SKY'S RESPONSE TO THE CMA'S STATEMENT OF ISSUES IN THE PHASE II REVIEW OF BT'S ANTICIPATED ACQUISITION OF EE

14 AUGUST 2015

This is Sky's response to the CMA's Statement of Issues ("SoI") published on 17 July 2015 in the Phase II inquiry into BT's anticipated acquisition of EE (the "merger"). This response supplements and should be read in conjunction with Sky's previous submissions.[1]

1. Introduction

1.1 Sky welcomes the opportunity to respond to the SoI. The merger raises several complex horizontal and vertical issues (many of which have been identified by the CMA[2]) which individually and cumulatively give rise to a significant lessening of competition ("SLC"). These concerns are likely to have significant adverse effects on retail and wholesale competition in the supply of mobile, fixed, and hybrid fixed-mobile communications services in the UK.

1.2 In relation to the wholesale provision of key inputs into fixed broadband, the merger:

1.2.1 exacerbates existing issues arising from BT's vertical integration in standard broadband (see section 3(A) below); and

1.2.2 increases BT's ability and incentive to raise rivals' costs in superfast broadband ("SFBB") (see section 3(B) below).

1.3 In relation to retail fixed broadband, the merger removes horizontal competition:

1.3.1 in rural broadband (see section 3(C) below); and

1.3.2 from EE in SFBB (see section 3(D) below).

1.4 In relation to wholesale mobile services, the merger:

1.4.1 creates a major vertical issue with the supply of fibre backhaul services to other mobile network operators ("MNOs"), creating for the first time an incentive for BT to foreclose rival MNOs relying on it for their purchases of backhaul. Foreclosure in mobile backhaul will in turn harm MVNOs (like Sky) hosted on the MNOs' networks (see section 4(A)(i) below); and

1.4.2 creates strong incentives to engage in input foreclosure in MVNO hosting. MVNOs – particularly those like Sky that have a similar portfolio of products to the merged

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1 Sky's response to the CMA's Phase I preliminary invitation to comment (the "Sky Phase I Submission"), Sky's response to the CMA's first information request (the "Sky Phase I RFI Response"), Sky's response to the CMA's Phase II request for third party views (the "Sky Phase II Submission") and the CMA's subsequent information request (the "Sky Phase II RFI Response").

2 Both under the ten theories of harm ("ToH") presented in the SoI and also in the CMA's Phase I reference decision of 9 June 2015 (the "Phase I Decision").

entity – will be weakened by this and competition will be substantially lessened as a result (see section 4(A)(ii) below).

1.5 In the supply of retail mobile services, the merger:

(a) results in the internalisation of all future horizontal rivalry between BT as a super MVNO and EE, leading to a loss of innovation and price competition, the effects of which are magnified by increasing fixed-mobile convergence at the retail and network levels (see section 4(B) below).

1.6 In the roll out of small cell networks[3], the merger will:

1.6.1 consolidate the largest high frequency spectrum holdings in the UK, far exceeding that of any other MNOs in both quantity and quality (see section 5(A) below); and

1.6.2 at the same time create a new incentive for BT to foreclose and stifle nascent competition in small cell networks (see section 5(B) below).

1.7 Whilst individually significant, these concerns are mutually reinforcing because fixed and mobile services are likely to be increasingly sourced from the same supplier, such that the distortions highlighted in fixed will leak into mobile and vice versa. The cumulative effect of these concerns is therefore likely to be even more profound than the sum of their parts. In short, the merger threatens competition and will have pervasive adverse effects across the UK communications sector including in the emerging market segment for fixed and mobile services sold together.

2. The merger happens at a critical time

2.1 The UK communications sector is at a critical point of transformation.[4] Communications providers ("CPs") are acquiring capabilities to support commercial strategies to respond to evolving consumer preferences, in particular: (i) increasing data consumption; and (ii) growing propensity of consumers to source fixed and mobile products from the same supplier.[5]

2.2 This is crucial to understanding the long-term impact of the merger on competition. There is a real and material risk that the merged entity could, during this transitional period, establish a pre-eminent position and foreclose effective competition over the long-term, leading to reduced innovation and ultimately increased prices for consumers.

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3 A small cell network uses as its radio access network wi-fi or femtocells integrated into the xDSL router inside homes and small businesses; and small cells installed on street furniture (such as BT's street cabinets) for outside coverage. Backhaul is provided by the broadband line into the home and by the fibre connected to the street cabinet.

4 These and other broader industry trends have been described at length in Section 4(C) of the Sky Phase I Submission and Section 2 of the Sky Phase II Submission.

5 This trend has been observed in other European markets.

(i) Data consumption and CPs' responses

2.3 Consumer and business demand for data is growing exponentially, driven by an increase in device ownership and smartphone penetration, combined with growing customer demand for video applications.[6]

2.4 CPs' demand for and reliance on the essential wholesale fixed and mobile backhaul controlled by the merging parties, is therefore also growing rapidly as CPs continue to tailor their commercial strategies in response to this explosion in data consumption.

2.5 In fixed broadband, Sky's marketing now focuses heavily on fibre as consumers expect fibre as part of a credible broadband offering,[7] despite this exposing Sky to high wholesale costs,[8] a concern that will be significantly exacerbated post-merger (as discussed further in section 3(B) below).

2.6 In mobile, MNOs are promoting 4G offerings and preparing for the transition to 5G services[9] largely to accommodate growing video consumption on smartphones. Almost half of EE's base is now on 4G, an increase of 6.7 million customers, year-on-year.[10] Access to 4G (and sufficient spectrum to underpin 4G services) is therefore increasingly important for existing operators and new entrants, such as Sky.[11] EE has the largest and best 4G network in the UK and the largest volume of 4G spectrum (which will increase post-merger), making EE an important MVNO host (as discussed further in section 4(A)(ii) below).

2.7 In response to changing demand, CPs (for example BT, EE, TalkTalk and Vodafone) are increasingly seeking to provide fixed and mobile services together. Consumers already roam between fixed wi-fi connection and mobile network in the home. Deployment of 4G femtocells in homes instead of a fixed broadband connection; and of small cells operating on mobile spectrum on street furniture enabling opportunities for offload and enhanced coverage are also anticipated. BT/EE's pre-merger incentive to innovate in small cells in a way that directly challenges the MNOs will be lost whilst at the same time, the merger will create new incentives to undermine competing CPs' abilities to deploy their own small cell strategies (as discussed further in section 5(B) below).

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6 Analysts anticipate mobile data growth of 50% in Europe in 2014 compared to 2013, with forecasts suggesting that mobile data traffic in Europe will be 8 times higher by 2020. This equates to a change in average individual data consumption per active smartphone subscription from 1.2GB per month in 2014 to a forecast 6.5GB per month in 2020 (see the Ericsson Mobility Report June 2015, p.5 http://www.ericsson.com/res/docs/2015/ericsson-mobility-report-june-2015-reur-appendices.pdf). This trend for increased data consumption in the mobile space is also visible in fixed communications. In the UK, internet traffic will grow 3.8 fold from 2014 to 2019, a compound annual growth rate of 30%. Internet traffic will reach 7.0 Exabytes per month in 2019, up from 1.8 Exabytes per month in 2014. UK internet traffic will be equivalent to 92x the volume of the entire UK internet in 2005. http://www.cisco.com/web/solutions/sp/vni/vni_forecast_highlights/index.html.

7 Over recent months, Sky has joined forces with a number of studios to promote Sky Fibre (for example: Universal to feature characters from the animated film Minions; and most recently Disneymedia+ and Pixar Animation Studios to feature characters from Inside Out). Sky is currently offering Sky Fibre free for 12 months and Sky Fibre Unlimited for £10 per month for 12 months.

8 As Sky explained at paragraph 5.26 and Table 4 of the Sky Phase I Submission, in order to provide fibre, CPs must pay GEA charges, in addition to their LLU charges, making the economics of selling fibre much less attractive.

9 EE announced investments in 5G research in 2013: http://www.telegraph.co.uk/technology/mobile-phones/10836838/EE-plans-5G-network-by-2022.html and earlier this year announced a 3 year network investment plan which would support the development of 5G services: http://ee.co.uk/our-company/newsroom/2015/02/11/ee-commits-to-new-network-investment-plan.

10 EE's interim results for the 6 months to 30 June 2015: http://ee.co.uk/our-company/newsroom/2015/07/27/EE-Interim-Results-for-6-Months-Ended-30-June-2015.

11 [redacted] BT in its MVNO agreement with EE.

(ii) Single-sourcing of fixed and mobile products

2.8 Industry operators and commentators expect UK consumers increasingly to source fixed and mobile products from a single supplier. In its investor presentations announcing the merger, BT's CEO, Gavin Patterson emphasised that BT expects:

> *"significant demand for fixed and mobile converged products"* and stated that *"we'll be better equipped than anyone else to offer those when the mobile is combined with the fixed"*.

2.9 Sky considers CPs' most likely response to this anticipated consumer demand, at least initially, will be to cross-sell complementary products to existing customers (through offers such as an upgraded router, discount on a new mobile handset, x months free broadband if you also take mobile, or technical integration between the products[12]).

2.10 Over the last year, Virgin Media has promoted a quad play bundle (the 'Big Kahuna') and all other major CPs (BT, EE, TalkTalk, Vodafone and Sky) have implemented or announced plans to assemble all four components of a quad play.

2.11 Post-merger, BT's claimed revenue synergies of £1.6 billion are stated to depend on its ability to cross-sell fixed and mobile services to its base.[13] Mr Patterson looked to the:

> *"quite significant attachment rates being achieved in many countries across Europe" as "key" "to driving ultimately revenue growth".* [14]

2.12 Experience in other European countries (such as Spain)[15] shows that a determined incumbent supplier, which is also a major MNO, can push a market towards bundled offers at dramatic speed (leaving competitors trailing and restoring dominance that had been eroding).

2.13 Indeed, by combining the two largest communications customer bases in the UK, BT/EE will be uniquely placed to respond to and drive this change.[16] There is, therefore, real potential for the UK communications market to shift to single-sourcing, particularly post-merger.

2.14 In light of these anticipated market conditions, traditional business models such as pure-play operators or fixed operators relying heavily on ADSL, will no longer be effective in constraining BT as an incumbent fixed-mobile operator.

2.15 With fixed and mobile products increasingly being sold together, the horizontal and vertical concerns raised by the merger in fixed and in mobile cannot be viewed in isolation. The impact of the SLCs in fixed products will inevitably be felt in the mobile space and vice versa.

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12 For example, in the way that BT broadband is required to receive BT TV.

13 See Gavin Patterson's statements referred to at paragraph A5.4 of the Sky Phase I Submission.

14 See EE announcement transcript, page 9 referred to at paragraph A5.4 of the Sky Phase I Submission.

15 Telefonica aggressively exploited its capabilities in fixed broadband, mobile and IPTV to launch a new converged package in October 2012, and driving sales of fixed/mobile packages from less than 10% of all connections in 2012 to over 45% by the end 2013 – a transformational shift in just over a year. The market has since further evolved towards quad play packages, and in practice today in Spain standalone connections are no longer sold.

16 No other provider has a combined customer base of this size. By combining the two customer bases, BT will gain unique insight into consumer preferences, not just at the household level as it does today but, with the addition of EE's customer base, at the individual level, reducing its acquisition costs on a scale other CPs are unlikely to be able to replicate. Assuming an overlap in each other's customer bases in line with overall market shares, some 30% of the merged entity's customer base will already have multiple product holdings from the merged entity. BT/EE could be expected to immediately re-contract those customers onto 24 month contracts for both mobile and fixed services. BT/EE could be expected to then cross-sell to the remainder of its enlarged customer base.

2.16 We address each of the concerns in turn below, noting the importance to the assessment of the interrelationship between them and their mutually reinforcing effects on competition.

3. Fixed broadband

3.1 The merger risks further worsening rival CPs' ability to access wholesale fixed broadband inputs (for standard and SFBB) from the merged entity, essential to their ability to compete at the retail level. As described above, this has an impact in both standalone fixed broadband and a dynamic effect in single-sourced fixed-mobile offerings.

(A) Wholesale standard broadband (CMA ToH 6)

3.2 As the owner of unique, non-replicable, national fixed access infrastructure, BT is an essential supplier of the wholesale fixed access inputs required by rival CPs[17] to retail a standard fixed broadband service. Although telecoms regulation governs access to these inputs, it does not effectively constrain BT's ability to engage in behaviour that favours its own downstream operations, at the expense of rivals.

3.3 Fundamentally as a result of vertical integration between Openreach and BT Retail, BT earns higher margins from a retail fixed customer on its network compared to a retail customer on a third party's network and this gives BT strong incentives to favour its downstream divisions. As Ofcom acknowledges[18], regulation cannot remove these incentives, and can only partly control BT's ability to foreclose downstream rivals. BT also has this ability in part because competing CPs (other than EE) consume different wholesale inputs to BT's retail divisions.[19]

3.4 Pre-merger, Sky has experienced the effects of this lacuna in regulation particularly in relation to: (i) Openreach's investment decisions and the effect these have had on Openreach's quality of service performance; (ii) product development and Openreach's responsiveness to Statements of Requirements ("SoR") submitted by competing CPs; and (iii) cost allocation. All have had a significant cumulative impact on rival CPs' ability to compete and are likely to be exacerbated by the merger.

3.5 In terms of Openreach's investment decisions:

3.5.1 BT's investment in its copper network has been decreasing steadily over time and this trend has become more pronounced since BT's fibre rollout commenced.[20]

3.5.2 Since BT's fibre network relies on its existing duct and copper network, all else being equal, the rate of duct and copper investment should have remained relatively steady.

3.5.3 Instead, BT has under-invested in the copper network prioritising investment in the fibre network as this favours its retail strategy.[21]

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17 For example, Sky, TalkTalk and Vodafone. The position is different for Virgin Media in that it is not reliant on inputs from Openreach in its cable network areas, though in off-network areas, Virgin Media is equally reliant on these inputs.

18 See further the multiple examples of BT's ability to discriminate notwithstanding regulation set out in Section 11 of Ofcom's Strategic Review of Digital Communications, Discussion document dated 16 July 2015. http://stakeholders.ofcom.org.uk/consultations/dcr-discussion/.

19 For example, CPs (including BT and EE) provide broadband using Shared Metallic Path Facility, SMPF (shared LLU) and purchase WLR in order to provide telephony services, whereas CPs that purchase Metallic Path Facility, MPF (full LLU (like Sky)) do not need to purchase WLR. MPF provides access to both the low and high frequency range of the local loop, therefore allowing a competitor to provide consumers with voice and broadband services. SMPF provides only access to the high frequency part of the line allowing a competitor only to provide the end customer with broadband.

20 See Annex 4 (Part B) of Sky's Phase I Submission, reproduced here at Annex 1.

3.5.4 This under-investment in the copper network has had a corresponding impact on Openreach quality of service, which has been persistently poor for a number of years.

3.5.5 These problems manifest themselves in a variety of ways: for example, new line installations take too long, agreed installation dates are changed too often and fault rates across the network have increased significantly.[22]

3.5.6 Ofcom recognises and is seeking to address the problems,[23] but it is clear that quality of service commitments are difficult to codify effectively in regulation.

3.5.7 These issues ultimately affect competition as they act as a barrier to switching which disproportionately benefits BT as the incumbent provider with the largest customer base.

3.5.8 Sometimes poor quality of service also deters entry: [redacted]

3.6 Rival CPs are also impeded by the recalcitrance of Openreach in responding to third party requests for new product/product improvements:

3.6.1 Such requests are typically made by way of a SoR. Sky notes that, despite oversight by the Equality of Access Board, 51% of SoRs generated from within BT have been implemented, as compared to 24% of third party SoRs.

3.6.2 To understand the implications of this issue for competition and consumers, it is necessary to look behind this statistic at specific examples. One such example is the SoR submitted by TalkTalk requesting the development of Single Jumper MPF, which was rejected by Openreach. MPF services currently use two cables within the exchange to connect to BT line testing equipment. TalkTalk, having installed its own test equipment, is able to test lines itself, and raised a SoR for Single Jumper MPF, using fewer cables and bypassing BT equipment. This would have been more cost efficient and could have resulted in benefits to consumers including more competitive broadband pricing. Openreach, however, failed to implement a more efficient, cost effective design for this product, presumably because BT Consumer does not consume MPF to a material degree.

3.6.3 We provide two further examples of Openreach's recalcitrance in responding to SoRs relating to SFBB in Annex 2. The merger also creates new incentives to turn down, delay or avoid requests from rival MNOs for the first time, an example of how these issues are likely to leak into mobile post-merger (as discussed at paragraph 4.18.3 below).

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21 Prioritising investment in fibre over copper has enabled BT to focus on its retail strategy of driving fibre penetration into its customer base (Enders Analysis report [2015-065] "*BT Q1 2015/16 results: Solid all round*"), where it faces less competition.

22 For example, approximately 90% of new line installations, which require an Openreach engineer to attend, take ten calendar days or longer and 10% of installations take longer than 30 days (12 months to March 2015). Openreach fails to deliver on the contractually committed date for Sky customers approximately 14,000 times per month (12 months to April 2015). Faults across Openreach's network increased by 50% between 2009 and 2012, the last year for which reliable data is publicly available.

23 See Section 9.8 of Ofcom's Fixed Access Market Review (FAMR) http://stakeholders.ofcom.org.uk/telecoms/ga-scheme/specific-conditions-entitlement/market-power/fixed-access-market-reviews-2014/statement/. See also paragraphs 1.67, 4.16, 11.45 and Section 13 of the Ofcom Strategic Review Discussion Document. http://stakeholders.ofcom.org.uk/consultations/dcr-discussion/

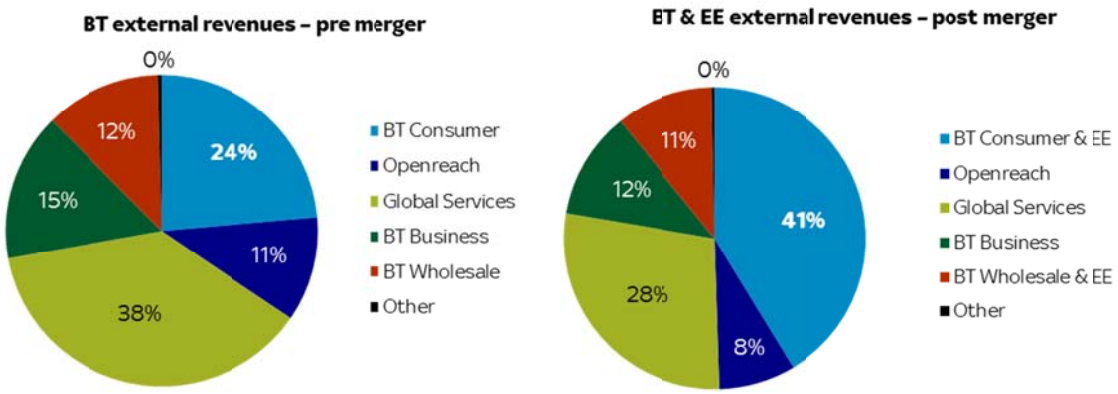
3.7 BT moreover has strong incentives and the ability to game regulation in how it allocates costs as between regulated and non-regulated products:

3.7.1 Ofcom has provisionally concluded that BT's cost allocation approach suffered from multiple errors and inappropriate attribution methodologies (amounting to approximately £262 million wrongly allocated to regulated markets).[24]

3.7.2 In addition, BT has been found to have repeatedly overcharged CPs for Backhaul Ethernet services, in breach of its cost allocation obligations, having been ordered to repay approximately £95 million in overcharges, plus interest. This determination came after a protracted legal process (still ongoing), whereby BT pursued all avenues to avoid, minimise and delay full repayment of overcharges.[25]

3.8 Post-merger, BT's ability and incentives to favour its downstream divisions at the expense of competing CPs[26] are strengthened by the addition of a new consumer business generating £6 billion of revenue (1.5 times the size of the existing BT Consumer division by revenue) and with it, the prospect of earning an increased retail margin from downstream customers. The incentive is larger still as there is the prospect of earning increased retail margins on both fixed and mobile products, which is likely to grow significantly over time.[27]

Figure 1 – Comparison of BT Group revenues pre- and post-merger



Sources:
- BT external revenue for year ended 31 March 2015 – BT published KPIs
- EE total operating turnover for year ended 31 December 2014 – EE publishedresults
- Assumes 94% and 6% of EE total operatingturnover relates to retail and wholesale businesses respectively

3.9 Post-merger, there will be substantially greater demand on capital within BT Group from the addition of such a large new consumer business. This is likely to result in further under-investment in BT's copper network, in turn leading to further deterioration in Openreach's quality of service. As discussed above, this directly affects rival CPs as it impedes switching. Openreach's recalcitrance in responding to third party requests for new products/product improvements is likely to be made worse by the merger. The ability of BT to game regulation is at the same time increased by the introduction of further

[24] See Section 6.133 of Ofcom's Business Connectivity Market Review 2015 http://stakeholders.ofcom.org.uk/binaries/consultations/bcmr-2015/summary/BCMR_Sections.pdf.

[25] The delays experienced highlight the limitations of the process in resolving disputes on these matters within commercially meaningful timelines.

[26] This risk arising from non-horizontal mergers is noted in paragraph 5.6.5 of the CMA's Merger Assessment Guidelines (CC2 (Revised)).

[27] See section 2 (ii) above.

opportunities to manipulate cost and margin allocations and thereby increase the cost of wholesale inputs on which rivals rely (see the next section below).

3.10 The cumulative effect of these issues risks further undermining the infrastructure-based competition in LLU that Ofcom's intervention and resulting investment by CPs like Sky has been so successful in delivering.

(B) Wholesale SFBB (CMA ToH 6)

3.11 Whereas in standard broadband, the ability for CPs to unbundle local loops and install their own equipment in BT's local exchanges has been instrumental in providing infrastructure-based competition to BT, the situation in relation to fibre-based broadband services is very different. The way in which BT has been permitted to roll-out SFBB services means that there is currently little prospect of other operators being able to do anything other than re-sell BT's GEA service in order to supply their customers with a competing broadband service.[28]

3.12 Moreover, vertical integration between Openreach and BT Retail means that BT has a substantial advantage over other non-integrated CPs in upgrading existing broadband subscribers to SFBB. The main reason for this is that it is profitable for BT at a group level to convert its retail customers to SFBB whereas it is margin dilutive for competing providers to do so.[29] BT is fully cognisant of this opportunity and is acting to capitalise on it, and the risk of it re-establishing its dominant position at the retail level was a concern motivating Ofcom's intervention via the VULA margin condition.[30]

3.13 In the wholesale supply of GEA, the merged entity will have the increased ability and incentive to foreclose competing CPs, at a time when they are increasingly reliant on being able to sell SFBB.

3.14 Already, *pre-merger*, BT has the ability and incentive to foreclose competitors through its provision of GEA, as Ofcom recognises.[31] GEA is subject to "light-touch" regulation; there is no cost-based charge control, only the VULA margin condition that is currently the subject of an extensive appeal by BT. Openreach is not required to consume the same passive inputs (for example Sub-Loop Unbundling ("SLU")) offered to competing CPs). SLU, for example, is more expensive than the inputs consumed by Openreach and cannot be consumed at scale given that it is manually provisioned. This affords CPs limited ability to differentiate on service and price.

3.15 As currently framed, the VULA margin condition requires that cohorts of SFBB subscribers, acquired by BT (from competitors) or upgraded (from standard broadband) each six months, have a positive NPV on average across the cohort. The test includes the costs and revenues from all services (including specified revenues from mobile services) offered as part of the SFBB bundles. Specifically, it includes:

3.15.1 revenues from broadband subscription, line rental, fixed telephony calls, ongoing mobile package revenues, mobile service set-up fees, out of package revenues, incoming termination revenues, acquisition,[32] and BT TV; and

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28 See paragraph 2.4.2 of the Sky Phase II Submission.

29 See paragraphs 4.7 and 4.8 of the Sky Phase II Submission.

30 See paragraphs 5.25 to 5.31 of the Sky Phase I Submission.

31 Paragraph 3.69 of Ofcom's Approach to the VULA Margin – Final Statement (http://stakeholders.ofcom.org.uk/consultations/VULA-margin/statement/).

32 Acquisition revenues include, for example, one-off activation fees and charges for routers.

3.15.2 costs incurred through wholesale line rental, LRIC+ costs of outbound mobile termination, payments to MVNO partners, mobile network set-up costs, acquisition, call centre, marketing, overheads, and BT Sport.

3.16 For BT Sport, a share of the net cost of BT Sport (which includes all rights, production and distribution costs, net of BT Sport revenues from direct subscription, wholesale, commercial subscription and advertising) is included as a cost per SFBB subscriber.

3.17 Prior to and since the introduction of the VULA margin condition, the regulatory forbearance afforded to BT has enabled it to charge a significant price for GEA, while, at the retail level, charging only slightly more for fibre broadband services than standard broadband. This places competing CPs at a significant disadvantage, as the wholesale costs of GEA are real payments for them, whilst they are only notional internal transfers (or 'wooden dollars') for BT.

3.18 At the same time, as noted above, customers increasingly expect CPs to offer SFBB. In order to remain competitive [redacted]

3.19 In turn, BT's retail strategy has enabled it to establish a strong position in the supply of retail SFBB. Its share of SFBB subscribers on the Openreach network (over 70%)[34] is significantly higher than its share in standard broadband (around 30%)[35]. BT's share of

[33] See also paragraph 4.16 of the Sky Phase I Submission.

[34] BT Annual report 2015 (https://www.btplc.com/Sharesandperformance/Annualreportandreview/pdf/2015_BT_Annual_Report.pdf).

[35] BT Annual Report 2015 (https://www.btplc.com/Sharesandperformance/Annualreportandreview/pdf/2015_BT_Annual_Report.pdf) and Ofcom Communications Market Report 2015, Figure 4.39 (http://stakeholders.ofcom.org.uk/market-data-research/market-data/communications-market-reports/cmr15/).

closing fibre subscribers and fibre net additions on the Openreach network is moreover much higher [redacted]. This demonstrates that as the market evolves, market shares may change substantially and the first mover can establish a strong position, with competing CPs unable to exercise an effective constraint absent wholesale supply of the necessary inputs on competitive terms.

[redacted]

3.20 Against this background, the merger will increase BT's ability and incentive to raise rivals' costs and/or to squeeze margins in SFBB.

3.21 In terms of *ability,* it does so because the inclusion of a substantial new consumer business increases the scope for BT to artificially manipulate the allocation of costs and margins between its businesses, in a way that creates more "headroom" for BT to pass the

VULA margin test even at constant retail prices. This headroom can then be exploited to further increase the price of inputs on which BT's rivals rely. In particular, the merger will increase BT's ability to re-allocate fixed and common costs away from the SFBB bundles subject to the test in various ways, and thus will be better able to evade the test:

3.21.1 To the extent that there are cost synergies generated by the merger, their attribution across BT's business will not be neutral, and indeed may be performed in a way that eliminates costs from the retail activities assessed under the test and best assists BT in passing it;

3.21.2 BT/EE may re-allocate certain fixed or common cost items away from BT Consumer and to EE - for example, costs of customer acquisition, customer services, online advertising and SG&A costs, to which the test is highly sensitive. By moving costs to EE (not subject to any test) which more appropriately belong to SFBB, BT/EE can gain further headroom to pass the test;

3.21.3 The costs of BT Sport could be spread over an increased subscriber base. For example, to the extent that BT Sport is offered "for free" to legacy EE mobile customers (in the form of the BT Sport app), BT/EE may argue that part of the BT Sport costs should be allocated across mobile subscribers. Spreading the BT Sport costs over a significantly larger subscriber base would lower the unit costs for BT Sport used in the test, and thereby increase the margin for SFBB bundles including BT Sport.

3.21.4 The ease with which BT can re-allocate costs is moreover evident in the fact that, prior to the introduction of the VULA margin condition, BT substantially reduced its bandwidth costs (to which the test is very sensitive) making the test easier to pass[36].

3.22 In addition to manipulation on the cost side, it is also important to recognise the potential for manipulation on the revenue side:

3.22.1 Since the VULA test uses a weighted average for all products bundled with SFBB, if BT were to launch a bundle of SFBB and mobile, the additional margin on the mobile component (which would be sizeable given BT's MNO and unique backhaul economics) would contribute to increasing the margin on *all* of BT's products including SFBB for the purposes of the test.

3.22.2 This in turn would give BT more headroom to increase the VULA price and still pass the test.

3.22.3 This could have the effect of allowing BT to charge a price for GEA such that only MNOs able to earn that mobile margin (i.e. the additional margin from the mobile component that would contribute to increasing the margin on all of BT's products including SFBB for the purposes of the test) and able to sell mobile to a similar portion of SFBB customers could profitably match BT's SFBB retail prices.

3.23 In terms of *incentives,* the CRA analysis at Annex 3 to this response considers a simple "vertical arithmetic" approach to gauging the order of magnitude of BT/EE's benefit from withholding (i.e. increasing the price of) GEA from rivals. The logic of the analysis is to consider the relative *cost and benefit* to BT of a strategy of foreclosing / raising the cost of supply of a "unit" of GEA to a rival, so that the rival loses its customer (and therefore no longer requires that unit of GEA from BT). Specifically, the analysis:

3.23.1 compares the relative "cost" to BT of the loss of wholesale contribution from a rival who no longer buys GEA, with the "benefit" accruing to the merged entity to the

[36] See paragraph 4.9 of the Sky Phase II Submission.

extent it can capture, at the retail level, the customer switching away from the rival; and

3.23.2 adopts various assumptions on the proportion of final customers that BT/EE could "recapture" (reflecting various plausible scenarios on what alternative choices customers could make, i.e. various potential "diversions" – as set out in their analysis). It also adopts various assumptions on BT/EE's margins for products to which the customer could potentially switch.

3.24 In all cases, when comparing the margin that would likely accrue to BT/EE (for the proportion of customers it could be expected to capture) to the loss of wholesale contribution on VULA sales (which Sky estimates is in excess of [redacted] per subscriber), the analysis shows a material net benefit for BT/EE. At least *prima facie*, the analysis thus indicates that BT is significantly better off supplying SFBB to customers at the *retail* level than to rivals at the wholesale level. It therefore indicates that BT has a material incentive to worsen the conditions of supply to rivals (i.e., raise their costs) – as overall it is better off recapturing even some of the rivals' lost subscribers for itself.

3.25 Note also that CRA's analysis indicates that BT *already* has an incentive pre-merger to foreclose/raise the cost of rivals in the supply of GEA, but appears to be currently constrained by the VULA margin test. To the extent that the merger increases the headroom for the test, as discussed above, it allows BT to act on these greater incentives.

3.26 As a complement to the vertical arithmetic, CRA also provide a "vertical GUPPI" analysis.

3.26.1 This is an application to a vertical setting of the well-known GUPPI ("Generalised Upward Price Pressure Index").

3.26.2 Rather than considering the net benefit of withholding the VULA input, the analysis ignores the question of whether pre-merger the VULA price is constrained by regulation, and assumes instead this was freely set by BT at the profit-maximising level.

3.26.3 It then asks whether the merger creates incentives to *further* increase the price from that level and adopts various assumptions on potential diversions in the event of an increase in the price of VULA to rivals (including to BT bundles of fixed and mobile).

3.27 The vertical GUPPI analysis shows that the merger creates incentives to increase the price of the VULA input of potentially anywhere between [redacted] and [redacted] The specific numbers, which rely on the assumptions made, are less relevant. Rather what matters is the "direction of travel", which indicates that the merger creates incentives to increase prices materially from current levels. Sky encourages the CMA to perform its own analysis along the lines suggested here.

3.28 At the same time, information asymmetry and the increased complexity of applying an already complex test will enhance the scope for BT to game the test and make it increasingly difficult for Ofcom to monitor compliance. One complexity (as discussed above) is how to treat the costs and revenues from mobile when bundled with SFBB. In its VULA Statement, Ofcom was minded to use the pre-merger MVNO rates BT had with EE.[37] Post-merger, Ofcom will have to perform a more complex and sophisticated mobile separation exercise taking into account full mobile network economics on a LRIC+ basis.

3.29 With such increased complexities, there is greater scope for BT to game the test via its cost and margin allocations (its track record in this regard is described above). And

[37] See paragraph 6.73 of Ofcom's Approach to the VULA Margin – Final Statement (http://stakeholders.ofcom.org.uk/consultations/VULA-margin/statement/).

without any regulation over the margins BT earns post-merger from mobile, the prospects for evasion of the test are substantial.

3.30 The overall effect of the merger therefore would be to enable BT to raise the price of GEA and/or squeeze rivals' margins. This in turn would marginalise downstream competitors in SFBB at a time when SFBB is becoming increasingly important (as explained above in section 2) and lead to BT re-installing its retail dominance.

3.31 This risk to retail competition in SFBB posed by the merger is substantial. There is a risk that CPs rein back their marketing efforts, compete less vigorously (or potentially not at all) for SFBB and this would be a material reduction in competition for those customers (the number of which is likely to increase as SFBB take-up increases). The risk to competition is further magnified with the expected increase in sourcing of fixed with mobile products from the same supplier (as also explained in section 2 (ii) above), which would make it harder to compete across SFBB and mobile services and in turn in mobile standalone. The situation is not dissimilar to the dampening of competition that has already transpired in off-net broadband areas, as described in the following section.

(C) Retail fixed broadband – rural areas (CMA ToH 7)

3.32 The merged entity will face no effective competitive constraint in retail fixed broadband in rural (i.e. offnet) areas. EE and Sky are now the only fixed broadband competitors to BT in certain rural areas. In these areas, unbundling local exchanges is not always commercially viable, CPs who wish to offer a national service are therefore reliant on a managed product provided by BT Wholesale (BT Wholesale Managed Broadband). The lack of infrastructure-based competition in these areas and the crippling costs of backhaul have already caused both Virgin Media and TalkTalk to exit these areas.

3.33 Over the past two years, Sky has made major investments in an attempt to improve the quality of Sky Broadband Connect (its broadband offering in offnet areas), [redacted]

3.34 Post-merger, the only remaining independent competitor in these areas, EE, will be lost and therefore the already weak competition to BT will be completely eliminated, to the detriment of end-customers.

(D) Retail fixed broadband – SFBB (CMA ToH 8)

3.35 As explained in section (B) above, the intensity of competition in SFBB is already reduced by the lack of infrastructure-based competition with CPs' only able to re-sell BT's GEA service in order to provide SFBB services. This reduced competition in SFBB will be further diminished by the loss of horizontal rivalry from EE in SFBB post-merger.

38 [redacted]

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Although EE does not have a large overall share of fixed broadband, in its recent Q1 results press release, EE claimed to have one of the fastest growing fixed broadband bases for four quarters in a row. In Sky's view, EE's total broadband net additions have recently been outperforming TalkTalk and Virgin Media, and look significant even when compared with BT and Sky.

Figure 4 – Broadband net adds (000)

	Jun-14	Sept-14	Dec-14	Mar-15	Jun-15
BT Retail	104	88	119	121	85
Sky	50	75	106	100	96
EE	30	18	41	50	35
Other DSL	-21	1	-8	-24	-66
Virgin Media cable	0	49	59	27	n/a
Total broadband	163	231	317	274	n/a

Source: Enders Analysis, report [2015-065] "BT Q1 2015/16 results: Solid all round". BT Retail includes BT Business, Global Services and Consumer divisions. 'Other DSL' includes TalkTalk and Virgin Media DSL.

3.36 Although EE does not report its fibre numbers separately, the CMA is invited to confirm that its broadband numbers include a high proportion of fibre additions, and to verify whether EE is the fastest growing fibre provider after BT. Sky would expect this to be the case as EE has been pursuing a successful strategy of cross-selling SFBB with its market-leading 4G mobile proposition.[41] Moreover, in its Q1 2015 results, EE also began reporting a new figure for Multiple Product Attach Rate.[42] The introduction of this statistic and the reported 4% year-on-year increase in the attachment rate are further manifestations of the growing importance of cross-selling mobile with SFBB.

3.37 Post-merger, Sky expects BT to build substantially on EE's efforts to date by cross-selling BT's SFBB to EE's substantial 24.5 million customer base (as described in section 2.12 above). At the same time, BT will have removed its fastest growing SFBB competitor, with its unique SFBB and 4G cross-selling advantages.

(E) Conclusion

The individual concerns highlighted above will have a significant cumulative adverse impact on wholesale and retail competition in the supply of fixed communications services in the UK. Existing issues experienced as a result of BT's vertical integration in standard broadband will be exacerbated and these issues risk unravelling the progress made to open up competition in fixed broadband services in the UK following substantial investments by CPs such as Sky and TalkTalk in LLU. In SFBB (which does not benefit from the kind of infrastructure-based competition seen in standard broadband), the merger increases BT's ability and incentive to raise rivals' costs just at a time when SFBB is increasingly vital to CPs' ability to respond to the growth in consumer demand for data. The merger risks significantly dampening the intensity of competition in SFBB. This harm to competition is exacerbated by the removal of growing horizontal competition from EE in

41 See further paragraph 3.9 of Sky's Phase I submission.

42 This reflects connected products per postpaid mobile connection, including fixed broadband: EE Q1 2015 results: http://ee.co.uk/our-company/financials/2015/04/27/ee-results-for-the-first-quarter-to-31-march-2015.

SFBB. Combined with the loss of horizontal competition in rural areas, the merger will have a profound negative impact on consumers in the UK.

4. Competition in mobile and fixed-mobile services

4.1 As well the concerns in fixed broadband, a key adverse effect of the merger is to extend BT's incentives to favour its downstream operations into mobile for the first time, at the expense of competing MNOs.

(A) Wholesale level

(i) Mobile fibre backhaul

4.2 Mobile fibre backhaul[43] is an essential input relied on by MNOs (and indirectly by the MVNOs hosted on their networks) crucial to providing high quality connections to carry mobile traffic between mobile sites and the points of aggregation on the MNO's core network, from where it is subsequently routed to its final destination. Fibre backhaul is already a significant component of MNO's costs (mobile backhaul accounting for nearly a fifth of their total network costs,[44] and 60%-70% of base stations being backhauled by fibre)[45]. With increasing demand for data, MNOs are becoming increasingly reliant on mobile fibre backhaul as demand from 4G mobile services significantly increases MNOs' bandwidth requirements.[46]

4.3 The merger increases BT's ability and creates a new incentive for BT to engage in vertical foreclosure strategies in mobile backhaul. These are likely to manifest themselves in both an increase in fibre backhaul price, and a degradation in quality of the backhaul supplied, which are mutually reinforcing of each other. Ultimately, high backhaul prices will lead MNOs to economise on backhaul.[47] Insufficient backhaul capacity has a direct effect on network service quality, and therefore on customer experience. Similarly the quality of backhaul supplied affects network service quality. In turn, poor service is one of the most important drivers of consumer switching in mobile, second only to cost.[48] As such, ensuring sufficient high quality backhaul capacity at economic prices is critical to the ability of both MNOs and MVNOs relying on the quality of their host network to compete in the retail market.

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43 Although there are other forms of backhaul for mobile networks (copper, microwave and E-band), increasing data demands, particularly from 4G services, mean that fibre backhaul is the most effective backhaul choice. Unlike microwave and E-band backhaul, fibre mobile backhaul is not subject to variable performance as a result of environmental factors, does not require line of sight, does not have the same distance limitations and does not require spectrum. Further, fibre mobile backhaul can be used to provide a variety of bandwidths, and is not bandwidth constrained in the same way as copper and microwave backhaul can be. See Vodafone's submission to the CMA – Vodafone Initial Phase 2 Submission to the Competition and Markets Authority, 3 July 2015 Section 2(D).

44 Paragraph 3.8 of Ofcom Business Connectivity Market Review 2015.

45 Ofcom Business Connectivity Market Review 2015.

46 To date, there has been a near 500% increase in mobile data volumes from 2011 to 2014, according to the Ofcom Infrastructure Report 2014. Monthly mobile data traffic is moreover predicted to increase from c25 Petrabytes today to over 300 Petrabytes in 2025/6, according to the Ofcom Mobile Call Termination Market Review 2015-18. See further Vodafone's submission to the CMA – Vodafone Initial Phase 2 Submission to the Competition and Markets Authority, 3 July 2015 Section 2(C).

47 For example, Three already appears to have closed its unlimited data tariff in order to conserve capacity on its network and this is ahead of the anticipated shift to hybrid fixed-mobile services. See the article at http://www.telegraph.co.uk/finance/newsbysector/mediatechnologyandtelecoms/telecoms/11790488/Three-O2-need-to-merge-to-challenge-BT-Hutchison-to-argue.html.

48 See Figure 162 of the Ofcom Consumer Experience report 2014, published 28 January 2015: http://stakeholders.ofcom.org.uk/binaries/research/consumer-experience/tce-14/TCE14_research_report.pdf.

Input foreclosure (CMA ToH 4)

4.4 The merger gives rise to a significant risk of, at least, partial input foreclosure in mobile fibre backhaul by extending BT's incentives to discriminate against rival MNOs, on both price and quality, for the first time. Ultimately this is likely to degrade the networks and performance of rival mobile operators just at a time when Sky is poised to enter the mobile market via its MVNO deal with Telefonica. There is a long term risk to competition that could cause Sky and other MVNOs to exit the mobile market (in many ways similar to Sky's experiences in offnet areas resulting from the high cost and poor quality of the backhaul supplied as discussed in section 3(C) above).

4.5 Contrary to BT's assertions, there is no other provider that can economically replicate backhaul supply on BT's scale:

4.5.1 Virgin Media can only provide a backhaul service within its cable footprint and so is not a substitute for BT in many parts of the country.[49]

4.5.2 Vodafone can similarly only provide a backhaul service within a limited footprint, and it is not clear that it would choose to wholesale these services to its competitor MNOs.

4.5.3 The other fibre players mentioned by BT, such as CityFibre and Zayo, have extremely limited geographic coverage, and therefore cannot offer a scale alternative to BT.

4.5.4 None of these providers can economically replicate BT's scale in backhaul because only BT has a presence in all BT local exchanges. This gives BT particular advantages, as it is likely to be nearer to more of the MNOs' mobile stations and therefore it is more economic for BT to offer backhaul links or to build out closer to these base stations, than it would be for other providers.

4.5.5 Further, without equipment in BT's local exchanges, it would not be possible for the MNOs to replicate the managed backhaul service that most MNOs consume from BT Wholesale (see below) with Openreach Ethernet products in an economic way.

4.5.6 Furthermore, the terms of access offered by Openreach to Physical Infrastructure Access or PIA (to enable the provision of competing local access services) do not allow MNOs to self-supply backhaul consuming a passive access product. Permitted uses of PIA include the provision of retail broadband and fixed telephony but crucially exclude leased lines and mobile backhaul and therefore prevent competing operators from achieving the necessary economies of scope across any network they would build. As a result of artificial restrictions on use, high prices and a lack of transparency of information necessary for deployment, take up of PIA has been low.[50]

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[49] According to section 1.3.3. of Ofcom's Communications Market Report 2015 (http://stakeholders.ofcom.org.uk/market-data-research/market-data/communications-market-reports/cmr15/) Virgin Media's network passes only c.44% of the country and therefore it is not in a position to provide backhaul nationwide.

[50] Prices are high due to ancillary charges which greatly inflate the headline price. In addition, there is poor information available to CPs about BT's duct access and pole capacity and the survey process to establish the available duct routes is length, cumbersome and expensive therefore making it difficult for CPs to plan and budget their network build accordingly. See further paragraph 1.5 of Sky's phase I RFI response.

4.6 Self-supply of mobile backhaul by MNOs through the use of a dark fibre access remedy on which Ofcom is currently consulting is at present insufficiently certain, timely, or likely to be a viable alternative.[51]

4.7 BT is the only ubiquitous provider of fibre mobile backhaul with a c.80-90% market share.[52] Sky purchases backhaul from Openreach [redacted] as well as from third parties such as Vodafone and Virgin Media, [redacted]

4.8 BT supplies fibre backhaul through both Openreach[53] and BT Wholesale. In practice, Sky understands that all MNOs currently fulfil most of their backhaul requirements using a managed end-to-end backhaul service, Managed Ethernet Access Service ("MEAS"), supplied by BT Wholesale. Sky understands that MNOs purchase the managed product since they need to connect a large number of base stations, many of them with small traffic volumes in rural areas. While they could connect all their sites through regulated Openreach products, as discussed above, BT Wholesale has the advantage of economies of scale and scope.

4.9 Although MEAS uses certain regulated inputs from Openreach, MEAS itself is not regulated. BT has substantial scope (i.e. the ability) therefore to raise the price of MEAS and to reduce its quality.

4.10 Post-merger, BT would become integrated with the UK's largest MNO giving it both the ability and a new incentive to foreclose downstream competing MNOs (and, indirectly, the MVNOs hosted on their networks). BT would also gain a new incentive to engage in such foreclosure strategies, given the importance of mobile backhaul to mobile network quality - and, therefore to customer switching (as described above). In this way, BT would be incentivised to use backhaul foreclosure strategies to: (i) protect EE's significant established customer base from churn to other operators; and (ii) gain additional retail mobile margin from cross-selling EE products to the large BT base.

4.11 In the analysis at Annex 3, CRA considers BT's incentive to foreclose rivals and restrict their ability to compete by carrying out a "proxy experiment" along the lines of a "vertical arithmetic" exercise on BT's supply of backhaul. As Sky is not a MNO the analysis necessarily relies on public data and assumptions. Nevertheless, the results at least suggest that the merger creates incentives to foreclose/raise rivals' costs by manipulating the supply of backhaul.

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51 In Ofcom's Business Connectivity Review, Ofcom is consulting on a proposal to introduce access to Openreach's dark fibre (Ofcom, Business Connectivity Market Review: Leased lines charge controls and dark fibre pricing, 12 June 2015: http://stakeholders.ofcom.org.uk/consultations/llcc-dark-fibre/). At this point, there is no certainty that Ofcom will proceed to introduce such a remedy. BT will challenge it and even if Ofcom does proceed, the remedy is not due to come into force until 2017 (and any effects from it would not materialise until some time later). In any event, Sky has concerns that the dark fibre remedy as proposed is subject to limitations both in scope and price that will substantially undermine its effectiveness. See further Sky's phase I RFI response as well as Sky's response to the Business Connectivity Market Review of 7 August.

52 Paragraph 102 of the CMA's Phase I Decision.

53 Sky provided a full description of the Openreach backhaul products in the Annex to Sky's phase I RFI response. Openreach inputs are subject to a basket price control such that BT has flexibility to set prices and to allocate costs between different bandwidth products in the basket. Prices are moreover subject to a gradient that rises sharply at higher bandwidths for which demand is increasing and there are in any event a limited range of bandwidth products that CPs can purchase. Although there are proposals in Ofcom's current Business Connectivity Market Review to establish sub-caps on pricing for certain backhaul inputs within the basket, this does not provide sufficient comfort to remove this concern.

4.12 In the spirit of a "vertical arithmetic" exercise, the analysis quantifies how a loss of wholesale contribution on mobile backhaul sold to rivals compares to the benefit of recouping integrated margin on customers switching to EE:

4.12.1 In particular, the analysis postulates a reduction in the supply of backhaul to a rival MNO equivalent to one mobile subscriber. By foreclosing/raising the cost of backhaul to induce the loss of a customer to a rival, BT would lose backhaul margin on that subscriber.

4.12.2 The benefit to BT consists of the total (wholesale plus retail) subscriber margin "weighted" by the diversion ratio, i.e. the probability that the subscriber ends up with BT (in the absence of better information, this is estimated at 80%, the market share of BT in Ethernet fibre backhaul).[54]

4.12.3 CRA uses two different approaches (one relying on Ofcom's network cost model for an average efficient operator, and the other adopting a "bottom up approach" estimating network costs for an MNO with certain characteristics).

4.13 The analysis suggests that BT receives payments of between £75m–172m from a mobile operator for backhaul leased lines, implying a contribution per customer per month of £0.2-0.6 for Openreach and BT Wholesale. This is dwarfed by the expected EBITDA gain to BT on a customer switching to BT/EE with 80%[55] probability (which is 80% of an estimated £9.50 per month per customer for EE, plus either of the two computed wholesale margins). Even if the probability were in practice lower, given the respective order of magnitude of the wholesale and retail contribution the comparison suggests *prima facie* incentives to withhold/raise rivals' costs.

4.14 While Sky and CRA do not have detailed data on backhaul payments to BT, approximations based on reasonable assumptions thus suggest that the benefits to BT of foreclosing mobile backhaul post-merger are of a magnitude greater than the costs of doing so. The opportunity to secure the additional retail mobile margin through engaging in a foreclosure strategy is likely to outweigh BT Wholesale's interest to preserve wholesale backhaul volumes.[56]

4.15 Furthermore, whilst BT can be expected to raise mobile fibre backhaul prices to MNOs, EE will no longer bear these charges. The cost of providing mobile backhaul is essentially fixed and sunk. Therefore, as part of a merged BT/EE group, EE would face no variable cost in relation to use of mobile backhaul services. Sky is therefore concerned that, post-merger, EE will operate as if it does not have to pay the wholesale backhaul costs that rival CPs do. EE will be inclined to consume as much backhaul as it wants to maximise the quality of its network and differentiate itself from other MNOs.

4.16 By contrast, competing MNOs, such as Sky's MNO host, Telefonica, are likely to face higher costs and in a low-margin environment look to make savings in their consumption of backhaul. This would reduce service quality – a key dimension of mobile competition (as discussed above) - relative to EE, thereby undermining the ability of competing MNOs to act as an effective competitive constraint on BT post-merger. This would in turn adversely affect MVNOs hosted on their networks (see further paragraph 4.28 below).

4.17 Aside from raising rivals' costs, there are also a number of other non-price foreclosure strategies open to BT post-merger. Sky is concerned that the kinds of problems

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54 Paragraph 102 of the CMA's Phase I Decision states that BT's market share in ethernet based fibre mobile backhaul is around 80-90%.

55 Based on an estimated 50% contribution margin of EE's average ARPU of £19 per month.

56 BT referred to this as a relevant factor for the CMA's analysis in Section C, Paragraph 4.44 of BT's initial submission to the CMA in Phase II.

experienced to date from the vertical integration of Openreach and BT's consumer divisions in fixed broadband (described in sections 3(A) and 3(B) above[57]) will be imported into mobile backhaul for the first time:

4.17.1 With competing calls on capital from the inclusion of a substantial new consumer division in BT Group, there is a risk of reduced investment and poor quality of service in mobile fibre backhaul on which MNOs rely. Indeed, there is a risk here of repeating the high cost and poor quality issues seen in backhaul for fixed broadband in rural areas, which (as discussed above) have led to market exit and diminished retail competition.

4.17.2 BT could introduce more costly premium services for enhanced care for bandwidth products consumed only by competing MNOs or in higher quantities than BT.

4.17.3 BT could also for the first time delay or refuse SoR requests for product developments that suit competing MNOs but not EE, as it has done in respect of standard and SFBB (see paragraph 3.6.3 above and Annex 2).

4.18 These strategies would reduce the quality of the backhaul consumed by competing MNOs (and the MVNOs hosted on their networks) and ultimately weaken the competitive constraint they can pose on the merged entity. Any loss of customers to the merged entity (either from the MNOs directly or MVNOs such as Sky) due to the MNOs' subsequently weakened networks would further reinforce the incentives to foreclose downstream competition as outlined above.

4.19 Concerns would also arise in the supply of backhaul for small cells (as discussed in section 5 below).

Customer foreclosure (CMA ToH 5)

4.20 These concerns in wholesale mobile fibre backhaul are reinforced by a customer foreclosure concern.

4.21 Pre-merger, EE sources mobile backhaul through MBNL from alternative suppliers, as well as from BT. Post-merger, BT will be strongly incentivised to switch all of EE's backhaul custom to BT. Given the high propensity of BT's existing retail divisions to source inputs from Openreach, as well as the lack of credible alternatives to BT in backhaul, Sky considers it highly likely that EE's backhaul custom will switch entirely to BT post-merger. BT itself describes the "aggregation benefits" it gains from supplying higher volumes of wholesale mobile backhaul and does not argue that it would not seek to supply 100% of EE's requirements post-merger.[58]

4.22 Given that EE is the UK's largest MNO, the potential loss of contestability of this demand for competing suppliers is likely to be significant, further undermining their ability to achieve economies of scale and scope and to compete effectively with BT.[59] There is moreover, likely to be a correspondingly large reduction in demand for backhaul links for EE's mobile base stations (EE having been actively seeking to deploy innovative dark fibre-based backhaul through third parties, absent the merger).

4.23 These effects are mutually reinforcing: while BT's incumbency in wholesale backhaul is strengthened, competing backhaul suppliers such as Virgin Media are weakened. While BT's incentive to engage in backhaul foreclosure increases, MNOs will be made more reliant

[57] These are also discussed at length in Sky's Phase I RFI Response.

[58] See Section C, paragraph 4.44 and Section 5 of BT's initial submission to the CMA in Phase II.

[59] Sky notes that competing backhaul suppliers, such as CityFibre, have provided the CMA with detailed comments as to how their ability to compete effectively would be fundamentally undermined by the withdrawal of EE's backhaul demand from the market.

on BT for backhaul. The merger therefore poses long-term risks to competition in mobile backhaul.

(ii) MVNO hosting (CMA ToH 3)

4.24 Pre-merger, EE was an important potential MVNO host for Sky and an existing MVNO host for CPs, who currently benefit from access to EE's extensive mobile infrastructure and spectrum holdings.[60] Sky is concerned, however, that a combined BT/EE with the benefits of the strongest fixed and mobile networks will have strong new incentives to engage in a partial input foreclosure strategy.

4.25 The strategy is likely to be partial rather than full, because as long as there is an alternative MNO host, the merged entity would be constrained from fully withholding wholesale network services by the prospect of that MNO hosting the MVNO if it did not. The degree of constraint nevertheless depends on the number of alternative MNOs willing and able to host MVNOs.

4.26 There is a serious risk of reduced competition in the market for wholesale mobile network services with the likely result that MVNOs could face higher wholesale prices, unfavourable non-price wholesale terms and/or reduced service quality. This degradation of the terms of supply would impact MVNOs' ability to offer high-quality, well-priced services to end-customers and therefore to act as a competitive constraint on a combined BT/EE. These risks are moreover, reinforced by the risks described above from degradation of the quality of the mobile operator's network on which MVNOs rely.

4.27 A key determinant for MNOs when deciding whether to host a MVNO is the degree of differentiation between the MNO host and the MVNO. A MNO is incentivised to host an MVNO where the balance between additional wholesale revenues versus cannibalising the MNO's own retail sales is weighted in favour of the former. Where the proposed MVNO offers a similar portfolio of products to the MNO host, the scales are likely to be tipped the other way. Combining BT's retail TV activities with EE's existing voice, broadband and mobile network offerings reduces the degree of differentiation between a combined BT/EE and potential MVNO customers such as Sky, making it less likely that EE would host competing MVNOs post-merger. With a dynamic shift to single sourcing of fixed mobile packages, this effect is likely to intensify.

4.28 For a MVNO such as Sky to be able to compete effectively for a customer's mobile business, and over time for a customer's fixed-mobile business more widely, the MVNO requires access to a high-quality network on economic terms. [redacted]

4.29 There are currently very few willing MVNO hosts in the UK. Contrary to BT's suggestion[61], [redacted]

60 It is the largest MNO host by volume of wholesale MVNO customers. as also acknowledged in paragraph 4 of the Phase I Decision. As of 31 December 2013, EE had 29 MVNO partners, including Asda Mobile and Virgin Mobile, the largest MVNO in the UK. - see EE Annual Report Group and Company Financial Statements for year ended 31 December 2013, available at https://ee.co.uk/content/dam/everything-everywhere/Newsroom/Bonds%20and%20financials/EE_Accts_YE_2013_EY.pdf. This increased in 2014 with the addition of the significant BT MVNO. By the end of 2014, EE reported over 3.7 million MVNO connections on its network: http://ee.co.uk/our-company/financials/2015/02/05/ee-results-for-the-year-ended-31-december-2014.

61 See Section B, paragraph 3.5 of BT's initial submission to the CMA in Phase II.

[redacted]

4.30 Sky is concerned that, post-merger, the number of potential wholesale suppliers will effectively be reduced from two to one, placing MVNOs at a further competitive disadvantage.

4.31 MVNOs are already at a disadvantage to MNOs in that they do not have the MNOs' economics and margins in this space are tight. [redacted]

4.32 The loss of rivalry in mobile hosting will be compounded by the reduction in quality of Telefonica's network brought about by input and customer foreclosure (as discussed above) in the provision of mobile backhaul services (a further example of how the concerns are mutually reinforcing). A MVNO's ability to compete depends not only on the price secured with its host but also on the quality of the host network and its service provision. [redacted]

4.33 [redacted]

4.34 With a loss of rivalry in hosting, MVNOs are unlikely to be sufficiently confident in their supply arrangements to make the necessary long term investments and strategic decisions, for example as regards deployment of small cell networks and the acquisition of spectrum. The ability of MVNOs to act as an effective long-term competitive constraint on a combined BT/EE is diminished. [redacted]

(B) Retail level (unilateral and dynamic effects, CMA ToHs 1 and 2)

4.35 Sky considers that a number of horizontal competition concerns arise post-merger in retail mobile, both standalone and as part of a wider fixed-mobile offering.

4.36 BT's entry into the retail mobile market was expected to have a disruptive impact on the market.

4.37 Mobile market entry was important to BT, in order to provide it with a growth story that would satisfy investors.[63] Accordingly, it had been vocal about its aggressive ambitions and innovative "inside-out" network, and therefore had every incentive to make it work. As

62 [redacted]

63 See slides 30, 34 and 35 of BT's full year 2013/ 2014 investor presentation: http://www.btplc.com/Sharesandperformance/downloads/PDFdownloads/q414-slides.pdf.

a MVNO seeking to enter the market and build a customer base from scratch, BT also had every incentive to be aggressive on price.

4.38 BT also had the right ingredients and a unique cost structure to be successful. It had: 2.6GHz spectrum holdings suitable for small cells; an extensive network of powered exchanges, cabinets, street furniture and home routers where it could deploy femtocells or small cells. According to the Chief Executive of BT Consumer, its inside-out strategy comprised:

> *"...4G on the UK's biggest network along with unlimited access to the most extensive wi-fi coverage via our 5m BT W-fi hotspot network. Plus BT Sport and a discount of up to 50 per cent on your mobile tariff if you are a BT Broadband customer...Our customers are consuming increasing amounts of data and they want the best possible connection wherever they are. It's our ambition to meet this demand by combining the power of our fixed fibre service with wi-fi and the convenience of mobile."*[64].

4.39 BT moreover, had unique backhaul economics (unique because these are effectively sunk costs to BT and real costs to everyone else) to deliver a small cell strategy through its control of the ubiquitous Openreach backhaul and access networks. It had a customer base of close to 8 million broadband homes and businesses to which to cross-sell. It also had a very large marketing budget and a very capable go-to-market team, one that already built a subscriber base of 3 million BT Sport customers (5 million including wholesale customers) in under a year from launch.[65]

4.40 Competing CPs were taking BT's mobile market entry seriously and actively seeking to meet this competition – EE, Vodafone and Sky began assembling the remaining elements of the quad play offering following BT's announcement. Analysts estimated that BT would take 8% of the mobile market over time,[66] a much more significant position than other MVNOs and close to the share of the fourth largest MNO – H3G.

4.41 Post-merger, this horizontal rivalry between BT and EE is internalised and this is likely to lead to a loss in innovation and price competition at the retail level.[67]

4.42 This loss of innovation and price competition is likely to result from changes in BT's incentives to roll out its inside-out network:

4.42.1 Pre-merger, BT would have been using the inside-out network in direct competition to the MNOs, to avoid variable costs payable to its MNO host, by offloading from EE's network. Given the competitive intensity at the retail level these variable cost savings were more likely to have been passed on to consumers.

4.42.2 Post-merger, deployment of an inside-out network is more likely to be motivated by a desire to add capacity to EE's network (rather than to compete directly with it) or to make network savings by reducing the number of macro cells. With diminished retail competition, such capex savings are less likely to flow through to consumers.

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64 http://www.btplc.com/News/Articles/ShowArticle.cfm?ArticleID=F596A3F4-3584-43AD-BD6B-78109A7CF253.

65 Slide 33, BT's full year 2013/ 2014 investor presentation.

66 Nomura, Global Markets Research report on BT Group plc, "Five steps to 500p" dated 9 June 2014.

67 [redacted]

4.42.3 Moreover, as BT becomes the owner of the UK's largest mobile customer base, its commercial strategy is more likely to shift to defending that customer base rather than aggressively seeking to acquire new customers.

4.43 The effect of this internalisation of competition is already visible in the market since the BT/EE merger was announced. Contrary to its aggressive ambitions pre-merger announcement (as discussed above), post-announcement, BT launched with little fanfare or above the line marketing, a pared back commercial offering comprising SIM-only tariffs[68] and no handsets (the latter would have enabled BT to compete more vigorously with the MNOs).

4.44 The CMA should dismiss entirely BT's arguments that the merger would increase retail mobile competition,[69] whether by: (i) increasing BT's incentives to price standalone mobile products more aggressively in order to build a customer base to cross-sell to; or (ii) by removing double-marginalisation in relation to incremental mobile sales. On (i), through the merger, BT gains access to EE's 24.5 million retail customers to add to its existing large customer base, and therefore does not need to build its customer base further by pricing standalone products aggressively. Indeed, if it is to fulfil its stated objective of cross-selling effectively, it would price standalone products more expensively than bundled products. On (ii), of the merging parties, EE currently has the largest mobile base by far and it currently does not face double-marginalisation and, as such, these effects are minimal post-merger.

(C) Conclusion

4.45 The merger creates a new incentive for BT/EE to discriminate against MNOs and MVNOs at the wholesale level, which will have pervasive effects on the downstream retail provision of mobile communications services in the UK. At a time when CPs require increased backhaul capacity to respond to growing consumer demand for data, BT/EE will be in a unique position (with strong incentives) to engage in input foreclosure. Any such input foreclosure will lead to a deterioration in quality of the remaining MNOs' networks. This in turn will directly impact MNO and MVNOs' ability to compete at the retail level. In circumstances where BT/EE will be able to offer greater and faster network coverage taking advantage of a more efficient cost base, other CPs will face either increasing costs and/or deteriorating network offerings.

4.46 The cumulative, reinforcing effects of the concerns highlighted above as regards fixed broadband and mobile services are magnified in light of the anticipated shift to fixed-mobile single sourcing. The distortions highlighted in fixed will leak into mobile and vice versa. The merger therefore not only threatens competition across mobile and fixed services separately but will also have adverse effects on the emerging and growing segment of fixed-mobile services.

5. Small cell networks

5.1 As discussed above, pre-merger, BT had its inside out strategy, competing directly with MNOs. EE was well placed to roll out a small cell network given its large high frequency, 4G compatible spectrum holding, its scale in mobile as the largest MNO in the UK (which makes it more economic to roll out costly small cells) and its existing SFBB proposition. This rivalry in small cell networks is internalised post-merger. Coupled with a loss in rivalry at the retail level in mobile (as discussed above), any advantages of this rivalry at the network level is unlikely to be passed on to consumers.

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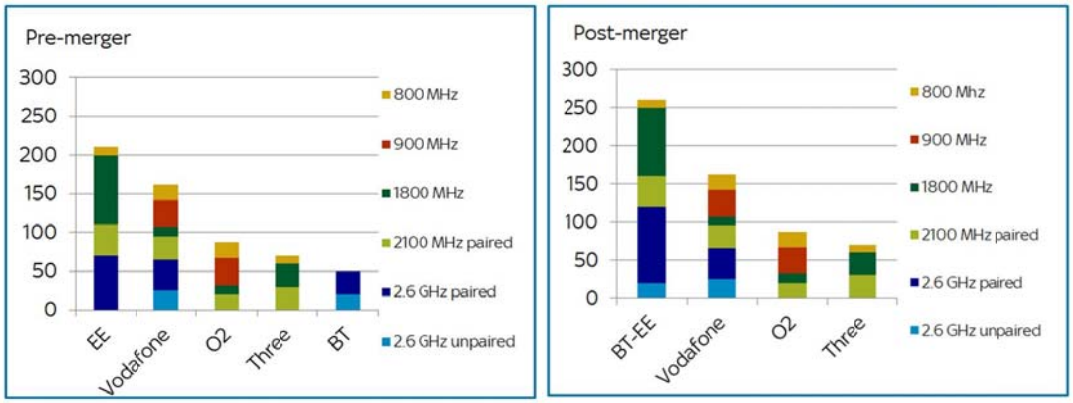
68 http://www.productsandservices.bt.com/products/4g-sim-only-plans/?s_cid=con_ppc_maxus_vidZ60_T1&vendorid=Z60&gclid=CMyOr9SLI8cCFWPnwgodyrcFdQ&dclid=CI-qv9SLI8cCFclmGwod8tIB9w.

69 See Section D, paragraph 4.55 to 4.58 of BT's initial submission to the CMA in Phase II.

(A) Excessive concentration of key spectrum in the UK

5.2 BT argues that its femtocell proposition and spectrum holdings do not give it a special advantage in small cell networks, as these are replicable by other MNOs and MVNOs. Post-merger, however, BT's spectrum holdings will far exceed that of the other MNOs in quality and quantity. Its total spectrum holdings will exceed the overall spectrum cap established by Ofcom in the 2012 spectrum auction, set with a view to preserving the minimum necessary competition between MNOs[70]. Its holdings will comprise 43% of allocated spectrum, almost double that of other MNOs.

Figure 5 – Comparison of spectrum holdings pre- and post-merger



Source: Data from Ofcom UK Mobile Broadband Performance Report, Nov 2014

5.3 Importantly these spectrum holdings will include the largest 2.6GHz holdings in the UK, with the merger consolidating two of the three independent holders of this spectrum. Vodafone will remain the only other holder of this spectrum in the market, with much smaller holdings than the merged entity. 2.6GHz spectrum is important for 4G services as it offers high additional speeds and capacity required. Indeed, EE currently uses 2.6GHz spectrum in order to offer its market leading double-speed 4G service. The consolidated 2.6GHz spectrum will also be in contiguous blocks, which makes it particularly suitable for maximising the capacity of data services.[71]

5.4 Although Ofcom is proposing to auction further >2GHz spectrum over the next year, that spectrum is as yet untested and is currently not supported by handset manufacturers. As such, it is not as commercially valuable as the spectrum holdings of the merged entity and may not allow competing MNOs to replicate BT's network advantages, thereby undermining their ability to act as an effective competitive constraint. Moreover, VoWIFi is an imperfect substitute for cellular coverage, as it uses the contended wi-fi connection with no quality of service protections and it is difficult to manage the technical handover between wi-fi and cellular network.

(B) New incentives to foreclose and stifle nascent small cell networks

5.5 The merger would also create new incentives for BT to engage in foreclosure strategies via its control of the cabinet network which provide ideal sites for small cells (given their location and the fact that they are powered) and this is likely to prevent the emergence of competing small cell networks. It could do so in a number of ways, for example:

70 See paragraph 5.15 of the Sky Phase I Submission.

71 See paragraph 7.4 of the Sky Phase II Submission.

5.5.1 by optimising fibre backhaul links to support EE, at the expense of competing small cell networks. Demand for such links is likely to increase substantially with small cells, and particularly those using higher frequency spectrum (as likely to be awarded by Ofcom in the forthcoming auction) as the poor propagation characteristics of this spectrum requires denser deployment of small cells;

5.5.2 by favouring EE in granting access to its cabinets, which, given that small cell sites are non-scalable (Mobile Infill Infrastructure Service (MIIS) cabinets can accommodate only one set of equipment) would be to the exclusion of competing small cell networks (or alternatively by granting access to EE in prime locations, leaving access to rivals in less suitable locations);

5.5.3 by discriminating on price and other terms for its MIIS, used to support small cell deployments (to help strengthen coverage and reduce blackspots). This would likely include further discrimination via the requirement to take backhaul links from Openreach in order to make use of MIIS;

5.5.4 by prioritising investment in and the development of small cell mobile backhaul products to suit its new mobile division, at the expense of investment and development of products that competitors might prefer to use. Indeed, as Sky's experience in fixed shows, BT has limited incentive to develop small cell backhaul products suited to its' competitor's needs.

5.6 The likely effect of such strategies will be to stifle development of competing small cell deployments. [redacted]

6. Conclusion: the merger results in multiple SLCs and will have profound adverse effects on competition

6.1 The above concerns raised by the merger are individually significant. The concerns are, moreover, mutually reinforcing such that their cumulative impact is likely to be even more profound and their adverse effects likely to be felt pervasively across the sector.

6.2 The merger will vertically integrate Openreach with the UK's largest MNO network (1.5 times the size of BT Consumer by revenue). This will exacerbate existing issues in standard broadband, increasing BT's ability and incentive to raise rivals' costs in SFBB at the same time as removing horizontal competition in rural broadband. The anticipated shift to fixed-mobile bundles will import these issues to mobile and vice versa.

6.3 At the same time, foreclosure in mobile fibre backhaul will materially weaken MNOs and in particular the quality of their networks. In turn, MVNOs reliant on the quality of their host networks will be weakened. Moreover the merger creates new and strong incentives to engage in input foreclosure in MVNO hosting. MVNOs, particularly those like Sky that have a similar portfolio of products to the merged entity, reliant on access to those networks on competitive terms will be weakened further by the reduction in hosting rivalry caused by the merger.

6.4 These issues will be exacerbated by the internalisation of horizontal competition between the merging parties in retail mobile and in turn amplified by increasing fixed-mobile convergence at retail and network levels.

6.5 Similarly, in the roll out of small cell networks, the merged entity will simultaneously consolidate excessive holdings of scarce key spectrum and create new incentives for BT to foreclose emerging competition in small cell networks.

6.6 The existing regulatory regime cannot address comprehensively or effectively the strengthened ability and new incentives of the merged entity to foreclose competition in the provision of fixed, mobile and increasingly fixed-mobile communications.[72] Nor are potential future regulatory changes sufficiently certain, timely or likely to be effective.[73]

6.7 The confluence of all these issues would place the merged entity in an unassailable position of strength whilst at the same time weakening competing mobile, fixed and increasingly fixed-mobile operators for the long-term. The merger therefore has profound implications for competition and ultimately consumers who will have diminished supplier choices, product innovation and price competition.

Sky 14 August 2015

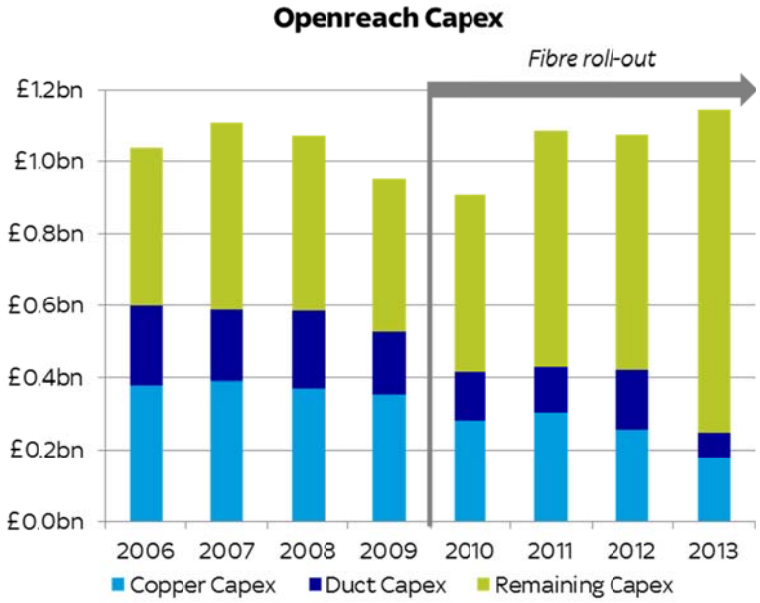
[72] Paragraph 1.7 and paragraph 1.8(b) of the Merger Remedies: Competition Commission Guidelines November 2008 (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284415/cc8.pdf) (the "Merger Remedies Guidelines"). See further Section 10 of the Sky Phase II Submission.

[73] Paragraphs 1.7 and 1.8 and paragraph 1.8 (a-d) of the Merger Remedies Guidelines.

Annex 1

BT's under-investment in copper in favour of its NGA network

A1.1 BT has been either reducing its overall capital investment in its network (up to 2009) or, where it has undertaken new incremental infrastructure investment (such as its roll-out of FTTC from 2009) it has done so by reducing capital investment in the remainder of the network i.e. ducts and copper.



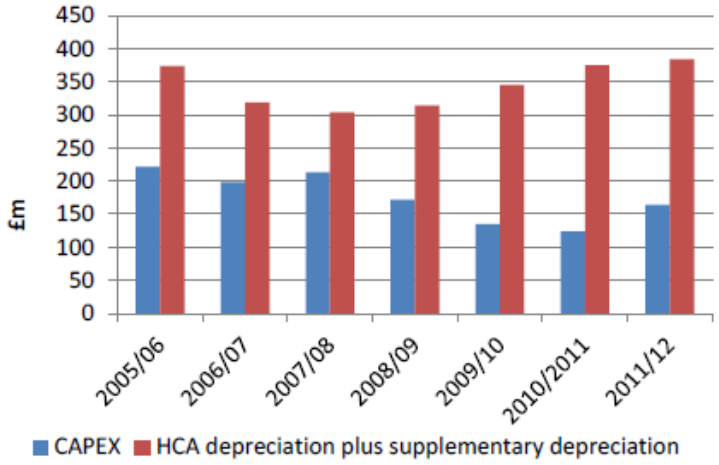
[74]

A1.2 Reducing investment in BT's duct and copper cables in order to invest in fibre may be justified if the FTTC network was replacing the duct and copper network. However, FTTC is not a substitute but instead relies on the existing duct and copper network and therefore, all else being equal, the rate of capital investment in duct and copper should remain the same or similar.

A1.3 If the duct and copper network were in a relatively steady state then annual capex on new ducts and copper should broadly match annual depreciation costs. But BT's duct and copper capex is now persistently and materially below depreciation suggesting that BT is no longer refreshing its infrastructure at the same rate i.e. it is ageing.

[74] BT's reported KPIs, BT RAV model and Frontier Economics.

Figure 10. Duct capital spend compared with CCA depreciation (£m) (2005/06 - 2011/12)

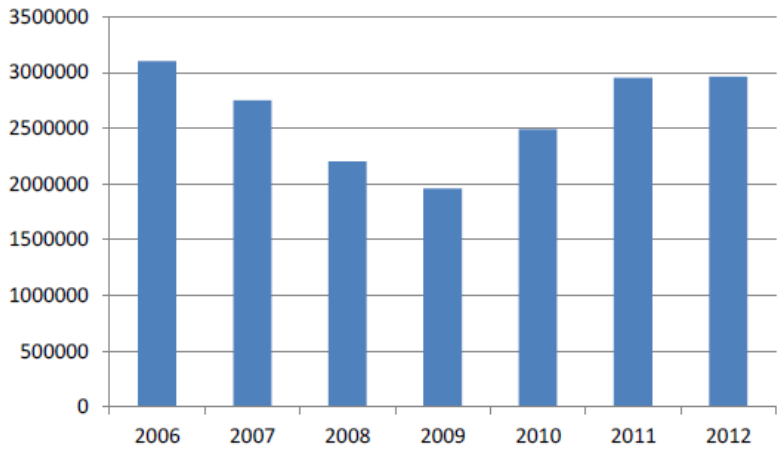


Source: Ofcom model [75]

Higher fault rates

A1.4 As BT has significantly reduced capital investment in its duct and copper network, its network is no longer being replaced at the same rate and, as a result, unless there are increased levels of preventative maintenance aimed at extending the working life of its duct and copper assets, the network will be prone to more faults.

Figure 3. Openreach CGA faults 2006 – 2012



Notes: 2006 and 2007 data estimated from figure 5.1 of the December consultation. 2008 and 2009 estimated by applying the reported fault reductions to 2007 data. 2010 and 2011 show CGA related faults from table 5.1 of the December consultation. [76]

75 Ofcom's LLU and WLR Charge Control Proposals: A report prepared for TalkTalk and Sky, October 2013, Frontier Economics.

76 Treatment of the level of faults in the LLU and WLR charge controls for 2014-17: A report prepared for TalkTalk and Sky, February 2013, Frontier Economics.

Annex 2

Examples of Openreach SoR responsiveness in SFBB

A2.1 Sky submitted a request early in 2013 (supported by Vodafone) for access to additional data on the Openreach copper network, to enable analysis of opportunities in Sub-Loop Unbundling ("SLU") using Fibre To The Cabinet ("FTTC") and Fibre to the Distribution Point ("FTTdp") architectures. After around 6 months, Openreach refused the SoR stating they were "...unable to identify any clear Openreach benefits in supplying this data." [redacted]

A2.2 BT is also currently sidestepping the SoR process altogether in developing a new product, single order GEA ("SOGEA"). No new functionality is enabled by this product (it is merely repackaging of MPF line rental and GEA FTTC broadband), and Openreach informed industry that it is not expected to be any cheaper than the equivalent set of current products. In studying the product specification, Sky has recognised an appropriate opportunity for cost reduction, and requested a change (via SoR, 9th April 2015) to SOGEA. Unfortunately, however, Openreach are neglecting their obligations, and continue to stall analysis of Sky's request. In developing SOGEA, Openreach has sidestepped the standard practice of having CPs request product development via presenting their SoR to the normal industry forum, the Copper and Fibre Product Commercial Group, to establish the benefits to industry (rather than to a single CP). Furthermore, Openreach has refused to identify any CPs wishing to consume SOGEA (although it appears from reports in industry press that the CP interested in SOGEA is in fact BT Wholesale).[78] It therefore appears that rather than favouring its own SoRs, BT has in this instance in fact bypassed the process entirely.

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77 See annex A.15-A.20 of Sky's response to Ofcom's Strategic Review (https://corporate.sky.com/documents/media-center/news-releases/2015/strategic-review-initial-submission-pdf.pdf).

78 See http://www.ispreview.co.uk/index.php/2015/03/bt-set-trial-of-standalone-naked-fttc-superfast-broadband-without-phone.html.

Annex 3

CRA's economic analysis of the effects of the merger in SFBB and mobile backhaul