], and will continue to do so post-Merger. [✂] is subject to strict information sharing requirements which continue to apply post-Merger.

Current configuration of sites

12.60 As set out above in paragraph 12.27, BTEE and 3UK have access to information regarding the current configuration of shared sites via MBNL.

12.61 We have considered the risk that by getting access to information regarding the current configuration of MBNL sites, the Merged Entity could infer BTEE's future rollout strategy and thereby use the information to decide how to time and target its own investments. In particular we have considered whether the sharing of this information might reduce or postpone investments by the Merged Entity compared to the scenario absent the Merger.

Our assessment

12.62 We consider that the usefulness of this information for this purpose is likely to be limited for a number of reasons:

(a) we understand that some of the information is already available to MNOs via other sources and therefore that the benefit of the information gained via MBNL in relation to the configuration of sites is limited. In particular:

(i) BTEE and 3UK publish data on their own 5G coverage.[1588]

[1588] Mobile Network Coverage Checker | 3G, 4G & 5G | BT Mobile, accessed by the CMA on 11 September 2024; and Three 5G Coverage - Check coverage in your area accessed by the CMA on 11 September 2024.

(ii) [✂].[1589] These include local sources of quality data. For example, MNOs can purchase the underlying data provided by Umlaut on a quarterly basis, which provides a more disaggregated view within the locations covered by its drive testing. This includes data on overall network quality and reliability.[1590]

(iii) VUK told us that the [✂].[1591]

(b) the current configuration of MBNL sites is indicative of historic rollout, which may not be a guide to future rollout:

(i) the characteristics of sites BTEE has yet to roll out to may be different to those it has already rolled out to.

(ii) BTEE's rollout strategy may change.

(c) the information shared via MBNL [✂].[1592]

12.63 We therefore do not consider that the information shared via MBNL regarding the current configuration of sites would be particularly useful to the Merged Entity and therefore that the benefit of the information gained via MBNL in relation to the configuration of sites is limited.

Forecast rollout plans

12.64 As set out in paragraphs 12.32 to 12.36, the Merged Entity would have access to information on BTEE's forecast rollout plans via MBNL:

(a) As set out in paragraph 12.39, we understand the Parties receive [✂] days' notice of when their spectrum on a given site needs to be switched off because the other shareholder has plans to roll out on that site.

(b) [✂].[1593] [✂].[1594] [✂].[1595]

(c) Information on demand forecasts is only shared with shareholders where they have separately indicated that they wish to upgrade the same site within the next [✂] (and only relates to information regarding those specific sites).[1596]

[1589] Vodafone internal document; Vodafone internal document; Parties response to the CMA's RFI; Vodafone internal document; and Parties response to the CMA's RFI.
[1590] Parties response to the CMA's RFI.
[1591] Parties' initial submission, 1 May 2024, paragraph 5.25.
[1592] [✂].
[1593] FMN.
[1594] FMN.
[1595] FMN.
[1596] BTEE response to the CMA's RFI.

(d) [✂][1597] [✂].[1598] [✂].

(e) As set out in paragraphs 12.36 and 12.50 above, we understand that historically MBNL's reports have included some information about not only the [✂].

12.65 We have considered the risks that by getting access to information regarding BTEE's forecast rollout on MBNL sites, the Merged Entity could:

(a) identify areas where BTEE does not have plans to rollout and reduce/postpone its own investment in response;

(b) infer BTEE's overall rollout strategy, and thereby use the information to decide how to reduce/postpone its investment in areas where it does not expect BTEE to roll out.

12.66 To assess these risks we have considered both the scale and characteristics of information regarding forecast rollout plans shared via MBNL, as well as the role of competitor information in the Parties' rollout plans.

12.67 We have also considered the risk that BTEE's incentive to invest in its network may be reduced. As explained below, we find that the CSI shared via MBNL is of limited use to the Merged Entity. Accordingly, we do not consider that BTEE's incentives to invest would be materially reduced.

Scale of the information shared

12.68 We have gathered evidence from 3UK on the number of sites where it submitted requests but BTEE did not have demand, which might enable it to identify areas where BTEE does not have plans to rollout and reduce/postpone its own investment in response. [✂].[1599] Based on [✂] ([✂]% [✂]).[1600]

12.69 Multiplying by three to give an [✂] period shows this relates to:

(a) [✂]% of 3UK's rollout sites (shared and unilateral sites over this period on which 3UK has completed upgrade work);[1601]

(b) [✂]% [✂];[1602] and

[1597] CK Hutchison internal document.
[1598] Parties response to the CMA's RFI.
[1599] Parties response to the CMA's RFI.
[1600] BTEE response to the CMA's RFI.
[1601] 3UK response to the CMA's RFI.
[1602] BTEE response to the CMA's RFI.

(c) [✂]% of the Merged Entity's total sites (assuming it has a total site count of approximately [✂] sites, which is the current plan under the JBP).[1603]

12.70 The Parties submitted that [✂].[1604] The Parties have told us that the Merged Entity will only retain approximately [✂]% ([✂] sites) of 3UK's current MBNL shared sites.[1605] Even if the Merged Entity were to eventually invest in all of the MBNL sites it currently plans to retain, if BTEE continues to invest at a similar rate as it has done historically, the number of sites at which the Merged Entity might discover BTEE had no plans to invest would amount to less than 10% of the Merged Entity's sites.

12.71 We have also considered whether the scale of information shared regarding where BTEE does and does not have plans to roll out might enable the Merged Entity to infer BTEE's overall rollout strategy, and thereby use the information to decide how to reduce/postpone its investment. If we assume the Merged Entity eventually submits demand forecasts for all MBNL sites it plans to retain, this would amount to information regarding BTEE's plans (whether it is upgrading or not) at a maximum of [✂]% of BTEE's sites and [✂]% of the Merged Entity's sites (this difference is due to the relative proportion of shared and unilateral sites for BTEE and the Merged Entity post-Merger). Focusing only on sites where BTEE does not have plans and assuming the same proportion of demand for sites that BTEE did not submit demand for, the information relates to a maximum of [✂]% of BTEE's sites and under 10% of the Merged Entity's sites.

12.72 We note that post-Merger, the level of information sharing may also decrease.

(a) we consider the Merged Entity's incentive is likely to retain fewer sites than planned in the JBP (see Chapter 14, Incentive to deliver the full JBP).

(b) 3UK has suggested that there may be [✂] on retained sites post-Merger as [✂].[1606]

Our assessment

12.73 Based on the above, we consider that the scale of information shared via MBNL is unlikely to be material.

12.74 Whilst the Merged Entity could submit forecast demand which is intentionally misleading, in order to extract more information from the process, this behaviour is monitored by MBNL, as described at paragraph 12.37.

1603 Parties response to the CMA's RFI.
1604 Parties' initial submission, 1 May 2024, paragraph 5.20.
1605 Parties response to the CMA's RFI.
1606 CK Hutchison call transcript.

12.75 MBNL told us that if it thought the shareholders were abusing the process it could escalate informally or formally (via the governance forums and to MBNL Board). It also stated that BTEE could respond by asking MBNL to investigate, via the JV escalation procedure.[1607]

Characteristics of the information shared

12.76 Depending on the characteristics of the information shared, the information may be more or less useful to the Merged Entity. In particular we have considered:

(a) the contents of the information shared,

(b) the timeframe the information relates to (whether it gives the Merged Entity sufficient notice to respond), and

(c) the geographical nature of the information (whether the information is useful given how the Parties select areas and sites to roll out).

12.77 In relation to the contents of the information shared via MBNL's [✂], we understand that the shareholders are moving towards limiting the information being shared between them:

(a) [✂];[1608]

(b) [✂];[1609] and

(c) the information could be reinstated if both shareholders give their permission.[1610] However 3UK has not yet given its permission, although it is continuing to discuss this with BTEE, with the most recent discussion we are aware of taking place on 24 July 2024. At this meeting, it was agreed that both shareholders would meet to discuss the inclusion of this information going forward.[1611]

12.78 In relation to the timing of the information:

(a) as set out above, the [✂] provided to the shareholders include committed demand for the next [✂] (which has committed budget) as well as forecast demand for the next [✂] (which does not yet have committed budget and is therefore likely less reliable). The shareholders also receive notice of spectrum being switched off [✂] days in advance.

[1607] MBNL response to the CMA RFI.
[1608] CK Hutchison response to the CMA's section 109 notice.
[1609] MBNL call note; and CK Hutchison response to the CMA's s109 notice.
[1610] MBNL call note.
[1611] MBNL call note.

(b) the Parties have long-term rollout plans. [✂] (reviewed each financial year), and the JNP is a ten-year plan (2024-2034).[1612]

(c) historically the Parties have reviewed their rollout plans annually. [✂].[1613] However the Parties submitted that the amount of work that is needed to develop these plans means that it is not possible to change them at short notice.[1614]

12.79 In relation to the geographical nature of the information, the data shared via [✂] is provided [✂]. In contrast, the Parties told us that their rollout strategies are based on [✂]:

(a) [✂].[1615]

(b) VUK told us that when it decides to invest in [✂].[1616]

12.80 This is consistent with the Parties' internal documents.[1617]

Our assessment

12.81 We consider that given its characteristics, the information shared via MBNL is unlikely to be useful to the Merged Entity in determining where BTEE does not have plans to roll out. In particular:

(a) The shareholders receive notice of spectrum being switched off [✂] days in advance. While the Merged Entity might be able to infer from the absence of a notification that BTEE does not have plans to roll out to a particular site, we consider that this does not give the Merged Entity much advance notice. By this time the Merged Entity may be very limited in its ability and incentive to respond to the absence of a notification given that it may have already started investing and/or because it would incur costs to change plans at late notice. We note that forecasts of up to [✂] with associated budget are considered 'committed' by MBNL, which suggests that [✂] days is very short notice for the Merged Entity to change its plans.

(b) The Merged Entity would only obtain information via [✂] in relation to sites where it already has plans (either committed or forecasted). Therefore, in any case, its incentive to reduce or postpone investment based on information relating to BTEE may be limited given that it may have already started investing and/or because it would incur costs to change plans at late notice, in particular for sites where the Merged Entity's plans are 'committed' (ie the

1612 Parties response to the CMA's RFI; and FMN.
1613 Parties response to the CMA's RFI.
1614 Parties' response to the AIS and working papers.
1615 Parties response to the CMA's RFI.
1616 Parties response to the CMA's RFI.
1617 For example, CK Hutchison internal documents.

rollout is expected to take place within the next [✂] and the Merged Entity has assigned budget).

(c) Information on 'forecast' plans with uncommitted budget ([✂]) may be unreliable.

(d) Site-level information may be difficult to respond to (eg if information shared via MBNL enables the Merged Entity to determine that BTEE is, for example, not rolling out to one site in Brighton or one in Edinburgh). This is because it would be at odds with the [✂].

12.82 It may also be practically difficult for the Merged Entity to use the information shared via MBNL to infer BTEE's overall rollout strategy, including because:

(a) the Merged Entity may not be able determine whether the information shared with it via MBNL is representative of BTEE's wider rollout, for example because it is a small sample.

(b) the information is at most [✂] forward-looking. This limits the Merged Entity's ability to predict BTEE's rollout strategy beyond this point. In relation to sites where the Merged Entity discovers that BTEE has no plans to invest, it has no visibility as to whether BTEE has no plans to roll out to these sites, or has plans to roll out at [✂], for example.

(c) there are different factors that affect MNOs' decisions to rollout in a given area, eg the MNO's capacity constraints, population density and demographics.

(d) rollout strategies may change over time eg BTEE's business strategy may change, or BTEE may roll out to different profiles of sites at different times.

The role of competitor information in the Parties' rollout plans

12.83 In relation to whether the Parties place material weight on the rollout of competitor MNOs vs other factors, the Parties told us that their rollout plans rely on a range of factors:

(a) VUK submitted that its rollout plans are informed by [✂].[1618]

(b) VUK uses some information related to its competitors when deciding its roll-out, but this is high-level:

[1618] Parties response to the CMA's RFI.

(i) VUK submitted that a report [✂].[1619] This report [✂].[1620]

(ii) A VUK internal document, [✂].[1621]

(c) 3UK submitted that its rollout plan is informed by 3UK's [✂].[1622]

Our assessment

12.84 The Parties' rollout plans rely on a range of factors and do not consider competitors' rollout at an individual site level. We consider that this limits the potential usefulness of the information shared via MBNL.

High-level technology upgrade plans

12.85 As set out in paragraphs 12.40 to 12.42, the shareholders are required to submit their high-level technology upgrade plans and new equipment designs [✂] which includes a description of the project (including, if it is a trial or deployment project, the technology or frequency bands involved and confirmation that the criteria for unilateral deployments have or will be met).

12.86 We have considered the risk that by getting access to information regarding BTEE's planned upgrades to MBNL sites, the Merged Entity could reduce/postpone its own investment in response.

Our assessment

12.87 We do not consider that the information which shareholders submit to MBNL regarding their plans to launch technologies is likely to be very useful to the Merged Entity for the following reasons:

(a) the MNO may have plans to launch a new technology across only a very limited number of sites.

(b) the timings of upgrade plans may change.

(c) the frequency of information being shared appears limited. MBNL submitted that the information relating to technologies only relates to 'once in a generation' technology upgrades, which take place every 5-10 years. Given MBNL is due to end in 2031, this implies the number of technology upgrade plans likely to be notified before the end of the JV is limited.

[1619] Vodafone internal document.
[1620] Vodafone internal document.
[1621] Vodafone internal document.
[1622] Parties response to the CMA's RFI.

(d) MBNL submitted, in relation to new equipment designs, that the majority of antenna/radio products have already been developed, and that to date there is a high degree of commonality between the shareholders.

Our provisional conclusion on the potential competitive effects from sharing of commercially sensitive information via the Merged Entity's participation in both network sharing arrangements

12.88 Based on our assessment of the evidence set out above, our provisional view is that:

(a) Given its position in MBNL, the Merged Entity may have some visibility as to the network upgrades planned by BTEE.

(b) However it is unlikely that this information shared via MBNL would be useful to informing the Merged Entity's investment plans given its limitations (including, for example, how far in advance the information is shared and the scale of information shared). It is therefore unlikely to lead to the Merged Entity materially reducing or postponing its investments.

(c) Given this, we also do not consider that BTEE's incentive to invest would be materially reduced and have not needed to assess the usefulness of the information currently being shared via Beacon. This is because, as set out in paragraph 12.55 above, we have focused our assessment on the Merger impact, whether the Merged Entity would have an incentive to combine the CSI received through MBNL, with the CSI received through Beacon (by breaching the Beacon information sharing safeguards).

(d) We also note that there is no change to the information being shared via Beacon resulting from the Merger, in particular because the Beacon parties currently submit all of their forecast demand at a site level to [✂], and will continue to do so post-Merger.

12.89 Therefore, we provisionally consider that the Merger does not give rise to an SLC resulting from the sharing of commercially sensitive information via the Merged Entity's participation in both network sharing arrangements.

13. COUNTERVAILING FACTORS – ENTRY AND EXPANSION

13.1 Countervailing factors can prevent an SLC arising from a merger. There are two main ways in which this could happen: through the entry and/or expansion of third parties in reaction to the effects of a merger or through merger efficiencies. We consider entry and expansion first and then efficiencies.

Entry and expansion

13.2 As set out in CMA129, any analysis of a possible SLC includes consideration of the direct responses to the merger by rivals, potential rivals, and customers. If effective entry and/or expansion occurs as a result of a merger and any consequent adverse effect (for example, a price rise), the effect of the merger on competition may be mitigated, and in some cases the CMA may conclude that there is no SLC. In assessing whether entry or expansion might prevent a SLC, the CMA considers whether such entry and/or expansion would be timely, likely and sufficient.[1623]

13.3 The CMA will seek to ensure that the evidence is robust when presented with claims of entry or expansion being timely, likely, and sufficient to prevent an SLC from arising. It is likely to place greater weight on detailed consideration of entry or expansion and previous experience of entry and expansion.[1624]

13.4 In chapters 8 and 9, we provisionally found that there is scope for an SLC in the Retail and the Wholesale Markets subject to countervailing factors. For entry and expansion to be sufficient, it would need to prevent the adverse effects we have provisionally identified in the Wholesale and Retail Markets.

Parties' submissions

13.5 The Parties submitted that:

(a) the Retail Market is characterised by low barriers to entry and expansion for MVNOs;

(b) MNOs face disintermediation from consumers due to the potential entry by large tech platforms at the retail level; and

(c) entry of private networks and cloud players will also constrain the Parties (and other MNOs) at the network level.[1625]

[1623] CMA129, paragraph 8.28-8.32.
[1624] CMA129, paragraph 8.30.
[1625] FMN.

13.6 With respect to barriers to entry and expansion by MVNOs, the Parties submitted that all an MVNO needs to enter the Retail Market is to enter into an agreement for wholesale access to an MNO's network.[1626] MVNOs can therefore enter without having to incur the upfront costs and investments that MNOs incur to build and upgrade mobile network infrastructure.[1627] The Parties also noted that many MVNOs do not require any authorisation or spectrum licences to enter the Retail Market, although they may be required, like MNOs, to comply with the conditions of general application, published by Ofcom under the Communications Act.[1628] They noted that some MVNE platform providers also ensure MVNOs are compliant with regulation, which further simplifies matters for MVNOs that utilise their infrastructure.[1629]

13.7 The Parties submitted that in the last ten years, the Retail Market has seen a significant number of new entrants, with as many as 150 MVNOs launched, as reported by Ofcom. The Parties submitted that MVNOs are credible competitors to MNOs, as reflected by their aggregate share of supply by subscribers in the consumer segment increasing to [✂]% in 2023 compared to [✂]% in 2016.[1630] They also highlighted that 'MVNOs as a group accounted for the largest share of consumer retail gross adds (24%) in the market in 2023'. The Parties submitted that they expect further entry by MVNOs, including potentially from big tech companies, existing brands that are active in various UK markets that would be able to leverage their brands and/or customer base, including existing providers of fixed broadband services (such as Shell Energy and Hyperoptic), established retail brands (such as Waitrose, Boots and Selfridges) and technology companies (including Netflix, TikTok and Uber), MVNOs with established strategies in other countries, IoT MVNOs, and Telecoms as a Service MVNOs (**TaaS**).[1631]

13.8 In addition to entry, the Parties also submitted that they expect existing MVNOs to continue to expand and grow their share of subscribers across the Retail Market. The Parties submitted this is because:

(a) MVNOs have secured relatively faster access to new technology, including 5G, compared to earlier technologies such as 4G;

(b) MVNOs are often large, sophisticated customers with significant negotiating experience and bargaining power and are accordingly able to negotiate stronger commercial wholesale terms;

[1626] FMN.
[1627] FMN.
[1628] FMN.
[1629] FMN.
[1630] FMN.
[1631] FMN.

(c) MNOs have taken a more partnership-based approach to their relationships with MVNOs, enabling MVNOs to be more flexible in their retail offerings and to become increasingly competitive;

(d) A number of market trends are expected to facilitate MVNO growth, such as:

(i) increased penetration of eSIMs;

(ii) the introduction of 'text to switch' process which assists customer switching;

(iii) growth of the SIMO segment; and

(iv) growth of MVNE platforms, which reduces the investment and development required by MVNOs to enter the market.[1632]

13.9 With respect to disintermediation, the Parties further submitted that the advent of eSIMs is likely to pave the way for entry by large tech platforms into the Retail Market (by acting as MVNOs or leveraging their positions as operators of leading mobile operating systems), potentially resulting in MNOs losing the customer relationship and being relegated to the role of wholesale connectivity providers.[1633]

13.10 With respect to private networks and cloud providers, the Parties submitted that these players may be able to establish themselves as providers of private mobile network connectivity without any involvement from an MNO, which has important consequences for MNOs, increasing competition for business customers. The Parties further noted that these players do not require the same scale or financial investment in infrastructure as MNOs to enter the market.[1634]

Assessment

Introduction

13.11 In this section we assess the evidence on the potential impact from entry and expansion of MVNOs:

(a) Sources of entry and expansion.

(b) Evidence of MVNO expansion.

(c) The competitive position of MVNOs.

(d) The impact of the Merger on MVNO expansion.

[1632] FMN.
[1633] FMN.
[1634] FMN.

Sources of entry or expansion

13.12 To consider the extent to which entry and/or expansion may prevent an SLC we have first focused on the most likely sources of entry or expansion. To do this we looked at what evidence has been provided by the Parties or is available to us.[1635]

Credible sources of entry

13.13 The Parties have made a number of submissions regarding potential market entry (see paragraphs 13.5 to 13.10 above), including that MNOs face disintermediation from consumers due to the potential entry by large tech platforms at the retail level, entry of private networks and cloud players and entry from new MVNOs.

13.14 In terms of entry by large tech platforms, private networks and cloud players, whilst a possibility, the Parties have not provided any evidence of this occurring in the UK, and we have not seen any such evidence during our Inquiry. Moreover, we are not aware of any particularly significant moves in this space outside of the UK that might indicate a future change to the UK market. We do not consider the Merger changes the likelihood of entry by these players and thus we do not consider these to be likely sources of effective and timely market entry. They are not considered further in our assessment.

13.15 In terms of entry by new MVNOs, there are examples of MVNO entry in recent years with a large number of MVNOs currently operating in the UK. However, most MVNO entry in the past has been very small scale with Sky Mobile a notable exception. Based on 2023 data, in the overall retail market, only two independent MVNOs have a market share by subscribers greater than [✂]%,[1636] Sky Mobile ([0-5%]) and Lebara ([0-5%]), and only Sky Mobile has a market share by revenue greater than [✂]% ([0-5%]).[1637]

13.16 The Parties have not put forward any evidence of any third party with actual plans to enter the market at scale and we are not aware of any third parties with such plans.

13.17 In the absence of evidence, we consider it unlikely that potential entry by new MVNOs would be sufficient to offset the adverse effects of the Merger. We therefore do not consider entry further.

[1635] The Parties do not argue a new MNO could enter nor that current MNO expansion would be sufficient for our assessment, as such, MNOs are not considered in this chapter.
[1636] As explained in ToH 1 (see Chapter 8), we do not consider Tesco Mobile to be an independent MVNO.
[1637] As set out further in Chapter 8, Table 1.9.

Credible sources of expansion

13.18 The Parties have submitted that current MVNOs are growing and there are market trends that indicate this growth will increase going forward.

13.19 Given the current growth of MVNOs we consider MVNO expansion could in principle have an impact on our assessment of the impact of the Merger on the supply of retail mobile services.[1638] The remainder of our assessment is focused on MVNO expansion and whether it could be timely, likely and sufficient to prevent an SLC.

Evidence of MVNO expansion

13.20 As outlined in the competitive assessment (see Chapter 8, Market Shares), the combined market share of independent MVNOs in the overall retail market was [5-10%] by revenues and [10-20%] by subscribers in 2023. This increased from [0-5%] by revenues and [5-10%] by subscribers in 2020. At this rate of growth, all other things being equal, MNVOs could be expected to continue to increase their market share going forward and this may have the effect of increasing competition against the MNOs.

13.21 Some MVNOs indicated that barriers for MVNOs to expand in the retail mobile services market are low. For example, one MVNO noted that there are 'no significant barriers which exist to the entry or expansion' should it wish to pursue expansion, noting that resource and time would need to be considered and would need to be weighed up with customer requirements, and the cost benefit.[1639]

13.22 One large MVNO noted that there has been a growth of MVNOs with MNOs also launching their own MVNOs and anticipated that this would continue in the future. However, it noted that long-term competitive supply by MVNOs is 'threatened' in a post-Merger scenario with fewer MNOs to agree competitive wholesale arrangements with.[1640]

13.23 However, another MVNO told us that the market had seen the 'exit of previous key MVNO players (eg TalkTalk, Plusnet[1641]), showing how difficult and fragile the commercial model is for MVNOs'. It further noted that even in relation to sub-brands or partially owned MVNOs, 'their ability to expand may be limited by the fact that the controlling MNOs will want to limit cannibalisation of their own retail

[1638] MVNO expansion would not impact the CMA's assessment of the Merger on competition in the wholesale market as wholesale competition is between MNOs.
[1639] [✂] response to the CMA's questionnaire.
[1640] [✂] response to the CMA questionnaire.
[1641] BT acquired Plusnet in 2007 with Plusnet Mobile services ceasing in June 2024.

businesses' and they are therefore likely to provide very limited competitive constraint.[1642]

13.24 Another MVNO explained that it is 'difficult to enter the MVNO market due to significantly thin margins' and the companies that are likely to expand would be 'in-house MVNOs', that is those owned by the MNOs.[1643]

13.25 Whilst MVNOs could continue to incrementally expand their share of the market, to prevent an SLC from arising, expansion needs to be of sufficient scope. Small-scale expansion, which we consider to be the most likely scenario in this case is not comparable to the constraint eliminated by the Merger and thus would not prevent an SLC. This is before taking into account the impact of the Merger on MVNOs, see 'The impact of the Merger on MVNOs' below.

The competitive position of MVNOs

13.26 As set out in our competitive assessment in Chapter 8, we consider that MVNOs are differentiated, each having different strategies and consumer focuses. The majority of MVNOs (including Lebara, Lyca Mobile, and iD Mobile) primarily target the value segment of the market and therefore provide no or only a limited constraint on the Parties outside the value segment. Sky Mobile, and to a lesser extent Tesco Mobile,[1644] are the main exceptions to this as they offer a wider tariff offering and position themselves to compete more against the MNOs' main brands.

13.27 We also consider that MVNOs cannot compete on network quality parameters, as these are set by the MNOs.

13.28 As set out in the section below, we have also provisionally found that the constraint from MVNOs is likely to reduce due to the impact of the reduction in competition in the supply of wholesale mobile services.

The impact of the Merger on MVNOs

13.29 Wholesale terms from MNOs play a critical role in the ability of MVNOs to be competitive and therefore grow. Post-Merger there will be one fewer option for MVNOs which we have provisionally concluded will give rise to the scope for an SLC in the Wholesale Market.

13.30 Based on our assessment of the evidence as set out in Chapter 9, we provisionally concluded that the intensity of competitive outcomes in the supply of wholesale

[1642] [✂] response to the CMA questionnaire.
[1643] [✂] response to the CMA questionnaire.
[1644] As outlined in previous chapters, we do not consider Tesco to be an independent MVNO given the Joint Venture with VMO2.

mobile services has varied over time and by type of MVNO, and that VUK and 3UK are close competitors. There are only two alternative suppliers of wholesale mobile services to the Parties in the UK: BTEE and VMO2, and the market will therefore be highly concentrated post-Merger. This could lead to MVNOs receiving worse price and/or non-price terms. A number of MVNOs expressed this concern to us.

13.31 We consider that a less competitive wholesale market is likely to reduce the likelihood of MVNOs expanding sufficiently to offset an SLC, in response to the Merger.

Provisional conclusion on entry and expansion

13.32 The Parties have provided limited evidence on how entry and expansion might impact our competitive assessment. Based on the evidence available we consider that the most likely source of entry or expansion would come from MVNOs, in particular expansion from existing MVNOs.

13.33 Expansion by MVNOs would not be capable of preventing or mitigating an SLC in the Wholesale Market, as only MNOs are capable of supplying wholesale network access.

13.34 However, in principle, MVNO expansion could impact our provisional conclusion that there is scope for an SLC in the Retail Market as a result of the Merger.

13.35 We consider that there is some evidence in support of MVNOs expanding and thus acting as a stronger constraint in the future. MVNOs have been increasing their market share in recent years. In addition, whilst most individual MVNOs have achieved only limited growth, there is one strong example of material success by an independent MVNO in the form of Sky Mobile.

13.36 As outlined in Chapter 8, the majority of MVNOs primarily target the value segment and no MVNOs can compete on network quality. Taking the evidence in the round, our provisional conclusion is that that even assuming MVNOs can obtain competitive wholesale terms, MVNOs are limited in their ability to independently price, are constrained by the wholesale terms offered by MNOs and do not offer the same competitive constraint as MNOs.

13.37 To prevent an SLC from arising, expansion needs to be of sufficient scope and effectiveness to prevent the SLCs arising. Continued expansion, which we consider to be the most likely scenario in this case, is not comparable to the constraint eliminated by the Merger and thus would not prevent an SLC.

13.38 Finally, we consider that our provisional conclusion that there is scope for an SLC in the Wholesale Market reduces the potential for timely, likely and sufficient expansion by MVNOs to prevent an SLC in the retail market.

13.39 Our provisional view is therefore that it is not likely that entry or expansion of sufficient scale would occur in a timely manner in order to prevent or mitigate any SLC from arising as a result of the Merger.

14. COUNTERVAILING FACTORS – RIVALRY-ENHANCING EFFICIENCIES

Framework

14.1 Rivalry-enhancing efficiencies are an example of a countervailing factor that may prevent an SLC arising from a merger.[1645] These are efficiencies that change the incentives of the merger firms and induce them to act as stronger competitors to their rivals – for example, by reducing their marginal costs giving them the incentive to provide lower prices or a better quality, range or service.[1646]

14.2 Rivalry-enhancing efficiencies may prevent an SLC by offsetting any anticompetitive effects.[1647] In order for us to take efficiencies into account, they must:

(a) enhance rivalry in the supply of those products where an SLC may otherwise arise;

(b) be timely, likely and sufficient to prevent an SLC from arising;

(c) be merger-specific; and

(d) benefit customers in the UK.[1648]

14.3 Most of the information relating to efficiencies such as synergies and cost reductions resulting from a merger is held by the merger firms.[1649] Accordingly, our guidance (CMA129) notes that it is for the merger firms to demonstrate that the merger will result in efficiencies.[1650] Merger firms who wish to make efficiency claims are encouraged to provide verifiable evidence to support their claims in line with the CMA's framework.[1651] Our guidance (CMA129) notes that many efficiency claims by merger firms are not accepted by the CMA because the evidence supporting those claims is difficult to verify and substantiate.[1652]

14.4 The Parties have claimed that the Merger gives rise to efficiencies relating to network capacity and quality.[1653] The Parties submitted that:

(a) the Merger would deliver a step change in network quality and capacity; and

[1645] CMA129, paragraph 8.1.
[1646] CMA129, paragraph 8.3(a).
[1647] CMA129, paragraph 8.4.
[1648] CMA129, paragraph 8.8.
[1649] CMA129, paragraph 8.7.
[1650] CMA129, paragraph 8.15.
[1651] CMA129, paragraph 8.7.
[1652] CMA129, paragraph 8.6.
[1653] Parties' initial submission, 1 May 2024, paragraph 6.3.

(b) the Merged Entity's superior network quality would increase the competitive pressure on rivals and create a strong incentive for the Merged Entity to compete aggressively in both the supply of retail and wholesale mobile telecommunication services to win customers in order to fill its expanded capacity.[1654]

14.5 The principal evidential base for the Parties' REE claims is the Joint Business Plan for the Merged Entity (**JBP**), which encompasses their joint network plan (**JNP**) setting out how the networks will be integrated (for example, in terms of the sites that will be retained and the deployment of spectrum).

14.6 As set out in more detail below (see paragraphs 14.44 to 14.56), the JBP was prepared as follows:

(a) Each Party produced [✄].

(b) The [✄] were then reviewed by a consultancy, Altman Solon (**AS**), which [✄].[1655]

(c) AS, working with the Parties, made an assessment of network and non-network synergies and, together with [✄], this was used to create the JBP.

14.7 The Parties submitted that under the JBP the Merged Entity would deliver substantial improvements, including a denser network ([✄]% more sites than each of VUK and 3UK), resulting in greater consistency, reliability and latency, significantly reduced congestion (up to [✄]% reduction on the Merged Entity's sites in the first year), and faster average speeds (two to five times faster than VUK and 3UK by 2032).[1656]

14.8 In order to illustrate the economic incentive for the Parties to follow through on the JBP, the Parties also produced a hypothetical scaled back scenario (**SBS**) involving a less ambitious post-Merger network plan (with fewer sites retained and less spectrum deployed) and endeavoured to model the value accretion to them of carrying out the JBP as opposed to the SBS.[1657] The major benefits claimed by the Parties of implementing the JBP as opposed to the SBS were increasing the Merged Entity's market share by achieving best network status (which was modelled to increase operating free cashflow (**OFCF**) by GBP [✄] million over [✄] years, on a net present value (**NPV**) basis) and selling advanced 5G case uses

[1654] Parties' initial submission, 1 May 2024, paragraph 1.2.
[1655] Vodafone internal document. [✄].
[1656] Parties, efficiencies meeting slides.
[1657] See paragraph 14.56 below.

(which was expected to increase OFCF by GBP [✂] million over [✂] years on an NPV basis).[1658]

14.9 We consider below the Parties' claimed efficiencies in relation to the factors set out above in line with CMA guidance. This section should be read in conjunction with Appendix G, which sets out further detail relevant to our analysis of these issues.

14.10 We then reach a provisional view on whether there is an expectation (ie a more than 50% chance) that an SLC may be expected to result or not, following our competitive assessment above[1659] and our assessment of countervailing factors, including the claimed efficiencies.[1660]

Parties' submissions

14.11 The Parties submitted that their JBP, underpinned by the JNP, presents a 'robust, credible view of how the MergeCo network will evolve'. The Parties submitted that the JBP is 'not only a plan but has been agreed by the shareholders as part of the commercial arrangements in the Transaction documents'.[1661]

14.12 The Parties submitted that the JBP will deliver a substantial step change in network capacity and quality which will make the Merged Entity a much more effective competitor than 3UK and VUK would otherwise be in the counterfactual:

(a) The JBP will deliver substantial and timely improvements in network quality in terms of coverage, performance and reliability, from Day 1[1662] and beyond:[1663]

(i) the Merger will provide a transformational uplift in terms of network key performance indicators (**KPIs**) and customer experience; and

(ii) the quality efficiencies are timely and will begin immediately post-Merger.

(b) The quality efficiencies will benefit customers directly.

(c) The step change in network quality is verifiable.

[1658] Parties' submission, The pro-competitive effects of the Vodafone/Three merger. Net present value means the value of future cashflows 'discounted' to today's value to take account of the 'time value of money', ie that – as a result of avoided opportunity costs and increased certainty - income (ie revenue and profits) earned 'today' is more valuable than expected future income.
[1659] See Chapters 8 and 9.
[1660] CMA129, paragraph 8.4.
[1661] Parties' initial submission, 1 May 2024, paragraph 1.17.
[1662] That is, within 12 months post-Merger completion.
[1663] Parties' initial submission, 1 May 2024, paragraph 6.3(i).

14.13 The Parties also submitted that the Merged Entity's best-in-class network will incentivise rivals, in particular BTEE and VMO2, to compete more effectively:

(a) The Merged Entity's best-in-class network will bring better quality offers and additional capacity into the market:

(i) the Merged Entity's capacity uplift will incentivise it to price aggressively; and

(ii) the Merged Entity's capacity increase will not be short-lived.

(b) The Merged Entity's best-in-class network will substantially increase competitive rivalry:

(i) the Merger efficiencies will have a pro-competitive effect on rivals' price responses; and

(ii) The Merger efficiencies will have a pro-competitive effect on rivals' incentives to invest.[1664]

14.14 In support of these points, the Parties submitted that the Merged Entity will have a strong incentive to roll out a best-in-class network.[1665]

14.15 The Parties also submitted that the implementation of Beacon 4.1 would lead to an increase in the quality of VMO2's mobile network and therefore competitiveness. This is because VUK's sale of spectrum would enable VMO2 to increase its capacity and performance; [✂].[1666]

14.16 The Parties further submitted that the rivalry-enhancing efficiencies are specific to the Merger and cannot be delivered by other alternatives to the Merger.[1667]

Our approach

General considerations

14.17 The CMA assesses whether claimed efficiencies are to be realised (and the resultant rivalry-enhancing effects felt) within the same timeframe as the CMA has adopted in the rest of its analysis.[1668] However, usually the longer the time period necessary for efficiencies to be realised, the greater will be the level of doubt that efficiencies will be realised at all.[1669]

[1664] Parties' initial submission, 1 May 2024, paragraph 6.3(ii).
[1665] Parties' initial submission, 1 May 2024, paragraph 6.3(iii).
[1666] Parties' submission, The pro-competitive effects of the Vodafone/Three merger.
[1667] Parties' initial submission, 1 May 2024, paragraph 6.3(iv).
[1668] CMA129, paragraph 8.12.
[1669] CMA129, paragraph 8.12.

14.18 We consider that assessing the Parties' efficiency claims requires us to deal with a considerable amount of uncertainty, given the long time period over which it is claimed some of them will be realised, the scale of each Party's current operations (which would need to be integrated), the extent of the claimed additional investment and the potential uncertainty as to how competitors and customers would respond.[1670] The Parties submitted that we had mischaracterised or overstated the specific areas of uncertainty and that they had demonstrated that the Merger would generate substantial efficiencies, reflecting the underlying technological and economic realities and the Parties' incentives.[1671] We address these points in the remainder of this chapter.

14.19 We also recognise that investment in mobile networks requires a long-term perspective, particularly with regard to the proposed integration of two of the four mobile networks in the UK, as is the case here. We have therefore sought to balance these considerations.

14.20 We note that in principle there are underlying economic reasons why a merger of MNO networks may lead to rivalry-enhancing efficiencies.

14.21 These relate in the first instance to the Merged Entity having more sites and more spectrum than the networks of each Party, enabling the merged network in principle to achieve better coverage and deploy greater capacity than either of the Parties' networks could do individually (other things remaining equal). An improvement in coverage represents a quality improvement while an increase in capacity can facilitate other quality improvements, such as reducing congestion and increasing download and upload speeds. In light of evidence that network quality factors are competitive variables in the mobile industry, albeit less important than price,[1672] such quality improvements may make the Merged Entity a stronger rival and therefore represent rivalry-enhancing efficiencies.

14.22 In the longer term, combining networks enables more spectrum to be deployed at each site, and may therefore reduce the unit cost of expanding capacity; and, given that mobile operators need to increase capacity to meet growing demand, this reduction in unit cost of capacity may represent a reduction in long-term incremental cost which could potentially give the Merged Entity (all else being equal) an incentive to provide a better quality of service and/or lower prices, for example in the wholesale market (compared to a scenario where there is no reduction in unit cost of capacity).

14.23 These effects could in principle enhance rivalry in the supply of retail mobile telecommunications services and wholesale mobile telecommunications services

[1670] CMA, Issues Statement, 2 May 2024, paragraph 48.
[1671] Annex 3 to the Parties' response to the AIS and working papers.
[1672] See analysis of competitive parameters in Chapter 8 on horizontal unilateral effects in the supply of retail mobile services in the UK.

(compared to the situation in the absence of such effects) as we consider below at paragraph 14.172 to paragraph 14.176. However, they need to be supported by evidence that they satisfy the requirements set out above (see paragraph 14.2), ie that they are likely to be realised, timely and large enough to offset any loss of competition due to the Merger, are merger-specific and such that customers in the UK will benefit.

The Parties' plans

14.24 The Parties rely on the JBP, which incorporates the JNP, to support their claims about how the Merged Entity would act and therefore of the timeliness, likelihood and sufficiency of the claimed rivalry-enhancing efficiencies.

14.25 The Parties' plans include the following:

(a) The Parties intend by Day 1 (ie within 12 months post-Merger completion) to use Multi-Operator Core Network (**MOCN**) to provide 3UK's customers with access to VUK's network and vice versa, as soon as possible, in areas with limited interference between their existing networks, and where there is sufficient network capacity to serve both customer sets. The Parties estimate that this will eliminate 25% of 'not-spots' (ie the areas of each of VUK's and 3UK's networks that do not currently have coverage), with geographic coverage increasing from 88% to 91%,[1673] and also reduce congestion.[1674]

(b) Additionally, in the short term, spectrum sharing from Day 1 would allow specific VUK spectrum (in particular, in the 1800MHz band) to be deployed on 3UK sites. The Parties submit this will lead to a significant reduction in congestion and improved performance on 3UK's 4G network.[1675]

(c) Most importantly, the JBP is a plan for integrating the VUK and 3UK networks over the period up to FY34. The Parties submit that the JBP leads to a progressive increase in capacity compared to the counterfactual, with beneficial effects for quality parameters such as congestion and speed. Key features of the JBP are:

[1673] FMN. The 88% figure reflects VUK's and 3UK's separate networks in 2025 and the 91% figure reflects the 4G coverage available to all subscribers of the Merged Entity in 2025. CK Hutchison response to the CMA's s109 notice.
[1674] Parties' submission, Further evidence on network efficiencies and associated customer benefits enabled by the Transaction suggest that in the first year the MOCN decreases the number of congested sites by 15% and the number of subscribers in congested areas by five percentage points.
[1675] FMN and Parties' submission, Further evidence on network efficiencies and associated customer benefits enabled by the Transaction[✂] suggest that in the first year 1800MHz spectrum sharing decreases the number of congested sites by 19% and the number of subscribers in congested areas by two percentage points.

(i) [✂] combined sites from VUK and 3UK will be integrated to form a larger denser network with significantly more sites (by comparison each of 3UK and VUK have around [✂] sites currently);[1676]

(ii) high band (as well as medium and low band) spectrum would be deployed [✂] in high traffic areas, increasing capacity relative to the counterfactual;[1677] and

(iii) the revised network sharing agreement with VMO2 (Beacon 4.1) [✂].[1678] As part of this agreement, [✂]. Additionally, as part of the associated Spectrum Transfer Agreement, [✂] of spectrum would also be transferred to VMO2.[1679]

Our approach to assessing the Parties' plans

14.26 Most of the information relating to the synergies and cost reductions resulting from a merger is held by the merger firms.[1680] In the present case, we recognise the detailed modelling that has been undertaken by the Parties in preparing the JBP and JNP. We have considered these plans, and the assumptions on which they are based, as part of our assessment of the ability and incentive of the Merged Entity to deliver REEs.

14.27 We have also considered other relevant evidence, including seeking technical input on the Parties' claimed post-Merger plans from Ofcom, the Parties' internal documents, information from the other MNOs and the results of the CMA surveys to understand the potential impact of the JBP on competition.

14.28 In the next sections, we consider the following:

(a) Whether the Parties have any obligation to implement the JBP and whether they have the ability to amend it post-Merger;

(b) General uncertainties;

(c) The Parties' projections and the process underlying their development;

(d) The Parties' incentive to deliver the JBP;

[1676] FMN.
[1677] FMN.
[1678] FMN. Network sharing between Vodafone and VMO2 operates outside of the main cities. Currently, there are about [✂] Vodafone sites in the west of Great Britain shared with VMO2 and [✂] VMO2 sites in the east of Great Britain, Scotland and Northern Ireland shared with Vodafone. Vodafone and VMO2 operate their network separately in the main cities (representing about 32.5% of the UK population), with about [✂] 'unwind' sites in these cities: FMN. The Parties' plans envisage including about [✂] sites in the Merged Entity's integrated network of which about [✂] would be included in the Beacon grid and shared with VMO2 and the remainder in the main cities, which would not be shared with VMO2: Annex 3 to Parties' submission.
[1679] Parties' briefing slides.
[1680] CMA129, paragraph 8.7.

(e) The Parties' estimates of the incremental cost of capacity;

(f) Merger-specificity; and

(g) Our provisional findings on likelihood, timeliness, and sufficiency including whether we consider the claimed REEs are rivalry enhancing and benefit customers in the UK.

The Parties' obligation to implement the JBP and ability to amend it post-Merger

14.29 The Parties submitted that the JBP is not only a plan but has been agreed by the shareholders as part of the commercial arrangements in the Merger documents.[1681]

14.30 As part of our assessment of whether rivalry-enhancing efficiencies would be likely to be realised,[1682] we have considered whether the Merged Entity is likely to deliver the full JBP post-Merger (or whether it might pursue a less ambitious network plan). In that context, we consider here whether the Merged Entity has the ability to adopt a business plan that differs from the JBP.

Adoption of the business plan and budget at closing

14.31 A draft business plan and draft budget for the Merged Entity is annexed to the Parties' Contribution Agreement.[1683]

14.32 [✂].[1684] The updated initial business plan and updated initial budget will be adopted by the JV Entity at closing.[1685]

14.33 The Contribution Agreement also provides that prior to closing, the Parties will agree an integration plan.[1686] This merger integration plan will form part of the initial business plan at closing.[1687]

14.34 In any event, we note that the Parties could renegotiate the Contribution Agreement.[1688]

[1681] Parties' initial submission, 1 May 2024, paragraph 1.17.
[1682] See paragraph 14.169.
[1683] Parties' internal document. We understand that these are the same set of numbers as the JBP, reported in a different way: Annex 3 to the Parties' response to the AIS and working papers.
[1684] Vodafone internal document. See also Annex 3 to the Parties' response to the AIS and working papers.
[1685] Vodafone internal document.
[1686] Vodafone internal document.
[1687] Vodafone internal document.
[1688] CMA129, paragraph 7.15.

14.35 Accordingly, we provisionally find that the Merged Entity's business plan and budget adopted at closing may differ from the draft business plan and draft budget appended to the Contribution Agreement.

Business plans post-closing

14.36 [✂].[1689] As above, we also note that, in any event, the Parties could renegotiate the relevant agreements.

14.37 Accordingly, we provisionally find that, post-closing of the Merger, the Parties have the ability to agree on a new or modified Merged Entity business plan. We consider the Merged Entity's incentives to adopt the JBP below.

General uncertainties

14.38 As noted earlier, we currently consider that the assessment of whether rivalry-enhancing efficiencies would be likely to be realised in this case and the Parties' long-term plans requires us to deal with a considerable amount of uncertainty (see paragraph 14.18).

14.39 We consider that significant uncertainty on a time horizon approaching and beyond ten years is to be expected. As an example, the recent volatility in energy costs had a big impact across industries. In the telecommunications industry specifically, the degree of technological change both on the supply and demand side has been substantial and is likely to continue to be so, though with varying predictions from industry commentators.[1690]

14.40 There is also a general concern that benefits from mergers can be overstated. As noted in our guidance (CMA129), some studies have found that firms often do not fully realise the expected synergies from their mergers and, even for the synergies that they do realise, firms do not always pass on the benefits to their customers.[1691] In this case Merger synergies are intended to provide a large proportion of the funding for the claimed network investment. The Parties face challenges in the deliverability of their network plan, such as those discussed below (from paragraph 14.84). In addition, any large project faces delivery risks. For example, we consider that the integration of the workforce of two companies, including substantial numbers of redundancies, can lead to risks of damage to employee morale, retention and commitment to a merged entity's plan.

14.41 We requested that the Parties describe the outputs of any risk assessments that have been undertaken to assess risks associated with reductions in staff numbers

[1689] Vodafone internal document. [✂].
[1690] See Industry Background Chapter 5, section on Technological Developments.
[1691] CMA129, paragraph 8.6.

and store footprints. The Parties stated that [✂].[1692] The Parties submitted that the modelling of the JBP 'took a view of risks across the whole migration, primarily focussed on the speed of the migration' and 'does include £[✂] million for retention post completion of the Transaction'.[1693] We also asked AS (the consultancy which assisted the Parties to develop the JBP, (see paragraphs 14.44 to 14.56) [✂].[1694] We therefore consider that the Parties' risks assessments and policies described, and the funding set aside, appear to be quite limited.

14.42 Overall, we consider that there are a range of possible outcomes that could occur, and a range of incentives that could lead to changes in the profit maximising strategy of the Merged Entity. We also consider that the risks in the implementation of the JBP are asymmetric in the sense that they could lead to significant disadvantages to customers. The Merged Entity would gain the benefit of many merger synergies, and the long-term impacts of a reduction in competition, but if quality improvements – or any increase in rivalry – were not fully realised, customers may lose out.

Parties' projections

Introduction

14.43 As part of our assessment of rivalry-enhancing efficiencies we have considered the Parties' projections (standalone and for the JBP) which underpin their claims regarding efficiencies. These include projections relating to capacity and congestion as well as network quality KPIs. We set out below the process underlying the development of the JBP, and our analysis of the claimed benefits of the JBP (both the 'Day 1' benefits and the longer-term benefits) relative to the counterfactual.

Process underlying the development of the JBP

14.44 We summarise below the process underlying the development of the JBP.[1695]

14.45 VUK and 3UK put forward their [✂].

14.46 A firm of independent consultants, AS, reviewed [✂]. The AS adjustments [✂].[1696]

14.47 AS also [✂]. This was based on [✂]. The [✂] was agreed with the Parties.

[1692] Parties response to the CMA's RFI.
[1693] Parties response to the CMA's RFI.
[1694] Altman Solon call note.
[1695] CK Hutchison internal document and FMN. [✂].
[1696] CK Hutchison internal document.

14.48 Based on five key principles set out by the Parties (see Figure 14.1), and working with the Parties, AS developed the JNP and JBP for the Merged Entity. These were also agreed with the Parties and included the following key aspects:

Figure 14.1: Key principles underlying development of JNP and JBP

[✂]

Source: AS call slides.

14.49 The JBP sets out the development of the network up to FY34. This includes the early implementation of MOCN and spectrum sharing and the subsequent development of the integrated network. AS, working with the Parties, determined the integrated network on the basis that [✂].[1697] On this basis, inter-site distances implied a FY32 integrated network with [✂] sites. This is around [✂] more sites than each of VUK and 3UK currently have. The bulk of the integration is planned to be carried out over [✂], see Figure 14.2.

14.50 Of the [✂] sites in the integrated network, about [✂] are VUK sites and [✂] 3UK sites. Of these [✂] 3UK sites, about [✂] are in the Unwind areas (where Vodafone does not share RAN equipment with VMO2) and about [✂] are in MORAN areas (where Vodafone shares RAN equipment with VMO2). Of these [✂] about [✂] are outside MBNL or are MSP (third party operated) and about [✂] are non-MSP.[1698]

14.51 [✂].[1699]

14.52 However, we understand that in practice, if Beacon 4.1 is implemented, [✂].[1700] Regarding BTEE consent, we note that: (a) [✂];[1701] and (b) as part of the Spectrum Transfer Agreement, the Beacon parties have proposed [✂] which would [✂].[1702] With regard to [✂].[1703] We currently consider that MSPs are likely to be incentivised to grant VMO2 site permissions in order to increase their revenue.

Figure 14.2: Development of the Merged Entity's network in the JBP

[✂]

Source: Parties' teach-in slides.
Note: Figure is not in the JBP provided to the CMA, but the CMA understands it reflects the JBP.

[1697] Vodafone internal document.
[1698] FMN.
[1699] Vodafone internal document.
[1700] Parties Beacon 4.1 CMA briefing.
[1701] Vodafone internal document.
[1702] Parties Beacon 4.1 CMA briefing.
[1703] Parties, Beacon 4.1 CMA briefing; Parties' response to the CMA's RFI; Vodafone response to the CMA's s109 notice; and [✂].

14.53 AS in conjunction with the Parties also created a combined forecast for the Merged Entity up to FY34 (the JBP).[1704] This reflected the costs of integrating the two businesses and:

(a) the [✂], for example due to [✂];

(b) [✂], including [✂]; and

(c) [✂].

14.54 AS considered synergies within the following four categories: commercial (including revenue synergies and cost synergies in the retail and wholesale businesses), network, organisation and IT. The largest synergies were in the [✂].

14.55 The Parties told us that the final JBP was in an AS document dated [✂],[1705] [✂]. Subsequently, the Parties carried out further work to develop the post-Merger plans and submitted further modelling during the course of our inquiry.

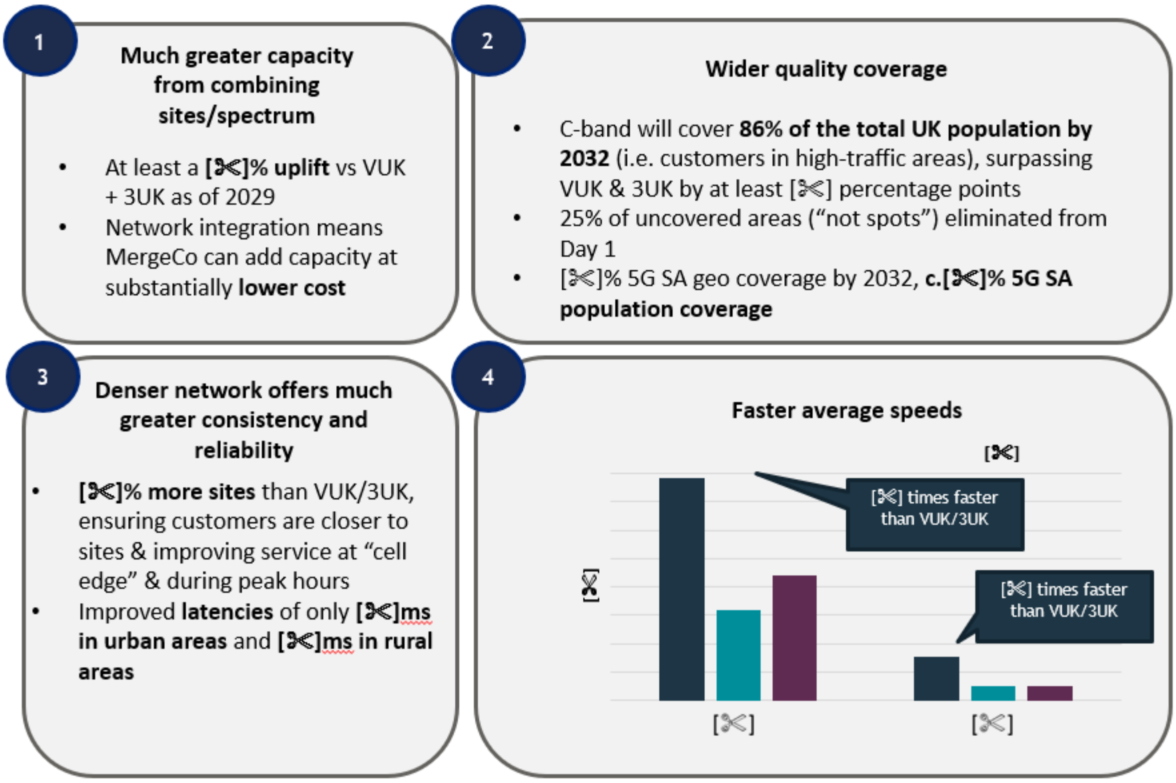
14.56 In particular, the Parties submitted to us comparisons of the quality parameters that the Merged Entity would achieve with those that would be achieved by VUK and 3UK in the counterfactual; and a comparison of the JBP with the SBS which the Parties submitted showed that the Merged Entity had the incentive to deliver the JBP:

(a) The Parties' quality comparisons showed much lower congestion,[1706] and a variety of other benefits including increased coverage, greater consistency and reliability, lower latency and faster average speeds, see Figure 14.3, compared to the counterfactual. We consider this further in Appendix G, paragraphs 1.108 to 1.159.

(b) The comparison with the SBS is considered below, see paragraphs 14.108 to 14.137.

[1704] CK Hutchison internal document.
[1705] CK Hutchison internal document.
[1706] Parties' submission, The pro-competitive effects of the Vodafone/Three merger. The Parties' projections show the percentage of sites congested at 5Mbps declining significantly from over [✂]% in FY24 ([✂]% VUK, [✂]% 3UK) to below 5% in FY30-FY34 for the Merged Entity with no comparable decline in the counterfactual.

Figure 14.3: Projected improvement in quality parameters



Source: Phase 1 decision meeting slides.

Standalone capacity and congestion projections for VUK and 3UK

14.57 Network capacity is essential to providing a good service to mobile customers. Operators seek to meet demand by deploying a sufficiently dense network of sites, and ensuring there is sufficient equipment (eg high-capacity mMIMO antennae) and spectrum deployed at each site.[1707] In recent years, all MNOs have invested heavily in their networks to meet rapid growth in mobile traffic as customers use more data-intensive applications such as video calling. However, growth in demand appears to have slowed in the past two years. Mobile operators have also been investing in 5G deployment since 2019.[1708]

14.58 The Parties submitted that in the counterfactual both standalone networks would face congestion, which would limit their ability to compete.[1709]

14.59 The Parties described 3UK as a '[✂]'which '[o]ver more than two decades' has developed a reputation for poor network quality due to [✂] resulting in high customer churn. Without the ability to sustain sufficient network investment, [✂].[1710]

[1707] Appendix G, Background, paragraphs 1.7-1.8.
[1708] Appendix G, Background, paragraphs 1.9-1.12.
[1709] Appendix G, Congestion on the Parties' Standalone Networks, paragraph 1.31.
[1710] Parties' initial submission, 1 May 2024, paragraphs 2.10-2.11.

14.60 The Parties said that congestion currently affects [✂] of 3UK's sites, with this figure expected to [✂].[1711] However, the estimate of current congestion appears likely to overstate the incidence of congestion as experienced by customers. Sites are made up of a number of 'cells' only some of which may be congested, but which may lead to the overall site being classified as congested.[1712] Our analysis indicates that while [✂]% of 3UK sites are affected by congestion, only [✂]% of 3UK's network is congested at the cell level. This issue largely affects [✂] and [✂]. 3UK does not expect to experience significant congestion on C-band spectrum [✂].[1713]

14.61 3UK scaled back its network investment plans after it entered into merger discussions with VUK. However, it has continued to roll out its 5G network, and is making progress on a '4G Congestion Reduction Programme'. According to 3UK's own standalone projections, it expects [✂].[1714]

14.62 While we recognise that third party metrics only provide partial indications of quality, 3UK's network appears to be performing well relative to the other MNOs across a range of different metrics. For example, Ofcom metrics show 3UK performing well on 4G and 5G coverage, while RootMetrics found that 3UK had the second-best network after BTEE on most measures in 2024, and was a close second to BTEE for the best 5G network.[1715] Survey evidence on reasons for leaving 3UK indicate that the incidence of ex-customers saying they left for network-related reasons [✂] from 2021 to 2022, suggesting that 3UK's increased capex spend from 2020 to 2022 has had a [✂] effect on customer experience.[1716]

14.63 The Parties submitted that a standalone VUK would 'likely [✂] its current strategy of targeted 5G SA rollout limited to certain urban areas. Over time this will allow [✂], reducing VUK's strength as a competitor in the retail and wholesale markets'.[1717] [✂] VUK forecasts 'a significant increase in congestion peaking at [✂]% of its sites in [✂]'.[1718]

14.64 VUK's congestion levels currently appear to be at manageable levels, affecting around [✂]% of cells on its network, across [✂]% of sites. As with 3UK, [✂].[1719] While modelling for the Parties suggests that congestion could increase over the coming years, this result is sensitive to modelling assumptions, [1720] and we have not seen any evidence from internal documents that VUK is [✂] congestion, nor

[1711] Appendix G, 3UK Network Congestion, paragraph 1.39 and Table 1.1.
[1712] Appendix G, Measuring congestion, paragraphs 1.32-33.
[1713] Appendix G, Capacity REEs, paragraph 1.137(b).
[1714] Appendix G, 3UK Network Congestion, Table 1.1.
[1715] Appendix G, 3UK Network Performance, paragraph 1.61.
[1716] Appendix G, 3UK Network Performance, paragraph 1.62 and Figure 1.14.
[1717] Parties' initial submission, 1 May 2024, paragraph 2.33.
[1718] Parties' initial submission, 1 May 2024, paragraph 2.37(ii).
[1719] Appendix G, VUK Network Congestion, paragraphs 1.75-1.76 and Table 1.4.
[1720] Appendix G, VUK Network Congestion, paragraph 1.73 and Figure 1.17.

that congestion is [✄]. Internal documents suggest that congestion is currently having [✄]. Internal documents indicate that [✄].[1721] It has [✄].[1722]

14.65 On third-party measures, VUK is relatively strong on coverage although it tends to be behind BTEE and 3UK on 5G. RootMetrics results suggest that VUK has recently been overtaken by 3UK as the second-best UK network.[1723]

Capacity and congestion projections for the Merged Entity

14.66 The Parties submit that the Merged Entity will benefit from a 'transformational' capacity uplift of at least [✄]% compared to the standalone networks by [✄]: '[t]his means that MergeCo will face a very low incremental cost of adding additional customers to its base, which in turn will incentivise MergeCo to compete aggressively to fill that capacity. This will trigger a competitive response from rival MNOs in terms of both pricing and investment […] significantly enhancing competition in the UK mobile market compared with the counterfactual.[1724] This is in addition to the Parties' submissions regarding rivalry-enhancing improvements in customer experience, which we consider further below.

14.67 The [✄]% of capacity uplift is [✄] in what the Parties refer to as 'high-traffic areas', defined as the [✄] areas in which the Merged Entity would deploy all available spectrum, including C-band, in the model. By comparison, the 3UK standalone network is assumed to deploy all available spectrum on [✄] sites, and the VUK network on [✄] sites in the counterfactual.[1725]

14.68 Within modelled 'high traffic areas' we can distinguish between areas where (broadly speaking) both the Merged Entity and the standalone networks would deploy all available spectrum (Area 1) and areas where the Merged Entity but not the standalone networks would deploy all available spectrum (Area 2):

(a) Area 1: 3UK and VUK both currently deploy C-band at around [✄] (VUK) and [✄] (3UK) sites. These sites account for a large proportion of network traffic and have much higher traffic per site than other sites. The Parties have submitted that where they have deployed C-band and other available spectrum, they do not expect to experience significant network congestion [✄]. In that case, the additional capacity which could be delivered through the Merged Entity may have a limited effect on commercial incentives in these areas.[1726]

[1721] Appendix G, Discussion of congestion management in VUK internal documents, paragraphs 1.79 to 1.83.
[1722] Appendix G, VUK Network Investment, paragraphs 1.92-1.94.
[1723] Appendix G, VUK Network Performance, paragraphs 1.98-1.100 and Figure 1.19.
[1724] Parties' initial submission, 1 May 2024, paragraph 6.11.
[1725] Appendix G, Capacity REEs, paragraph 1.134 and Table 1.7.
[1726] Appendix G, Capacity REEs, paragraph 1.136.

(b) Area 2: Outside of these areas, much of the remaining traffic is carried on a larger number of sites (3UK [✂]; VUK [✂]), where the average traffic per site is around one third of the level at the busiest (Area 1) sites. Given the relatively lower traffic levels at these sites, it is not clear that the Merged Entity would have an incentive to deploy the entire combined spectrum holdings of both Parties at all these sites, and if it did so it appears likely that much of the additional capacity would be redundant (or at best delivered well ahead of need).[1727]

14.69 We recognise that over time the higher network density, and combined spectrum holdings, of the Merged Entity network may have some benefit in addressing congestion in low frequency bands. However, there is little benefit from such effects in the Parties' Capacity Uplift model. The model assumes that the Merged Entity will have [✂] sites by 2029 – around [✂] more than each of the standalone sites – and there is only a [✂]% capacity uplift in low and medium traffic sites by 2029.[1728]

Quality REEs

14.70 As noted above, the Parties submitted that the JBP will create a much higher quality network than either Party's standalone network that will achieve increased coverage, greater consistency and reliability, lower latency and faster average speeds, making the Merged Entity a stronger rival. These claims are considered in detail in Appendix G, Merged Entity Network, but we summarise our assessment of them here, distinguishing between the 'Day 1' benefits and longer term benefits as the networks are integrated.

'**Day 1**' **benefits**

14.71 As set out above, there are two main elements to the claimed 'Day 1' benefits. The first is MOCN, which will allow the Parties' customers to access the other Party's 5G C-band coverage in areas where the other Party does not have C-band coverage. The second is spectrum sharing, which will allow 3UK customers to gain access to VUK's 1,800MHz spectrum, which is currently underutilised.

14.72 The Parties submitted that MOCN would increase coverage by removing 25% of not-spots (see Figure 14.3). We note that the Parties' standalone networks currently cover 81% (3UK) and 84% (VUK) of the UK's geography. However, their coverage of premises is considerably higher ([✂]% each for outdoor premises). MNOs are also currently increasing mobile coverage through the Shared Rural

[1727] Appendix G, Capacity REEs, paragraphs 1.136 and 1.137.
[1728] The Capacity Uplift model calculates the Merged Entity capacity based on 19,800 sites, which is the number of Merged Entity 5G sites in the Parties' planning – ie it does not include any non-5G sites within the Merged Entity – we understand these would be the non-integrated sites of the standalone networks, which would serve either VUK or 3UK customers but not both.

Network (**SRN**) scheme, which aims to increase 4G mobile geographic coverage.[1729] The Parties submitted that '[r]eciprocal access to each other's sites will […] deliver over 95% 4G geographic coverage by 2027, exceeding the Government's SRN target of 90%, for each mobile network'.[1730] While we therefore understand that MOCN would lead to some increase in geographic coverage, given the existing and future projected coverage of the Parties' standalone networks, this is likely to be in areas where there is limited use of mobile connectivity.

14.73 However, even if the impact of MOCN on overall coverage is limited, Ofcom told us that it would have a significant impact in reducing patchiness and therefore improve the quality of coverage.[1731] This is because even if both Parties technically have coverage in one area, obstacles or distance to the site may mean that the signal offered by one Party is less reliable compared with the combined standalone networks (see further discussion of the impact of site density below).

14.74 We also consider that MOCN could have an impact on congestion. As explained above, where the Parties have deployed C-band they do not face significant congestion on their network. We consider that the use of MOCN would therefore alleviate congestion in areas where VUK is congested and 3UK is not and vice versa. However, we also note that the benefits of MOCN will reduce over time as the combined grid is rationalised.

14.75 In relation to the second 'Day 1' benefit, Ofcom told us that the addition of VUK's 1800MHz spectrum to 3UK's sites could play a significant role in alleviating congestion on 4G experienced by 3UK's customers.[1732] We understand this additional spectrum could help to alleviate 4G congestion in areas where 3UK is currently experiencing mid-band congestion, given the extent of traffic that 3UK carries on this band and the extent of unutilised 1800MHz spectrum that VUK holds. However, we understand that it would not address congestion in low-band spectrum.

Longer-term benefits from network integration

14.76 Next, we consider the impact of network integration envisaged under the JBP over the longer term. We consider the following areas of potential network quality improvements identified by the Parties (see Figure 14.3 above):

(a) Wider quality coverage.

[1729] See About - Shared Rural Network (srn.org.uk), accessed by the CMA on 20 June 2024.
[1730] FMN.
[1731] Ofcom's response to the CMA's email of 5 September 2024.
[1732] Ofcom response to the CMA's 19 April 2024 letter.

(b) Densification, including greater reliability and consistency.

(c) Lower latency.

(d) Faster average speeds.

14.77 For the reasons set out above, we consider that increases in 4G geographic coverage will be limited given the coverage that each Party's network is likely to achieve in the counterfactual. We also note that any additional unique coverage resulting from the Merger is likely to be confined to areas where usage is limited.

14.78 In relation to the quality of coverage, the Parties submitted that 'MergeCo will be able to offer [✄]% of the UK population (in high traffic areas) the highest-quality 5G SA coverage by 2032 through its extensive C-band deployment'.[1733] Ofcom noted that C-band deployment in urban areas (together with densification – see below) would provide a contiguous outdoors coverage layer in many cases and better indoor coverage with the high-capacity high-bandwidth and low-latency capabilities of 5G SA.[1734] While the JBP may deliver a high-quality 5G SA network, we expect that in the counterfactual all MNOs will make some progress in rolling out their 5G provision in the coming years. We also note that currently user demand for applications that rely on 5G SA is limited.

14.79 In relation to densification, we would expect increased densification (ie the larger number of sites in the Merged Entity's network relative to each Party's standalone network) to potentially improve reliability, particularly in rural (but populated) areas and in buildings. Signal strength reduces with distance from the site and is further reduced by obstacles such as trees, hills or buildings. As a signal travels further from a site, signal strength declines until the signal becomes too weak and the customer receives no service indoors and then also no signal outdoors. A denser network is therefore likely to deliver a less 'patchy' and more reliable service to customers.

14.80 In relation to latency, the Parties submitted that the latency achieved by the Merged Entity.[1735] We note that the applications for which latency is important are currently relatively niche (while latency is important for gaming, this often takes place over a broadband connection). While new cases for which latency is mission critical may emerge, as yet these are under development. The Parties' competitors consider latency of relatively limited importance to consumers and only 2% of respondents to the CMA's UK population survey said that network response speeds for gaming was a reason for choosing their current provider and none said it was their main reason.[1736] There is also some overlap between the Parties'

[1733] Parties' initial submission, 1 May 2024, paragraph 6.5(i).
[1734] Ofcom, response to the CMA's 23 July 2024 letter.
[1735] Parties' submission, Further evidence on network efficiencies and associated customer benefits enabled by the Transaction.
[1736] See Table 8.4 of Chapter 8.

forecasts of latency for the Merged Entity and the standalone networks, and all forecasts are [✂] Ofcom's current threshold for very high performance, except for the 3UK forecast in [✂].

14.81 In relation to faster speeds, the Parties submitted that the JBP would deliver average speeds [✂] times faster in high traffic areas and [✂] times faster in low-medium traffic areas than either Party's standalone network (see Figure 14.3 above). However, the Parties' forecasts for their standalone networks suggest average speeds would still be '[✂]' (based on Ofcom performance metric threshold from 2023). While the Parties submitted that use cases such as augmented reality require much higher speeds, the Parties recognise that these use cases are still emerging and not widely used by mobile customers. Moreover, the Parties' forecasts suggest that at least in high-traffic areas, where the majority of demand is likely to be located, the standalone networks will deliver very high speeds capable of supporting these applications. We recognise, however, that the Merged Entity may be able to deliver better speeds in mid/low traffic areas which account for around 15% of mobile traffic.

14.82 Overall, we consider that the delivery of the JBP would improve network quality in ways that affect consumer experience. In particular, we recognise that MOCN and spectrum sharing is likely to help alleviate current congestion and is likely to result in more reliable coverage in areas where coverage is currently patchy from the standalone networks.

14.83 On the other hand, we note that both 3UK and VUK had plans to continue improving their networks absent the Merger. We note that the Parties' forecasts suggest that the standalone networks will deliver high speeds and low latencies (at least in high traffic areas). We therefore consider that the value to customers of some of these technical improvements (especially speed and latency) is likely to depend to a significant extent on the emergence and adoption of new applications that require very high speeds and low latencies.

Ability to deliver the JBP

14.84 We have considered whether there may be technical or practical constraints that might affect the ability of the Parties to implement the JBP.

14.85 In relation to MOCN, the Parties submitted there are limited barriers to its implementation, and that some of its benefits can be realised quickly, without requiring a site visit.[1737] Ofcom told us that it does not consider there to be any

[1737] Annex 3 to the Parties' response to the AIS and working papers.

significant practical, technical or commercial risks that are likely to delay or threaten the realisation of the Day 1 benefits.[1738]

14.86 Ofcom noted that there could in principle be technical or practical constraints in the Parties' ability to deliver the integration of the two networks under the JBP, such as physical constraints at sites that limit the equipment that can be deployed at some sites and, particularly in areas of high demand density (where sites are closer together), inter-site interference and power limitations (eg for health and safety compliance), which might hinder, for example, the deployment of additional spectrum.[1739] The Parties submitted that these practical constraints were factored into the development of the JBP, and will not materially affect the Parties' ability to add more spectrum in areas of high demand, with both Parties having a number of well-established mitigation processes to manage potential issues due to interference and transmission power limitations.[1740] Ofcom told us that based on its analysis of inter-site distances and evidence provided by the Parties of how they currently do and plan to manage interference constraints, it did not have concerns that interference and restrictions on power would materially constrain the Parties in deploying the sites and spectrum envisaged in the JBP.[1741]

14.87 We therefore consider that technical and practical considerations are unlikely to materially impact the ability of the Merged Entity to implement the JBP.

Incentive to deliver the JBP

14.88 As part of our assessment of whether rivalry-enhancing efficiencies would be likely to be realised,[1742] we have considered whether the Parties have the incentive to deliver the JBP.

14.89 The Parties submitted that the JBP was commercially more attractive than any alternatives.[1743] They based this primarily on a comparison between the JBP and the SBS, with the latter maximising the available cost synergies of the Merger (by reducing the number of sites in the combined network from [✄] to [✄] sites) but without materially increasing the competitiveness of the Merged Entity's network or achieving significant customer benefits in the longer term.[1744]

14.90 They also submitted that their incentive to deliver the JBP was also provided by exit mechanisms under the Merger agreements that depend on a valuation threshold; and by the terms of Beacon 4.1.

[1738] Ofcom, response to the CMA's 19 April 2024 letter.
[1739] Ofcom, response to the CMA's 19 April 2024 letter.
[1740] Annex 3 to the Parties' response to the AIS and working papers.
[1741] Ofcom, response to the CMA's 23 July 2024 letter.
[1742] See further paragraphs from 14.169 onwards.
[1743] Parties' submission, The pro-competitive effects of the Vodafone/Three merger.
[1744] Parties' submission, The pro-competitive effects of the Vodafone/Three merger.

14.91 In this section, we consider the Merged Entity's incentive to deliver the JBP as a result of the exit mechanisms under the Merger agreements and the provisions in Beacon 4.1; and then turn to the comparison of the JBP and SBS.

Incentive to deliver the JBP as a result of the exit mechanisms under the Merger agreements

14.92 The Parties submitted that the exit mechanisms in the Merger agreements (discussed above at Chapter 2) incentivise both Parties to achieve full implementation of the JBP.[1745]

14.93 Under the Merger agreements, conditional upon the Merged Entity reaching a verified valuation of at least GBP 16.5 billion (the **FMEV Threshold**), Vodafone can exercise a call option to purchase CK Hutchison's 49% shareholding in the JV Entity and CK Hutchison can exercise a put option to require Vodafone to purchase its 49% shareholding. The consideration for either option would be an amount which is related to the verified valuation of the Merged Entity.[1746] These options may only be exercised from the JV Entity's fourth financial year post-closing.[1747] For CK Hutchison's put option, the requirement to meet the FMEV Threshold falls away after the JV Entity's seventh financial year post-closing.[1748]

14.94 The Parties submitted that these mechanisms are only deliverable on the achievement of the full JBP.[1749]

14.95 To consider this, we asked the Parties for evidence that demonstrated the way in which the FMEV Threshold was developed, or which linked the FMEV Threshold to the development of the JBP forecasts.[1750]

14.96 The Parties referenced evidence of the FMEV Threshold being developed [✂], during a period in which [✂]. An email from a senior executive of CK Hutchison, [✂]:[1751]

(a) [✂];

(b) [✂]; and

(c) [✂].

14.97 These points and suggestions received a response from Vodafone a few days later ([✂]), which largely set out agreement and understanding on the areas

[1745] Annex 3 to the Parties' response to the AIS and working papers.
[1746] Vodafone internal document.
[1747] Vodafone internal document.
[1748] Vodafone internal document.
[1749] Annex 3 to the Parties' response to the AIS and working papers.
[1750] Parties response to the CMA's RFI.
[1751] CK Hutchison Internal Document.

important to CK Hutchison. In respect of the suggested put/call exit mechanism, Vodafone commented that [✂]:

> '[✂]'.[1752]

14.98 CK Hutchison told us that the FMEV Threshold was agreed by [✂].[1753] The engagement of AS [✂] (see paragraph 14.55), after the FMEV Threshold had been finalised.

14.99 In response to our request, Vodafone referenced an internal document, produced in May 2023, which shows it considering the JBP alongside the FMEV Threshold.[1754] We consider that this evidences Vodafone perceiving the JBP – after having been largely agreed – to be the 'blue print' and initial business plan for the Merged Entity, on which sensitivities could be conducted to test valuation assumptions relating to the FMEV Threshold.

14.100 However, we consider that the Merged Entity would be incentivised to pursue a credible commercial strategy, which may evolve and develop over time in response to different circumstances, and thus divert from the JBP, in order to achieve strong financial performance and increase the likelihood of it achieving the FMEV Threshold. For example, we provisionally conclude elsewhere in these Provisional Findings (see Appendix E and Chapter 8, CMA analysis on the impact of the Merger on prices) that the Merged Entity would likely have the incentive to increase prices as compared to the counterfactual. This could be one aspect of an evolving strategy which aims to achieve increased profitability.

14.101 We have not found evidence of an inherent or direct link between the JBP – as presented to our inquiry – and the FMEV Threshold, or evidence which demonstrates that the Parties consider the JBP to be the 'only' way in which the exit mechanisms envisaged by the Merger agreements can be achieved.

Provisions in Beacon 4.1

14.102 The Parties submitted that the Beacon 4.1 Agreements underpin the delivery of the JBP and incentivise the delivery of the full JBP/JNP.[1755] The Parties further submitted that the Beacon 4.1 Agreements set out financial and operational penalties which are consistent with achieving the full JBP.[1756] The provisions in Beacon 4.1 are discussed above at Chapter 10.

[1752] CK Hutchison Internal Document.
[1753] CK Hutchison response to the CMA's RFI.
[1754] Vodafone Internal Document. Specifically, Vodafone considers [✂]. These are [✂]. Vodafone [✂]. We note that [✂]. [✂].
[1755] Annex 3 to the Parties' response to the AIS and working papers.
[1756] Annex 3 to the Parties' response to the AIS and working papers.

14.103 In particular, the Parties submitted in response to our Working Paper on REEs that:

(a) VUK and VMO2 have agreed a process to ensure that the MOCN solution can be planned for, tested and activated;[1757]

(b) Through the CWPs, the Merged Entity and VMO2 have committed to integrate 3UK sites into the Beacon network grid, with the Merged Entity intending to integrate c. [✂] 3UK sites into the Beacon network;[1758]

(c) The [✂] incentivise the Merged Entity to ensure integration of the 3UK sites into the Beacon grid in line with the JBP;[1759] and

(d) The spectrum transfer agreement incentivises the delivery of the JBP because certain spectrum will not be capable of transfer until certain CWP milestones, which are based on the JBP, are met.[1760]

14.104 In relation to MOCN, based on our review of the agreements, we currently consider that Beacon 4.1 does not bind the Merged Entity to implementing the MOCN solution; rather it simply facilitates planning and testing to ensure that it does not adversely affect VMO2's network and customers. The Parties subsequently confirmed that Beacon 4.1 [✂] on the Merged Entity to implement MOCN and that there are [✂] in Beacon 4.1 on how many sites the Merged Entity would implement MOCN on.[1761]

14.105 Regarding the integration of 3UK sites into the Beacon grid, based on our review of the Beacon 4.1 Agreements, we currently consider that there is no minimum commitment obligation in relation to the number of 3UK sites to be included in the CWPs in Beacon 4.1. This was subsequently confirmed by the Parties[1762] who also submitted that the [✂] to facilitate the integration of 3UK sites [✂].[1763]

14.106 Regarding the spectrum transfer, as noted in the previous paragraph, we currently consider that there is no minimum commitment obligation in relation to the number of 3UK sites to be included in the CWPs in Beacon 4.1. Hence, the existence of CWP milestones in relation to spectrum transfer does not in itself incentivise the JBP over alternative strategies including those with fewer integration sites but which nevertheless provide at least as much capacity as the standalone networks. In this context, we consider it is the timing of the integration rather than the

[1757] Annex 3 to the Parties' response to the AIS and working papers.
[1758] Annex 3 to the Parties' response to the AIS and working papers.
[1759] Annex 3 to the Parties' response to the AIS and working papers.
[1760] Annex 3 to the Parties' response to the AIS and working papers.
[1761] Parties' response to the CMA's RFI.
[1762] Parties' response to the CMA's RFI.
[1763] Parties' response to the CMA's RFI

number of sites that is relevant to VUK being able to release its spectrum, including that in the 2100MHz band.

14.107 Accordingly, we provisionally find that the Beacon 4.1 provisions, whilst consistent with enabling the delivery of the JBP, are also consistent with facilitating and incentivising a level of integration and delivery that could be less than the full JBP. We have assessed these provisions in the round with other evidence on the Parties' incentives.

Comparison of the JBP and the SBS

14.108 Under the SBS, the Merged Entity would retain the short-term gains from MOCN and spectrum sharing, reflecting that these are relatively easy to achieve. We agree that the Merged Entity would have the incentive to implement these short-term gains. We note, however, that these short-term effects would likely decline in importance over time as the legacy VUK and 3UK networks decline in size due to their sites being integrated into the Merged Entity's network or shut down.

14.109 Otherwise, the Parties specified the SBS as follows:

(a) The total number of sites in the grid is reduced from [✂] to [✂]: [✂] high-traffic sites, which are densification sites in the JBP but which the Parties identified as not contributing 'unique' outdoor coverage, are removed versus the JBP. This results in a minimal 'base' grid of [✂].

(b) The number of high-traffic sites is reduced to align C-band coverage with the standalone plans. Out of the remaining [✂] sites, around [✂] high-traffic sites under the JBP become mid-traffic in the scaled-back plan, such that total C-band coverage [✂] than under the standalone counterfactual, at the end of the Merged Entity's network upgrade programme in 2032. In combination with the cutting of site numbers described above, this results in a network with around [✂] high-traffic sites (vs [✂] under the JBP), [✂] mid-traffic sites and [✂] low-traffic sites.

(c) The amount of C-band deployed is reduced. Under the scaled-back plan, the amount of C-band spectrum deployed on the remaining high-traffic area sites is reduced to [✂]MHz in Unwind and [✂]MHz in Beacon areas (compared to [✂]MHz at all high-traffic sites under the JBP).[1764]

14.110 The Parties compared the OFCF under the JBP with the OFCF under the SBS. [✂], calculated the NPV for the JBP compared to the SBS. They included a terminal value at end FY34 [✂]. The Parties calculated that the NPV of the JBP exceeded that of the SBS by about GBP [✂] billion, see Table 14.1 which also

[1764] Parties' submission.

shows a breakdown of cash flows into three periods (FY25-29, FY30-FY34, and terminal value). This reflects the greater revenue synergies in the JBP exceeding the greater cost savings in the SBS. On this basis, the Parties submitted that they have a strong incentive to pursue their 'best-in-class' network strategy, which is significantly more commercially attractive than an alternative scaled-back network strategy which maximises cost savings at the expense of foregone revenues.[1765]

Table 14.1: Comparison of undiscounted and discounted OFCF for JBP and SBS

					£m
Undiscounted	*FY25-FY29*	*FY30-FY34*	*Total (FY25-FY34)*	*Terminal Value (TV)*	*Total + TV*
Revenue synergies					
JBP	[✂]	[✂]	[✂]	[✂]	[✂]
SBS	[✂]	[✂]	[✂]	[✂]	[✂]
Delta (JBP less SBS)	[✂]	[✂]	[✂]	[✂]	[✂]
Cost savings					
JBP	[✂]	[✂]	[✂]	[✂]	[✂]
SBS	[✂]	[✂]	[✂]	[✂]	[✂]
Delta (JBP less SBS)	[✂]	[✂]	[✂]	[✂]	[✂]
Total delta (JBP less SBS)	[✂]	[✂]	[✂]	[✂]	[✂]
Discounted	*FY25-FY29*	*FY30-FY34*	*Total (FY25-FY34)*	*Terminal Value (TV)*	*NPV (Total + TV)*
Revenue synergies					
MergeCo JBP	[✂]	[✂]	[✂]	[✂]	[✂]
MergeCo scaled-back	[✂]	[✂]	[✂]	[✂]	[✂]
Delta (JBP less SBS)	[✂]	[✂]	[✂]	[✂]	[✂]
Cost savings					
MergeCo JBP	[✂]	[✂]	[✂]	[✂]	[✂]
MergeCo scaled-back	[✂]	[✂]	[✂]	[✂]	[✂]
Delta (JBP less SBS)	[✂]	[✂]	[✂]	[✂]	[✂]
Total delta	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA calculations based on Parties' modelling
Note: Revenue synergies and cost savings are compared to the adjusted baseline. The discount rate is [✂]%.

14.111 As a general point, we note that both the JBP and the SBS were prepared in anticipation of the Merger and in the knowledge of our inquiry. Additionally, the Parties developed and analysed the SBS specifically as an input to our inquiry, ie to convince us that it is inferior to the JBP, rather than as part of the evaluation of strategic network options for the Merged Entity. We have assessed the SBS versus the JBP based on the analysis presented to us, but we have also taken account of this wider context in reaching our view on the Parties' submissions and the weight we can attach to them.

14.112 The remainder of this section sets out the further analysis we have carried out in relation to the comparison between the JBP and the SBS, which is relevant to the Parties' incentive to deliver the JBP.

Timing of cash flows

14.113 The Parties' calculations show that the NPV of cash flows is about GBP [✂] billion higher for the JBP than for the SBS (comprising revenue synergies being greater by about GBP [✂] billion partially offset by cost savings being GBP [✂] billion

[1765] Parties' submission, The pro-competitive effects of the Vodafone/Three merger.

lower, see discounted OFCF in Table 14.1, 'total + TV' column). However, this is almost entirely as a result of the terminal value (ie assumed cash flow beyond the end of the projection period, FY25 to FY34). If the analysis is limited to the projection period, FY25 to FY34, NPV is slightly lower for the JBP than the SBS.

14.114 The Parties submitted that the mobile industry is highly capital intensive, requiring substantial upfront investments, and the profitability of these investments requires a long-term perspective, beyond just the years 2025 to 2034 that are explicitly modelled in the JBP.[1766] Even so, cash flows more than ten years away may be considered highly uncertain, given – for example – the potential for changes in technology or customer demand which might make forecasting far into the future an inherently difficult exercise. In our view, while we note that a perpetuity discount formula allows to some extent for uncertainty beyond the forecast plan, it is challenging to assume that the higher FY34 revenue in the JBP continues in perpetuity, especially as revenue synergies depend on competitors' and customers' responses, and the Merged Entity's competitive position in the JBP as best network may weaken without higher costs than projected for 2034 and beyond.

14.115 We asked each of the Parties about their capital allocation and investment decisions and the responses did not suggest looking beyond a ten-year horizon.

(a) Vodafone said that, [✂]. [✂].[1767]

(b) CK Hutchison said that [✂]. [✂].[1768]

14.116 The Parties submitted that it was important to distinguish their approach to routine capital allocation decisions within their respective businesses, from how their shareholders approach major long term strategic investment decisions.[1769] The Parties said that, in their current weak financial circumstances, they are often forced to think in the 'short term' and give particular weight to the cashflow implications and sustainability of their investment decisions in the short run. They said such routine financial decisions must clearly be distinguished from the JBP, which is a long-term strategic plan aiming to place the two businesses on a sustainable footing for the future.[1770] In that context, the Merged Entity will be afforded much greater discretion and flexibility by its shareholders, including the ability to make long term investment decisions, because the investment is funded by the cost synergies created by the Merger.[1771] In this context, Vodafone said it had relied on long term business cases for a number of investments, including

1766 Parties' submission, The pro-competitive effects of the Vodafone/Three merger.
1767 Parties' response to the CMA's RFI [✂].
1768 Parties' response to the CMA's RFI [✂].
1769 Annex 3 to the Parties' response to the AIS and working papers.
1770 Annex 3 to the Parties' response to the AIS and working papers.
1771 Annex 3 to the Parties' response to the AIS and working papers.

[✂].[1772] CK Hutchison said that 3UK produced long term business cases in its investment decisions where [✂].[1773]

14.117 We do not consider this evidence necessarily indicates we should consider only NPV calculations including a perpetuity calculation. This is because not all the examples, eg [✂], included a perpetuity; and because a decision to scale back investment may be taken after the Merger on an evolving basis and in changing circumstances faced by the Merged Entity, and therefore may be more of a routine, rather than a strategic investment decision. Additionally, Ofcom noted that, in its experience, plans with such a large proportion of value in the terminal value are fairly unusual.[1774] We have therefore considered NPVs on a range of assumptions about the period over which cash flows are considered, ie 10 years, 15 years, 20 years and perpetuity, see section on sensitivities below.

Spectrum sale in the SBS

14.118 We have noted that, in the SBS, the Merged Entity does not use all of its C-band spectrum (see paragraph 14.109(c)). The Merged Entity could therefore sell [✂] of unused spectrum to other MNOs. However, as Ofcom has noted mobile spectrum trading in the UK has been limited, for reasons including the option value of retaining spectrum licences, and the fact that in a mobile spectrum licence trade the licensee would typically be unwilling to sell to a direct competitor, which could put that competitor at a competitive advantage relative to the licensee.[1775]

14.119 The Parties considered that such a spectrum sale could yield a nominal value of GBP [✂] million in [✂] of the JBP roll-out. This was on the basis that the spectrum could not be sold until [✂].[1776] We consider these assumptions result in an unduly low value of the spectrum and have altered this sensitivity to reflect this (see 'Spectrum trade (2)' at Table 14.2).

(a) First, prices at the 2021 auction were low, for example Geoffrey Myers, who was the lead Ofcom Economic Director on the auction referred to 'the low prices paid by EE, Telefonica (O2) and Vodafone'.[1777] In this context, a private company, such as the Merged Entity, has more freedom than Ofcom

[1772] Vodafone said the approach taken in these business cases was consistent with the approach in VUK's own 'Financial Reporting and Governance' manual, which recommended that the 'FCF should be modelled for ten years' and that 'at the end of ten years of the FCF plan, a terminal present value should be calculated'. Annex 3 to the Parties' response to the AIS and working papers. [✂].
[1773] Annex 3 to the Parties' response to the AIS and working papers.
[1774] Ofcom call note.
[1775] Ofcom, Review of Ofcom's market-based approach to mobile spectrum management, 11 January 2024, paragraph 3.6, accessed by the CMA on 27 June 2024.
[1776] Parties' submission, Incentive modelling: Sensitivity analysis. The Parties' assumption that a sale would yield half of the value at the 2021 auction appears to derive from their assumption there is a single buyer with an equal split of value created between buyer and seller. The Parties submitted this was likely to represent [✂] since spectrum tended to have diminishing marginal value for an operator (so operators would pay less for additional spectrum) and Ofcom was likely to make additional spectrum available.
[1777] Myers, Geoffrey (2023) Auction bidding and outcomes.

to play off buyers against each other; we therefore consider it is reasonable to assume the Merged Entity obtains the average of the prices in the 2018 and 2021 auctions (around GBP 300 million), and have altered assumptions at **Spectrum trade (2)** at Table 14.2 to reflect this.

(b) Second, we consider the spectrum could likely be sold at an early stage. This is because neither Party is currently experiencing significant congestion on C-band where deployed; and, consequently, 3UK could limit its C-band deployment to match VUK's holdings of 90MHz, releasing 50MHz for trading in the short term with any short-term congestion effects addressed by MOCN, spectrum sharing, and site integration in the first few years. We have altered assumptions at **Spectrum trade (2)** at Table 14.2 to reflect this.

Discount rate for calculating NPV

14.120 The Parties used a nominal discount rate of [✂].[1778,1779]

14.121 We noted that the WACC was likely to have changed since [✂]. We therefore considered a sensitivity with a WACC of 9.6%. This was based on Vodafone's current estimated WACC for the UK ([✂]%) plus the risk premium used in Vodafone's Merger-specific WACC ([✂]%).[1780] Vodafone told us that this risk premium reflected [✂].

Revenue assumptions

14.122 The Parties consider that the JBP will give rise to volume and revenue synergies (ie increased revenue compared to the counterfactual) as a result of network quality improvements for three reasons:

(a) The Merged Entity's 'best network' strategy will make its offer more competitive, resulting in a larger subscriber base in the consumer mobile market as network improvements will mean that customers are more likely to stay with the network (lower churn) and new customers are more likely to join the network (more gross adds).[1781] These assumptions result in the Merged Entity's market share of subscribers reaching [✂]% by FY34 under the JBP, compared to [20-30%] in the standalone baseline with no change in ARPU compared to the counterfactual;[1782]

[1778] The 'other UK telecoms' part of BT represents about 60% of BT and excludes the lowest risk (eg access to copper and FTTC lines) and highest risk (eg professional services and IT consulting) parts of BT's business. Promoting investment and competition in fibre networks: Wholesale Fixed Telecoms Market Review 2021-26, Annex 21.
[1779] Parties' submission, The pro-competitive effects of the Vodafone/Three merger; and Ofcom Wholesale Voice Markets Review 2021-26, Annex 2, accessed by the CMA on 26 August 2024.
[1780] Parties' response to the CMA's RFI; and Parties' response to the CMA's RFI.
[1781] Parties' submission, The pro-competitive effects of the Vodafone/Three merger.
[1782] Parties' submission, The pro-competitive effects of the Vodafone/Three merger.

(b) The Merged Entity will be able to expand FWA cross-sell opportunities to VUK customers, and provide the excess capacity necessary to support FWA services;[1783] and

(c) The Merged Entity's superior network and accelerated investment in 5G (in particular, its rapid widespread deployment of high-capacity 5G C-band spectrum) will be able to support new use cases that require C-band spectrum with its very low latencies, and high speeds.[1784]

14.123 The Parties' JBP modelling also shows that the total NPV of these revenue synergies is GBP [✂] million over ten years. The bulk (GBP [✂] million) of this is due to increased revenue from achieving 'best network' strategy, with the NPV of FWA revenue synergies being GBP [✂] million and the NPV of new 5G use case revenue being GBP [✂] million.[1785] The impact of the revenue synergies, and in particular the new 5G use cases, is larger if the terminal value is included: the total NPV of the revenue synergies increases to GBP [✂] billion (GBP 2.7 billion more than in the SBS) of which GBP [✂] billion is accounted for by new 5G use cases.

14.124 We note that revenue from new 5G use cases largely does not exist at present for either Party and therefore presents particular challenges in forecasting. Ofcom said that, given the paucity of evidence of demand for services that will rely upon 5G SA, and in particular that the demand would depend upon the difference in quality and extent of the 5G SA provided in the JBP relative to that in the counterfactual, it would be reasonable to assume that the revenue synergy (and associated public value) resulting from unlocking demand for such services would be limited.[1786]

14.125 In regard to FWA, we note that this is currently relatively little used in the UK, though there is evidence of its use elsewhere, for example in the USA where Ofcom noted that T-Mobile USA has about five million FWA subscribers on a network that is similarly dense to that envisaged for the Merged Entity albeit covering a larger country.[1787] Given that FWA is relatively little used in the UK, we consider that it is also subject to some uncertainty.

14.126 We have therefore considered a sensitivity without revenue from new 5G use cases and a further sensitivity which also assumes a lower level of additional revenue from FWA (50% reduction). These sensitivities affect the NPV of the JBP relative to the SBS as the Merged Entity gains no additional revenue from new 5G use cases or FWA in the SBS.

[1783] Parties' submission, The pro-competitive effects of the Vodafone/Three merger.
[1784] FMN.
[1785] Parties' submission, The pro-competitive effects of the Vodafone/Three merger.
[1786] Ofcom, response to the CMA's 23 July 2024 letter.
[1787] Ofcom, response to the CMA's19 April 2024 letter.

Return on capital

14.127 The Parties' projections show that [✂]. [✂].[1788] The terminal value calculation in effect builds in this level of return on capital employed (**ROCE**) into the NPV calculation in perpetuity.

14.128 We consider it more plausible that, post 2034, the Merged Entity's ROCE declines to the WACC, reflecting that the other MNOs may be expected to respond at least over time. We note that AS told us that [✂].[1789] Hence, while we expect the Merged Entity to acquire market power which enables it to earn above its WACC for a period, we expect this to reduce over time and therefore that the Merged Entity would not earn returns so significantly above its WACC in perpetuity.

14.129 We therefore considered two sensitivities: one where ROCE declines to the WACC after 2034; and one where ROCE declines gradually to the WACC over the ten years, 2034-2044, for both the JBP and the SBS. For both of these, we made an approximate estimate of the impact of declining ROCE on cash flow based on simple assumptions about the change in capital employed and the effect of return on cash flow.[1790]

Sensitivity analysis results

14.130 Table 14.2 summarises the results of the sensitivities set out above. As illustrated in the Table, the results are dependent on the time period over which NPV is calculated. The longer the time period over which NPV is calculated, the more attractive is the JBP relative to the SBS:

(a) If the time period is limited to the 10 years over which cash flows have been appraised (ie without any terminal value at the end of 2034), the NPV of the JBP is less than that of the SBS in all scenarios.

(b) At the other end of the spectrum, if cash flows are expected to continue in perpetuity, the base case shows that the NPV of the JBP is higher (around GBP 1.5 billion) than that of the SBS. However, relatively small changes in assumptions reduce the difference in NPVs to a small number.

(c) Calculating cash flows over 15 or 20 years gives intermediate results.

[1788] Vodafone response to the CMA's RFI.
[1789] [✂] call note.
[1790] We projected forward capital employed for JNP and SBS beyond FY34 on the following assumptions: that capex for FY35 to FY44 is the same as for FY34; that total depreciation and amortisation converges to capex after eight years ie by 2042; and that there is no other change in capital employed. We then estimated cash flows post-FY34 for the JNP and the SBS by assuming that the change in change in cash flow is the same as the change in adjusted EBIT.

Table 14.2: NPV Results of Sensitivity Analyses: NPV of JBP less NPV of SBS

								£m
Period	*Perpetuity*		*20-year DCF*		*15-year DCF*		*10-year DCF*	
Discount rate	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Parties' Base Case & spectrum sensitivity								
Parties' Base Case	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Spectrum trade (1)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
New sensitivities (CMA calculations)								
Spectrum trade (2)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
No new 5G use cases	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
No new 5G use cases &1/2 FWA	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Post-FY34 ROCE reverts to WACC	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Post-FY34 ROCE glide path to WACC	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
No new 5G use cases & post-FY34 ROCE glide path to WACC	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA calculations based on information provided by the Parties and assumptions as set out in the text above.

14.131 Additionally, cost synergies [✂].[1791] Such savings may be fairly small in the short term but could be expected to increase over time. Since the SBS has fewer sites than the JBP, [✂] the SBS relative to the JBP.[1792] In response to this suggestion, the Parties submitted that any such increase would not be material given that (a) [✂] and (b) [✂].[1793] These points notwithstanding, the fact that site rental savings have not been included in the financial analysis means that the NPV of the JBP relative to the SBS is likely to have been understated at least to some extent.

14.132 We provisionally concluded from Table 14.2 that the NPV of the JBP relative to that of the SBS is sensitive to the assumptions made. This is because, even when taking into account cash flows into perpetuity, sensitivities with assumptions that we consider reasonable reduce the difference between JBP and SBS NPVs to a small number (and additionally, as noted above, the calculations do not take account of longer term rental savings on closed sites which are lower in the JBP than the SBS).

Specification of the SBS

14.133 The specification of the SBS includes fewer sites, a smaller proportion of high-traffic sites where C-band spectrum is deployed, and less C-band spectrum being deployed even at the remaining high-traffic sites (see paragraph 14.109 above) with 50MHz of C-band spectrum not being deployed at any site.

14.134 This is just one specification of an alternative to the JBP. The Parties submitted that, while there are a multitude of alternative strategies that the Merged Entity could hypothetically implement and within each of these broad strategies key

[1791] [✂] call note.
[1792] The Parties' calculations for the JNP do take account of higher passive rental costs associated with accommodating new equipment of the Merged Entity, some of which would be avoided in the SBS but do not take into account that site rental costs may be avoided altogether in the longer term. Parties' submission, The pro-competitive effects of the Vodafone/Three merger.
[1793] Annex 3 to the Parties' response to the AIS and working papers.

parameters that could be varied, it was not possible to model every possible strategy in order to test whether the JBP is the profit-maximising strategy.[1794]

14.135 We accept this point, but we note that broad categories of alternative specifications would include:

(a) Specifications with more spectrum deployed at sites in high traffic areas (or more sites) than in the SBS, though less than in the JBP. Such specifications would deliver higher quality in high traffic areas than the SBS but lower quality than the JBP.

(b) Specifications with fewer sites in low and mid-traffic areas than the JBP. Such specifications would deliver lower quality (in particular as regards coverage) than the JBP, and potentially the SBS (to the extent that there are also fewer sites in low and mid-traffic areas than in the SBS).

14.136 With regard to the first of these possibilities, the Parties submitted that under such specifications the Merged Entity would not clearly achieve 'best network' status and hence would not achieve the full revenue synergies in the JBP (though it would achieve some cost savings over the JBP, albeit less than in the SBS).[1795] We noted, however, that in such specifications the Merged Entity may nevertheless be expected to gain some revenue synergies due to higher quality, for example due to reduced churn.

14.137 With regard to the second of these possibilities, we noted that Ofcom expressed concern that there was a material risk that the Parties had a commercial incentive to retain fewer sites in mid and low traffic areas than set out in the JBP.[1796] Ofcom noted the Parties' arguments as to why the Merged Entity would retain sites in low and mid traffic areas[1797] but considered that they had to be balanced against the relatively low usage on sites in these areas, which indicated that relatively few customers would face detriment should those sites be removed, and that, in the long run, the Parties could potentially have an incentive at some point to achieve considerable cost savings by decommissioning more of the sites in these areas while still meeting any coverage obligations.[1798] We took this point into consideration in our assessment of whether, and how far, rivalry-enhancing efficiencies would be likely to be realised. Our provisional findings regarding whether the Parties have the incentive to deliver the JBP is set out below at paragraphs 14.183 to 14.189.

[1794] Parties' submission, Incentive Modelling: Sensitivity analysis.
[1795] Annex 3 to the Parties' response to the AIS and working papers.
[1796] Ofcom, response to the CMA's 19 April 2024 letter.
[1797] The Parties' arguments were broadly that customers valued coverage in these areas; that BTEE had better network coverage in these areas; that incentives were asymmetric in favour of retaining coverage where customers currently used it because removing sites which provided coverage to existing customers would have a strong negative reputational effect; and that the densification would deliver new/better coverage in areas where people lived and went.
[1798] Ofcom, response to the CMA's 23 July 2024 letter.

The Parties' estimates of the incremental cost of capacity

14.138 As part of our assessment of rivalry-enhancing efficiencies, we consider here the Parties' submissions regarding the impact of the Merger on the incremental cost of capacity. We considered both the magnitude of any incremental cost savings and the likelihood that these would be passed on to customers.

14.139 We noted above that combining networks enables more spectrum to be deployed at each site, and this may reduce the unit cost of expanding capacity (see paragraph 14.22). This reduction may be measured by comparing the incremental cost of capacity for the Merged Entity with the incremental cost of capacity for each of the Parties, in the counterfactual.

14.140 The Parties calculated the incremental cost of capacity for VUK and 3UK in the counterfactual by calculating the additional capex and opex that would be needed over a ten-year period (FY25 to FY34) to maintain congestion at a constant level, following a 10% increase in subscribers in FY25, sustained throughout the period. The resulting cost was expressed as an incremental cost per subscriber-year.[1799]

(a) The results for VUK show that the incremental cost per subscriber-year is GBP [✂], equivalent to about [✂]% of VUK's retail consumer mobile ARPU in FY25.

(b) The results for 3UK show that the incremental cost per subscriber-year is GBP [✂], equivalent to about [✂]% of 3UK's retail consumer mobile ARPU in FY25. Though the Parties state that the impact of additional subscribers on congestion levels on the 3UK network is lower than the impact on VUK's network, the incremental cost per subscriber-year is higher, reflecting higher capex only partially offset by lower opex.[1800]

(c) These calculations do not account for the residual value of capex at the end of the period. The Parties subsequently provided estimates of the impact of taking residual capex values into account on incremental cost per subscriber-year. This was [✂] for VUK (GBP [✂] per subscriber-year or less), based on an assumed asset life of [✂].[1801] For 3UK, it would reduce incremental cost per subscriber year by about GBP [✂], ie from GBP [✂] to GBP [✂] per subscriber-year.[1802]

14.141 The Parties did not initially calculate a similar incremental cost per subscriber-year for the Merged Entity, submitting that under the JBP the Merged Entity would face

[1799] This was calculated by discounting the incremental costs in GBP million and dividing by incremental subscriber-years (similarly discounted).
[1800] Parties' submission, The pro-competitive effects of the Vodafone/Three merger. Updated figures for 3UK were provided in CK Hutchison internal document.
[1801] Parties response to the CMA's RFI.
[1802] Parties response to the CMA's RFI. CK Hutchison told us that 3UK depreciates mobile active equipment based on asset lifetimes of between [✂] and [✂] years.

virtually no congestion for the foreseeable future and hence could accommodate additional traffic / subscribers without triggering the need for additional investments in capacity.[1803] However, the Parties' modelling shows some congestion even in the JBP (with around [✂]% of subscribers in congested areas at busy hour by Year 10)[1804] and in the absence of additional investment, this would clearly increase with 10% more subscribers.

14.142 The Parties carried out subsequent analysis on the incremental cost of capacity on the Merged Entity following a hypothetical 10% increase in subscribers, enabling a like-for-like comparison with the figures presented above for VUK and 3UK.[1805] This analysis gave an incremental cost of GBP [✂] per subscriber-year (GBP [✂] Core and GBP [✂] RAN) where congestion levels are held constant, relative to the baseline. This equates to [✂]% of total ARPU.[1806]

14.143 Given the investment planned for the Merged Entity, it is unsurprising that the incremental cost of capacity would be smaller than for VUK and 3UK, but it is clearly not a zero cost on a like-for-like basis. The lower incremental cost of capacity that the Parties estimated for the Merged Entity reflects the increase in capacity following the Merger (ie the effect identified in paragraph 14.21) as well as the longer term reduction resulting from being able to deploy more spectrum (ie the effect identified in paragraph 14.22); and therefore likely understates the longer term cost of incremental capacity (for the Merged Entity).

14.144 Moreover, we have not seen evidence that the incremental costs of capacity have a direct impact upon the prices charged to consumers. The incremental cost of capacity reflects estimated costs over the ten years considered and does not necessarily impact directly on the costs incurred over contract periods for consumer or business retail customers. Congestion is localised whereas pricing is essentially national, so any price increases, eg in the absence of the Merger cannot readily be targeted at the local areas experiencing congestion. We have therefore considered further whether and how far lower incremental costs of capacity feed through into wholesale and retail prices.

14.145 In relation to bidding for wholesale contracts to supply MVNOs, we have seen some evidence that the incremental cost of capacity is taken into account in bidding, along with a range of other factors. For example, one VUK internal document [✂].[1807] However, another VUK internal document states that [✂].[1808] A 3UK internal document in relation to [✂]. [✂]. It also notes [✂].[1809]

[1803] Parties' submission, The pro-competitive effects of the Vodafone/Three merger.
[1804] Parties' submission, Further evidence on network efficiencies and associated customer benefits enabled by the Transaction.
[1805] Parties' submission, MergeCo's incremental cost of adding capacity.
[1806] Parties' submission, MergeCo's incremental cost of adding capacity.
[1807] Vodafone internal document.
[1808] Vodafone internal document.
[1809] CK Hutchison internal document.

14.146 In relation to retail prices, we have seen a detailed ‘Pricing Principles’ document from 3UK, which [✂]. It states that [✂].[1810] There is also a note that [✂].[1811]

Figure 14.4: 3UK’s Pricing Principles

[✂]

Source: CK Hutchison internal document.

14.147 The same Pricing Principles document for 3UK includes a note to ‘[✂]’,[1812] and [✂]which states [✂][1813] [✂].[1814] 3UK also provided an example where constrained capacity led to [✂].[1815]

14.148 For VUK, we have not seen a similar detailed document on pricing. However, pricing strategy is extensively discussed in VUK’s internal documents. Notably, we have identified recurrent references to VUK’s pricing strategy being [✂].[1816] The CMA understands that [✂]. However, one recent document suggests that [✂].[1817] In either case, the VUK approaches to pricing are not related to costs.

14.149 In the Parties’ overview of the impacts of the change in the incremental cost of capacity, they describe the Merged Entity ‘being able to compete aggressively by offering larger data allowances at the same price point and expanding its subscriber base’.[1818] In this description, and the examples given in Three’s Pricing Principles, the change is the amount of data a customer obtains for a given price, and impacts only customers with larger data usage, rather than price changes that impact across the customer base.

14.150 3UK also submitted a theoretical scenario of a business plan anticipating a 10% increase in subscriber numbers through a price reduction, which would lead to additional traffic on the network. [✂], 3UK stated that [✂].[1819] In this theoretical example, we consider that prices, traffic, congestion and churn do not have simple relationships, and the overall revenue impacts differ depending on the degree of each impact. Therefore, we consider that there is not a simple impact on the pricing decisions.

14.151 Bringing together 3UK’s ‘pricing principles’ policy document and VUK’s pricing strategy statements, the specific examples given by the Parties of occasions where considerations of capacity costs impacted pricing, and the theoretical arguments laid out by the Parties of the impacts of a reduction in costs, we do not

[1810] CK Hutchison internal document.
[1811] CK Hutchison internal document.
[1812] CK Hutchison internal document.
[1813] CK Hutchison internal document.
[1814] CK Hutchison internal document.
[1815] Annex 3 to the Parties’ response to the AIS and working papers.
[1816] For example, Vodafone Internal Documents.
[1817] Vodafone Internal Document.
[1818] Parties Submission, MergeCo’s incremental cost of adding capacity.
[1819] Annex 3 to the Parties’ response to the AIS and working papers.

see evidence of a direct link between retail prices and capacity or network costs, or that longer run cost savings would be directly passed onto retail customers. Conversely, we see strong evidence that prices are set relative to competitors.

14.152 Therefore, we currently consider that there is no clear link between the quantum of the reduction in incremental cost of capacity and the value of any resulting price reduction to customers. We provisionally consider that the Merged Entity having a lower cost of capacity than the Parties, on a standalone basis, would not necessarily translate into an estimate of the extent to which possible REEs may reduce prices that could be set against any estimates of any adverse effects due to a loss of competition.

14.153 In relation to bidding for wholesale contracts to supply MVNOs, we recognise that there is some evidence that any additional cost of capacity resulting from an MVNO contract is taken into account in bidding, along with a range of other factors. However, while this evidence indicated additional costs of capacity were taken into account, it did not indicate the effect this had on the price ultimately agreed with MVNO customers. Furthermore, we expect that the loss of competition at both wholesale and retail levels will reduce the rate of pass through of any efficiencies to customers at the retail level.

Merger specificity

14.154 In line with CMA guidance (CMA129), we considered whether the claimed efficiencies are reliant on the Merger or whether they would be brought about by other means.[1820]

14.155 We considered the following alternative means of achieving the potential merger efficiencies:

(a) Sale of VUK’s 1800MHz spectrum to 3UK.

(b) A further network sharing agreement or network-only merger.

14.156 For the reasons set out below, we do not currently consider the efficiencies in the JBP would be likely to be brought about by other means.

Sale of VUK’s 1800MHz spectrum to 3UK

14.157 As noted above (see paragraph 14.25(b)), the Parties submitted that they intend to use spectrum sharing, ie deploying VUK’s 1800MHz block on 3UK’s network rather than VUK’s network, to reduce congestion on 3UK’s network in the short term (ie prior to network integration). They stated that this would increase the 4G

[1820] CMA129, paragraph 8.16.

capacity available to subscribers with 3UK SIMs, reducing congestion on those sites.[1821]

14.158 We considered whether, absent the Merger, the benefits of transferring the 1800MHz spectrum on to 3UK's network would likely be achieved via a sale of the relevant spectrum to 3UK (with Ofcom's approval).

14.159 However, Vodafone told us [✂].[1822] Moreover, as noted above in relation to trading of C-band spectrum (see paragraph 14.118), spectrum trading generally has been limited, possibly because of its strategic value to holders.

14.160 In any event, even if there was a sale of the 1800MHz spectrum band, it would only bring about a small part of the potential merger efficiencies (because it would not bring about any efficiencies associated with MOCN or full network integration).

A further network sharing agreement or network-only merger

14.161 We also considered whether a further network sharing agreement or network-only merger would be an alternative means of achieving the potential merger efficiencies.

14.162 The Parties are currently members of different network sharing agreements, so they could not just join the same network sharing agreement. Ofcom said that, generally, active network sharing enabled MNOs to make savings, compared to passive sharing only, but tended to compromise MNOs' flexibility and that this had led to some reduction in active network sharing (especially by MBNL).[1823] Taking these points into consideration, we provisionally find that a further network sharing arrangement would not be likely to arise.

14.163 However, we considered an additional agreement involving a joint venture between VUK and 3UK at network level (**NetCo**) that would participate in Beacon in a similar way to the Merged Entity and generate similar efficiencies to the Merged Entity while preserving some, but not all, of the rivalry existing in the counterfactual.

14.164 In relation to a NetCo, Ofcom told us that it had not come across a model that was successful (across a large number of countries) and, in light of this, did not consider NetCo to be a solution that worked.[1824]

[1821] Parties' response to the CMA's s109 notice.
[1822] Annex 3 to the Parties' response to the AIS and working papers.
[1823] Ofcom putback response.
[1824] Ofcom putback response.

14.165 The Parties similarly said that they were only aware of a very small number of NetCos currently operating anywhere in the world and none following the model we had posited.[1825]

14.166 The Parties further submitted that a NetCo scenario was neither realistic nor a viable alternative to the Merger. This was for the following reasons:

(a) A NetCo would incur higher network costs and therefore generate lower network efficiencies than the JBP. This was because VUK's and 3UK's independent retail businesses would need to retain ownership and control of separate core networks to maintain separate management of their respective customer bases' traffic;[1826] this would additionally mean they would need to maintain other elements of their networks associated with the core (including the IP transport network that transports data between the core and the internet, and the data centres that host the core network) as well as to employ the technical staff that are responsible for that maintenance; and this would create additional overheads.[1827]

(b) Under Beacon, certain costs are shared equally between VUK and VMO2, and would be shared equally between the Merged Entity and VMO2 post-Merger. However, under a NetCo scenario, there would effectively be three parties to the Beacon arrangement (3UK, VUK and VMO2). To maintain the current arrangement of equal cost-sharing among all operators (which is likely to be the only commercially acceptable model for VMO2), the Parties would need to agree to meet two-thirds of the Beacon costs, a significant increase relative to the Beacon-related costs that would be incurred by the Merged Entity.[1828]

(c) NetCo's use of MBNL sites [✀]. [✀].[1829]

(d) As independent competitors at a retail level, neither VUK nor 3UK would want to allow the other Party to use their network assets to gain a competitive advantage ahead of the jointly-funded deployment. This would reduce the incentive to deliver the Day 1 benefits associated with MOCN and spectrum sharing in a NetCo.[1830]

(e) Under a NetCo scenario, neither VUK nor 3UK could lay claim to having the 'best network' since the other Party's network would be just as good. This parity between VUK and 3UK would dilute the value of the 'best network' message and make it harder for either Party to 'leapfrog' BTEE in network

[1825] Annex 3 to the Parties' response to the AIS and working papers.
[1826] Annex 3 to the Parties' response to the AIS and working papers.
[1827] Annex 3 to the Parties' response to the AIS and working papers.
[1828] Annex 3 to the Parties' response to the AIS and working papers.
[1829] Annex 3 to the Parties' response to the AIS and working papers.
[1830] Annex 3 to the Parties' response to the AIS and working papers.

perception or market share. This would reduce the revenue synergies associated with the 'best network' claim, which under the JBP is predicated on the Merged Entity exceeding BTEE as the single 'best network'.[1831]

(f) Differences in the Parties' retail strategies would undermine their ability to agree to new investments which would further reduce the availability of revenue synergy benefits compared to the Merged Entity. In particular, 3UK's FWA offering requires significant amounts of network capacity. In a hypothetical NetCo scenario, VUK would be highly unlikely to agree to allow 3UK to use a substantial proportion of the joint network's capacity for FWA unless 3UK also assumed a corresponding share of the network costs because the FWA revenues would exclusively accrue to 3UK. It would therefore be challenging to reach any agreement on this and there would be a high likelihood that any forecast revenue benefits from FWA would fail to materialise.[1832]

(g) The existence of separate and wholly-owned retail businesses would mean that it would not be possible to determine *ex ante* how future revenue synergy benefits of the JBP would flow through to VUK and 3UK shareholders. In other words, the Parties would not be able to contract *ex ante* over the future distribution of NetCo benefits which would be uncertain.[1833]

14.167 We also considered an alternative involving deeper integration at network level whereby one Party (Vodafone) would own the network but both Parties would continue to operate separately and compete at retail level. This would mean 3UK's retail business would essentially become an MVNO. CK Hutchison said [✄]. [✄]:

(a) [✄];

(b) [✄];

(c) [✄]; and

(d) [✄].[1834]

14.168 While we do not necessarily agree with all the points made by the Parties, taking all the considerations set out above in the round, our provisional view is that we do not consider it likely that absent the Merger the Parties would establish a NetCo.

[1831] Annex 3 to the Parties' response to the AIS and working papers.
[1832] Annex 3 to the Parties' response to the AIS and working papers.
[1833] Annex 3 to the Parties' response to the AIS and working papers.
[1834] Annex 3 to the Parties' response to the AIS and working papers.

Our overall assessment

14.169 As set out in the earlier chapters of our Provisional Findings, before consideration of any potential countervailing factors, we have provisionally found that there is scope for an SLC as a result of the Merger in two markets:

(a) The national (UK) market for the supply of retail mobile telecommunications services; and

(b) The national (UK) market for the supply of wholesale mobile telecommunication services.

14.170 In particular, we have provisionally concluded that the loss of rivalry resulting from the Merger at the retail level is likely to lead to price increases, or see customers get a reduced service such as smaller data packages in their contracts. We have also provisionally concluded that the loss of rivalry resulting from the Merger at the wholesale level is likely to have a negative impact on the ability of MVNOs that buy services from MNOs such as VUK and 3UK to compete in the retail market. The Merger would reduce the number of MNOs from four to three likely making it more difficult for MVNOs to secure attractive competitive terms which would reduce their ability to compete strongly for retail customers.

14.171 In order for the CMA to find there are REEs which prevent SLCs, the CMA must be satisfied that the cumulative criteria set out under the headings below are met. Below we set out our assessment of the REE claims and give a provisional conclusion.

Criteria 1: Rivalry-enhancing in the relevant markets

14.172 As noted earlier in this chapter, REEs must enhance rivalry in the supply of those products where an SLC may otherwise arise: any merger efficiencies must be expected to increase competition to offset any lessening of competition that would otherwise arise from a merger. To do this, they must be likely to strengthen the ability and incentive of the merged entity to act pro-competitively for the benefit of consumers.

14.173 We accept that in principle the claimed REEs could be rivalry enhancing, for the reasons set out earlier in this chapter (see paragraphs 14.16 and 14.17).

14.174 First, there is evidence that quality is an important parameter of competition. Therefore, improving network quality in a way that affects consumer experience (eg coverage, reliability, speed) could in principle make the Merged Entity (through having more sites and more spectrum than each firm in the counterfactual) and VMO2 (through the spectrum trade and Beacon 4.1) stronger rivals.

14.175 Second, while there are costs involved in deploying spectrum, combining the Parties' networks could enable more spectrum to be deployed at each site and therefore reduce the longer-term unit cost of expanding capacity. Given that mobile operators need to increase capacity to meet growing demand, this reduction in the unit cost of capacity could represent a reduction in long-term incremental cost. This could potentially give the Merged Entity – all else being equal – an incentive to provide a better quality of service and/or lower prices, though as set out above, see paragraphs 14.144 to 14.153, we consider any incentive to lower prices would be limited.

14.176 We therefore provisionally consider that the REEs claimed by the Parties could in principle increase rivalry (compared to the situation in the absence of such REEs) in each of the Markets.

Criteria 2: Likelihood

14.177 We have considered whether the REEs claimed by the Parties are likely to be realised post-Merger. This means that the evidence supporting the REEs needs to be verifiable.[1835] We have considered both the ability and the incentive of the Merged Entity to implement the JBP.

14.178 Assessing the Parties' REE claims requires us to deal with a considerable amount of uncertainty, given the long time period over which it is claimed some will be realised (ten years or more), the scale of each Party's current operations (which would need to be integrated), the extent of the claimed additional investment and the potential uncertainty as to how competitors and customers would respond.[1836] We note that, as set out in the CMA's guidance (CMA129), usually the longer the time period necessary for efficiencies to be realised, the greater the level of doubt that efficiencies will be realised at all.[1837]

Ability to deliver the full JBP

14.179 With regard to the ability of the Merged Entity to deliver the full JBP, the CMA's guidance (CMA129) notes that some academic studies have found that firms often do not fully realise the expected synergies from their mergers (which in this case are intended to provide a large proportion of the funding for the JBP investment).[1838]

14.180 As outlined in more detail earlier in this chapter, we also consider that there are a number of practical implementation risks in the integration of any two large and established businesses, and in particular – in this case – the consolidation of two

[1835] CMA129, paragraph 8.13.
[1836] CMA, Issues Statement, 2 May 2024, paragraph 48.
[1837] CMA129, paragraph 8.12.
[1838] CMA129, paragraph 8.6.

of the four UK mobile networks. While Ofcom noted that there could in principle be technical or practical constraints in this respect, particularly around the ability of the Parties to deliver the deployment of spectrum at the scale envisaged in the JBP, it did not consider these would act as a material constraint. We therefore currently consider the JBP to be a credible integration plan, reflecting detailed due diligence by external consultants and significant time and resource investment by the Parties.

14.181 We also recognise that the network improvement plans in the JBP involve the consolidation and upgrading of existing mobile sites, to rationalise down rather than scale up the total number of sites held by the Merged Entity. This process contrasts with the identification of locations for and subsequent construction of new sites, which would be required for site footprint expansion by each of the Parties in the counterfactual, and which is likely to be significantly more practically challenging.

14.182 On this basis, while recognising there are some delivery risks to the JBP, overall, we provisionally consider that the Parties are likely to have the ability to deliver the JBP (or a plan that is broadly comparable).

Incentive to deliver the full JBP

14.183 As noted above, the Parties can agree to amend the JBP both before and after closing.[1839] Accordingly, we have focused our assessment on the Parties' commercial incentives post-Merger to implement the full JBP.

14.184 We consider that the commercial strategies of the Merged Entity would respond dynamically to future market circumstances (including the reductions in competition we have identified) and, as noted above, that there is a high level of uncertainty inherent in an investment plan involving a time horizon beyond ten years. In particular, we consider that the Merged Entity would in reality re-assess the pace and prioritisation of the integration and upgrade programme in light of future market circumstances, which may differ from what they project currently in the JBP.

14.185 This uncertainty, and the ability of the Parties to re-assess (and potentially reduce) the scale of network investment is compounded by the fact that the Parties may have the commercial incentive to retain a lower number of sites than claimed in the JBP given the cost savings that can be realised through site decommissioning. This commercial incentive may be particularly strong in low and mid traffic areas, where the impact on network congestion of the site decommissioning may be less, and Ofcom has raised concerns with us in this respect. We also consider that the Parties may have a similar incentive to reduce the extent of spectrum deployed to

[1839] Annex 3 to the Parties' response to the AIS and working papers.

realise further cost savings, potentially across all types of sites but particularly in low and mid traffic areas. This is supported by evidence of their current standalone network investment strategies, whereby the full extent of their spectrum holdings are not deployed, even in congested areas.[1840]

14.186 The Parties have provided commercial modelling which they claim demonstrates that the JBP is the most commercially rational and profit-maximising network plan for them to adopt post-closing. Specifically, as noted above, the Parties' modelling suggests that delivery of the JBP has a higher commercial return (in terms of NPV) than a so called hypothetical 'scaled-back scenario' (as specified by the Parties and prepared for the purposes of the CMA's merger inquiry) involving the retention of fewer sites and reduced spectrum deployment (and therefore lower costs). Conceptually, we consider that the binary comparison of a single 'scaled back scenario' and the JBP fails to capture the myriad commercial strategies which the Merged Entity may be incentivised to pursue, particularly given the dynamism and uncertainty of future market conditions over the time period envisaged by the JBP.

14.187 In any case, we also do not consider this modelling to be conclusive, and therefore have given it relatively little weight in assessing the Parties' post-Merger incentives. In particular, sensitivities with alternative assumptions that we consider reasonable reduce the difference between JBP and SBS NPVs such that the full implementation of the JBP becomes substantially less commercially compelling.

14.188 Even in the Parties' own comparison of the JBP and the 'scaled-back scenario', the incentive to implement the JBP arises almost exclusively from the terminal value of the model (ie the value to the Merged Entity of the JBP post 2034). We consider that this reduces the model's probative value given the inherent uncertainty in predictions more than a decade out, the sensitivity of this conclusion to altered assumptions and the likely commercial desire to realise financial performance objectives in a more timely manner.

14.189 We therefore currently consider, on the basis of the evidence we have seen thus far, that the Parties are not likely to have the incentive to deliver the full JBP, and therefore the quantum of any REEs is likely to be less than claimed by the Parties.

REEs which we do consider are likely

14.190 However, we consider that the Parties do have the incentive to deliver some of the claimed REEs as a result of the Merger, even if not to the extent set out in the JBP.

14.191 While the CMA must consider the scale of any REEs in order to weigh them against the anti-competitive effects of the Merger, it is not possible in this case

[1840] Ofcom 17 May 2024 Letter.

(and it is not required) to quantify precisely the extent of the anti-competitive effects and any REEs.[1841] In particular, the case law and the CMA's guidance (CMA129) are clear that in assessing the evidence, the CMA is not required to make precise predictions about the future.[1842] The CMA is therefore not required to, and we have not sought to, precisely quantify the extent of the likely REEs (for example in terms of the Merged Entity's site numbers or the level of spectrum deployed).

14.192 However, we consider that based on the evidence we have seen thus far, the Merged Entity would have the incentive (and ability) to deliver the so-called 'Day 1' benefits of a combination of MOCN, and deployment of additional spectrum through sharing of the Parties' combined holdings (for example in relation to 1800MHz spectrum). In addition, we also consider that some degree of site densification relative to either Party's standalone networks is likely, particularly given the inevitability of network integration, although it is not possible to quantify precisely the likely extent.

14.193 We also consider that the spectrum transfer agreed through Beacon 4.1 is likely to be realised[1843] for several reasons. Firstly, Beacon 4.1 has already been executed; secondly the spectrum divestment, [✂];[1844] thirdly, the spectrum trade is in effect a structural divestment rather than an ongoing obligation; and finally, the spectrum divestment is part of a wider package of contractual measures intended to re-align the Merged Entity's and VMO2's long-term incentives to cooperate in relation to Beacon so as to facilitate network integration of the Merged Entity.

14.194 We consider that the combination of these factors is likely to result in some degree of rivalry-enhancing network quality improvement.

Criteria 3: Timeliness

14.195 The CMA assesses whether claimed efficiencies are to be realised (and the resultant rivalry-enhancing effects felt) within the same timeframe as the CMA has adopted in the rest of its analysis.[1845]

14.196 As noted above, usually the longer the time period necessary for efficiencies to be realised, the greater the level of doubt that efficiencies will be realised at all.[1846] At the same time, we recognise that investment in mobile networks requires a long-

[1841] CMA129, paragraphs 2.7, 2.21 and 2.22 and *Tobii v CMA* [2020] CAT 1, paragraph 393.
[1842] CMA129, paragraph 2.21 and *Intercontinental Exchange, Inc. v CMA and Nasdaq Stockholm AB* [2017] CAT 6, paragraph 246.
[1843] See also our summary in relation to Beacon more generally in Chapter 10.
[1844] This would involve a competition assessment by Ofcom.
[1845] CMA129, paragraph 8.12.
[1846] CMA129, paragraph 8.12.

term perspective, particularly with regard to the proposed integration of two of the four mobile networks in the UK, as is the case here.

14.197 We consider that the so called ‘Day 1’ benefits are likely to occur shortly after closing given that they will generate benefits for the Merged Entity and are relatively easy to implement. We consider that at least some degree of network integration (which will take place over time but start once the Merger completes) would also be timely, particularly given the inevitability of network integration, although as noted above it is not possible to quantify precisely the likely extent.

14.198 We also consider that the likely rivalry-enhancing network quality improvements of the spectrum transfer to VMO2 pursuant to Beacon 4.1 are likely to occur within the short- to medium-term. We note the [✂] and consider that VMO2 has strong financial and strategic incentives to [✂].

14.199 We therefore currently consider, on the basis of the evidence we have seen thus far, that the REEs that are likely to be realised as a result of the Merger would be sufficiently timely.

Criteria 4: Sufficiency

14.200 As set out above, we currently consider, on the basis of the evidence we have seen thus far, that the Parties are not likely to realise the full extent of the REEs claimed. This is because we currently consider they are not likely to be commercially incentivised to deliver the full JBP. Given this provisional conclusion, we do not need to provisionally conclude whether any REEs from full delivery of the JBP would be sufficient to offset the adverse impacts on competition we have identified.

14.201 However, we have provisionally concluded that some rivalry enhancing network quality improvements are likely to give rise to REEs. We have assessed whether the REEs which we have provisionally found are likely to result from the Merger would be sufficient to countervail the adverse competitive effects we have provisionally identified. In doing so, we have had regard to all the available evidence (both quantitative and qualitative) in order to form an informed provisional view on whether the likely scale of efficiencies are sufficient to prevent any SLC. We consider the scope and extent of the key quality improvements resulting from the technical changes outlined above in more detail below, which should be read in conjunction with Appendix G.

14.202 We consider that these changes would in turn likely elicit a competitive response (for example, by way of further network investment) from BTEE and VMO2 to also improve their respective network quality. In particular, we have identified evidence that suggests [✂] considers that if the Merged Entity were to challenge [✂]. Based on the evidence that we reviewed, [✂] would consider [✂], but we provisionally consider that the balance of the evidence points to it responding to any such challenge [✂].[1847]

14.203 We also consider that the spectrum transfer agreed through Beacon 4.1 would provide a notable and rapid increase in network quality for wholesale and retail customers on the VMO2 network, which would further increase rivalry.

14.204 However, the greater the expected adverse effect of a merger, the greater the expected efficiencies must be. For the reasons set out below, we do not consider that, by themselves, these (more limited) REEs that we provisionally find are likely to result from the Merger would be sufficient to countervail the adverse competitive effects identified. Our analysis for each is set out under the sub-headings below. We note this conclusion is consistent with our provisional view in paragraph 14.128 that over time we expect the market power of the Merged Entity to reduce and that it would not earn returns so significantly above its WACC in perpetuity.

14.205 For completeness, we also have some doubts as to whether the full JBP/JNP would – if delivered – be sufficient to offset the adverse effects on competition in the retail and wholesale markets provisionally identified. We invite submissions from the Parties and third parties in this respect. But, as noted above, we do not need to provisionally conclude on that question in these Provisional Findings given our provisional conclusion on likelihood.

Retail market

Price

14.206 Our provisional conclusion on the anti-competitive effects of the Merger in the Retail Market (see Chapter 8), as set out in more detail in the chapter above, is that the Merged Entity – and its competitors – are likely to have incentives to raise prices or degrade non-price aspects of their offerings (including by reducing network investment). We have sought to estimate the likely impact of this on pricing using different economic techniques and carefully considered the robustness of our results. However, it is difficult to estimate the impact of a merger in this industry on retail pricing with precision. We have therefore considered our economic estimates in the round to inform our view about the likely impact of the Merger.

14.207 Our quantitative economic analyses consistently show that the Merger is likely to have a material upwards impact on retail prices. Our analysis of the GUPPI suggests significant pricing pressure of between [5-10%] and [10-20%] for 3UK and between [0-5%] and [5-10%] for VUK. Our merger simulation predicts that the Merged Entity's prices would rise by 7.0% for 3UK and 3.8% for VUK on average.

[1847] See Appendix C.

This, along with predicted price rises from the other operators, would lead to a harm to UK consumers which is equivalent to at least GBP 328 million per year, though our sensitivity analysis suggests that this could be as high as GBP 1.123 billion.

14.208 This analysis does not account for the loss of competition arising from the Merger on the wholesale market. Faced with less competitive wholesale terms, MVNOs would be less able to compete in the retail market, particularly in the low-cost segment where they tend to operate. This would lead to greater price increases than already outlined from the direct loss of retail competition resulting from the Merger.

14.209 We consider these findings to be particularly significant given that, as outlined in our industry background (Chapter 5), the Parties collectively have over 27 million subscriptions in the UK that would be directly affected by any price rises, magnifying the consumer welfare impact. More broadly, for the reasons outlined above, we also predict some level of price increase likely to affect the Retail Market as a whole, which in 2023 comprised almost 90 million mobile phone subscriptions.

14.210 We note that most consumers told us in our survey that they would not be willing to pay more for better quality (with 76% unwilling to pay for faster speed, and 59% unwilling to pay more for more reliability). We therefore have significant concerns about the impact of the Merger on the large number of retail consumers who might have to pay more for improvements in network quality they do not value. Ofcom also noted the limited evidence of current customer willingness to pay a premium for services that rely on 5G SA capabilities. However, we recognise the possibility that consumer attitudes may evolve as the mobile industry develops.

14.211 Our analysis also suggests that the consumers that will see a particularly large fall in consumer welfare from higher prices have the lowest disposable incomes. We have particular concerns about the impact of the Merger on those customers least able to afford mobile services.

14.212 We note that the Parties argue that an increase in network capacity will result in a reduction in the incremental cost of capacity that will result in downwards pricing pressure. We have considered these arguments closely. At the outset, it is important to note that the increases in incremental capacity the Parties rely on for the basis of their claimed reductions in incremental cost of capacity assume the implementation of the full JBP which, as we outline above, we do not consider is likely. Any likely reduction in incremental costs of capacity is therefore necessarily less than the Parties claim. However, on the basis that we do consider some increase in the network capacity of the Merged Entity is likely to result in the early years post-Merger, we have considered the evidence as to whether any reduction in incremental cost of capacity is likely to be passed through to the benefit of retail consumers.

14.213 We currently consider, based on the approach to pricing evident from the Parties' internal documents, that there is no clear link between incremental costs of capacity and retail pricing decisions (and do not find the Parties' economic modelling of this robust or persuasive), such that reductions in incremental cost of capacity are likely to be passed through to retail consumers.

14.214 Overall, as outlined above, we do not see evidence of a direct link between retail prices and capacity or network costs, or that longer run cost savings would be directly passed onto retail customers. Prices, traffic, congestion and churn do not have simple relationships, and the overall revenue impacts differ depending on the degree of each impact. Conversely, we see strong evidence that retail prices are set relative to competitors. Therefore, we provisionally consider that the Merged Entity having a lower cost of capacity than the Parties, on a standalone basis, would not likely result in the reduction of retail prices that could be set off against our estimates of the adverse effects from the loss of competition identified.

Network quality

14.215 We have also considered the likely overall impact of the Merger on network quality for UK consumers relative to the counterfactual.

14.216 As set out above, we consider that the Merger is likely to result in some level of network quality improvements. For example, we consider that MOCN and network integration is likely to potentially improve reliability, through a significantly less 'patchy' service for customers and provide some reduction in congestion. Similarly, spectrum sharing is likely to play a significant role in alleviating 4G congestion for 3UK. However, we also consider that the network quality improvements which would result relative to the counterfactual would be less than the Parties have claimed.

14.217 This is because, firstly, we consider that both the Parties' standalone networks are likely to deliver in the counterfactual higher quality outputs than the Parties claim in their submissions and modelling (which was prepared for the purposes of this merger review). This manifests in both lower current levels of congestion than they have claimed would result and the likely ability to meet the service parameters and capacity that will be required in future (for example for new use cases). We have reviewed the current business plans of both of VUK and 3UK, which show that they expect to continue to make network investments to improve customer experience. We also challenge the Parties' claim that they are unable to effectively compete on a standalone basis so as to deliver good outcomes for UK customers.

14.218 Secondly, we consider that the technical network improvements which would be realised may not all translate into benefits that are valued by large numbers of consumers and which are therefore likely to have a material impact on competitiveness.

14.219 In this context we note that, for the reasons set out in detail in Appendix F, we have a number of serious concerns with the quality focused model prepared by Compass Lexecon (3UK's advisers) for the purposes of the Merger, which the Parties claim shows that the Merger will lead to a market-wide welfare gain of GBP 1.8 billion per year (in 2030). We have placed no weight on this model and do not consider its results to be credible, including the GBP 1.8 billion claim. See Appendix F for our critique of that model.

Extent of claimed capacity and congestion improvements

14.220 One of the Parties' core efficiency claims relates to the increase in network capacity which they claim would result from the Merger. As noted above, an increase in capacity can facilitate other quality improvements such as reducing congestion and increasing download and upload speeds.

14.221 However, for the reasons outlined already in this chapter, we also currently consider that the Parties overstate the extent of future congestion on their standalone networks (and therefore the extent of likely improvement flowing from the Merger) for several reasons.

14.222 First, we consider that, on balance, the Parties' claims of current high congestion on 3UK's network and forecast of future congestion on VUK's network are not supported by their internal documents, which in each case suggest they anticipate less congestion (and/or a more limited commercial impact from congestion) than is claimed. We have not seen any evidence in the Parties' internal documents that VUK is [✂] congestion, as indicated in the Parties' modelling, or that 3UK is [✂] congestion levels that would materially weaken its competitive position.

14.223 Second, site congestion is in many cases limited to only one of the three geographical sectors surrounding the site, and often to only one of the spectrum bands deployed on the site. Our analysis indicates that while [✂]% of 3UK sites are affected by congestion, only [✂]% of 3UK's network is congested at the 'cell' level (ie reflecting sectors and bands where congestion is experienced by customers).

14.224 Overall, we consider that 3UK has made progress in addressing congestion and network performance generally and is performing well relative to the other MNOs across a range of different metrics on third party network quality metrics (which reflect congestion along with other aspects of network quality).

14.225 VUK also appears to have recently improved its congestion levels, and in internal documents it sees its [✄]. Our analysis indicates that [✄]% of VUK sites are affected by congestion with around [✄]% of VUK's network congested at the 'cell' level.

14.226 That said, we do consider that early MOCN and spectrum sharing will have some impact on congestion. Specifically, MOCN will help address congestion in areas where VUK is congested and 3UK is not and vice versa, and deployment of VUK's 1,800MHz spectrum on 3UK sites will help alleviate congestion on 3UK's 4G network in areas where 3UK is currently experiencing mid-band congestion. However, we understand that this would not address congestion in low-band spectrum.

14.227 We also consider that over time integration of the networks and deployment of spectrum through that process will increase network capacity, further reducing congestion. We consider that – without the Merger – both of 3UK and VUK, on a standalone basis, are incentivised to continue to manage congestion at least as effectively as they do at the moment. In addition, it does not appear that the additional capacity that would be delivered by the Merger (in the Parties' modelling) is necessarily well targeted to meet future demand for usage, as the modelling implies that capacity at some sites would be expanded despite there being no foreseeable prospect of congestion at those sites.

Extent of other claimed network quality improvements

14.228 In addition to the network capacity improvement claims, the Parties also claim that the Merger will result in REEs from improvements in other aspects of network quality. We have considered the extent of these improvements in the round and set out our key findings relevant to the sufficiency assessment below.

14.229 First, the Parties claim that the Merger will lead to more reliable and consistent coverage through greater densification. We consider that the Merger is likely to potentially improve reliability, particularly in rural (but populated) areas and in buildings as a result of the greater number of combined sites. Even in areas where there is technically coverage the distance from the site and obstacles such as buildings, trees and hills can affect the quality of the signal that the customer gets. The benefits of MOCN on reliability will reduce over time as the combined grid is rationalised. The impact of densification (ie the number of sites) in the longer term will depend on how many sites the Merged Entity retains, and we consider that the Merged Entity may have incentives to reduce the number of planned sites post-Merger, particularly in low to mid traffic areas.

14.230 Secondly, the Parties claim the Merger will lead to a significant increase in network coverage, reducing not-spots by 25%. As noted above, we recognise that an improvement in coverage represents a potentially rivalry-enhancing quality improvement. However, the Parties' standalone networks currently cover 81% (3UK) and 84% (VUK) of the UK's geography and their coverage of premises is considerably higher ([✂]% each for outdoor premises[1848]). We also note, like in relation to network capacity, that some improvement in the network coverage of both Parties in the counterfactual would be likely, particularly given that under the terms of the SRN, each of the four MNOs has committed to provide good quality data and voice coverage to 88% of the UK landmass by 30 June 2024, and 90% by 31 January 2027. We note the Parties' KPI assumptions for their merger simulation analysis assume that the Parties' standalone 4G geographic coverage would be [✂]% (3UK) and [✂]% (VUK) in 2030, compared to [✂]% for the Merged Entity (if the JBP was fully implemented).

14.231 While we therefore understand that MOCN (and subsequently network integration – depending on the number of sites retained) would lead to some increase in geographic coverage, given the existing and future projected coverage of the Parties' standalone networks, this is likely to be in areas where there is limited use of mobile connectivity.

14.232 Thirdly, the Parties claim that the Merger will lead to a significant improvement in network latency and average speeds relative to the standalone scenarios. They submitted that the Merged Entity would be able to offer [✂]% of the UK population (in high traffic areas) the highest-quality 5G SA coverage by 2032 through its extensive C-band deployment.

14.233 We note that the Parties' forecasts suggest that their standalone networks will deliver high speeds and low latencies by reference to current measures of [✂] performance ([✂]). We therefore consider that the value to consumers of some of these technical improvements (especially speed and latency) is likely to depend to a significant extent on the emergence and adoption of new applications that require very high speeds and low latencies. We also note that these KPIs are based on the full implementation of the JBP and as set out above, we currently do not consider that the Merged Entity would be likely to deliver the full JBP.

Importance of likely network quality improvements to UK consumers

14.234 As set out in our earlier chapter examining the impact of competition of the Merger on the Retail Market, we have used different economic techniques to seek to measure the relative importance to UK consumers of different competitive parameters, including engaging a third party to conduct two consumer surveys and carrying out econometric analysis. Given that a significant proportion of the efficiencies the Parties claim arise from the Merger relate to network quality, we have had regard to our findings on the extent to which consumers value network

[1848] Which can be seen as a proxy for outdoor coverage of populated areas.

quality (and specific aspects of it in particular) in weighing the sufficiency of the REEs that we consider likely.

14.235 When it comes to choice of supplier we consider that network quality is important to retail customers and our econometric analysis shows some willingness to pay for certain network quality parameters, particularly increased download speed. However, overall, our provisional view is that prices, which as noted above are likely to increase as a result of the Merger, are more important to customers than network quality.

14.236 Whilst customers require a minimum level of network quality (for example 60-65% of the Parties' customers told us in our survey that they would switch if their network became a 'bit less reliable'), and network quality related parameters play an important role in customer decisions, they are – overall – less important than price. Our survey shows that consumers are more likely to cite price-related factors than quality factors as drivers of choice. As noted above, most consumers told us they would not be willing to pay more for better quality (with 76% unwilling to pay for faster speed, and 59% unwilling to pay more for more reliability). We recognise the possibility that consumer attitudes may evolve as the mobile industry develops.

Conclusion

14.237 We therefore currently consider that the Merger is likely to result in some level of network quality improvements which are rivalry enhancing. However, on the basis of the evidence we have seen to date, we provisionally conclude that the increased rivalry from those efficiencies which are likely to be realised is not sufficient to offset the adverse impacts identified in relation to the Retail Market.

Wholesale market

14.238 A number of the same considerations outlined above in relation to the sufficiency of the likely REEs relative to the Retail Market are relevant to our weighing of the sufficiency of the claimed REEs against the anti-competitive effects we have provisionally identified in the Wholesale Market, particularly with regard to the extent of the likely price[1849] and network quality changes. In particular, we consider that, in light of our provisional conclusions about the overall reduction of rivalry in the wholesale market from the Merger, pricing terms offered to MVNOs are likely to be less competitive, and that while some network quality improvements will result these are more limited than is claimed by the Parties.

14.239 We also consider that we can place weight on the views of MVNOs on the overall impact of the Merger (which we were able to directly obtain) not only in relation to

[1849] However, we note that the GUPPI price index seeks to predict price changes at the retail level only.

the question of the provisional anti-competitive effects in the wholesale market, but also the weighing of any relevant efficiencies. This is because, firstly, we consider that MVNOs have a strong technical and commercial understanding of the likely impact of the Merger given the business-to-business nature of their relationship with MNOs. Secondly, we received submissions from 9 of the 10 largest MVNOs, which collectively accounted for [90-100%] of all MVNOs' subscribers in 2023, ie a high proportion of retail customers supplied by MVNOs. Thirdly, we expressly sought MVNOs' views in relation to whether the Beacon 4.1 Agreements altered their view of the likely impact of the Merger, which the Parties claim to be a particularly important REE in relation to the wholesale market.

14.240 Overall, eleven of the sixteen MVNOs we spoke to considered that the Merger would worsen competition. With regard to the impact of Beacon 4.1 specifically, out of seven MVNOs who had concerns before the agreements were entered into, six remained concerned despite the existence of the agreement. One large MVNO (Tesco Mobile, which is a joint venture with VMO2) told us that the agreement was a positive development, which it considered would result in the rebalancing of MNOs' spectrum holdings and an improvement of VMO2's network in terms of capacity and network quality.

14.241 We note again that the Parties submit that an increase in capacity will result in a reduction in the incremental cost of capacity, which will result in downwards pricing pressure or an increase in quality, and we have carefully considered these arguments in the context of the wholesale market.

14.242 At the outset, it is important to again note that the increases in incremental capacity the Parties rely on for the basis of their claimed reductions in incremental cost of capacity assume the implementation of the full JBP, which as we outline above, we do not consider is likely. Any likely reduction in incremental costs of capacity is therefore necessarily less than the Parties claim. However, some reduction in the incremental cost of capacity is likely from the deployment of more spectrum even if, as we currently expect, the network capacity of the Merged Entity is less than under the full JBP; therefore, we have considered whether any such reduction is likely to be passed through to the benefit of wholesale customers.

14.243 In relation to bidding for wholesale contracts to supply MVNOs, we recognise that there is some evidence that any additional cost of capacity resulting from an MVNO contract is taken into account in bidding, along with a range of other factors. However, while this evidence indicated additional costs of capacity were taken into account, it did not indicate the effect this had on the price ultimately agreed with MVNO customers. Furthermore, we expect that the loss of competition at both wholesale and retail levels would reduce the rate of pass through of any efficiencies to customers at the retail level.

14.244 Our current view is therefore that the REEs which are likely are not sufficient to offset the adverse impacts identified in relation to the wholesale market.

Criteria 5: Merger-Specificity

14.245 For the reasons outlined earlier in this chapter, we do not currently believe the efficiencies in the JBP would be likely to be brought about by other means.

Criteria 6: Benefit to UK customers

14.246 When considering REEs, the CMA must consider whether, even if the Merger does give rise to efficiencies, the Merged Entity would have the incentive to allow customers in the UK to benefit from the efficiencies.[1850] For the reasons set out above in relation to rivalry enhancement, we currently consider that those REEs which would be likely to be delivered would benefit customers in the UK (insofar as they would (partially) offset the anti-competitive effects of the Merger).

Conclusion

14.247 As set out above, based on the available evidence and analysis to date, we provisionally consider that the REEs that we provisionally find are likely to result from the Merger would not be sufficient to countervail the anti-competitive effects found in the Markets. For completeness, we also have some doubts whether the full JBP would – if delivered – offset the anti-competitive effects identified. We invite submissions from the Parties and third parties in this respect. But we did not need to provisionally conclude on that question in our Provisional Findings.

[1850] CMA129, paragraph 8.20.

15. PROVISIONAL CONCLUSIONS

15.1 As a result of our assessment set out in the preceding chapters, we have provisionally concluded that the anticipated joint venture between Vodafone and CK Hutchison concerning VUK and 3UK constitutes arrangements in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.

15.2 We have provisionally concluded that there is scope for an SLC as a result of the creation of that situation in each of:

(a) the national (UK) market for the supply of retail mobile telecommunications services; and

(b) the national (UK) market for the supply of wholesale mobile telecommunication services.

15.3 We have also provisionally concluded that the Merger does not result in REEs that would offset the anticompetitive effects in either of these markets and that the Merger may therefore be expected to result in an SLC in each of these markets.