



BT's response to Ofcom's consultation document

"Wholesale Local Access Market Review"

19 June 2017

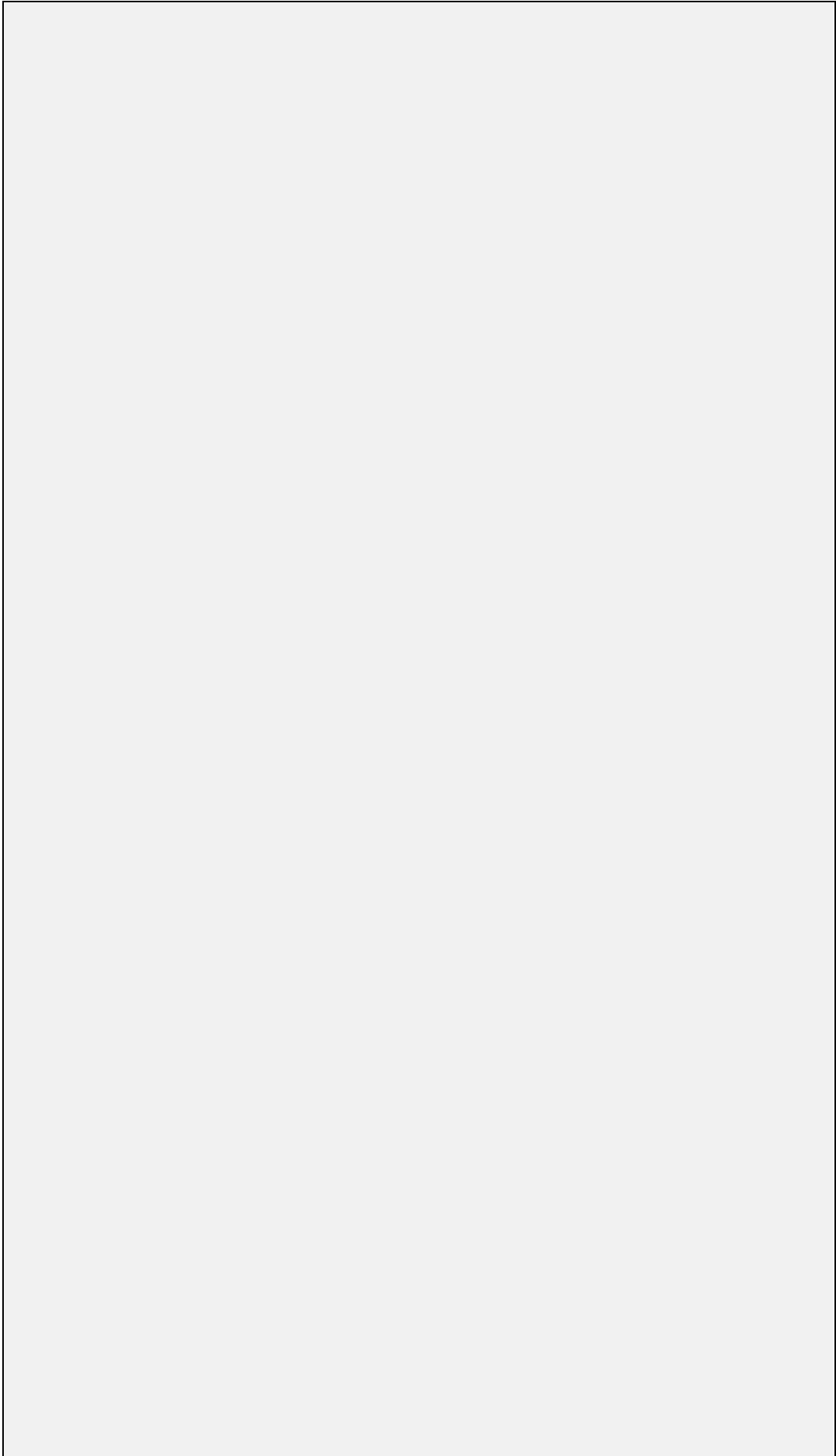
NON-CONFIDENTIAL VERSION

Contents

| | |
|--|----------|
| 1 Introduction and executive summary | 2 |
| Strategic context and market analysis | 3 |
| Promoting investment by BT | 4 |
| Perspective of BT businesses downstream of Openreach | |
| Annex 1: Analysis of competitive constraints between broadband services of different speeds | |
| Annex 2: Analysis of price differential between retail prices for residential standard and superfast broadband services | |

Overview

1. We support Ofcom (and the government's) objectives for broader network coverage, faster ultrafast networks, improving service and more network competition based on regulatory conditions which are conducive to investment.
2. As an investor, we are concerned that the WLA proposals will cause harm to consumers in the long run by creating a very material deterrent to future investment in UK digital infrastructure, and discouraging network competition (which is not Ofcom's intent).
3. We do not accept that a charge control for GEA 40/10 is required to protect customers from excessive pricing. There are highly effective market constraints on fibre pricing, in particular, prices must be attractive in order to convince price sensitive customers to take higher speed products, and to limit losses to Virgin Media.
4. Taking over [X] of cash flow out of Openreach's fibre broadband business over three years, whose revenues are only around [X] a year at present, will be adverse for fibre broadband investment, for BT and all other operators.
5. Ofcom's price control proposals for fibre are not consistent with the fair bet principle and do not, therefore, ensure that we continue to have a positive incentive to invest in new infrastructure.
6. Other current and prospective investors will be discouraged by the prospect of diminishing returns, making already challenging business cases unviable. The build/buy decision of current re-sellers will swing heavily in favour of buy, retarding network competition still further.
7. These outcomes deny customers the dynamic benefits from network competition which will be much less likely to emerge. This is entirely contrary to Ofcom's and the governments stated objective of delivering more "full fibre" investment and more infrastructure competition.
8. Ofcom's proposed prices are, in any event, much too low and would drive returns below Openreach's cost of capital and therefore provide no incentives for investment. Ofcom has not fully and fairly reflected Openreach's future costs of delivering and improving services resulting in 'mid-range' prices for MPF and GEA 40/10 that are significantly below the appropriate level. This arises due to inappropriate assumptions and modelling issues which we propose to work with Ofcom to resolve.
9. At a minimum Ofcom should adjust its pricing proposals to ensure the fair bet is honoured - i.e. GEA 40/10 prices above the consulted range.
10. We support the progressive improvement in service standards, so long as these are in line with market needs and are fully funded in Openreach.



1 Introduction and executive summary

- 1.1 BT supports Ofcom's strategic objectives to promote greater investment and competition in response to rising customer expectations, in particular, encouraging the deployment of broader network coverage, faster ultrafast networks (including more full fibre), improving service and promoting network competition. These objectives depend on market and regulatory conditions which are conducive to investment.
- 1.2 Ofcom's WLA proposals do not, however, succeed in achieving the aims of protecting consumers and retail competition while also encouraging investment. Although Ofcom is right to seek to balance these objectives, imposing intrusive price remedies is the wrong mechanism, based on unsubstantiated market failures (in particular the risk of excessive prices), without giving sufficient weight to longer term customer harm from deterring investment and discouraging network competition.
- 1.3 In particular, BT is concerned that the proposed approach: a) reduces the overall returns on access services provided by Openreach to below the cost of capital; b) significantly understates the costs of delivering (and improving) service to customers across both copper and fibre, with an associated revenue shortfall of over [£] over the charge control period; and c) misapplies the principle of the fair bet by unfairly capping the upside available to investors in fibre access services.
- 1.4 A fair bet requires that investors, at the outset of a project, have the opportunity to earn at least the project-specific cost of capital. If investors would not have committed their capital and taken the project risk had they known about the subsequent intervention to cap upside outcomes, then the fair bet is not honoured. An expert report by Oxera supported by Julian Franks (Professor of Finance at the London Business School) finds that the risk of regulatory failure is high because Ofcom cannot be confident how its decision to cap the returns on BT's FTTC investment would have affected the investment decision at project inception.
- 1.5 The drivers for investment in ultrafast networks identified by Ofcom are implausible. Pricing down to cost a key product substitute for the higher speed products is likely to reduce the prices of, and undermine the value that can be generated from, higher speed products, and discourage migration from lower speed products, making what is already a challenging investment case significantly more challenging. A lower regulated fibre price will also change the build or buy decision for potential network rivals, making it less likely that telecoms providers will build new networks as opposed to relying predominantly on buying access from BT.
- 1.6 In combination, these factors will inevitably reduce investment and chill incentives to invest in the future. Taking over [£] of cash flow out of Openreach's fibre broadband business over three years, whose revenues are only about [£] a year at present, will be adverse for fibre broadband investment, for BT and all other operators. Ofcom has not, therefore, acted sufficiently cautiously given that the risk of intervening too early and deterring investment is higher than the risk of intervening too late (even though Ofcom acknowledges this asymmetry).
- 1.7 The proposal for more intrusive price regulation of our fibre investment (as it stands) is not sufficiently reasoned or shown to be proportionate. We believe that Ofcom could stimulate greater customer value and future investment by continuing the existing approach of pricing flexibility, given the continuing constraints on fibre pricing which will protect customers and the unambiguous preservation of the fair bet that this ensures. If, however, Ofcom proceeds with its proposals then the copper and fibre access prices which are implemented should ensure that Openreach can achieve a fair return on an on-going basis.

1.8 BT supports the objective of improving service standards. However, we believe that service standards must be achievable and reflect the willingness of the Communications Provider (“CP”) market to pay for better services, and that the costs of improving service must be fully provided for in the cost analysis. We do not think Ofcom’s proposals achieve these goals.

2 Strategic context and market analysis

Introduction

- 2.1 In this section, we describe how the UK has performed strongly in terms of consumer outcomes and vigorous downstream competition over the last ten years, and how these have been supported by Ofcom's regulatory policies. We note the alignment between BT and Ofcom on Ofcom's strategic objectives, namely promoting greater investment and competition and the need to deliver a step change in service levels throughout the industry.
- 2.2 We set out why we think that the WLA proposals pose significant challenges to the achievement of these strategic objectives, in particular, by failing to strike an appropriate balance between encouraging network investment and protecting consumers and competition in the short term. Ofcom's market analysis underpins the errors in Ofcom's regulatory approach because it gives insufficient weight to the constraints which currently exist, and will continue to constrain BT over the review period, in the supply of wholesale local access.
- 2.3 Finally, we explain our concerns relating to Ofcom's forward view of the regulatory framework in particular, that, going forward, Openreach will be regulated by default creating an unlevel playing field with network rivals.

The UK has performed strongly in terms of consumer outcomes over the last ten years supported by Ofcom's regulatory policies

- 2.4 Ofcom's WLA proposals place more emphasis on protecting consumers and retail competition in the short term than on encouraging investment. Although Ofcom is right to seek to balance these objectives, this emphasis is not warranted given the lack of evidence of poor market outcomes or of consumer harm, and the need for caution given the higher risk of deterring investment by intervening too early compared to intervening too late.
- 2.5 Quite the contrary, the UK has performed strongly against international benchmarks in terms of consumer outcomes over the last ten years on a wide range of metrics – availability, take-up, speed and prices. The UK ranks 7th on the European Commission's 2017 Digital Economy and Society Index, which is ahead of any other large Member State.¹ This position is underpinned by the UK's strong UK NGA coverage and high levels of internet usage.
- 2.6 Market developments have been supported by Ofcom's regulatory policies, in particular, mandating equal access but granting pricing flexibility for wholesale services (under the VULA regulations) over our superfast broadband network (subject to non-discrimination and margin maintenance requirements, and in the presence of constraints from copper products and cable).
- 2.7 This has delivered dynamic retail competition² whilst providing the right incentives for investment to meet rising demands for higher broadband speeds and improved quality of service. There is no evidence that demand for superfast broadband has been suppressed by the

¹ The Digital Economy and Society Index, <https://ec.europa.eu/digital-single-market/en/desi>

² See figure 1.6 or 1.8 of Ofcom's European scorecard which shows that, in the UK, non-incumbent providers have the highest share of the local retail market of all of the major EU economies – see https://www.ofcom.org.uk/__data/assets/pdf_file/0024/95712/ICMR-Broadband-Scorecard_EU5.pdf. Ofcom itself has recognised that competition in retail markets is healthy; it states, for example, "[c]ompetition has brought new services, increased choice and delivered real benefits to consumers", para 1.1, The review of the market for standalone telephone service, Provisional conclusions, 28 February 2017.

VULA pricing regime; rather the opposite, over the period that BT has had pricing flexibility, the

UK has appreciably outperformed the major European countries in terms of superfast uptake and pricing.

- 2.8 There is no evidence that excessive returns have been made. Risky investment has been supported by a clear regulatory framework and policy certainty. Within this framework, BT has made innovative and large-scale investments in Openreach delivering, for example, one of the fastest national scale deployment of superfast broadband in the world, achieving coverage of over 26 million homes (such that nearly 95% of UK premises can now access superfast services)³ with only limited public funding compared to other countries.
- 2.9 Sustainable competition has grown at the infrastructure level, a development also fostered by regulatory policies which have so far provided economic conditions conducive to investment. Virgin Media is rolling out to another 4 million homes taking its coverage to over 60%, and investment commitments have also been made by City Fibre Holdings, Gigaclear and Hyperoptic.
- 2.10 This has been achieved without compromising vigorous downstream competition between entities which rely on BT for access products. There is no evidence, for example, that BT has gained a competitive advantage over other retailers using Openreach's fibre network – cumulative net adds for GEA, the wholesale fibre broadband product from Openreach, are now just over 50% non-BT (and reached 60 per cent in Q4 2016/17).⁴
- 2.11 A range of retailers offer very low priced fibre propositions; examples of recent price competition include the following: Virgin Media's promotional price reductions in May 2017 which reduced the price of all dual play bundles (across all speeds) by £3 (8.5%-6% reduction from previous prices) and most of the triple play products by £5-6;⁵ and deals offered by new entrant Vodafone which in April 2017 offered the lowest 38mb dual play offer (£23 for new customers, £26 for existing customers) of the major providers.
- 2.12 Ofcom's margin maintenance condition ensures that a sufficient margin is available for non-BT users of VULA with the objective of supporting competition in retail superfast broadband propositions. Customers are clearly benefitting from this competition in the form of lower retail prices and increased choice of supplier (e.g. now from Vodafone) without a cap on wholesale fibre prices (as now proposed by Ofcom).

BT supports Ofcom's strategic objectives to promote investment and competition in fixed networks

- 2.13 BT supports Ofcom's proposal to encourage the deployment of new ultrafast networks, including more full fibre. Achieving this ambition will require significant incremental investment which BT expects to play its part in delivering. BT plans to deploy FTTP ("full fibre") networks in the near term to up to 2m premises and G.fast to 10m premises, subject to business cases. BT is also committed to supporting the government's aspiration for universal coverage of 10Mb/s broadband, which will also need to be supported in Ofcom's charge control if it is to happen.
- 2.14 BT also agrees that network competition is a key driver of innovation and continued investment in networks, leading to higher quality and lower prices. The competition between BT and Virgin

³ Including other networks.

⁴ <http://www.btplc.com/Sharesandperformance/Quarterlyresults/2016-2017/Q4/Downloads/KPIs/q417-KPIs.pdf>, sheet 8

⁵ For the first 12 months rental price.

Media already delivers these benefits (increasingly so given Virgin Media's expansion geographically and improved product capabilities) and further benefits may be available should

new entrants emerge (including through physical infrastructure access which will be enhanced under Ofcom's proposals).

2.15 Competition from other access providers, combined with highly competitive and demanding downstream customers, means that the strategic network ambitions and commercial choices of Openreach are framed by market requirements rather than regulatory obligations. In these circumstances the need for specific regulatory interventions should be diminishing.

2.16 Ofcom states that it shares this view and is anticipating a shift in the regulatory framework away from price regulation of LLU and VULA towards greater reliance on network competition and market pricing where appropriate. As explained below, however, Ofcom's proposals reduce the likelihood of this transition, by imposing price regulation on VULA which reduces the attractiveness of infrastructure investment relative to seeking access to BT's network.

The WLA proposals pose significant challenges to the achievement of these strategic objectives

2.17 In order to achieve Ofcom's strategic objectives, investments must be capable of earning a fair return in order to incentivise investment across the industry, consistent with the 'fair bet' principle. The fair bet (as articulated by Ofcom in previous market reviews and its strategic review of communications) is simply the opportunity to earn a return commensurate with the risk at the time investment was made. In other words, investors may earn returns above the cost of capital without regulatory interference, to balance the fact that returns below the cost of capital might have been earned if demand and willingness to pay had been lower, and/or costs of supply higher, than expected.

2.18 Honouring the fair bet today is needed to encourage the next wave of investments, by demonstrating that regulation won't remove the rewards of those investment projects which are successful. Imposing remedies too early without sufficient regard to the impact on investment incentives (or complying with the necessary requirements of proportionality, objective justification and necessity to intervene), is likely to have the opposite effect.

2.19 The emphasis that Ofcom places on the need to ensure that BT (and other infrastructure investors) continue to have a positive incentive to invest in new infrastructure is helpful.^{5 6} Despite this, we consider that Ofcom's fibre regulation proposals conflict with its objective to promote investment. More specifically, we consider that Ofcom's proposals: (i) do not strike an appropriate balance between encouraging network investment and protecting consumers and competition in the short term; and (ii) do not err on the side of caution with respect to investment incentives. This is for a number of reasons, which are explored in detail in Section 3:

⁵ Please see paragraph 1.33 of Ofcom's Wholesale Local Access Market Review ("WLA MR"), Volume 1, dated 31 March 2017 and available here: https://www.ofcom.org.uk/__data/assets/pdf_file/0033/99636/Vol1-Marketreview.pdf.

⁶ As noted above, Ofcom also correctly highlights the asymmetry of the risks involved, namely, if intervention occurs too early, the harm caused by deterring future investment in ultrafast infrastructure may be greater than the harm caused by intervening too late. Please see paragraph 1.40 of the WLA MR.

- First, the proposals put forward by Ofcom are likely to result in Openreach failing to earn its cost of capital across access copper and fibre services over the medium term.⁷
 - Second, in crystallising what is meant by the fair bet (by deciding to curb fibre returns through price regulation), Ofcom has adopted an approach which will condition (unfavourably) how investors perceive investment going forward.
 - Third, Ofcom's fibre pricing proposals will constrain the pricing of higher speed wholesale (and retail) products, and discourage migration up from the regulated VDSL 40/10 product making viable investment in ultrafast broadband even more challenging.
 - Fourth, a lower regulated fibre price will change the build or buy decision for potential network rivals making it less likely that telecoms providers will build new networks as opposed to relying predominantly on buying access from BT.
- 2.20 Investment decisions being made now in relation to ultrafast networks are affected by expectations of demand, competition and regulation long into the future. In other words, decisions made now will shape the effectiveness of network competition beyond the forthcoming review period.
- 2.21 Put simply, the WLA proposals will chill investment: (i) by BT, by casting doubt over the realisation of the upside required from any investment to offset the downside risk of failure and (ii) by other investors, particularly the largest by far, Virgin Media, for whom less attractive regulatory conditions will diminish the returns from their current expansion.
- 2.22 Potential network competitors will have less incentive to invest to improve their position relative to taking access products from Openreach, and are more limited in their ability to generate value from services supplied using the new networks because of the constraint exerted by a close substitute which is subject to more intrusive price regulation. There is no evidence that companies such as Sky or Talk Talk will use lower VULA prices as a step to building their own networks. Ofcom is in effect betting on this hoped for 'ladder of investment' effect, whilst disregarding those companies already investing.

Realising the goals of structural reform depends on an attractive investment environment

- 2.23 The reform of Openreach (as set out in the voluntary commitments provided by BT as part of Ofcom's Digital Communications Review)⁸ is also intended to support the achievement of Ofcom's objectives, particularly by un-locking new forms of investment in the industry such as co-investment.
- 2.24 The emergence of co-investment and risk sharing models depends on whether economic and regulatory conditions are conducive to investment and whether, in practice, these models are effective in mitigating risks. For the same reasons as outlined above, co-investment in FTTP networks will be less likely to occur because the economic fundamentals for such investment

⁷ The Openreach submission sets out the areas in which Openreach proposes to work with Ofcom to improve its modelling so it more accurately reflects the current and future costs of providing access services.

⁸ Voluntary Commitments were submitted by BT plc as part of its formal notification to Ofcom dated 10 March 2017 under section 89C of the Communications Act

will not stack up for many years to come, and the WLA impacts make the cases more difficult not less difficult.

2.25 Openreach is consulting with its customers on how to drive additional fibre investment and the regulatory challenges this involves, e.g. fibre cutover and the options for cost recovery. A regulatory approach is needed which works with the grain of the voluntary commitments and the steps which Openreach is making to work proactively with customers and industry more generally to identify a route forward for the next wave of investment.

2.26 Equally, any assessment of the success of the Openreach arrangement by reference to market outcomes (in particular levels of investment) should take into account the impact of Ofcom's regulatory intervention to avoid mis-attributing outcomes which are deemed unsatisfactory.
Ofcom's market analysis underpins the lack of coherence in Ofcom's regulatory approach

2.27 Ofcom believes that SFBB customers require protection against the risk of high prices because the constraint on SFBB services exerted by standard broadband ("SBB") is thought to have weakened, and competition from Virgin Media (a "single, smaller competitor") is not deemed enough to constrain VULA prices to a competitive level.⁹ These constraints are significantly understated by Ofcom due to the limitations of Ofcom's market analysis.

Standard broadband remains an important constraint on superfast broadband pricing

2.28 Ofcom has not demonstrated that market and demand conditions have changed sufficiently (or will do so over the market review period) to justify a different conclusion to that reached in 2014 on the constraint exerted by SBB. SBB has been an important constraint on SFBB and remains a relevant constraint even if the market is moving towards greater fibre take-up.

2.29 BT expects a significant proportion of customers will continue to regard SBB as a sufficient and viable substitute for SFBB services, sufficient to constrain the pricing of SFBB services for the following reasons:

- Customers indicate very high levels of satisfaction with their current broadband speeds. 82% of SBB customers say that their broadband speed is sufficient for their household, and 90% of SFBB customers say that their broadband speed is sufficient for their household.¹⁰ A material proportion (43%) of customers indicate that they probably would not, or would never, upgrade to superfast speeds.¹¹
- Customers are price sensitive and clearly prioritise price over speed. BT's consumer research indicates that the [3<] reasons given for purchasing choices were price related. Only in [3<] rank came reasons related to receiving higher speeds.¹²
- There is little evidence that SFBB has (or will) become "must have" in the sense of unlocking apps and services which cannot be accessed using SBB (or if accessed, at lower quality). The most popular internet activities (with the exception of high

⁹ See paragraph 8.25 to 8.28 of the WLA MR.

¹⁰ See paragraph 3.30 of the WLA MR, footnote 63. See Annex 1, paragraphs A1.17 to A1.25.

¹¹ See paragraph 3.31 of the WLA MR. See Annex 1, paragraphs A1.17 to A1.25.

¹² Source: [3<] BT commissioned survey. See Annex 1, paragraphs A1.28 to A1.29.

definition video and gaming) do not have high bandwidth requirements.¹³ Even for video, compression technologies will reduce the bandwidth requirement of content apps¹⁴

and high use scenarios (e.g. simultaneous 4k streaming) are unlikely given that 4k devices and Ultra HD content are not yet commonplace.¹⁵

- 2.30 More generally, SFBB take-up is driven by marketing activities and attractive retail packaging more than it is driven by customer need.¹⁶ Recent take up of fibre, for example, has been driven by Sky and TalkTalk marketing more strongly after a period of several years when they chose not to.¹⁸
- 2.31 Customers are price sensitive and the incremental price for higher speed has to reflect customer valuation in order to entice the remaining SBB customers to make the price/quality trade up (and avoid SFBB customer making the price/quality trade down).¹⁹ It is not the case that a significant price differential has now emerged between SFBB and SBB that had not been present in 2014, either across the market or for BT specifically. On the contrary, the premium charged for an entry level unlimited SFBB product over an unlimited SBB product has decreased.¹⁷ Pricing does not, therefore, support Ofcom's hypothesis of greater demand for fibre and its reduced substitutability with copper.¹⁸
- 2.32 Ofcom itself (in its 2016 Connected Nations report) notes that the rate of migration from basic to superfast broadband is slowing and that providers will need to work harder to entice customers to switch including through offering lower prices.¹⁹ Ofcom's

¹³ Ofcom's Communications Market Report 2016 indicates that the top activities online are general browsing, sending and receiving emails, online shopping, banking and using social networking sites. In 2014, Ofcom concluded in the WBA Statement that this pattern of usage did not indicate that take up of SFBB was driven by specific uses; "[t]he adoption of SFBB appears to result in users spending more time on applications already used with CGA, rather than new applications, suggesting the take-up of SFBB is not driven by specific uses." WBA Statement 2014, para 3.57.

¹⁴ Ofcom has taken no account of the fact that the broadband speeds needed by customers are related to compression technology. With technological advances in compression techniques, the amount of bandwidth needed for any particular service decreases.

¹⁵ See Annex 1, paragraphs A1.4 to A1.16.

¹⁶ Virgin Media, for example, automatically upgrades broadband subscribers to faster speeds (e.g. the lower tier moved from 50Mbps to 70 Mbps in 2015) at no extra cost. ¹⁸ See Annex 1, paragraphs A.12 to A1.27 ¹⁹ See Annex 1, paragraphs A1.28 to A1.32.

¹⁷ See Annex 2 which compares market average prices and BT's prices for SBB and SFBB services, between June 2014 and April 2017.

¹⁸ In any event, Ofcom has not undertaken any empirical analysis of likely switching in response to a price increase (in either the SBB or SFBB price) and cannot therefore reach any firm conclusions on the nature of the constraint between SBB and SFBB.

¹⁹ Ofcom notes that "[t]he rate that new subscribers are migrating from basic broadband services and adopting superfast services appears to be slowing, dropping from 31% in the year to 2014, to 15% over the past year."²² Ofcom goes on to suggest that "[i]n order for superfast broadband take up to continue growing at the same rate as it has in the past, providers may need to consider new approaches for attracting customers, including

own research and commentary (outside of the WLA market review), therefore, is consistent with a constraint on fibre pricing exerted by standard broadband products.

- 2.33 Analysis of competition within and outside the Virgin Media footprint supports arguments made above: we estimate, [X]. This suggests that broadband speeds across the entire spectrum (from SBB to Virgin Media's 100Mbps+ services) compete effectively with each other and consumers' decisions may be driven more by [X] than by line speed, and the take up of fibre continues to be highly influenced by providers' commercial strategies.²³
- 2.34 The impression given by Ofcom that customers are clamouring for higher speeds with SBB becoming an increasingly unattractive alternative is not, therefore, accurate. By and large, customers are satisfied with what they have, but do care about price and would not (without the push of an attractive proposition) consider higher speeds (and might even spin down if the extra benefit is not seen to be value for money).
- 2.35 On this basis, BT expects that take up of fibre will be less than estimated by Ofcom over the review period.

Competition from Virgin Media has been understated

- 2.36 Virgin Media's relative strength in SFBB (and the consequential constraint on BT) has not been properly acknowledged by Ofcom in its market analysis given its technical advantages, faster speed services, cheaper prices and widening geographic presence.
- 2.37 The very strong vertically integrated presence of Virgin Media, within a geographic footprint which will expand to 60-65% of the UK by 2020²⁰ (plus its presence on individual new build sites) is a significant competitive constraint on BT and Openreach services. Virgin Media's share of fixed access connection nationally has increased from 16% of fixed access connections in the UK (CGA and NGA lines combined) in 2010 to 20% today and is projected to increase to around 25% by the end of the review period. This is a material expansion in share at the expense of Openreach. Within its footprint, Virgin Media's share is significantly larger at approximately 40%.
- 2.38 Virgin Media is upgrading its network²¹ and now offers services with download speeds of 300 Mbit/s (compared to BT's highest widely available download speed of 76 Mbit/s for FTTC).²² As noted by Ofcom, later versions of Virgin Media's technology could support, in theory, download speeds of up to 10 Gbit/s and upload speeds of up to 1 Gbit/s.²³ Ofcom accepts the pressure on BT to invest in order to deploy faster

articulating its benefits more clearly and lowering prices further." (paras 4.57 and 4.60, Connected Nation 2016)²³ Annex 1, A1.37 to A1.39.

²⁰ The majority of Virgin Media's network expansion will be FTTP technology. See paragraph 2.19 of the WLA MR.

²¹ Virgin Media has been offering super-fast broadband services since the end of 2008, and it completed the rollout of a 50 Mbit/s capability across its entire network in Q3 2009.

²² Virgin Media's fibre network can be easily upgraded to offer higher speeds which allows it to stay one step ahead of its SFBB competitors. More specifically, the DOCSIS3 cable interface standard permits the addition of highbandwidth data transfer to an existing cable TV system.

²³ See paragraph 2.18 of the WLA MR.

broadband due to Virgin Media's regular and ongoing technology upgrades.²⁴ Indeed Ofcom cites this as an example of the benefits to customers provided by network competition.²⁹

- 2.39 At the retail level, Virgin Media is a very strong competitor. Ofcom accepts that there is "fairly strong substitutability between the different SFBB services that are currently being delivered by fibre and cable."²⁵ In addition to the speed advantages described above, Virgin Media has access to a range of attractive TV content and was also the first of the four main retail broadband providers to be able to offer quad-play services, which it has been able to do since 2007.
- 2.40 Given its retail advantages and widening geographic presence, Virgin Media constrains BT's pricing at the retail and wholesale level (notwithstanding that national prices are set at both levels) and Ofcom has provided no evidence whatsoever to the contrary.
- 2.41 More specifically, [X].²⁶ In any event, the constraint that Virgin Media exerts on Openreach's prices given its own network capability and investment programme, should be measured by reference to a dynamically efficient price (i.e. one which is capable of supporting efficient investment).
- 2.42 BT's downstream businesses [X].
- 2.43 In summary, Ofcom's provisional conclusion that the risk of excessive VULA prices is no longer mitigated by the constraint from copper-based broadband services and competition from Virgin Media in certain parts of the country, is not supported by the evidence. SBB remains an important constraint on SFBB and Virgin Media is eroding Openreach's share of local access lines as well as competing strongly in the retail market.

The proposed regulatory model is complex, self-perpetuating and overly restrictive

- 2.44 BT is concerned that Ofcom is moving to a regulatory framework where Openreach is regulated by default, creating an unlevel playing field with network rivals.
- 2.45 The WLA market has become a broad and deep market in which BT is found to have SMP by reference to a fixed local access definition which gives rise to certain anomalies, for example:
- Ofcom found BT to have SMP in relation to fibre-based local access from the moment it invested in NGA despite these services being fairly nascent and BT facing competition from Virgin Media who commenced NGA roll-out earlier (2008) and was, therefore, a larger player in terms of both NGA deployment and take-up.
 - Ofcom has also taken a national rather than a local view despite there being geographic areas in which BT is not the local access provider (e.g. new builds) or has fewer access connections than Virgin Media (e.g. if measured by reference to higher speed service).

²⁴ See paragraph 4.8 of the WLA MR: "BT's recent announcement of G.fast investment plans was in the context of Virgin Media offering a maximum service speed of 200 Mbit/s compared to a maximum of 80 Mbit/s available from Openreach using its current FTTC network." ²⁹ See paragraph 4.8 of the WLA MR.

²⁵ See paragraph 3.47 of the WLA MR.

²⁶ Ofcom has provided no empirical evidence, nor cited any internal documents, supporting the academic thesis that BT might be using uniform pricing in order to signal less aggressive pricing in order to induce rivals to price less aggressively too (see paragraph 3.106 of the WLA MR). This would effectively amount to coordinated behaviour but Ofcom provides no evidence whatsoever to substantiate such an allegation.

- 2.46 These anomalies in market definition give rise to tensions in the way Ofcom has devised remedies, which do not reflect the nuances in BT's actual market power across different geographic or product segments of the WLA. The decision to grant a degree of pricing flexibility in relation to VULA was more judicious in reflecting the tensions arising from regulating, from the outset, a new and risky service, where supply costs and demand benefits were uncertain and where competitors (in particular Virgin Media) were also investing.
- 2.47 Ofcom has a very broad discretion to intervene, with remedies used as the tool for advancing policy objectives. Ofcom has signalled, for example, its intention to require BT to provide wholesale access at different points in the value chain to facilitate the transition to greater network competition.
- 2.48 Intervening at multiple points in the value chain would not be appropriate as the market and competition evolves, creating more distinct competitive conditions at different points in the value chain and in different geographic areas.²⁷ There is a need, therefore, for an analysis of how economic bottlenecks will evolve and what this means for market definition and where Ofcom should focus its intervention. Ofcom should avoid distorting competition between BT and rival network operators through its approach to broadband regulation.
- 2.49 More specifically, in future market reviews, Ofcom will need to re-consider both product and geographic market boundaries: the direction of travel should be signalled now. It may, for example, be the case that a physical infrastructure market is appropriate which is distinct from activities further down the value chain which are potentially contestable. Ofcom has also acknowledged the possibility of sub-national geographic markets reflecting the boundaries between contestable and non-contestable areas.
- 2.50 Ofcom should move as swiftly as possible to a framework that is more attuned to the variety in competitive conditions that network rivalry will bring, consistent with its legal obligation to identify and evidence a specific theory of harm and resolve it with a remedy that is justifiable, proportionate and in the least intrusive fashion.²⁸
- 2.51 Beyond this, there is a risk of asymmetry in Ofcom's approach. If third parties invest in ultrafast networks (e.g. FTTP), in part relying on physical infrastructure access, Ofcom will regard such investment as pro-competitive and outside the regulatory remit. In contrast, if BT invests in ultrafast networks in response to the threat of third party investment, this will be tied to its existing position as a provider of local access (albeit for legacy access technologies) and brought within the scope of regulation (albeit without, initially, charge controls).
- 2.52 There is a risk, therefore, of BT being subject to a regulatory regime by default. This is unreasonable and inappropriate. If Ofcom sees de-regulation acting as a spur for third party investment in ultrafast investment, then Ofcom should also ensure that the regime promotes BT's incentives to invest. In particular, Ofcom should signal the opportunity for de-regulation (or lighter regulation) where BT's investment is led (and constrained) by market factors – e.g. where large customers are consulted or indeed

²⁷ As Ofcom states "[w]e are at an important juncture in the development of the networks that will serve the needs of the UK in the future. In particular, network competition would make the decisions about how to serve the needs of customers in the future contestable", see paragraph 4.12 of the WLA MR.

²⁸ Section 47(2) of the Communications Act.

directly involved through co-investment; and/or where BT is constrained by the risk of losses to network rivals which might, going forward, include wholesale losses if rivals adopt an open access model.

2.53 In this context, Ofcom should exclude nascent services from the WLA market definition or, at the very least, exercise appropriate forbearance before imposing remedies (and provide clear signals in advance that this will be the case).

BT is committed to driving up service standards but these must be achievable and offer good value for money

2.54 As regards service, BT supports regulatory actions designed to deliver a step change in quality of service, in particular the explicit recognition of service targets and the provision of funding through charge controls. Service targets must be achievable, good value for money and proportionate but most importantly, any uplift in service should come at a price that final customers are willing to accept (as discussed further in section 4). Ofcom is setting minimum standards, not targets, so they should be set at levels that Openreach can reasonably be expected to achieve, not at any cost. We do not believe that Ofcom's current proposals achieve these objectives.

3 Promoting investment by BT and other infrastructure providers

Introduction

3.1 It is in Ofcom's interests to create an environment that is conducive to investment. Ofcom is seeking to promote investment in wider coverage and new ultrafast networks by BT and others. We continue to invest in our network to meet growing demand for fibre. This section explains why we think that Ofcom's WLA proposals do not, however, strike the right balance between the short term goals of protecting consumers and competition, and the goal of encouraging investment.

3.2 In particular, we note that Ofcom has not appropriately weighed up short term benefits from price reductions against long term harm from a lack of investment. As regards investment incentives, we consider that the drivers for investment in ultrafast networks identified by Ofcom are implausible.

3.3 Furthermore, Ofcom's proposals understate the costs of supply incurred by Openreach to date and expected to be incurred over the period of this review, and will not, therefore, allow Openreach a fair return even before considering the impact on ex ante investor expectations.

3.4 More generally, Ofcom's approach to assessing and putting into practice the 'fair bet' principle is not consistent with the objective of promoting investment in risky assets and this will inevitably chill incentives to invest going forward.

3.5 Finally, we set out why a charge control regime for an asset that BT continues to invest in will inappropriately limit our commercial flexibility to the detriment of customers.

Ofcom has not assessed the potential trade-off between short-term and long-term customer benefits

3.6 Ofcom acknowledges that short term price rises may be acceptable if there is otherwise a risk of harm to investment which delivers longer term gains. Ofcom states "[i]nterventions to encourage investment in new infrastructure must take account of the risk that they could result in higher prices for consumers. However, the risk of short term price rises may be outweighed by the harm caused by a lack of investment altogether."²⁹ (emphasis added)

3.7 Ofcom's proposals imply precisely the opposite conclusion – i.e. that the risk of higher prices in the short to medium term is not outweighed by potential harm to investment, and that Ofcom can significantly reduce short term prices through regulation without compromising the long term benefits to customers from greater investment and competition.

3.8 Ofcom appears to reach this view on the basis that it will take "some time" before competitive fibre investment across a significant proportion of the country is achieved, and certainly beyond the end of the review period.³⁰ In the meantime, Ofcom provisionally finds that a charge control is necessary in order to protect customers from the risk of higher prices.³⁶

3.9 The fact is that competitive fibre investment is already present – a £3bn investment by Virgin Media is underway. Even if it were some years off, this is not a reason to gamble with the viability and attractiveness of this investment by slashing the prices of existing services.

3.10 Although deployment of full fibre at a level that Ofcom would consider "competitive" is not expected in this review period, decisions are likely in this period which will shape: (i) the capabilities of UK infrastructure to meet customer demand over the next decade; and (ii) the effectiveness of network competition which Ofcom has identified as delivering significant customer benefits and wishes, therefore, to promote. The UK needs an open debate on the future of UK infrastructure and how to build and pay for this and Ofcom's proposals risk prejudging the outcome of this dialogue by seriously undermining investment incentives.

3.11 In economic terms (and also acknowledged in Ofcom's legal duties), Ofcom is required to weigh up short-term static gains against longer term dynamic benefits.³¹ If the latter are remote and unlikely to be significant there may be merit in prioritising the short term welfare gains from price reductions (whilst respecting the need for cost recovery). If the dynamic gains are potentially significant, however, then Ofcom should err on the side of caution.

²⁹ See paragraph 1.21 of the WLA MR.

³⁰ See paragraph 4.20 of the WLA MR and footnote 124 which states "[w]e note that our vision of 40% of homes being reached by competitive FTTP networks in ten years is broadly equivalent to around one million homes passed per year, but within this review period, taking account of the time to invest and ramp-up of rollout, the rate may be considerably lower."

³⁶ See paragraph 8.35 of the WLA MR.

³¹ The need to balance these objectives is recognised in the Communications Act which includes a duty on Ofcom to promote consumer interest as well as efficient investment and innovation (see sections 3(1), 3(4)(d) and 4(8)(aa)).

3.12 Ofcom clearly believes that the longer term dynamic gains are significant and not remote. It states

“... network competition provides much greater scope for product differentiation and is a more effective spur for innovation. For example, investing in their own networks gives providers full control over the quality of service provided. Competing telecoms providers can strive to win customers and generate higher margins by offering a better service than their competitors, in terms of both speed and reliability. Network competition is therefore a powerful driver of continued investment in high quality networks, delivering long term benefits to consumers. By exposing more of the value chain to competition, network competition also provides strong incentives for firms to innovate to become more efficient and reduce costs.”^{32 33}

3.13 It is clear that any detriment to customers from higher prices in the short term would easily be outweighed by longer term dynamic benefits of this scope and magnitude.

3.14 Not only are the dynamic gains, as described by Ofcom, potentially vast, but the risk of short term consumer detriment from higher prices is mitigated by vigorous price competition between retailers including Virgin Media (a network rival) and rivals with different commercial strategies which reflect their strengths across elements of the retail bundles now purchased by the majority of customers. Nor should Ofcom lose sight of the fact that competition extends beyond price levels to price structures, innovation, marketing, efficiency and other matters; all of which deliver significant benefits to customers. Ofcom has not addressed this trade off at all.

3.15 In short, Ofcom has not assessed whether the gains from short term price reductions to customers are realised at the expense of longer term customer benefits from more vigorous network competition if investment is deterred. This is not reasonable given the emphasis which Ofcom places on the network competition as a strategic priority. Nor has Ofcom undertaken a proper analysis of the risk to customers in the short term if pricing flexibility is retained, and the scope for any risks to be mitigated by the constraints on broadband pricing arising from vigorous existing competition.

The drivers for investment in ultrafast networks identified by Ofcom are implausible

3.16 Ofcom believes that *“as higher bandwidth services become more important, the business case for ultrafast investment is likely to strengthen and help to bring about a strategic shift to large scale investment in fibre.”*³⁴

3.17 In this context, Ofcom proposes to allow pricing flexibility for BT in relation to higher speed variants of broadband under VULA regulations³⁵ consistent with the risky nature of BT's investments (e.g. due to uncertainty over customer demand for higher speed services).

³² See paragraph 4.6 of the WLA MR.

³³ Ofcom also states “given the potential for significant consumer benefits, we want to incentivise operators to build new networks rather than rely on buying access from BT.” (emphasis added), see paragraph 8.5 of the WLA MR.

³⁴ See paragraph 1.2 of the WLA MR.

³⁵ See paragraph 8.61 of the WLA MR which states “We propose not to control the price for BT's wholesale access services designed to support ultrafast broadband, but to allow BT flexibility in setting its wholesale prices for these services. This reflects our objective to encourage competitors to invest in building new networks.” ⁴² See paragraph 8.39 of the WLA MR.

- 3.18 Rivals are expected to move towards building rather than buying over time to gain competitive advantage by investing in ultrafast networks relative to rivals who continue to rely on (less tightly regulated) Openreach access products for ultrafast services.
- 3.19 Ofcom does not, however, assess the extent to which investment opportunities are diminished by regulating an anchor product (namely VDSL 40/10) which is a close substitute for higher speed variants, and which will remain so for some time to come.
- 3.20 Put simply, the anchor product is capable of meeting the needs of the vast majority of users now and for several years to come. A steep reduction in the price of the 40/10 wholesale product (as proposed) will limit prices which can be charged for higher speed products. In other words, prices for speeds higher than 40Mb/s could not be sustained in the face of a 40% price cut in the 40/10 wholesale product.
- 3.21 Ofcom confirms that it expects the anchor constraint to operate in this way; it states *“we believe there will be fairly strong substitutability between different SFBB services, so the charges for the 40/10 service will constrain charges for services at other bandwidths.”*⁴²
- 3.22 In short, prices (across the bandwidth spectrum) are likely to be dragged down, and revenue will leave the industry as a consequence, such that, in all likelihood, BT’s and others’ investment in ultrafast networks will be reduced. The impact on FTTP, in particular, is severe as this is likely to require a “cutover” model in order to be viable³⁶ and, as such, reduced wholesale prices across the bandwidth spectrum would reduce total returns on such investment significantly.
- 3.23 BT is aware of one estimate (a broker analysis) that suggests the effect of Ofcom’s proposals could be to reduce commercial coverage by a rival supplier very significantly.³⁷ There is no indication that Ofcom has performed a similar assessment in order to give this effect the due consideration that is warranted.
- 3.24 As indicated above, the proposed intervention also pre-judges the outcome of industry consultation and dialogue on how to drive additional fibre investment and possible delivery and cost recovery models (which might include retaining price flexibility for SFBB as a platform for supporting a scale deployment of ultrafast if this provides risk mitigation advantages over other options).
- 3.25 In addition, Ofcom appears to have arrived at these conclusions without conducting an appropriate cost/benefit exercise, assessing the proportionality of its determination, or seeking to identify more proportionate means to address its alleged concerns. This approach cannot be considered as sufficient to meet Ofcom’s legal obligations set out in paragraph 3.55 to 3.62 below.

Ofcom has understated the costs that Openreach has incurred to date and expects to incur over the period of this review

- 3.26 Ofcom has significantly understated the costs of delivering and improving services to Openreach's customers. In the case of copper products, this results in a revenue shortfall of around [X] over the charge control period. In the case of fibre, a major gap exists between Ofcom's bottom-up fibre model and the Openreach fibre commercial business case of over [X] of opex and capex for the 4 year period until the end of the next controls. Ofcom has understated the expenditure needed on NGA capacity and made incorrect assumptions on NGA volumes.

³⁶ An issue which will be explored as part of the Openreach industry consultation.

³⁷ HSBC Global Research, 21 April 2017, UK telecoms, Price controls = Less networks.

Openreach sets out, in its response, the areas where it would like to work with Ofcom to take into account the most up-to-date evidence on both copper and fibre cost and volume estimates.

3.27 Ofcom's estimation of the lifetime project returns for our SFBB investment is also wrong as it understates the costs Openreach has faced and will face in delivering fibre services. The latest update of the commercial NGA business case (supplied by Openreach under separate cover) shows that Ofcom's WLA proposals would take our 20-year internal rate of return ("IRR") down to [3%], below Ofcom's view of the relevant cost of capital.

Ofcom has misapplied the fair bet rules to BT's SFBB investment running a high risk of regulatory failure

3.28 Applying the fair bet principle, Ofcom believes that BT has had a fair opportunity to make a return on its original risky SFBB investment. Ofcom reaches this view on the basis that:

- Ofcom is proposing to intervene after expected payback;
- BT will still make an internal rate of return of 11.8% over the lifetime of the project (15% without intervention);
- BT's FTCC investment was planned and implemented in stages, thereby mitigating risks; and
- BT's returns are currently well above the cost of capital and will remain high without intervention.

3.29 These points are now addressed in turn (and referring to an analysis undertaken for Openreach by Oxera with support from Julian Franks on the relevant analytical framework for considering the fair bet and Ofcom's approach by comparison – the "Oxera" report).³⁸

Ofcom has not applied the relevant corporate finance and economics principles

3.30 Ofcom regards regulation after expected pay-back as consistent with the fair bet, and possibly before if returns become very high (i.e. significantly above the benchmark cost of capital) and Ofcom does not identify significant downside risk.³⁹ Ofcom finds that BT would have expected payback on the first tranche of its FTTC investment to occur within the period spanned by this review (2018/19 to 2020/21).⁴⁷ Ofcom explains its reasoning as follows:

*"If BT knew that it would not be subject to price regulation in the expected payback period, then it would expect to earn an NPV of at least zero and would therefore choose to invest."*⁴⁰

3.31 This does not, however, represent a coherent articulation of the corporate finance and economic principles which are relevant to an assessment of the fair bet. These principles are set out in the Oxera report and may be summarised as follows:

³⁸ The Oxera report can be found at Annex 4 to the Openreach submission.

³⁹ See paragraph 8.20 of the WLA MR which states: "Setting a cost-based charge control at, or after, the original expected payback period for an investment should be sufficient to ensure a fair bet, and to the extent that the charge control subsequently allows a return on undepreciated assets, setting a charge control at the point of payback would be generous to BT." See also Annex 8, paragraph A8.8. ⁴⁷ See paragraph 8.20 of the WLA MR.

⁴⁰ See paragraph 8.5 in Annex A to the WLA MR.

- There are three key parameters relevant to an investment decision namely: (i) the project-specific cost of capital, taking account of the systematic risks of the project; (ii) the expected returns over the lifetime of the project, taking account of upside and downside scenarios and; (iii) the distribution (or “spread”) of returns, which captures cash-flow risks.
 - Any regulatory intervention must ensure that if investors had known about the intervention at the outset (and factored it into their expectations), the return they would expect to earn over the life of the project would still be equal to the project specific cost of capital.
 - Consistent with incentive-based regulation, investors should be allowed to earn returns in excess of the cost of capital from higher than expected efficiency or technology gains.
- 3.32 Following these principles, the Oxera report reaches the following conclusions on when regulation would be consistent with the fair bet principle and when it would not.
- 3.33 In circumstances where the expected IRR at project inception is equal to the project specific cost of capital, any cap on total project returns due to regulation would not honour the fair bet. This is because the cap (had it been known at the outset) would have led investors to change their expectations about lifetime returns such that they would fall below the project specific cost of capital, rendering the investment unattractive.
- 3.34 Put simply, whilst an investor may decide to invest if expected returns are in line with the relevant cost of capital, it is inappropriate to cap returns to this level with the benefit of hindsight, because if investors had known that the upside would be capped in this way, then the returns would have been insufficient to compensate the investor for committing their capital and taking the project risk (and they would not, therefore, have done so). The Oxera report puts this point as follows:
- “By definition, capping returns at or below the cost of capital means that the expected returns on this investment at inception can only be lower than the cost of capital. This breaches the fair bet principle.”⁴¹*
- 3.35 Regulation may, however, honour the fair bet if intervention at some point during the life of the investment to cap the lifetime IRR (at level Y⁴²) does not result in expected returns being below the project specific cost of capital. More specifically, an investor at project inception, knowing that, ex post, project returns would be capped at Y, must still expect to earn a return equal to the project specific cost of capital.
- 3.36 The Oxera report highlights that caution is required in identifying Y which may be understood as a threshold: (i) above which returns could be considered excessive; and (ii) below which regulatory intervention would not honour the fair bet. In particular, care must be taken not to penalise good management by clawing back efficiency or technology gains.⁴³ Moreover, in practice, company boards may consider an expected

⁴¹ See page 2 of Oxera report.

⁴² Where Y is the project specific cost of capital plus a delta (D).

⁴³ In other words, when assessing the level of project risk facing investors at project inception (i.e. the distribution of project returns), consideration should be given to uncertainty about efficiency performance. All else equal, the level at which project returns can be safely capped will be higher when allowing for this risk. Page 2 of the Oxera report states *“investors should be allowed and incentivised to earn adequate returns in excess of the cost of capital from (higher-than-expected) efficiency or technology gains, and these additional returns should not be clawed back through ex post regulation. In terms of the fair bet principle, this means recognising that efficiency performance is a facet of risk. Therefore,*

return equal to the cost of capital as an inadequate benchmark in light of inevitable uncertainties surrounding innovation projects and the fact that projects are competing for scarce capital and scarce managerial resources. The report flags that regulators may wish to consider this when setting a cap with the objective of incentivising future innovation.⁴⁴

- 3.37 The analysis of key investment parameters is critical and cannot be dodged because Ofcom takes the view that *“we cannot precisely understand now what investors perceived about the risks they faced at the time the investment was made.”*⁴⁵ As discussed further below, the Oxera report finds that Ofcom has not undertaken a detailed analysis of the relevant investment parameters and therefore its proposals run a high risk of regulatory failure.⁴⁶

Ofcom makes arbitrary allowances for risk in assessing performance of the investment against initial expectations

- 3.38 Ofcom highlights that, absent a charge control, BT’s IRR on its commercial FTTC investment would exceed 15% which Ofcom indicates is *“well above BT’s cost of capital”*.⁴⁷ Ofcom’s proposals will bring this down to 11.8%.⁴⁸ Ofcom also points to ROCE as reported in the RFS, noting that, while returns were well below the cost of capital in the early years of supply, they are now above the cost of capital and expected to *“continue to rise as demand for higher bandwidths continues to grow”*.⁴⁹
- 3.39 These estimates do not justify imposing charge control price regulation. Firstly, a ROCE measure of returns is inappropriate as an indicator of investment performance or of excessive pricing. Ofcom itself notes that *“[h]igh returns on capital are not necessarily an indication of prices being above the competitive level – a pattern of early accounting losses offset by later profits might be appropriate where a new product is introduced and volumes are initially low.”*⁵⁰
- 3.40 Secondly, when looking at a specific project, Ofcom should consider the project-specific cost of capital at the time of investment, which it has not done. As clarified in the Oxera report, in order for Ofcom’s intervention to be consistent with the fair bet, it must be the case that the project specific cost of capital is below 11.8%. The Oxera report finds that Ofcom’s price control proposals are not consistent with the fair bet principle because they estimate the relevant project specific cost of capital to be towards the top end of their estimated range of 11.4% to 12.8%.⁵¹

when estimating Y, the assumed distribution of returns needs to be wide enough to capture the cash-flow risk of managerial outperformance and underperformance”.

⁴⁴ See footnote 13 of the Oxera report.

⁴⁵ See paragraph 8.18 of the WLA MR.

⁴⁶ See page 2 of the Oxera report.

⁴⁷ See Annex 8 paragraph A8.22 of the WLA MR. Ofcom calculates IRR at the Openreach level on BT’s commercial investment over 20 years (including the period subject to a cost based charge control).

⁴⁸ See paragraph 2.94 of Volume 2 to the WLA MR.

⁴⁹ See Annex 8 paragraph 8.22 of the WLA MR.

⁵⁰ See paragraph 8.31 of the WLA MR. ROCE is not an appropriate indicator of levels of profitability of products that require significant upfront investment. This measure fails to reflect profitability over the lifetime of a product (including the early years when losses were incurred) and focuses instead on a snapshot view of commercial performance later in the life of that product, when earlier losses are being recouped.

⁵¹ See page 2 of the Oxera report.

Ofcom downplays the perceived riskiness of BT's initial investment

3.41 Ofcom highlights that the implementation of BT's investment in stages allowed tranches to be staggered, and market conditions to be assessed at each successive stage. Ofcom concludes that "[s]uccessive investments would have faced less risk as demand and technology uncertainty reduced."⁵²

3.42 While, it is the case that BT undertook its FTTC investment in tranches, it is not the case that this significantly mitigated ex ante risk for the following reasons:

- In each successive tranche of investment, take-up of services remained low. In fact, peak capital expenditure was incurred in 2012/13, by which time BT had invested over [X], when take up was only around [X]. This was under [X] of the level assumed in the base case, and came almost entirely from BT's downstream businesses contrary to expectations that demand would be more evenly spread between internal and external customers. Uncertainty remained, therefore, about if and when demand would materialise in line with base case forecasts. There was also considerable uncertainty about customer willingness to pay a premium for higher speeds.
- BT also faced significant technology risk, namely the risk that alternative technologies might emerge at a future date when costs to rollout could be lower and/or for which capabilities might be more attractive to end users.

3.43 Ofcom's suggestion that demand for bandwidth was growing and so investment risk was low is an over-simplification. The uncertainties relating to demand were articulated by major CPs and by Ofcom itself. For example:

- Jeremy Darroch, BSkyB CEO, said in November 2010 that: "*If there is demand for fibre from our customers, we will look to provide that but we are not going to rush into that until we see real levels of customer demand that are attractive.*"⁵³
- Dido Harding, TalkTalk Group CEO, said in May 2014 commented that: "*...fibre is a premium product that really is only appealing to customers who've got poor broadband speeds*".⁵⁴
- Ofcom stated in its 2014 WBA statement "*the speed and extent of transition to SFBB over the period of this review is subject to significant uncertainty at this point.*"⁶³ (emphasis added)

3.44 A slower take-up of services would have reduced returns and pushed back payback significantly. Even if demand eventually emerged, therefore, the possibility of delay gave rise to significant commercial risk.

⁵² See paragraph 8.21 of the WLA MR.

⁵³ Financial Times, November 17, 2010.

⁵⁴ TalkTalk Telecom Group PLC Earnings Conference Call, May 15 2014. ⁶³

See paragraph 3.68 of the WBA Statement 2014.

- 3.45 For example, had demand materialised 2 years later than actually occurred, payback would have been pushed back by about [X]. Such an outcome is not unrealistic – we have reported previously that [X].⁵⁵
- 3.46 BT Consumer therefore played a key role in supporting a faster payback for the FTTC investment. Interventions aimed at decreasing prices for fibre services will lower incentives to provide anchor tenancy support to new investment going forwards, and this is a particular concern for ultrafast services where one or more motivated retail suppliers will need to be in the vanguard of marketing new services effectively in order to “make” the market. Any such retailer will be less certain of a reasonable payback on retail investments to deliver ultrafast volumes in circumstances where a close substitute is available at a low price.

The Oxera report finds that Ofcom’s price control proposals are not consistent with the fair bet principle

- 3.47 The Oxera report finds that Ofcom has not undertaken a detailed analysis of the key parameters relevant to BT’s FTTC investment decision, and therefore Ofcom’s proposed price regulation runs a high risk of regulatory failure.⁵⁶ In particular, Ofcom has no analytical basis upon which to assess whether or not its decision to cap the returns of BT’s FTTC investment at 11.8% would impact BT’s investment decision at project inception.

- 3.48 Oxera supported by Professor Franks has done such an analysis and conclude that:

“Our analysis suggests that Ofcom’s price control proposals are not consistent with the fair bet principle. In particular, we estimate that the relevant project-specific cost of capital for this investment lies within a range of 11.4–12.8%, with estimates lying close to the top of this range (i.e. above 12.1%) considered to be more representative of the risk profile of BT’s FTTC investment. This is considerably higher than Ofcom’s current cost of capital estimate for FTTC (of 9.4%), which is a forward-looking measure and therefore does not take account of the funding costs and risk profile of the investment at project inception, as required under the fair bet principle.

Ofcom’s proposed FTTC price controls will cap returns below this level. Knowing this, a rational investor is unlikely to have gone ahead with this investment. By definition, capping returns at or below the cost of capital means that the expected returns on this investment at inception can only be lower than the cost of capital. This breaches the fair bet principle.”⁵⁷

- 3.49 The Oxera report considers, in three independent ways, the level of reward that would be consistent with the fair bet (and not excessive) given the downside risks faced by investors at project inception (i.e. the appropriate level at which an ex post cap on project returns might be set – i.e. Y):
- The first approach estimates Y using the building blocks of the fair bet framework.⁵⁸ In particular, with expected returns of [X] (mid-point of the 20 year IRR range⁶⁸ in the 2008 business plan), a project specific cost of capital of 12.1% (at the mid-point of

⁵⁵ BT’s response to Ofcom’s discussion document, “Strengthening Openreach’s strategic and operational independence: Proposal for comment”, 4 October 2016, Section 3 paragraph 109.

⁵⁶ See page 14 of the Oxera report.

⁵⁷ See page 2 of the Oxera report.

⁵⁸ See section 3.2.3. of the Oxera report, section 3.2.3. ⁶⁸[

X] .

Oxera's estimated range) and a normal distribution of returns with a standard deviation of 3.5%, the level of capped returns would need to be at least [3.5%]. The Oxera report places more weight on the higher estimate given the conclusion that a cost of capital towards the top of their range is more appropriate, and the need for a price cap to be consistent with the incentive properties of RPI-X charge controls.⁵⁹

- The implied spread over the WACC that Ofcom appears to accept as consistent with the fair bet (and not excessive) is 2.4%.⁶⁰ Applying this to the range for the project specific cost of capital estimated by Oxera suggests that price regulation which caps FTTC returns at anything less than 13.8 – 15.2% would be inconsistent with Ofcom's own logic.
- The Oxera report also shows the spread of returns earned by private investors in Private Finance Initiative (PFI) projects, which share some characteristics with BT's FTTC investment.⁶¹ The report finds that BT's unregulated spread above the project-specific WACC (estimated by Oxera) is consistent with the observed spreads for nearly 50% of the PFI projects. The Oxera report concludes that, "*BT's unregulated spread is well within the range of spreads observed for other privately financed investment projects with similar characteristics.*"⁶²

3.50 All three of these approaches, therefore, indicate that a cap which appropriately recognises the ex-ante risk involved should be above 11.8% lifetime returns. The Oxera report concludes as follows:

*"...we present evidence and analysis that supports continued price flexibility during this market review and delaying the imposition of a cost-based charge control to 2020/21 (or any other profile of price controls capping returns at an internal rate of return (IRR) of 15%). Our analysis suggests that a price cap below this level runs the risk of breaching the fair bet principle, and could not be interpreted as being generous to BT."*⁶³

A charge control regime for an asset that BT continues to invest in will inappropriately limit commercial flexibility to the detriment of customers

3.51 The charge control regime proposed for VULA marks a fundamental change in Ofcom's regulatory approach in that Ofcom will play a key role in reviewing and agreeing cost recovery for BT's ongoing investment in its superfast fibre network.⁶⁴

3.52 Such regulation is premature and will have harmful consequences. The fibre network has not yet reached a steady state; investment by BT continues in order to expand the network coverage, to increase speeds and to improve the quality of broadband services to customers. The

⁵⁹ Oxera report, page 19-20. The report states "*it could be argued that a standard deviation at the top of our range would be more appropriate (i.e. 5%). This could preserve the incentive properties of RPI-X regulation and ensure there is no clawback of returns earned as a result of efficiency savings over and above expectations...this requires assuming a distribution of returns that is wide enough to capture the cash-flow risk of efficiency out- or under-performance.*"

⁶⁰ See section 3.2.1 of the Oxera report,. This is calculated by comparing Ofcom's proposed cap on BT's returns of 11.8% with Ofcom's estimate of the cost of capital for NGA (9.4%) suggesting that Ofcom considers a spread of 2.4% to be appropriate and in line with the fair bet principle.

⁶¹ See section 3.2.2 of the Oxera report.

⁶² See page 18 of the Oxera report.

⁶³ See page 2 of the Oxera report.

⁶⁴ See paragraph 1.30 of the WLA MR: "*we seek to allow BT the opportunity to recover the costs of network deployment, to the extent such costs are efficiently incurred. We consider that costs incurred in network expansion that provide customers with an improved quality of broadband service should be recoverable and, where we have imposed charge controls, the relevant costs should be taken into account in setting those controls.*"

proposed regulatory regime now requires this capex programme to be reviewed and approved by Ofcom, and appropriate allowances built into charge controls for the forthcoming review period.

3.53 The three yearly cycle would require BT to fit its investment plans into this timeframe. Additional investment identified during a cycle might need to be deferred unless there are good reasons to modify the charge control,⁶⁵ or BT commenced investment but with the risk of not recovering the full value of the investment. None of this is good for investment, and might restrict BT's ability to respond swiftly to customer needs or competitive pressures. In a dynamic and evolving sector, this regulatory oversight of BT's capex programme, and the constraint it places on our ability to respond to (or drive) market developments, is completely inappropriate.

3.54 Ofcom has not carried out a proper competition impact assessment and proportionality review of its proposed price cap in respect of the VULA service for the 40/10 product by reference to the risk of adverse effects or unintended economic consequences in Broadband Development UK ("BDUK") areas. Ofcom's proposals to introduce such a price cap could have significant adverse consequences for the rollout of SFBB in uneconomic "white spot" areas, where investment is supported by state subsidy under the BDUK schemes. We would like to engage further with Ofcom on this issue.

The proposed regulatory model is inconsistent with Ofcom's obligations

3.55 The exercise of Ofcom's power to set SMP remedies⁶⁶ are subject to a number of duties⁶⁷ and obligations requiring Ofcom to have regard to a range of factors including not only the protection of consumers but also promoting competition, encouraging investment and innovation, ensuring best regulatory practice, as well as ensuring that its regulatory activities are transparent and accountable, and that its approach is non-discriminatory, objectively justifiable and proportionate.⁶⁸

3.56 The requirement for proportionality means that the most severe remedies, such as price controls should only be imposed to address significant and enduring competition concerns. For the reasons set out above, BT is concerned that Ofcom has not provided sufficient evidence of the theory of harm it is attempting to address or compelling reasons why the proposed FTTC price controls are proportionate or necessary to deal with their concerns in comparison to the protections provided by the existing regime.

3.57 Furthermore, the weight given by Ofcom to protecting downstream competition and customers from excessively high SFBB prices in the short term is disproportionate, given the absence of compelling evidence of consumer harm and the evidence of constraints on Openreach's VULA pricing (which Ofcom has understated).

⁶⁵ Note however that any modification under section 47(1) of the Communications Act would need to continue to meet the requirement in section 88(3) that any change to the price control to a different level could only be imposed in order to protect consumers against excessive prices.

⁶⁶ See section 45(2)(iv) and sections 3 and 4 of the Communications Act implementing the requirements relating to Ofcom's duties set out in the Framework Directive and Access Directive.

⁶⁷ Sections 47 and section 88 of the Communications Act.

⁶⁸ Section 47(2) and section 88 of the Communications Act.

3.58 Equally, Ofcom has not given adequate consideration to its duty to promote efficient investment and innovation⁶⁹ in the long run. It has not considered the effect of the proposed charge controls on the incentives to invest by BT and other actual and potential network rivals, and has given insufficient weight to the risks of deterring investment by intervening too early. In fact, the Oxera report finds that Ofcom's price control proposals relating to GEA are not consistent with the fair bet principle; nor do the proposals provide strong incentives for other telecoms providers to invest in new ultrafast networks.

3.59 In addition, Ofcom does not consider any alternative remedies which could have a potentially less intrusive impact than the proposed fibre price control measures for example a safeguard cap. This places additional doubts on whether the requirement of proportionality and objective justification have been met in order to satisfy Ofcom's legal duties.

3.60 Finally, having received BT's voluntary Notification in the context of the DCR, Ofcom is required to take account of the effect of the Notification on existing SMP regulation⁷⁰ as soon as reasonably practicable. We do not believe that as part of this consultation, Ofcom has sufficiently considered the impact of BT's Notification on the SMP conditions.

3.61 The assessment is set out in few paragraphs which make two very general comments in a cursory way without sufficient reasoning.⁷¹ Ofcom concludes that it does "*not consider that any new SMP regulation is necessary specifically to take account of these arrangements and nor do we consider that any of our proposals are now unnecessary or requirement [sic] amendment.*"⁷²

3.62 This consideration and conclusion is insufficient to meet the requirements under section 89C(4)⁷³. In particular, Ofcom has not specifically taken into account the impact of Openreach's new status and enhanced independence on Ofcom's market analysis, or assessed the necessity and proportionality of each proposed remedy in line with its statutory duties.⁷⁴ For example,

- A fundamental aspect of the DCR related to a competition concern that Ofcom considered could undermine the incentive for industry to invest in fibre networks. In its March 2017 consultation document, Ofcom indicated that it considers BT's Notification to address Ofcom's competition concerns. In the current WLA consultation document, Ofcom however has not sought to reconcile the impact of BT's Notification on how it should apply its Communications Act duties, with the consequential risk that its charge control proposals are inconsistent and serve to undermine the promotion of future investment.

⁶⁹ See section 3(4)(d) and section 4(8)(a) of the Communications Act and Article 8(2) of the Framework Directive.

⁷⁰ Section 89C(4) of the Communications Act requires Ofcom, once it has received a notification under section 89C, as soon as reasonably practicable, to consider the impact that the proposal is likely to have on SMP services conditions set in relation to the services markets which, in Ofcom's opinion, will be affected by the proposal.

⁷¹ Ofcom notes that: (i) that the creation of Openreach Limited, with a majority independent board will enhance the existing arrangements and should secure greater operational and strategic independence for Openreach; and (ii) that, given the goals of the Openreach reform is to facilitate new models of investment, including co-investment, the new proposals, which include requirements for equivalence of inputs, will provide a greater flexibility for co-investment opportunities, with specific cases to be considered on their merits. See paragraphs 4.46 to 4.49 of the WLA MR.

⁷² See paragraph 4.49 of the WLA MR.

⁷³ Further to this, as noted above, the way in which the fair bet principle is applied by Ofcom as part of this consultation is unlikely to incentivise the co-investment models that the DCR review was designed to deliver.

⁷⁴ See sections 3 and 4 of the Act and Article 8 FD.

- The proposals relating to the SoR process⁷⁵ do not even mention the new processes set out in the Notification designed to encourage CPs to engage with Openreach in a more constructive way via the confidential stage of engagement which, arguably, makes the proposed amendments to the SoR process unnecessary.
- The proposed arrangements relating to the Equality of Access Board and Equality of Access Office also would not make sense once the details of BT's notification have been implemented.

3.63 Unless these issues are addressed, potentially via a supplementary consultation specifically dealing with this issue "*as soon as reasonably practicable*", we do not consider that Ofcom's current approach complies with the requirements of section 81C(4).

⁷⁵ See paragraphs 5.26 and 5.50, and in particular paragraphs 5.40 to 5.50 of the WLA MR.

4 Perspective of BT's downstream businesses

4.1 This section outlines the views of BT's downstream businesses⁷⁶ on aspects of the WLA proposals, in particular, the downstream impact of the proposed regulation of wholesale fibre prices and service regulation proposals.

Retail dynamics relating to Ofcom's proposed regulation of 40/10 fibre regulation

4.2 There is no detailed consideration or assessment by Ofcom of the impact on retail markets and final consumers of its proposed charge control regulation of the 40/10 version of VULA. However, the following market dynamics are asserted by Ofcom:

- the proposed charge control of the 40/10 service is expected to constrain the prices of higher bandwidth and ultrafast services;⁷⁷
- this is because Ofcom believes that telecoms providers are able to substitute between different high speed services suggesting that many final consumers do not face a strong need for higher speed services;⁷⁸
- the strong anchor is therefore expected to constrain unregulated higher bandwidth prices from being excessive;⁷⁹
- there will be scope for higher prices of higher bandwidth services to be higher⁸⁰ and as higher bandwidth services become more important, Ofcom envisages that the business case for competitive investment is likely to strengthen;⁸¹ and
- retail competition means that any reduction in VULA charges would, in general, be passed through to lower prices to consumers for both fibre and cable SFBB services.⁸²

4.3 BT agrees that strong retail competition will tend to lead to a high degree of pass through of lower charged controlled wholesale prices. In order to remain competitive, CPs who take wholesale products that are not subject to a charge control (such as BT Consumer) will need to see corresponding reductions.

4.4 CPs remain, of course, free to set prices for different speed products at a level that the market will bear, and will seek to do this in a way that delivers value to customers across both price and non-price aspects of retail propositions (and across different elements of retail bundles).

4.5 If however, CPs are unable to offer sufficient proposition differentiation to retain share on higher speed products (which may become more difficult after any 40/10 price reduction) then a potential consequence is a clustering around 40/10 which would be detrimental to customer choice, as the breadth of speed variation in broadband services may be restricted.

⁷⁶ BT Consumer, EE, BT Business & Public Sector, Plusnet and BT Global Services. A full description of the downstream businesses, the products they sell, and the customer segments they address, can be found at: <http://www.btplc.com/Thegroup/Ourcompany/Groupbusinesses/index.htm>.

⁷⁷ See paragraphs 1.38 and 8.43 of the WLA MR.

⁷⁸ See paragraph 3.51 of the WLA MR.

⁷⁹ See paragraph 8.43 of the WLA MR.

⁸⁰ See paragraph 1.38 of the WLA MR.

⁸¹ See paragraph 8.43 of the WLA MR.

⁸² See paragraph 8.33 of the WLA MR.

- 4.6 An adjustment down (at wholesale and retail levels) will remove cash from the industry which will make already challenging business cases for ultrafast (including FTTP) investment even more challenging.
- 4.7 Ofcom's confidence that value will emerge over time to support ultrafast investment as customers see the benefits of higher speeds is not explored or tested. Indeed, there may be barriers to such an outcome caused by the regulation itself. For example, if clustering around "standard" fibre service emerges (with ultrafast priced significantly above, and no pricing ladder along the bandwidth chain to encourage incremental take up) take-up may be muted, given the sensitivity of customers to price and a lesser interest in speed. As discussed above, BT Consumer research indicates that consumers continue to give priority to price over higher speeds in making purchasing decisions.⁸³
- 4.8 What is a lot more certain is that strong retail competition will rapidly remove the value that Ofcom has judged (without sufficient justification) to be "excessive" and therefore unnecessary to support investment cases. This has implications not only for upstream investment but the incentives of downstream entities to invest in marketing and equipment (e.g. routers) to support the move to ultrafast which are risky investments in themselves.
- 4.9 As noted above, incentives to provide anchor tenancy support to new investment will also be reduced because retailers will be less certain of a reasonable payback on retail investments to drive uptake of ultrafast services.⁹⁴ Further, the proposed intervention pre-judges the outcome of the industry consultation on possible models for driving additional fibre investment which BT's downstream businesses expect to participate in.
- 4.10 Ofcom's decision will have a significant effect on the retail market. In light of Ofcom's proposals CPs may need to incur costs of developing new marketing collateral and training call centre staff as a result of any new pricing plans. Ofcom should be aware of this and maintain an open and transparent process during the WLA consultation process in order for CPs to plan accordingly. **Service - BT's perspective as provider of retail services to customers and businesses**
- 4.11 BT serves residential consumers and business customers in its capacity as a retailer of telecoms (and other) services. Like other CPs, BT's downstream operations rely on Openreach to allow us to remain competitive in terms of price and quality of service, and to differentiate in this regard in order to provide choice and meet differing requirements and preferences.
- 4.12 Service must be sufficiently quick and reliable enough to avoid our customers churning to Virgin Media's cable network⁸⁴, or to use mobile voice and data services instead. Openreach and its retailing CPs need to work together to prevent this churn and remain competitive by providing strong service levels.

⁸³ See paragraph 2.29 above. ⁹⁴

See paragraph 3.46 above.

⁸⁴ Or to other providers. Additionally, the perceived quality of service provided by Openreach must be sufficient to attract new-site developers, to avoid Openreach, and in turn, BT, Sky, TalkTalk and others being excluded from this geographic pockets.

- 4.13 SMP obligations were established for Openreach in 2014 setting service quality standards covering provisioning and repair for WLR and MPF and in 2016 a single standard per care level was introduced covering both MPF and WLR. The current proposals continue this approach but set more demanding targets for broadband and telephone repairs and installations and they extend regulation to GEA.
- 4.14 Ofcom will maintain service regulation on MPF, SMPF but Ofcom is proposing different charge control regulation across these products. As part of the narrowband market review Ofcom has decided to remove the charge controls on WLR and as part of this market review, Ofcom is proposing to remove the charge controls on SMPF but maintain them on MPF.
- 4.15 In principle, appropriate service regulation can contribute to the improvement of quality of service for end-consumers and increased innovation. However, in tightening this regulation, Ofcom must carefully balance these benefits with the following risks:
- the different regulatory approach to WLR, and the proposed MPF charge control in particular, risks MPF charges reducing to a level which would result in shared costs being recovered only or predominately by WLR, potentially increasing the WLR charge. If this risk were to materialise, Ofcom's current proposals would re-create the regulatory asymmetry and distortion to competition between MPF based and WLR+SMPF based providers that formerly existed. Ofcom must therefore ensure it adjusts its MPF charge control proposals to avoid such regulatory asymmetry arising; and
 - where service regulation drives additional costs, which are then reflected in higher Openreach charges, these should align with end-customers' willingness to pay allowing the costs to be reflected in competitive retail prices. It would be perverse, for example, if the result of Ofcom's service regulation proposals, combined with its charge control proposals, forced CPs to switch to lower service levels in order to compete because Openreach's charges for higher service levels did not allow alignment with endcustomer's valuation of the extra benefits. Ofcom must therefore ensure the effect of its regulation is not to reduce innovation and consumer choice, in particular through CPs migrating to a single lower care level to remain competitive.