

BT response to Ofcom's consultation on promoting competition and investment in fibre networks - Wholesale Fixed Telecoms Market Review 2021-26

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¹ At time of writing, the UK is dealing with the COVID-19 pandemic. COVID-19 has already impacted existing operational plans and will continue to do so for some time to come. In addition, we also note the recently announced proposed merger of Virgin Media and O2. In this context, as the full impact of COVID-19 and the proposed merger become apparent, it might be necessary to change some of the positions set out in this submission. In those circumstances BT would make subsequent representations to Ofcom at the appropriate point in time and would expect Ofcom to fully consider any such further representations.

1. Executive Summary

- 1.1. BT is committed to upgrading the UK's digital infrastructure to help deliver faster and more reliable broadband widely across the UK to homes and businesses. The COVID-19 crisis provides a reminder of the importance of this. BT and Openreach will play a critical part in delivering these benefits to make sure that nobody is left behind. At our recent annual results, we announced a new target to pass 20m premises with full fibre by the mid- to late-2020s, conditional on critical regulatory and policy enablers (including those set out below). We have already made significant progress: Openreach has passed almost 2.6m premises and is on target to reach 4.5m by the end of March 2021.
- 1.2. The Government has set out the changes to markets and policy needed to help deliver world-class digital infrastructure in the UK. It envisages the promotion of competition and commercial investment, and intervention only where necessary. Where intervention is needed, the Government calls for stable and long-term regulation that incentivises network investment and ensures fair competition between operators.
- 1.3. Ofcom's proposals represent a significant step forward in creating the right conditions for competitive investment. We welcome proposals to support the retirement of our copper network so we can avoid the costs of operating two networks. Capping wholesale prices at inflation (with a modest premium for full fibre services) will help everyone's ultrafast business case and help us invest widely, including in harder to reach areas. But more is needed to unlock fully the scale and pace of investment needed to deliver the Government's ambition of gigabit-capable networks everywhere by 2025, and to enable our 20m contribution to this target.
 - **Ofcom should reconsider its market power finding** as Openreach does not have market power in ultrafast, or in certain areas for business circuits, when the competitive dynamics characterising markets today are properly considered.
 - **Ofcom should confirm that its pro-investment regulatory policy will endure as the market transitions from copper to fibre** and that the fair bet will be honoured by committing not to impose additional price regulation for at least 15 years, and by indicating (in advance and for each investment tranche) the level of risk-adjusted returns that BT will have the opportunity to earn.
 - **Consistent with the Government's strategic priorities, Ofcom should facilitate commercial arrangements that will deliver real benefits to customers** such as supporting investment in gigabit-capable networks at competitive prices, rather than putting in place undue obstacles that put these benefits in jeopardy.
 - **Ofcom should apply the same regulatory approach in non-competitive areas as elsewhere in the country to support investment by BT.** We intend to build in the more costly parts of the country and stand ready to make a commitment with the right regulatory pricing and long-term signals to help us get going quickly.
 - **Duct and pole access (DPA) will make it easier for others to build full fibre in competition with Openreach; we need a fair pricing regime to support this.**

Ofcom should set regulated prices which reflect the investment we have made, and will make, in our underground ducts and telegraph poles, and rivals should make a fair contribution reflecting their usage.

- **As markets become more competitive, our Commitments and regulation will need to evolve.** BT has no advantages from its control of Openreach in competitive markets so our downstream businesses should be on a par with rivals in being able to use Openreach inputs flexibly and competitively.

- 1.4. Full fibre investment is already accelerating and making telecoms markets more competitive than Ofcom has found. We address this first as it underpins what we think Ofcom could do differently to really put the UK in the fibre 'fast lane'.

Competitive forces are shaping outcomes to the benefit of customers making prescriptive regulation unnecessary

- 1.5. The key facts below illustrate how vibrant competition is in fixed telecoms markets. Virgin Media, the ultrafast leader (by a factor of 7x), has agreed a consolidation with O2 potentially creating a range of synergies and convergence opportunities;² it is also expanding as a fixed network operator and considering wholesaling and co-investment. Altnets are consolidating and scaling up their plans (enabled by DPA); and telecoms providers are shopping around and partnering with established and new networks to deliver competitive fibre services to homes and businesses.

Key facts

1. Ultrafast broadband speeds (at 300Mbps or above) are available to 53% of UK homes, of which c.10% is supplied by full fibre
2. Virgin Media has an ultrafast capable footprint in excess of 15m households; the latest cable technology, providing gigabit broadband, will be deployed across this footprint by 2021
3. Liberty Global (Virgin Media's parent) has applied to Ofcom for the necessary approval to start building networks and is willing to provide network access on commercial terms; Sky may participate as an investor and a customer
4. This, and Project Lightning, may increase Virgin Media's footprint by 7-10m (taking its coverage from half the country to c.80%)
5. CityFibre acquired FibreNation, the fibre network business of TalkTalk, in January 2020 and increased its roll-out plans from 5m to 8m premises
6. The planned coverage of other alternative network operators by 2025 amounts to 9m premises (5m - Hyperoptic; 0.3m - Gigaclear; 3.5m - other); Hyperoptic secured additional funding in October 2019 to support its plans
7. 80 companies are now looking to use Openreach's telegraph poles and underground ducts to lay new fibre; they are planning to use over 40,000 poles and 5,000km of duct, up from around 12,000 and 2,500km in May 2019
8. Sky (the second largest broadband provider) contacted several fibre providers in March 2019 to explore network access options in specific local areas
9. TalkTalk has made strategic long-term 'anchor tenant' commitments to use CityFibre's existing and future network rollout for residential and business fibre services
10. Vodafone has partnered with both Openreach and CityFibre to deliver gigabit broadband
11. The government has committed £5bn to help the final 20% of premises get gigabit broadband; this is expected to be via competitive tender

² ISP Review, 7 May 2020. [Virgin Media and O2 Agree UK Broadband and Mobile Merger](#).

- 1.6. Similar dynamics exist in business markets where there is material existing and planned competitive leased line infrastructure in UK towns and cities. New networks are entering quickly, funding build through long-term tenders and using access to Openreach's physical infrastructure to reduce build costs, just as Ofcom intended. Competition from Virgin Media has stepped up in recent months with large contract wins (for services to Three and Vodafone). The consolidation with O2 will also create 'self-serve' opportunities for O2's mobile backhaul requirements.
- 1.7. These are game-changing developments. Retail telecoms markets have been competitive for many years. Now we are seeing a more intense infrastructure competition which looks more like the mobile sector where network operators compete to supply commercial network access to retailers under long-term agreements.
- 1.8. Communication providers (CPs), like Sky, have leverage in these negotiations as they have strong brands and sizeable customer bases that can be upsold full fibre services. Full fibre builders must, therefore, offer competitive prices to secure this demand and are entering partnerships to align interests (particularly to share the risks and gains of fibre investment). Vodafone considers 'strong partnerships' to be the only way to achieve the UK's digital ambition.
- 1.9. Other factors support competitive fibre build by lowering barriers. DPA helps operators deliver full fibre coverage at lower build cost; the Government is stepping up barrier busting; and innovative techniques are lowering the cost of infrastructure self-build. Government will also invest £5bn of public money to help reach the most challenging areas (and we expect these funds to be competed for). Private financing is also available; Hyperoptic, Gigaclear and CityFibre are owned by investment groups with vast infrastructure experience and access to funding.³
- 1.10. Liberty Global has funds from the sale of its cable assets in Europe (reportedly €11bn) leaving Virgin Media as its most important remaining European asset. Additional cash from the UK transaction with O2 of £1.4bn has been reported. Fibre build in cable areas will erode Virgin Media's competitive advantage. Liberty Global's response is to expand the Virgin Media footprint (supported by partnerships and DPA) and potentially enter the wholesale market (which would represent the most extensive ultrafast wholesale offering in the UK).
- 1.11. Openreach is responding to these pressures by building an ultrafast broadband capability (currently at close to 2.6m homes passed, compared to Virgin Media's 15m); preparing to switch off its copper network, and negotiating with telecoms providers to offer competitive prices, and other terms, for its enhanced services (to encourage take-up).
- 1.12. It does so with very little incumbency advantage. DPA removes Openreach's cost, coverage and speed of provision advantage. Geographic ubiquity is not a differentiator for Openreach when all operators have access to Openreach's national network of physical assets. Having BT Consumer as an anchor tenant helps but would not, on its own, allow Openreach to build at scale. Nor is BT Consumer the only anchor tenant in the market: Sky has been called the 'kingmaker', Virgin Media has its own retail arm (and potential scope to cross-sell to O2's customers), and TalkTalk and Vodafone have agreed to be anchor tenants for CityFibre.

³ KKR, Infracapital and Goldman Sachs/Antin Infrastructure Partners, respectively.

- 1.13. A full analysis of these factors would likely show that Openreach does not have market power in ultrafast (now or during the review period) and does not have market power in leased line markets with a high density of rival infrastructure, known as high network reach (HNR) areas. As part of its analysis, Ofcom will wish to consider the implications of the Virgin Media / O2 deal for the competitive dynamic in the industry and its regulation of Openreach wholesale fixed services.
- 1.14. Ofcom should not regulate at all where competitive pressures are shaping market outcomes in a way that delivers clear benefits for customers. To do so risks stifling the very competition that Ofcom wishes to encourage as well as the associated customer benefits of lower prices and the widespread and competitive deployment of fibre. If Ofcom persists with its SMP finding it must, at least, avoid regulation (such as pricing restrictions) which unduly limits the realisation of these benefits.

Ofcom should confirm to investors that its pro-investment pricing policy is intended to last beyond 2026

- 1.15. Where Ofcom does need to regulate, it must be mindful of the vast and risky investment needed (and taking place) to deliver world class connectivity, and the critical importance of a long-term regulatory framework in this context. The Government has identified 'stable and long-term regulation' as a strategic priority, and the National Infrastructure Commission (NIC) says that investors in 'major transformational projects' need certainty that regulators' views on prices will not change 'half-way through'.
- 1.16. We agree with Ofcom's proposed 'pricing continuity' policy to keep prices for a set of baseline wholesale services the same in real terms (with a modest premium for full fibre services). This policy strikes the right balance between promoting competitive investment and protecting customers during a transformative period (spanning decades) as the UK transitions away from copper and towards fibre. Ofcom should clarify that this policy is intended to endure for the entirety of this transformative period, consistent with the Government's call for stable and long-term regulation.
- 1.17. Ofcom should *also* be more explicit about how it intends to treat the commercial 'bets' we are taking, should it decide to impose price caps on higher speed bandwidth products in the future. Downsides exist, even after allowing for the support provided by Ofcom's proposals. Investors (reasonably) want to know what opportunity they have to keep upside to compensate for these risks, before Ofcom would step in to cap returns. The downsides they see relate to take-up risk, cost risk, technology risk and exposure to macro-economic impacts.
- 1.18. Ofcom has said orally that it expects its framework to endure for two control periods, i.e. until 2031. This is helpful. But we think that Ofcom should confirm that no additional regulation of higher speed products is intended for 15 years, because this would be consistent with investment horizons which will exceed 15, and possibly 20 years.
- 1.19. Ofcom should also indicate a level of upside returns which BT would have the opportunity to retain (but with no guarantee of earning) if the investment turns out to be successful, and if BT is not otherwise constrained by competition. This can be set upfront for different tranches of fibre to the premise (FTTP) investment at the time the investment decision is made, allowing the fair bet assessment to reflect the risk conditions applicable at that time.

- 1.20. There is enormous benefit in identifying risks upfront (tranche by tranche) rather than many years later when outcomes can give a bias to how these initial risks are perceived. Waiting does not reveal relevant new information on the risks at the outset of the investment tranche, and memories can be short and/or rose tinted.
- 1.21. Regulation further down the line may or may not be needed - this depends on how competition plays out. But if we can agree with Ofcom what risks we are bearing now, then we can proceed with more comfort that, should price regulation be imposed, our investors will be fairly treated for the bets they took. All firms who are investing private capital into enhanced broadband services care about this, because any regulation of BT in the future affects the returns of every operator.

Ofcom should facilitate commercial wholesale deals that will deliver real benefits to customers

- 1.22. Telecoms regulation has traditionally focussed more on protecting customers from high or discriminatory prices charged by operators with market power where such conduct might harm *retail* competition. At this market review, Ofcom wants to promote more *infrastructure* competition. Therefore, it is also now particularly concerned about low wholesale prices targeted at areas with new networks; or other commercial terms which might discourage CPs' use of new network entrants.
- 1.23. This poses a much trickier regulatory challenge because Ofcom's efforts to limit competition (i.e. through restrictions on how Openreach can price its services) may inadvertently limit pro-competitive and pro-investment pricing and commercial arrangements which deliver benefits to customers through lower, more stable prices and/or accelerated investment.
- 1.24. Commercial deals and partnerships that share the risks and gains of network investment are being struck (or negotiated) widely, following the lead of fibre-rich countries like Spain and Portugal. The UK Government has said that firms should have flexibility to manage risks in this way, and it expects Ofcom to facilitate such arrangements 'where appropriate'. Openreach's ability to compete fairly and negotiate agreements with CPs is critical to manage the substantial risks of investing in full fibre at scale and at pace, particularly given Virgin Media's extensive, established (and sunk) ultrafast broadband network.
- 1.25. For Ofcom's regulation to do more good than harm, it should:
- Enable competition with established networks to the benefit of customers (for example, Virgin Media's cable network and other established leased line operators)
 - Enable operators to reach commercial deals with CPs where the deals are important to support investment in new or expanded networks and/or facilitate lower long-term prices or other benefits to consumers
 - Limit restrictions on prices to protect new entrants to only what is proportionate and consistent with promoting efficient competition, with entrants being required to compete on their merits over the medium-to-long run
- 1.26. Consistent with these principles, we think that customers would gain more through investment and keener prices (and smaller players still be protected) if FTTP and leased lines were excluded from Ofcom's proposed restrictions. In both cases, there

is more reason to expect benefits than harms to arise from allowing Openreach the flexibility to compete, as it does not have market power in ultrafast and leased line competition is fierce in many parts of the country.

- 1.27. Further, there is no evidence of unfair pricing practices (or the risk of them) on Openreach's part. Openreach's pricing will be shaped by powerful customers who have no interest in harming infrastructure competition. Prescriptive regulation is not, therefore, objectively necessary nor is it proportionate.
- 1.28. If Ofcom nevertheless decides to proceed, it needs to be clearer on its analytical framework for deciding whether to grant consent or to intervene following a review. The criteria applied must be proportionate to Ofcom's goal of promoting network competition. Otherwise there is a risk that regulation itself unduly stifles competitive responses by Openreach – and possibly investment - through the application of excessively cautious, and unpassable, thresholds.
- 1.29. Ofcom should confirm that the principles established in competition law will form the basis of its assessment as these have been designed to assess (or reliably predict) competition effects. It is not appropriate to limit Openreach's conduct unless Ofcom can show that Openreach's pricing has (or will be likely to) materially harm end customers.
- 1.30. Equally, Ofcom should indicate how long its proposed restriction will last so that rivals can appropriately reflect fair competition with Openreach in their business cases. This would help avoid protracted regulatory disputes in which rivals rely on general statements from Ofcom which are mis-interpreted as a guarantee of their business case or particular market share outcomes.

Ofcom should apply the same pricing remedies in non-competitive areas as elsewhere in the country to support investment by BT

- 1.31. We agree with Ofcom that the benefits of fibre investment should be available to people and businesses everywhere. We welcome Ofcom's willingness to flex its regulation in the harder to reach areas, specifically, the proposal to allow BT to recover fibre build costs across a wider range of services. We plan to build significantly in rural locations and stand ready to make a commitment to build full fibre commercially in these areas with the right regulatory conditions to help us get going quickly. We also welcome the announcement in this year's budget that £5bn will be earmarked to fund ultrafast rollout in the hardest-to-reach areas.
- 1.32. Ofcom's preferred option is to allow fibre build costs to be spread across wholesale copper services from the outset of the review period (rather than ex post once the fibre investment is delivered). If regulated prices are set in line with Area 2, then this approach will allow us to get going quickly and has the added advantage of a consistent pricing approach across geographies.
- 1.33. The commitment we make will appropriately reflect the benefit of being able to recover costs in the way Ofcom suggests. But the model is not (as Ofcom suggests) similar to a regulatory asset base. A RAB exposes infrastructure providers to an efficiency challenge but not (usually) volume risk. We remain exposed to this risk even in those areas where Ofcom does not envisage effective fibre infrastructure competition. For example, take up of higher speed tiers may be less than expected,

government intervention may be higher than expected, there is still some competition risk (which is exacerbated by the availability of DPA and mandated dark fibre) and there is also a risk of competition from new technologies. The scale of a committed build will need to reflect these uncertainties. More can be committed if Ofcom signals that fibre build costs can be spread across copper services in subsequent review periods and indicates the 'uplift' that will be allowed on copper prices in the future to support the recovery of fibre build costs.

- 1.34. Ofcom's alternative approach for encouraging investment by BT (the 'post build' option) is unlikely to be effective as proposed. This is because the proposed uplifts to copper prices are insufficient to support the necessary investment given the costs and risks involved. It could also result in significant price differentials between different parts of the country for fibre and copper.

DPA will make it easier for others to build fibre in competition with Openreach, but we need fair prices to support this

- 1.35. Openreach already provides access to its physical infrastructure nationwide (and without restriction) to support competitive investment in fibre networks. Over the review period, Openreach will be investing to upgrade its duct and pole infrastructure, so that it, and other CPs, can rollout full fibre. In setting prices for the period until 2026, Ofcom recognises that Openreach must have the opportunity to recover efficiently incurred costs and that a level playing field is needed between Openreach and rivals that use DPA to compete downstream. We agree with Ofcom that these objectives are important to create conditions supportive of investment.
- 1.36. But to ensure DPA pricing is sustainable and can continue to achieve Ofcom's goals some adjustments are needed. Prices must be set using the latest estimate of costs including future investment we expect to make in the physical assets over the review period. Further, the method for allocating costs between Openreach and other providers (including Virgin Media and alternative operators) should be amended for some product components to better reflect their use of the physical infrastructure and their opportunity to earn revenues related to that usage.

The BT Commitments and regulation will need to evolve as markets become competitive

- 1.37. As markets become competitive (reflecting technology developments, as well as evolving dynamics of competition), BT's downstream businesses will be able to use de-regulated assets in different ways. Our Commitments will evolve to allow BT's downstream businesses to compete and differentiate in circumstances where rivals no longer rely on the de-regulated assets (hence the lifting of regulation).
- 1.38. Where Ofcom still finds Openreach to have market power, we expect that access regulation will not be imposed on BT's downstream business units where they use Openreach passive infrastructure (ducts, poles and dark fibre) or where they self-build to complement existing Openreach passives.

2. Ofcom's market analysis should better reflect forward-looking competition

- 2.1. Ofcom's Wholesale Fixed Telecoms Market Review (WFTMR) is intended to determine where competition will be effective and where regulation may be required in the period from 2021 to 2026. The review period will be a time of substantial change as the shift to ultrafast is upending fixed telecoms markets. Virgin Media, the ultrafast leader, has agreed a consolidation with O2 potentially creating a range of synergies and convergence opportunities. It is also expanding its network and considering wholesaling and co-investment. Fibre entrants are consolidating and scaling up their plans (enabled by DPA); and telecoms providers are shopping around and partnering with established *and* new networks to deliver competitive fibre services to homes and businesses.
- 2.2. For local access fixed lines, Ofcom proposes a market which is undifferentiated by speed and where Openreach is found to have significant market power (SMP) nationwide (i.e. across areas where rival networks exist, or are planned, as well as areas without). This market power finding underpins Ofcom's proposed regulation including significant restrictions on Openreach's pricing of ultrafast services.
- 2.3. We do not agree with Ofcom's market power finding. Ofcom's assessment does not adequately consider the competitive dynamics characterising markets today and on a forward-looking basis. Specifically, Ofcom has largely overlooked or dismissed the emergence of a contestable wholesale local access market enabled by significant reductions in barriers to entry and expansion.
- 2.4. Important features of this wholesale competition (which we discuss in the chapter below) are CP-led tenders and long-term agreements, the presence of Virgin Media's extensive and established ultrafast network (and its consolidation, expansion and wholesaling intentions), a host of new network entry, the lack of any significant advantage for Openreach and evidence of intensifying competition. These developments call for a robust application of the three criteria test (TCT)⁴ which guards against unnecessary intervention where forward dynamics suggest that competition is developing.
- 2.5. An analysis which fully reflects these factors (and which properly applies the TCT), would find that Openreach does not have SMP in ultrafast capable lines and, in Virgin Media areas, it does not have SMP in providing *any* broadband speed. Ofcom should not regulate where competitive pressures are shaping market outcomes in a way that delivers clear benefits for customers.⁵ To do so risks stifling the very competition that Ofcom wishes to encourage as well as the associated customer benefits of lower prices and the widespread and competitive deployment of fibre.

⁴ European Commission, 17 December 2007. [Commission Recommendation](#) of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services.

⁵ Section 88 of the Communications Act states that Ofcom is not to set a condition about network access pricing except where there is a relevant risk of adverse effects arising from price distortion. Ofcom also has a duty to ensure its actions are necessary and proportionate (under public law and Communications Act, section 3) and to carry out its function without imposing unnecessary burdens. Source: [Communications Act 2003](#), section 6.

- 2.6. We welcome Ofcom's recognition that leased line and residential markets are separate and that the Central London Area (CLA) is effectively competitive. We believe that if Ofcom updates its evidence for planned and expected build in 2020, as well as considering updated pricing trends and countervailing buyer power exerted through tenders, it will find that (i) planned and expected build has grown significantly due to DPA since it collected the data underpinning its analysis in 2017; (ii) prices have exhibited a continued downward trend (across all speeds) and (iii) countervailing buyer power is strong in tendering markets.
- 2.7. Specifically, the evidence we provide below (including of declining prices) indicates that the metropolitan areas (referred to as High Network Reach or HNR) are effectively competitive today, while Area 2 may well be found to be effectively competitive on a forward-looking basis once Ofcom updates its analysis and appropriately considers the viability and impact of DPA on the LLA market and in particular the market segment characterised by competitive tendering. On this basis, we are concerned that Ofcom is proposing restrictions on Openreach's commercial flexibility unnecessarily (geographic pricing restrictions in Areas 2 and 3 and a notification regime for 'other commercial terms' everywhere except in the CLA). As we set out in chapter 4, these measures are neither necessary nor proportionate to safeguard infrastructure competition, innovation and keen prices for customers.

Openreach faces strong forward-looking wholesale competition in WLA markets which benefits consumers

- 2.8. In this section, we set out key features of wholesale competition which Ofcom's WFTMR consultation largely ignores. We present evidence that:
- Multiple network providers are competing for CP volumes including by responding to CP-led tenders and by negotiating long-term access arrangements.
 - Virgin Media has clear advantages in supplying ultrafast including the most extensive ultrafast network, 75%-85% of ultrafast end-user connections and low incremental costs to connect additional end customers to its existing network.
 - A host of altnets are rolling out networks supported by regulated access to Openreach's ducts and poles and innovative build techniques such as micro-trenching.
 - Openreach must compete for CP volumes with no significant advantages (indeed with certain disadvantages relative to Virgin Media).
 - Market conditions and market outcomes show the development of strong wholesale competition to the benefit of end-users.
 - Other technologies, e.g. Fixed Wireless Access (FWA), Low Earth Orbit (LEO) satellites and meshed networks, will increasingly become competitive constraints on the fixed access 'final mile'.
- 2.9. We show the implications of these features for market definition and the assessment of market power in the following sections.

Wholesale competition is taking place through CP tenders and other long-term arrangements

- 2.10. Openreach and other existing and network rivals are assessing, or announcing targets for, extensive investment in full fibre, and most have commenced their deployment already. Such investment entails substantial cost and substantial risks, particularly given uncertainty over future ultrafast demand. Attracting large wholesale customers such as Sky, TalkTalk and Vodafone through competitive access pricing and long-term deals allows risks to be mitigated.
- 2.11. Retail providers (like Sky) have leverage in these negotiations as they have strong brands and sizeable customer bases that can be upsold and cross-sold fibre services and can use tenders to allocate their volumes, potentially under a long-term contract. Fibre builders must offer competitive prices to secure this demand in order to unlock scale investment in networks where take-up risks are significant. Fibre builders and retail providers are entering partnerships to align interests (by sharing the risks and gains of fibre investment). Large existing ultrafast network providers, such as Virgin Media, and entrants compete in this market. They cannot be sure who else is competing for a CP's business, nor how close to incremental cost they are bidding, creating very competitive conditions. Examples include the following:
- TalkTalk deal with CityFibre: In January, CityFibre announced an agreement with TalkTalk to acquire FibreNation (increasing its rollout target from 5m to 8m premises) and "*secur[ing] TalkTalk as a major wholesale customer across both consumer and business markets*".⁶
 - Vodafone deal with CityFibre: CityFibre already has a strategic partnership with Vodafone, and announced that it has modified its agreement with Vodafone to "*open up its networks to other consumer ISPs sooner than planned*".⁷ In announcing these changes, Vodafone UK Chief Executive Officer Nick Jeffery indicated that "*strong partnerships*" are the only way to achieve the UK's digital ambition. He said: "*Vodafone is in a unique position to drive forward full-fibre deployment in the UK. By offering our partners a ready market in the form of Vodafone Gigafast Broadband, we played an instrumental role in encouraging Openreach's new wholesale service to build in additional places, and now we are enabling CityFibre to expand. The only way the UK will achieve its digital ambition is through strong partnerships, and Vodafone is leading the way.*"⁸
 - Sky competitive tender in 2019: It was reported in March 2019 that "*Sky has opened exploratory talks with upstart rivals to BT's network infrastructure arm Openreach in an attempt to accelerate the rollout of ultrafast "full fibre" broadband. Britain's second-largest broadband provider has positioned itself as a potential kingmaker for new network owners as they race Openreach to connect homes with faster and more reliable fibre-optic lines.*"⁹

⁶ CityFibre, 21 January 2020. [CityFibre acquires FibreNation and adds TalkTalk as strategic customer, increasing its rollout plans to pass up to 8m premises.](#)

⁷ Ibid.

⁸ Vodafone, 21 January 2020. [Vodafone drives forward full-fibre broadband roll-out in the UK.](#)

⁹ The Telegraph, 3 March 2019. [Sky courts Openreach rivals as ultrafast broadband race accelerates.](#)

- Liberty Networks entry and wholesale offer: Liberty Networks asked Ofcom on 12 December 2019 for electronic communication code powers to be applied to it "to facilitate the construction and operation of a high-speed broadband network across the UK."¹⁰ Liberty Networks stated that it is "willing to provide wholesale access to its electronic communications network to other telecoms providers on commercial terms."¹¹ In February, it was also reported that Sky and Virgin Media met to discuss fibre collaboration and that "Sky is interested in investing in a UK fibre-to-the-home (FTTH) joint venture with Liberty Global's Virgin Media."¹²
- Commercial access to cable network: Liberty Global confirmed in February this year that Virgin Media's network strategy includes "exploring strategic options to expand network and optimize FCF" and "considering wholesale arrangements to drive network utilization and valuation".¹³ Liberty Global CEO Mike Fries noted to analysts that, while a wholesale option for the cable network carries some risks of cannibalising retail revenues, Virgin Media is "only utilising about 40% of our network."¹⁴ Moreover as Virgin Media is overbuilt by full fibre and may lose retail revenue anyway, the case for wholesaling becomes stronger.
- Liberty Global and Telefónica have announced a deal to merge their UK operations O2 and Virgin Media in a £31.4bn agreement and are reported to have committed to investment worth £10bn in the UK over the next five years.¹⁵ To the extent these investments are made in Virgin Media's fixed networks, platforms and systems this could further support Virgin Media's expansion and potential move to wholesaling consistent with its strategic direction announced in February.

2.12. Openreach is but one of several actual or potential competitors seeking to attract CP custom. We compare the main fixed networks next and show that Openreach has no significant advantages in competing as a full fibre provider.

Virgin Media is the established market leader in ultrafast

2.13. Virgin Media has the most extensive ultrafast network and is expected by Ofcom to continue to have the most extensive network over the regulatory period. The WFTMR reports that Virgin Media passes 15m premises with ultrafast-capable connections (which we estimate to have now grown to over 16m premises).¹⁶ In February Liberty Global announced its strategy for Virgin Media to cover an additional 7-10m premises taking its network to around 80% of all UK premises.¹⁷ A large part of the

¹⁰ See Ofcom consultation, 21 January 2020. [Proposal to apply Code powers to Liberty Networks Limited Statutory notification under section 107\(6\) of the Communications Act 2003.](#)

¹¹ [Ibid, paragraph 3.18.](#)

¹² Capacity Media, 3 February 2020. [Sky and Virgin Media further FTTH talks.](#)

¹³ Liberty Global, 14 February 2020. [Investor Call, Full Year 2019.](#) page 6.

¹⁴ Digital TV Europe, 17 February 2020. [Liberty Global mulls UK fibre JV and wholesale options to 'crystallise value' of network.](#)

¹⁵ ISP Review, 7 May 2020. [Virgin Media and O2 Agree UK Broadband and Mobile Merger.](#)

¹⁶ [X].

¹⁷ Liberty Global, 14 February 2020. [Investor Call, Full Year 2019.](#) page 6.

additional build will be achieved by filling in gaps in existing cities and towns as well as completing Project Lightning.¹⁸

- 2.14. In contrast, Openreach's full fibre network currently passes almost 2.6m premises¹⁹ with substantial new investment required if it is to reach the target of 20m homes and businesses by the mid- to late 2020s, at which point Openreach's full fibre network would likely still reach fewer homes and businesses than Virgin Media's ultrafast network.
- 2.15. Virgin Media has been rapidly building a leading *retail* position in ultrafast (at or above 300Mbps using Ofcom's definition). It currently supplies 75%-85% of all ultrafast connections in the UK.²⁰ Virgin Media has the ability to combine broadband with its strong TV offering. It has also been providing free upgrades to faster speeds.²¹ Virgin Media's 100Mbps service (offered at a price of £28 a month) is similar to BT's price for 50Mbps of £27.99.²²
- 2.16. It has also been reported as part of the recent Virgin Media /O2 merger announcement that the deal will create a stronger competitor to BT.^{23 24} It would potentially give Virgin Media access to O2's customer base to help support further ultra-fast and fibre roll out.
- 2.17. In Virgin Media areas a Modified Greenfield Approach (or MGA, i.e. whereby the regulator must conduct a market analysis absent previously imposed regulatory remedies)²⁵ would conclude that Openreach is not able to exercise pricing power to the detriment of its wholesale customers (or end consumers), let alone find it commercially profitable to refuse wholesale access.
- 2.18. Ofcom has not considered this at all, merely assuming that two existing network operators are not sufficient for a market to be effectively competitive. Ofcom states "*...we do not consider the competitive constraint from Virgin Media sufficient to constrain BT's market power alone. Two players is not sufficient to deliver effective competition in this market. We provisionally conclude, therefore, that if we considered Virgin Media areas and non-Virgin Media areas separately, we would find BT to have SMP in both.*"²⁶
- 2.19. Even on Ofcom's own terms, however, competition at the retail level creates an indirect constraint on wholesale prices as Openreach needs to ensure that the CPs it supplies are competitive vis-à-vis Virgin Media. Evidence from BT Consumer indicates the strength of this competition (enabled by Virgin Media's ultrafast capability). BT Consumer evidence shows that, [X].²⁷

¹⁸ Enders Analysis, 28 January 2020. [Winners and losers as the UK fibres up](#). page 26 and table 21.

¹⁹ BT Group plc, 30 January 2020. [Q3 2019/20 trading update](#).

²⁰ Ofcom, 8 January 2020. Promoting competition and investment in fibre networks: Wholesale Fixed Telecoms Market Review 2021-26, Consultation, figure A9.4. ('WFTMR 2020')

²¹ Virgin Media, 7 January 2020. [Virgin Media starts 2020 with a broadband bang as more than a million customers get a free ultrafast speed boost](#).

²² <https://www.virginmedia.com/shop/broadband/broadband-only> and <https://www.bt.com/broadband/deals> (April 2020 prices)

²³ Financial Times, 7 May 2020. [Liberty Global and Telefónica agree £31bn deal to merge UK groups](#).

²⁴ ISP Review, 7 May 2020. [Virgin Media and O2 Agree UK Broadband and Mobile Merger](#).

²⁵ European Commission, 7 May 2018. [Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services](#). section 1.3, paragraphs 16 to 18, 7 July 2018.

²⁶ WFTMR 2020, Volume 2, paragraph 5.84.

²⁷ [X].

- 2.20. Virgin Media also has substantial advantages in competing for CP volumes at the wholesale level. It can offer access to an ultrafast network with the greatest coverage and with spare capacity²⁸ (implying low incremental costs to supply additional premises). It can also offer expansion and higher speed potential as DOCSIS continues to upgrade. As a proven ultrafast operator, Virgin Media (and its parent) are likely to be attractive wholesale partners.
- 2.21. We recognise that Virgin Media will face costs and timing issues in wholesaling its cable network. Based on the experience in Belgium, UBS estimates a positive NPV benefit from such a move (assuming £100m of upfront costs and a pricing structure which mitigates retail cannibalisation risks).²⁹ UBS estimates a NPV benefit for Virgin Media of £2.4 billion based on a scenario where just under a quarter of Sky's subscriber base is supplied using wholesale cable.³⁰ We recognise the uncertainty in this analysis and note the unique position of Ofcom in being able to explore this as part of its forward-looking analysis of competition.
- 2.22. Ofcom, however, only looks backwards and states that "*there is no track record of Virgin Media competing in this way [i.e. as a wholesaler] and, therefore, no evidence on how effective it might prove to be in practice*".³¹ This is not sufficient when Ofcom is setting a framework that will govern the wholesale fixed telecoms market until 2026. We urge Ofcom to address the economics and likelihood of cable wholesaling as part of its market analysis. As indicated above, a variety of evidence indicates that such a development is being considered and may be commercially beneficial. Importantly, the threat of this happening is already shaping competitive outcomes.
- 2.23. Ofcom also states "*Virgin Media would be unable to supply all of a customer's requirements (for example, due to expected partial coverage, Sky or TalkTalk would still be reliant on BT to supply some of their customers)*".³² In ultrafast, Virgin Media's existing network is more extensive than Openreach's and will remain so over the review period. In any event, Ofcom has not shown that dual sourcing (i.e. superfast from Openreach and ultrafast from another operator) is commercially unattractive. The evidence suggests the opposite; TalkTalk has already made a long-term agreement with CityFibre and (currently) takes the remainder of its requirements from Openreach (as does Vodafone); Sky is considering doing the same.

A host of other new networks are being rolled out

- 2.24. In addition to Virgin Media, a significant number of other operators have significant rollout plans for ultrafast networks. Of particular note are the following:
- CityFibre acquired FibreNation, the fibre network business of TalkTalk, in January 2020 and increased its roll-out plans to 8m premises.
 - The planned coverage of other alternative network operators by 2025 amounts to 9m premises (5m - Hyperoptic; 0.5m - Gigaclear; 3.8m - other). See

²⁸ Digital TV Europe, 17 February 2020. [Liberty Global mulls UK fibre JV and wholesale options to 'crystallise value' of network](#).

²⁹ UBS estimates £100m of upfront capital expenditure relating to IT to set up the platform, and modest incremental operating expenditure. UBS suggests that retail cannibalisation could be moderated by Virgin Media differentiating its wholesale product from its self-serve product (for example offering 1Gbps services to its customers while offering speeds of up to 350Mbps to external CPs).

³⁰ UBS, February 2020. UK Telecoms: UK communications market at a crossroads. page 28. The report is the copyright of UBS.

³¹ WFTMR 2020, Volume 2, paragraph 8.64.

³² WFTMR 2020, Volume 2, paragraph 8.64.

Annex 2 which provides a table showing current and planned coverage as well as the geographic focus and business strategy of individual operators.

- The April 2020 ISP Review conducted a review of full fibre network builders which provides a comprehensive overview of build plans of UK altnets including altnets that are less well known but that have significant rollout plans (e.g. London based Community Fibre) as well as a large number of niche and rural focussed operators. Ofcom should confirm that its "Other" category in its WFTMR table A7.1 has captured these reported build plans.³³

2.25. A number of factors are conducive to competitive fibre build:

- Duct and pole access (DPA): DPA has reduced the cost and time for entry and levelled the playing field with respect to Openreach in the deployment of ultrafast networks. There is evidence of growing usage. Ofcom reports that 80 companies are now looking to use Openreach's telegraph poles and underground ducts to lay new fibre; they are planning to use over 40,000 poles and 5,000km of duct, up from around 12,000 and 2,500km in May 2019.³⁴ CityFibre has also stated that it expects to be the largest DPA customer in the UK.³⁵
- Private financing: Hyperoptic, Gigaclear and CityFibre are owned by investment groups with vast infrastructure experience. Annex 2 sets out the buyer or investor(s) for each fibre operator as well as the value of acquisitions of investment between January 2018 and October 2019. It includes a recent acquisition of a majority stake in Hyperoptic by KKR, involving upfront funding of £10m followed by up to £30m in subsequent phases. Liberty Global has funds from the sale of its cable assets in Europe (reportedly \$11bn) leaving Virgin Media as its most important remaining European asset. It is reported that debt will be raised against the O2/Virgin Media combined entity, suggesting that Liberty Global's cash pile will not be eroded by this transaction.
- Public funding and other support: Government has said it will invest £5bn of public money to help reach the most challenging areas (which we expect to be contested). Competitive fibre rollout is also being supported by a range of barrier busting initiatives, as well as measures in the European Electronic Communications Code to reduce investment risks and the Directive on measures to reduce the cost of deploying high-speed electronic communications networks.

2.26. The extensive new network rollouts underway are bringing additional competition at both wholesale and retail levels. As noted above, CityFibre has secured supply arrangements with two of the leading UK CPs, Vodafone and TalkTalk.

Openreach enjoys no significant advantages in ultrafast

2.27. Openreach is entering the ultrafast-capable segment significantly behind Virgin Media and with no significant advantages over other full fibre entrants. In areas where Virgin Media is present, Openreach is an entrant and must build a new

³³ ISP Review, 14 April 2020. [Summary of Full Fibre Build Progress Across UK Broadband ISPs.](#)

³⁴ Ofcom, 8 January 2020. [WFTMR media release: Supercharging investment in fibre broadband.](#)

³⁵ CityFibre, 1 February 2019. [Physical infrastructure market review: response submitted by CityFibre Infrastructure Holdings.](#) paragraph 2.1.9.

network in order to be able to contest ultrafast demand, with inevitable uncertainties surrounding the pace and scale of delivery. The investment is highly risky and relies on several regulatory and commercial enablers (including the ability to secure external CP volumes).

- 2.28. DPA removes Openreach's cost, coverage and speed of provision advantage. Geographic ubiquity is not a differentiator for Openreach at the physical infrastructure layer when all operators have access to Openreach's national network of physical assets.
- 2.29. Nor does Openreach have a significant advantage from its geographic scope in downstream (active) services (at all speeds) given that CPs can readily purchase from multiple, geographically distinct operators. Ofcom asserts that "*there is a cost to buying from multiple networks*",³⁶ but is silent on whether any such cost would exceed the benefits. BT expects that the benefit to a CP of being able to address a larger ultrafast base will outweigh the system integration costs of using an additional supplier once that supplier reaches significant scale (e.g. for larger CPs this would typically be networks of c.1m (residential) premises.
- 2.30. Moreover, TalkTalk and Vodafone have already reached deals to acquire ultrafast services from CityFibre whilst at the same time purchasing from Openreach, indicating no difficulties in marketing the ultrafast services of one provider and the superfast services of another.³⁷ Experience from business markets, where the use of multiple suppliers is common, similarly supports the feasibility of dual sourcing.³⁸
- 2.31. Having BT Consumer as an anchor tenant helps BT support network investment but does not, on its own, allow Openreach to build at scale. The WFTMR states that a network may need at least 40%, and potentially in excess of 50% penetration of ultrafast customers, to be viable.³⁹ While BT Consumer has around 35% of broadband customers, only a small percentage of these customers are on ultrafast. In late 2019, BT estimated that Consumer (BT, EE and Plusnet) had [X].⁴⁰
- 2.32. Whether BT Consumer can retain a similar share of ultrafast remains to be seen. Virgin Media has a first mover advantage from its widespread ultrafast network and a sizeable 'anchor tenant' (its retail arm) with proven demand for higher speeds. Assuming completion of the deal between its parent and Telefonica, Virgin Media will also have an opportunity to push attractive ultrafast bundles to O2's customers. Alternative network providers (as well as Openreach) will contest CP volumes on a more level playing field than Ofcom assumes.

Market conditions and market outcomes show the reality of strong forward-looking competition to the benefit of end-users

- 2.33. The WFTMR does not specifically examine competition in wholesale ultrafast. It does, however, present 'forecasts' for 'network shares for ultrafast (as reproduced below).

³⁶ WFTMR 2020, Volume 2, paragraph 8.29.

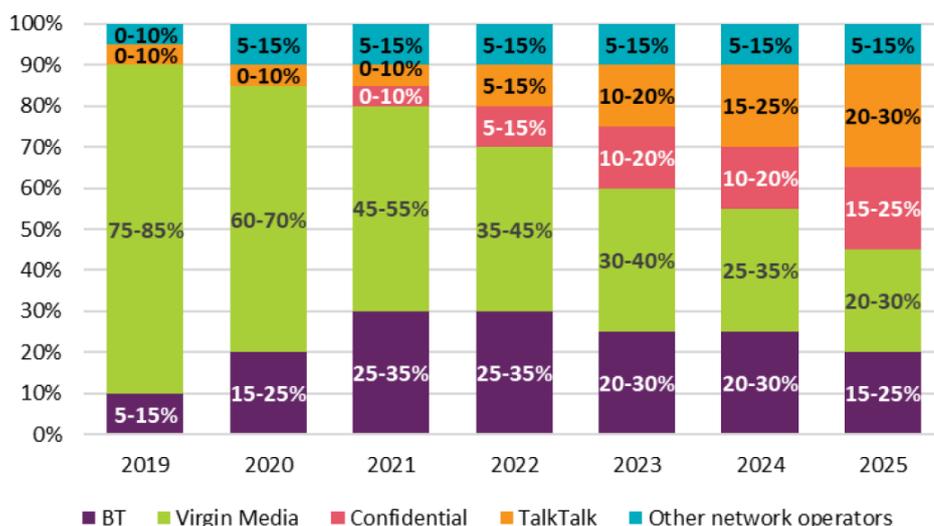
³⁷ TalkTalk, 31 January 2020. [Q3 FY20 Trading Update](#). We also note CityFibre has already built a full fibre network for TalkTalk and Sky in York (with roughly 50k premises passed to date) and in September 2019 Sky signed a wholesale deal with Brookfield Utilities UK Group using FTTP for new build for up to 200,000 premises. Source: [BUK Infrastructure, Sky and BUUK agree strategic full fibre partnership](#).

³⁸ For example, CPs including MNOs will often source very high bandwidth leased lines and other mobile backhaul circuits from multiple providers.

³⁹ WFTMR 2020, Volume 2, paragraph 8.56.

⁴⁰ WFTMR 2020, Volume 2, Table 2.2.

Figure 2.1 - WFTMR forecast network shares for ultrafast broadband



Source: WFTMR 2020, Annex 9, figure 9.4.

- 2.34. Figure 2.1 highlights Virgin Media's current established presence in ultrafast.⁴¹ Ofcom's forecast for Virgin Media's future share is likely to be understated given the further network expansion to 80% of all premises announced in February 2020; and Virgin Media's incentives to increase market share as its speed advantage erodes due to others building full fibre networks. There is no discussion in Ofcom's consultation about the reasons motivating Ofcom's assumption that Virgin Media's overall market share will be eroded, and Ofcom's analysis doesn't seem to offer any reflections as to the competitive response from Virgin Media competitive full fibre build by others is likely to engender. While TalkTalk has now decided to operate just at the retail level, it will support CityFibre which plans to cover 27% of premises. Hyperoptic plans to cover 17% of premises. With the significant rival network builds that are funded and underway, Openreach will face a highly competitive environment as an ultrafast entrant.
- 2.35. International markets, which are more advanced in the take-up of ultrafast than the UK, show sizeable shares gained by cable operators and altnets as well as the benefits of this infrastructure competition to consumers.
- 2.36. For example, in the Netherlands, the cable operator, Ziggo, has more broadband connections than KPN and a much higher share of ultrafast connections.⁴² While cable coverage is greater in the Netherlands than the UK, it shows what might result in Virgin Media areas. The Dutch Appeal Tribunal for Trade and Industry (CBB) found that KPN and Ziggo do not have 'joint' SMP.⁴³

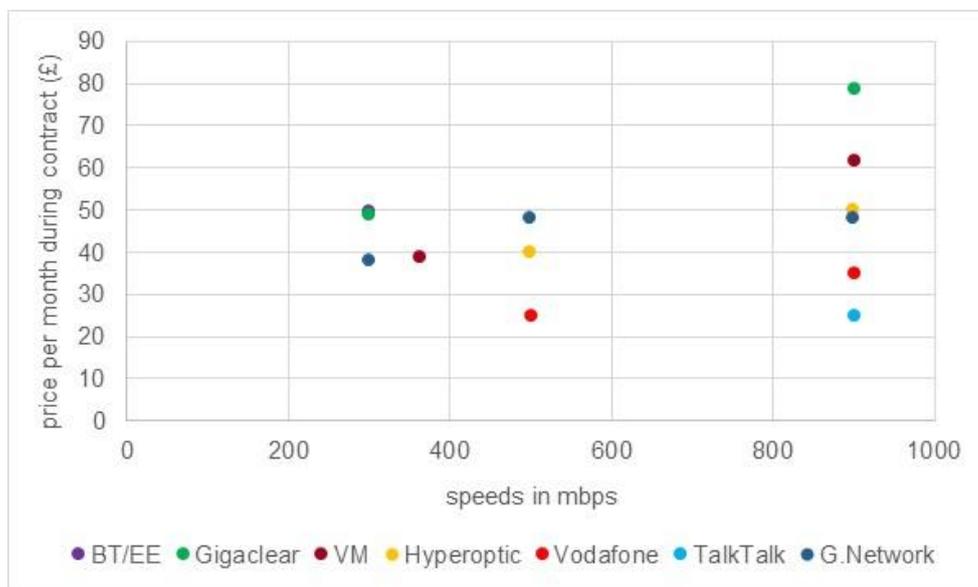
⁴¹ The title of figure A9.4 refers to network shares implying BT i.e. Openreach is forecast to have up to 25% share of ultrafast network connections which falls below the level required for a rebuttable presumption of dominance. We would be grateful if Ofcom could clarify if this interpretation is correct. Alternatively, if figure A9.4 represents downstream shares then the title should be amended from network to retail shares to avoid confusion.

⁴² Ziggo has a share of 44% of broadband connections compared with KPN's share of 40%. Source: BroadbandTV News, 27 December 2018. [Ziggo remains market leader Dutch broadband market](#). In the Netherlands, there were 3.5m cable broadband connections compared with 1.3m fibre connections. Source: ACM. [Telecom Monitor Q1-Q2 2019](#).

⁴³ Uitspraken, 17 March 2020. [ECLI:NL:CBB:2020:177](#)

- 2.37. At the retail level, we already see CPs supported by new fibre entrants (e.g. Vodafone and TalkTalk) and fibre specialists (e.g. Hyperoptic) offering among the cheapest prices for services at and above 300Mbps, as shown in Figure 2.2.

Figure 2.2: Lowest ultrafast broadband price by operator ≥ 300 Mbps (March 2020)⁴⁴



Source: Operator websites

- 2.38. This provides prima facie evidence against Openreach having SMP in ultrafast. In the next section, we comment on Ofcom's approach to market definition and in the following section, we look in detail at Ofcom's SMP assessment.

Ofcom should revisit its proposed market definition

There are reasonable grounds for distinguishing wholesale product markets by speed

- 2.39. Ofcom proposes to define a single product market including all broadband speeds, with no distinction between superfast and ultrafast products. Ofcom provides little evidence in support of its proposal, other than noting the constraint on the pricing and take up of ultrafast products arising from the widespread availability of superfast products. Ofcom notes that only a minority of customers may be prepared to pay a substantial premium for ultrafast and to achieve significantly higher ultrafast penetration "it may well be that the prices charged will need to be more attractive".⁴⁵
- 2.40. But the market context suggests reasonable grounds for distinguishing a relevant wholesale product market for speeds above 80Mbps separate to a market for slower speeds.

⁴⁴ Excludes triple and quad play offers to aid comparability (e.g. excludes Virgin Media's Oomph product offering at 512Mbps). Prices are as at mid-March 2020.

⁴⁵ WFTMR 2020, Volume 2, paragraph 6.51.

2.41. As Compass Lexecon set out in Annex 1 ('the Compass Lexecon Report'):⁴⁶

- Supply-side substitution is asymmetric - in particular, a copper/FTTC network faces significant practical limitations in switching into the supply of speeds above 80Mbps⁴⁷ and hence networks limited to slower speeds do not constrain ultrafast on the supply-side.
- As regards demand-side substitution, Ofcom's argument that current ultrafast prices may be deterring mass-market take-up does not imply a single market: it could instead suggest that ultrafast prices are not currently constrained by slower speeds.
- It remains an open question whether substitution between superfast and ultrafast services at the retail level creates an indirect constraint that would effectively constrain a hypothetical monopolist of ultrafast capable lines. This requires an analysis of wholesale gross margins; the ratio of wholesale prices to retail prices; the extent to which wholesale prices are passed through to retail prices; and whether retail demand for ultrafast capable lines is sufficiently price elastic; an analysis which Ofcom has not done.
- Further, wholesale demand is more likely to be driven by long-term expected demand resulting in competition has shifting to focus on long-term agreements.⁴⁸ CP demand for ultrafast deals is distinct from retail demand as CPs are jockeying to establish leading competitive retail positions in offering future-proof ultrafast-capable lines with a degree of supply and pricing security. For CPs there is value in acquiring early adopters (which Virgin Media has been able to do) to build a stable customer base with predictable demand. Network operators are also under pressure to reach deals to support their costly and risky investments in ultrafast networks.
- Virgin Media has stated that the commercial case for wholesaling increases as it is overbuilt with full fibre.⁴⁹ If Virgin Media was already effectively constrained by the presence of superfast, then competition from full fibre networks should not make a significant difference to their conduct.

2.42. Ofcom needs to revisit its analysis of the relevant product market to reflect supply-side asymmetry; to perform the necessary analysis of indirect constraints; and to take into account the specific aspects of wholesale competition. Based on the evidence outlined in this section, we think this analysis will indicate that broadband lines for speeds faster than 80Mbps are in a separate wholesale market to slower speeds.

⁴⁶ Compass Lexecon. Review of Ofcom's approach to assessing ultrafast market power: A note prepared on behalf of BT plc.

⁴⁷ While G.Fast can technically achieve ultrafast speeds, G.Fast deployments are not widely available and are not, therefore, a practical supply-side substitute at scale for FTTP or DOCSIS.

⁴⁸ CPs are behaving differently towards ultrafast than they did with the development of superfast. CPs offered standard broadband (using their LLU capability) as long as possible before moving to superfast. Deals were struck with Openreach to promote CP take up of superfast only in 2018 (some ten years after OR started deploying it).

⁴⁹ New Street Research, 12 March 2020. Liberty Global – Feedback from management meeting, page 4.

There are strong grounds for distinguishing the Virgin Media footprint as a separate geographic market

- 2.43. Ofcom proposes that two distinct wholesale geographic markets for WLA services for will be relevant in the coming market review period: areas “*where there is already some material commercial deployment by rival networks to BT or where this could be economic*” (Area 2); and areas “*where there is unlikely to be material commercial deployment by rival networks to BT*” (Area 3).⁵⁰
- 2.44. Ofcom should revisit its approach to geographic market definition. Openreach needs to price wholesale services taking into account both the existing ultrafast competition from Virgin Media at the retail level, as well as the credible threat of wholesale competition from an established ultrafast network with low incremental costs. This suggests that competitive conditions are significantly affected by whether or not Virgin Media is already present in an area.
- 2.45. There is therefore a prima facie case (under the MGA) for demarcating geographic markets based on whether or not Virgin Media is present (and potentially where it has concrete plans to extend its network over the next market review period). Where there is a second established competitor the nature of end-to-end competition will differ from areas where there isn't. Ofcom should investigate the impact of Virgin Media's presence (and concrete expansion plans) on retail markets and, in particular, on wholesale negotiations between Openreach and its CPs.
- 2.46. As the Compass Lexecon Report sets out, even today Virgin Media's presence significantly impacts retail competition within its footprint as indicated by the much more limited share of CPs using Openreach (including BT). On a forward-looking basis (and as illustrated earlier on in this chapter), there are reasons as to why competitive conditions at the wholesale level are likely to differ significantly between areas where Virgin Media has an established UFBB-capable network and other areas:
- Other operators would need to determine wholesale prices taking into account potential competition from a player with a largely sunk network and low long-run incremental cost.
 - Other operators may need to compensate for the fact that Virgin Media's existing network (should it decide to wholesale) could be more attractive to a CP than reaching an agreement with a new entrant whose timing and extent of network deployment is uncertain.
 - Virgin Media's retail presence in an area could make it more difficult for new ultrafast entrants such as Openreach to build a customer base with demand for ultrafast (e.g. high value early adopters are likely to have chosen Virgin Media).
- 2.47. In considering its geographic market definition (and consistent with the MGA) Ofcom must consider BT's incentives to supply absent regulation in Virgin Media areas and its likely position as a price-taker in relation to ultrafast. BT cannot benefit by denying access to CPs (because there is a credible threat that rival's including Virgin Media, will offer access) so it may prefer to wholesale on commercial terms. The competitive

⁵⁰ WFTMR 2020, Volume 2, paragraph 7.6. Ofcom defines a third wholesale geographic market where there are at least two established rival multi-service network (MSN) operators (Area 1). However, Ofcom finds there are no postcode sectors in the UK that comprise at least two MSNs in Area 1. Ofcom also propose that some postcodes are effectively competitive ('Area 1') but does not propose to regulate them differently from Area 2 given they are not material in number.

dynamics characterising fixed access markets as they transition from copper to fibre show more intense infrastructure competition than has traditionally been the case, which looks more like the mobile sector where network operators compete to supply commercial network access to retailers under long-term agreements.

Openreach does not have SMP in ultrafast capable lines nationally nor forward-looking SMP at any speeds in Virgin Media areas

- 2.48. Ofcom proposes to find Openreach as having SMP in the WLA market for all speeds and in both contestable and non-contestable areas. Ofcom identifies three main types of evidence as the basis for its SMP assessment: market shares, differences in the existing presence of network infrastructure and the extent of constraints from potential competition from entry and network expansion.⁵¹
- 2.49. But Ofcom does not specifically assess whether Openreach is likely to have SMP in ultrafast capable lines,⁵² and its assessment of competition conditions in Virgin Media areas places undue weight on market shares rather than the competitive pressure created by bidding dynamics (as described above). A full analysis of these factors would likely show that Openreach does not have market power in ultrafast nationally (now or during the review period) and does not have market power in relation to any speed in Virgin Media areas.
- 2.50. The dynamics created by CP-led tenders for wholesale services are particularly important to capture. As discussed in the Compass Lexecon Report:
- Competition can be effective in such markets even with one other bidder or with credible potential competition from additional existing suppliers and/or prospective entrants.
 - This is especially the case in bidding markets for CP-led tenders where competition is 'winner takes all' (i.e. each supplier either wins all or none of the CP's specific order for the area), competition is 'lumpy' (i.e. the order accounts for a significant share of the supplier's total sales, and competition begins afresh for each contract (i.e. customers are not locked into their supplier)).⁵³
 - Furthermore, the CMA and European Commission have found in telecoms merger decisions that the risk of another supplier participating in a tender may be sufficient to achieve a competitive outcome (even where there are no, or few, rival bidders).^{54,55}
- 2.51. The evidence we have presented above indicates that Openreach faces strong competition in the supply of wholesale ultrafast services including the need to set

⁵¹ WFTMR 2020, Volume 2, paragraphs 8.25 to 8.32.

⁵² Ofcom wrongly assumes that if Openreach has SMP for some broadband services then it must have SMP for all broadband services. The Compass Lexecon Report notes: "Where a firm supplies multiple differentiated products into a market, it may also be that a firm could find it profitable to raise prices for some products above the competitive level while it would be constrained to pricing products in other market segments at the competitive level. This could arise where margins on products differ and/or the price elasticities of demand for the products differ such as where one product has closer competing substitutes than others." (paragraph 5.5).

⁵³ P. Klemperer, June 2005. Bidding markets. page 7.

⁵⁴ CMA, 15 January 2016. [BT/EE: Final Findings Report](#). paragraph 13.35.

⁵⁵ European Commission, 11 May 2016. [H3G/O2 merger decision](#). paragraphs 2035 to 2036.

prices (often in the context of tendering or commercial agreements) to compete with Virgin Media which has a larger ultrafast footprint and lower incremental costs. Network operators are seeking agreements with CPs to provide greater confidence of future volumes and reduce the risk of fibre investments. Network operators which do not invest in ultrafast capable networks will be increasingly marginalised.

- 2.52. The constraint from Virgin Media is self-evident. As noted in the Compass Lexecon Report, Openreach is unable to profitably set excessive prices in Virgin Media areas given the risk that CPs would go to Virgin Media (or to an altnet). Nor can there be any suggestion that Openreach can leverage market power from having a more ubiquitous network than Virgin Media. On the contrary, Virgin Media has a more extensive ultrafast-capable network than Openreach (likely for the entire review period even allowing for recent announcements).⁵⁶ Even for Openreach's superfast network (which is more extensive), customers can exert pressure by switching away from Openreach (in areas where rival networks exist) and by continuing to take regulated superfast products from Openreach elsewhere. Regulation imposed by Ofcom in Area 3 (which Ofcom envisages will be cost reflective albeit across all technologies, see Chapter 5) would also be expected to remove any potential for Openreach leveraging its market power from Area 3 into Area 2.
- 2.53. Ofcom notes that BT has a 60% share of broadband connections in Virgin Media areas which is "*consistent with the presumption of dominance.*" This fails, however, to reflect dynamic nature of the market in which Virgin Media is already using its network advantage to undercut Openreach's superfast services by offering higher speed services at similar retail prices. It is also a credible wholesale competitor able to take a sizeable slice of wholesale market share from Openreach. If, for example, Openreach lost Sky to Virgin Media overnight, Openreach's share of all wholesale broadband speed connections in Virgin Media areas would fall from 60% to 40% (i.e. reduction by a third).⁵⁷
- 2.54. There is concrete evidence that Openreach is already pricing to avoid the loss of CP customers to wholesale rivals. For instance, in 2018, [X] Openreach offered all its wholesale customers price discounts if they achieved particular growth of their FTTC broadband customer base on Openreach's network over a 3 or 5-year period. This means that wholesale superfast prices are lower than the cap set by regulation for wholesale customers who can meet the relevant volume requirements.⁵⁸ This evidence (on competitive pricing) provides a more reliable and direct indicator of competition than Openreach's historical or current market share.

⁵⁶ See Liberty Global and Telefonica joint announcement, 7 May 2020. [Liberty Global and Telefonica to merge their UK operations creating the leading fixed-mobile provider in the country.](#) and BT [FY2019/20 FY results](#).

⁵⁷ Sky has 23% of the retail national market for all broadband speeds and 33% of Openreach connections with major retail ISPs including BT, Sky and TalkTalk. We have excluded Vodafone due to relatively fewer connections and to make the calculation simpler using published share information in WFTMR Volume 2 table 2.2. Note "others" includes Gigaclear, Hyperoptic and Vodafone. While Virgin Media will be stronger in its own footprint, it is reasonable to assume that Sky will be as successful in competing against non-Virgin Media CPs in Virgin Media areas as it is elsewhere. Ofcom estimates that Openreach's current share of all broadband connections in Virgin Media areas is approximately 60% (WFTMR 2020, Annex 9, paragraph A9.16). Hence a reasonable estimate of the reduction in Openreach's market share in Virgin Media areas is from 60% to 40% (i.e. $33\% \times 60\% = 20\text{ppts}$) or equivalently a market share reduction of around one third. See also Ofcom [Communications Market Review 2019](#). Telecoms data tables, Fixed broadband connections by ISP, 2018.

⁵⁸ See BT, 29 March 2019. Confidential Response to Ofcom's consultation "Promoting competition and investment in fibre networks - Approach to remedies". paragraph 2.20.

- 2.55. Whether Openreach has SMP on a forward-looking basis in ultrafast capable networks requires analysis of the competitive conditions in the supply of ultrafast services (which is absent from the WFTMR). The few references to ultrafast supply focus, narrowly, on BT, for example, "*BT currently has a small share of ultrafast...by the end of the review period we, therefore, expect BT to be able to supply a substantial number of premises with UFBB services.*"⁵⁹ Allowing for the latest announcements of roll-out targets by Liberty Global and BT,⁶⁰ it remains likely that Openreach will supply fewer premises with ultrafast than Virgin Media over the entire review period unless it can meet its most ambitious annual run rate.
- 2.56. This narrow focus on Openreach overlooks the relevant dynamics which are pushing it to create an (attractively priced) ultrafast capability. As set out above, market conditions and market outcomes show that Openreach faces strong competition including the need to set prices to compete with Virgin Media which has a larger ultrafast footprint and lower incremental costs. Network operators are seeking agreements with CPs to provide greater confidence of future volumes and reduce the risk of fibre investments. Network operators which do not invest in ultrafast capable networks will be increasingly marginalised.
- 2.57. These changing market conditions over the extended review period have an appreciable impact on the application of the TCT, which must be applied before regulation can be imposed. Given that the review period is significantly longer (changed from 3 years to 5 years) and there is significant anticipated change to competitive conditions during the review period, it is particularly important for Ofcom to apply the TCT and, as part of the application of that test, fully discharge the burden of proof at each stage. Given the length of the review period and the changing conditions, it is surely inappropriate for Ofcom to start with a general presumption of a continuation of current regulation. As the market matures to more intensive competitive conditions, the imposition of regulation should be eased.
- 2.58. This is particularly so given that a finding of high and non-transitory barriers to entry (i.e. SMP) is only the first of the three criteria and the other two (a market structure which does not tend towards effective competition within the relevant time horizon and the sufficiency of competition law alone to adequately address the market failure(s) concerned) require Ofcom to give careful consideration to the forward dynamics of the market. We submit that sufficient competition is now in place, and that Ofcom should refrain from intervention where these forward dynamics indicate that the market – if not already fully competitive – is tending towards effective competition offering adequate protections for customers.

Wireless technologies and meshed networks are also likely to increasingly constrain ultrafast services

- 2.59. Openreach operates in a sector where investment decisions are taken over the long term and where technology is evolving fast. For this reason, Ofcom must give more weight to other technologies that could act as competitive constraints on pricing of ultrafast capable networks in future in its SMP assessment.

⁵⁹ WFTMR 2020, Volume 2, paragraph 8.51.

⁶⁰ See Liberty Global and Telefonica joint announcement, 7 May 2020. [Liberty Global and Telefonica to merge their UK operations creating the leading fixed-mobile provider in the country.](#) and BT [FY2019/20 FY results.](#)

2.60. In relation to Fixed Wireless Access (FWA) Ofcom argues that FWA is in a separate product market: *"Overall, our view is that the evidence does not suggest that 5G FWA services would exert a material competitive constraint on fixed access services, but we recognise that this is an area that could develop during this market review."*⁶¹

2.61. In addition Ofcom argues FWA will not constrain Openreach's wholesale ultrafast pricing over the next review period: *"We have also considered the extent to which external constraints i.e. out-of-market products such as FWA and mobile broadband, which nevertheless may be a demand-side substitute for some consumers, may reduce BT's market power. As outlined in Section 2, demand for these products is still relatively low. Although demand may grow over the review period, the timing and extent of this is unclear. We, therefore, do not consider that these services will exert a significant competitive constraint on BT within the review period."*⁶²

2.62. While we agree with Ofcom that FWA services do not fall within a fixed (wired) broadband market, Ofcom should give greater weight to the latest evidence that 5G FWA services are likely to place a degree of competitive constraint on OR's pricing of ultrafast-capable networks. For example:

- H3G launched its 5G FWA services in H2 2019. New Street Research⁶³ notes that H3G has the largest holding of 'high-band' 5G spectrum, and that the mobile data capacity improvements this 5G spectrum offers could enable 3UK to provide FWB to c.3m UK broadband customers in the shorter-term.
- New Street also believes that advancements in signal propagation from Massive-MIMO antenna systems could allow 3UK to cover c.13m premises in the UK over time as well as predict H3G could gain a share of up to 5% of UK broadband customers over the longer term.

2.63. Ofcom gives insufficient weight to the latest developments in meshed network and satellite technologies and the competitive constraints these technologies will likely impose on ultrafast pricing over the next review period.

- Ofcom does not include in its analysis the competitive threat arising from meshed network solution including from Terragraph (by Facebook). Terragraph is a meshed wireless technology designed to meet the growing demand for reliable, gigabit speed internet access in urban and suburban environments. Using street-level mmWave radios, Terragraph leverages existing street furniture, to create a wireless distribution network ideally suited for last-mile fixed access. The technology can deliver fibre-like connectivity to customers at a fraction of the cost of fibre and could offer a cost competitive alternative to fibre thereby constraining wholesale fibre prices.⁶⁴
- Ofcom concedes that *"Although not available yet, companies like SpaceX, OneWeb and Telesat plan to launch LEO constellations for commercial broadband as early as 2020. In theory, LEO satellites will offer low latency and higher speeds, ranging from 100Mbit/s to gigabits per second."*⁶⁵ These

⁶¹ WFTMR 2020, Volume 2, paragraph 6.60.

⁶² WFTMR 2020, Volume 2, paragraphs 8.43 and 8.68.

⁶³ New Street Research, 14 June 2019. Can FWB succeed in an OTT world? Increasing supply allows some success. OTT limits opportunity.

⁶⁴ See ISP Review, 29 February 2020. [Gigabit Broadband Speeds Available to 14.3% of UK Premises](#). See also [Terragraph by Facebook](#).

⁶⁵ WFTMR 2020, Annex 6, paragraph A6.54.

emerging low earth orbit (LEO) broadband satellite systems could therefore dramatically increase the satellite-based capacity over the UK and offer complete coverage solutions for enterprises (including as a potential opportunity for geographic infill in the UK). HSBC has set out the potential for LEO satellite broadband to become economically feasible, and that SpaceX is looking to target unconnected areas in developed markets with its first batch of LEOs.⁶⁶ Given the ambitions of companies like SpaceX and the fact these competitive threats are based on proven and deployed LEO technologies Ofcom must revise its assessment to be more forward looking.⁶⁷

Leased lines access markets are competitive well beyond the Central London Area

- 2.64. We welcome Ofcom's recognition that leased line and residential markets are separate, and that the CLA is effectively competitive. But we believe Ofcom has not sufficiently recognised the dynamic nature of business connectivity markets in its assessment of the HNRs and Area 2.⁶⁸
- 2.65. The finding that Openreach has SMP in HNR areas is considered by Ofcom to be "finely balanced" (a conclusion which Ofcom also reached in the BCMR 2019 Statement.⁶⁹ This is not surprising because Ofcom's analysis "is based on the same underlying data collected as part of the 2019 BCMR and uses the same methodology".⁷⁰
- 2.66. Competition in Leased Lines access (LLA) markets evolves quickly, facilitated by the availability of regulated DPA as recognised by Ofcom and by the Competition Appeal Tribunal in its recent judgement ('CAT Judgement').⁷¹ Our evidence indicates there has been material network build in both Area 2 and the HNRs since Ofcom last collected data on business market network presence.
- 2.67. Pricing pressures, ahead of network build, are strong in the CLA, the HNRs but also in Area 2 more widely in competitive tendering markets. BT Enterprise (which today relies on Openreach inputs to remain competitive) fails to compete successfully in many tenders because its rivals are using more competitive infrastructure alternatives. This evidence supports a finding that leased lines markets in the HNRs are currently competitive.
- 2.68. In the same vein, Area 2 is likely to be competitive on a forward-looking basis. We note the presence of Virgin Media's existing network; the "*prospects of material build [enabled by DPA] in Area 2*" as recognised by Ofcom⁷² and the "*uncertainties around where and when rivals will deploy*".⁷³ It is precisely these factors, combined with the prevalence of competitive tendering and customer buyer power, which

⁶⁶ HSBC Global Research, 3 October 2019. From Hype to Reality: Low Earth Orbit Networks. pages 5 and 6.

⁶⁷ ISP Review, 31 January 2020. [OneWeb and SpaceX LEO Ultrafast Broadband Satellites](#).

⁶⁸ In this section where we refer to Area 2 we mean LLA Area 2.

⁶⁹ Ofcom, 28 June 2019. [Promoting competition and investment in fibre networks: review of the physical infrastructure and business connectivity markets](#). Volume 2: market analysis, SMP findings, and remedies for the Business Connectivity Market Review ('BCMR 2019 Statement'), paragraph 6.147.

⁷⁰ WFTMR 2020, Volume 2, paragraph 8.78.

⁷¹ For example, the Competition Appeal Tribunal (CAT) noted that "it was clear that other providers were already making some use of" DPA. Competition Appeal Tribunal, 5 March 2020. See: [Judgement in the case of TalkTalk and Vodafone appeal against Ofcom](#). Competition Appeal Tribunal Case number 1330/3/319. paragraph 290.

⁷² WFTMR 2020, Annex 7, paragraph A7.37.

⁷³ WFTMR 2020, Volume 2, paragraph 8.102 b).

mean that Openreach is competitively constrained across the whole of Area 2. Ofcom's analysis misses this by using out-of-date information on network presence and market shares rather than updating its analysis. This updated analysis should capture observable competitive dynamics including the impact of lower barriers to entry due to DPA.⁷⁴ Should Ofcom nonetheless decide to proceed with its SMP finding in Area 2, it must ensure the remedies it imposes are proportionate. This is discussed further in chapter 4 below.

- 2.69. Ofcom also notes that, over time, it may be increasingly difficult to distinguish between access services used for residential purposes and for LLA, particularly on the supply side.⁷⁵ While this may be the case for bandwidths up to around 1Gbps, the market for very high bandwidth (VHB) LLA services above 1Gbps and dark fibre is likely to remain distinct from the WLA market. This market features large sophisticated buyers issuing tenders for large contracts that often require a significant amount of new network build and where providers (we call them network aggregators) mix and match own new build with existing own network and leased capacity from a variety of providers including but not limited to Openreach.⁷⁶ We see these distinct features as enduring (i.e. likely to require a separate consideration of this market in future reviews).
- 2.70. Put simply, our evidence indicates more competition in LLA markets than suggested by Ofcom. In the following we first set out our view on Ofcom's product and geographic market definition, and then comment on its SMP findings.

The product market for LLA, in particular at very high speeds, is likely to remain separate from WLA markets

- 2.71. As noted above we welcome Ofcom's proposal to retain separate product markets for WLA and LLA services.
- 2.72. Ofcom finds that there is currently limited scope for demand or supply side substitution between residential and LLA retail services:
- On the demand side, leased lines provide higher quality connections at higher prices than broadband access services, over dedicated capacity with symmetrical upload and download speeds. It is unlikely that broadband access users would switch to the significantly more expensive leased lines access services⁷⁷ in response to a 10% price increase for broadband access services.⁷⁸

⁷⁴ We don't agree with Ofcom that "the data gathered for the 2019 BCMR remains a reasonable basis for analysing existing leased lines network presence for the purposes of this consultation. In particular, we have had discussions with stakeholders and sent formal information requests. This information shows that: a) there has not been material new leased lines only network build since December 2017; and b) there are prospects for new build, including opportunities for using PIA to increase the density of existing network coverage, but it is difficult to reflect this in the data analysis as operators' build plans are still developing." WFTMR 2020, paragraph A8.61.

⁷⁵ WFTMR 2020 Volume 2, paragraph 6.13.

⁷⁶ As set out by the CAT Judgement, "Network aggregators, like value added resellers, buy services from network operators and sell them to customers. Unlike value-added resellers, they tend to buy network services from multiple operators to provide a national service; buying circuits which give the best value for money to the end customer.", Appendix: Technical Background, paragraph 40.

⁷⁷ By way of comparison, Openreach's annual rental price for a FTTP service with 500Mbps download and 115Mbps upload speed is less than £400, while the rental price for an Ethernet Access Direct (EAD) service with 100Mbps symmetrical speed is just under £1,700. ([Openreach's prices](#) valid as of 1 April 2020.)

⁷⁸ WFTMR 2020, Volume 2, paragraphs 6.54 and 6.81.

- On the supply side, leased lines and broadband access services require different network architecture, and the rollout of networks for leased lines and broadband access has different drivers. While broadband networks are pre-built across an area with access points at most premises, leased lines circuits get extended in response to a customer order to connect specific business sites.⁷⁹

2.73. We agree with the distinctions between residential and leased line markets for the reason that Ofcom gives, in particular that FTTP networks are unlikely to cater for symmetric and uncontended services above 1Gbps. But we remain of the view (in line with our previous submissions)⁸⁰ that the competitive dynamics in LLA markets are different depending on speed, and that these differences are likely to become more pronounced in the future.

2.74. In particular, it is possible that LLA services up to 1Gbps will be increasingly interchangeable with WLA FTTP services as these networks are built. Above 1Gbps the LLA market is likely to remain separate from WLA markets and characterised by competition driven by tendering processes where suppliers bid with a mixture of own and third-party infrastructure. In future reviews, therefore, separate product markets by speed may well be identified for services at and below 1Gbps (as was the case until 2019⁸¹) on the one hand and services above, on the other.⁸² We explain our position further below.

LLA services of very high bandwidths will remain distinct from WLA services

2.75. Unlike mass-market oriented WLA services, VHB LLA services (and dark fibre) are generally required by large, sophisticated customers such as Mobile Network Operators (MNOs), large businesses, data centre providers and public sector authorities. The market is characterised by fiercely contested contracts lasting, typically, [X], and which tend to involve a significant proportion of new build. Given the high value of VHB circuits, providers will often build to connect individual sites or groups of sites. New build is facilitated by access to Openreach's DPA, combined with wholesale access (commercial or regulated) provided by Openreach or other providers (including multi-service networks like Virgin Media or CityFibre, but also specialist leased line providers including Colt, and - in some areas - SSE).⁸³

2.76. VHB circuits are also often used to aggregate traffic from multiple sites and customers, for example for LLU (Local Loop Unbundling) backhaul or data centre traffic. Unlike MNO backhaul, LLU backhaul and data centre traffic are defined by

⁷⁹ WFTMR 2020, Volume 2, paragraphs 6.55 and 6.82.

⁸⁰ BT, 18 January 2019. [Response to Ofcom's consultations on the Physical Infrastructure and the Business Connectivity Market Reviews](#), paragraphs 3.10 to 3.23; and BT, 14 June 2019. [Response to Ofcom's consultations on approach to remedies](#), 14 June 2019, paragraphs 2.31 to 2.34.

⁸¹ In its 2016 BCMR Statement Ofcom defined a single product market comprising all speeds, which in November 2017 was repealed by the Competition Appeals Tribunal following an appeal by BT and remitted to Ofcom. In its Statement of Temporary Conditions in November 2017 Ofcom only defined a product market for all lower bandwidth services. Ofcom, November 2018. Temporary SMP conditions in relation to business connectivity services. Paragraphs 2.9 and 2.12.

⁸² Openreach sells services above 1Gbps as EAD or optical circuits at 10Gbps and in increments of 10Gbps and 100Gbps above that. Source: Christopher Bailey's First Witness Statement, 15 November 2019. TalkTalk and Vodafone appeal against Ofcom, Competition Appeal Tribunal Case number 1330/3/319. paragraph 14(b). ('Bailey 1')

⁸³ BT previously set out these arguments in its response to Ofcom's consultations on the Physical Infrastructure and the Business Connectivity Market Reviews, 18 January 2019, paragraphs 3.13 to 18. The same market dynamics are also described in Bailey 1, paragraphs 29 to 34.

Ofcom to be part of a separate product market, the interexchange connectivity (IEC) market, which is largely deregulated given the strong competition in this segment. The market for VHB LLA services shares many of the same competitive dynamics as LLU backhaul and data centre traffic.⁸⁴

Leased lines of 1Gbps and below will face increasing competitive pressure from WLA FTTP services

- 2.77. Where FTTP services are available they may well exert a significant constraint on low bandwidth LLA services in future. However, it is premature to suggest a merged product market that includes low bandwidth leased lines and FTTP broadband services today or over the market review period.
- 2.78. Lower bandwidth leased lines (up to and including 1Gbps, but currently in particular 100Mbps lines) are increasingly being replaced by FTTP. Even though FTTP services do not provide uncontended capacity, they are now capable of offering up- and download speeds similar to low bandwidth leased lines; and there is no reason to believe FTTP and leased lines fault rates would be significantly different. If provided with a business-oriented service wrap, FTTP can now provide most features of a low bandwidth leased line, at a lower price.⁸⁵
- 2.79. BT Enterprise currently expects that, over the next five years, [X] This may increase even further if Openreach provides a business grade FTTP service in the future (as its customer consultation process suggests it will).⁸⁶
- 2.80. While this suggests prospective competitive pressure on low bandwidth leased lines from WLA FTTP services within the next review period, it is premature to conclude there is a single product market, for the following reasons:
- The substitution is reliant on FTTP services being available. As we noted above, Openreach's FTTP network covers almost 2.6m premises to date, although this is expected to increase over the period of the review.
 - The maximum guaranteed symmetric speed capable of being delivered over FTTP is still fairly limited. [X].
 - The constraint is asymmetric. FTTP lines constrain low bandwidth leased lines, but, as Ofcom correctly noted, leased lines are not regarded as substitutes for FTTP lines as the basis for residential services. Leased lines are significantly more expensive and leased lines networks are not built to deliver mass-market broadband to many homes and businesses.
 - Business demand for higher bandwidth is expected to increase sharply, and many sites requiring circuits at 1Gbps today are likely to transition to VHB circuits (or indeed dark fibre) in the future.⁸⁷ As explained above, VHB services are unlikely to be replaced by FTTP-based services, so customers that are due to upgrade soon would not consider switching to FTTP based services temporarily.

⁸⁴ See also Annex 7 on the regulation of BT Core.

⁸⁵ [X]

⁸⁶ Openreach, 22 July 2019. [NGA2010/19 GEA-FTTP for Business Consultation Document](#).

⁸⁷ [X].

Ofcom's geographic market assessment for LLA needs to be refreshed

- 2.81. As we noted above, Ofcom has used the same evidence as in its 2019 BCMR for the purposes of its LLA geographic market assessment. The evidence is based on network presence as at December 2017 – more than two years out of date. Inevitably, Ofcom comes to the same conclusions as in 2019.
- 2.82. Ofcom's reconfirmation of many of its findings then, namely that there is effective competition in the CLA and that the HNR areas are highly competitive, is both supported by the evidence and good for regulatory consistency.
- 2.83. However, relying on old data understates the degree of competition present in LLA markets today. Competition, including from further network rollout, in LLA markets has been evolving significantly over the last two years. By not taking this into account Ofcom has overstated BT's SMP, notably in the HNR areas and in Area 2.
- 2.84. As we set out below, the market-wide competitive pressures illustrated below and BT Enterprise's experience of them suggest the HNR areas are already effectively competitive and should be fully deregulated. Area 2 is may well be found to be competitive on a forward-looking basis if Ofcom updates its analysis of market shares, network presence, plans, pricing and evidence on buyer power. We agree with Ofcom that imposing a prohibition on geographic discounts in HNR areas could impede Openreach's ability to compete with established rivals and deprive consumers of the benefits of that competition. But the imposition of this prohibition in Area 2, and the proposed notification process for other commercial terms, will also unduly impede Openreach's ability to compete and deny customers the benefits of competition.
- 2.85. In addition, as we set out in Chapter 4 below, where Ofcom persists with its SMP finding for leased lines, consistent with the Commitments, we expect BT Enterprise to be able to use Openreach passives (including in combination with own build of new duct) without SMP conditions applying to it in those cases. This is to ensure it can compete on a level playing field with other operators in circumstances where Enterprise has no market power or non-replicable advantages compared to its rivals.
- 2.86. In the following we set out additional network build to serve business customers that has taken place since December 2017 and which is not yet included in Ofcom's analysis, before considering the extent of likely further build over the market review period.

Significant network build since 2018 is not yet included in Ofcom's analysis

- 2.87. Ofcom's market analysis is based on data for network presence that is now more than two years out of date (December 2017). In the meantime, there has been a significant step up in network rollout, partly driven by:
- Ofcom's regulatory policies such as DPA, which became available to leased lines only networks in 2019.⁸⁸
 - Local councils tendering for long term contracts to provide them with modern Wide Area Networks (WAN), often supported by Government funding.

⁸⁸ BCMR 2019 Statement, paragraph 1.5.

schemes such as the Local Full Fibre Network (LFFN) and Rural Gigabit Connectivity (RGC) programmes (we discuss these in more detail below) and

- MNOs 5G rollout plans, which will require significant investments in additional mobile backhaul capacity to connect the large number of new macro and micro cells (and the upgrading of existing cells) needed for 5G coverage.⁸⁹

2.88. We use [X] to form our view of rival network presence. Table 2.1 below shows our estimate of the number of postcodes within each of the geographic markets containing two or more rivals to BT on 1 January 2018 and 1 January 2020. There is strong evidence of material network build in the period not covered by Ofcom's data,⁹⁰ particularly in the HNRs and Area 2, suggesting additional competitive pressure on BT in these postcodes from further networks being available to businesses.

Table 2.1: BT view of changing network build

	Number of postcodes with two or more rivals to BT present		
	January 2018	January 2020	Change
CLA	[X]	[X]	24%
HNR	[X]	[X]	377%
Area 2	[X]	[X]	295%

2.89. The above suggests that when Ofcom updates its evidence base, it will show a significant increase in competitive network presence, with more businesses able to access services from two or more rivals to BT, which may already reflect in market shares (although they could be expected to lag build). This (and the competitive dynamic in play which drive network presence over time) could indicate greater competition in the HNRs and in Area 2 than Ofcom has found in its analysis.

2.90. Given the speed of network build, it is important that Ofcom updates its evidence of network presence as late as possible before the regime comes into effect (both for WLA and LLA markets). It should include any network rollout (including leased line specific networks) that takes place in 2020, even though Ofcom should be mindful that build will be below its long-term trend due to the COVID-19 crisis (which makes a full assessment of competitive dynamics and the impact of DPA even more important).⁹¹

2.91. In refreshing its analysis of market boundaries, Ofcom must specifically assess the boundaries of the LLA market (and not align its assessment with that for the WLA market), so as to include leased lines specific network rollout.⁹²

2.92. Failing to update evidence (on current and likely future deployment) risks embedding over-regulation for the longer (five years) which is particularly problematic where that regulation inhibits competition by Openreach (and associated customer benefits) that should be permitted.

⁸⁹ [X].

⁹⁰ Our data will likely underestimate the extent of network build. This is because: [X]; and some postcodes will contain multiple buyers of leased lines.

⁹¹ We understand that Ofcom has sent out an information request to update its data for 2018 and 2019. But given the dynamics of the sector, we continue to believe Ofcom should also include 2020 in its data.

⁹² In paragraph 7.75 of Volume 2 of the WFTMR Ofcom artificially align LLA Areas 2 and 3 with WLA Areas 2 and 3, even where postcode sectors have additional leased lines network presence. The greater the extent of additional leased lines networks presence the less appropriate it is to align the markets.

Further significant network rollout is expected beyond 2021

- 2.93. Ofcom “do[es] not consider that the presence of leased lines only networks sufficiently alters the conditions of competition in any area” outside the CLA and HNR areas.⁹³ But significant leased lines only network rollout is expected over the market review period, facilitated by cost-based access to our ducts and poles and market dynamics characterised by competitive tendering. Ofcom should, therefore, take account of leased lines only network rollout that is planned beyond 2021 in its market analysis.
- 2.94. The key drivers of further network rollout will be:
- The Government's Local Full Fibre Network (LLFN) and Rural Gigabit Connectivity (RGC) programmes. There is typically intense competition for Government programmes designed to promote regional fibre rollout. We estimate, for example, that only around ~~3%~~ of over £200m of funding available so far has been awarded to Openreach.
 - 5G rollout by the MNOs. Mobile providers expect to build out mobile backhaul capacity to support their 5G plans. These tend to be high value long-term contracts that are highly contested by network providers.

Ofcom's SMP assessment must give greater weight to competitive tendering facilitated by low barriers to entry

- 2.95. Ofcom's SMP assessment relies primarily on assessing existing rival network presence and network density, alongside other conventional SMP assessment parameters including market shares, price levels and countervailing buyer power.
- 2.96. Ofcom correctly recognises that market share is only one factor of many in an SMP assessment. For example, its analysis of other factors such as high network density (which suggests low barriers to entry) and decreasing prices leads it to find effective competition in the CLA despite high market shares. We fully agree with this approach, and also note the Competition Appeal Tribunal's view, that it is “not ... helpful to categorise ... [other] factors ... as ... in some way less important than market shares”.⁹⁴ Indeed, market shares can be less informative in markets characterised by tendering where “winners take most” and market share changes can be lumpy.
- 2.97. Two key features that characterise LLA markets have not, however, been fully reflected in Ofcom's current analysis leading to an overstatement of BT's SMP, notably in HNR areas and in Area 2. These features are: a) the impact of DPA on barriers to entry on a forward looking basis; and b) the competitive dynamics of tendering markets for large high value contracts, which are reflected in pricing trends (downwards), countervailing buyer power (strong)⁹⁵ and barriers to entry (lower).
- 2.98. An updated analysis which gives proper weight to these factors including an assessment of the viability of competitive entry and expansion in the LLA market given the availability of DPA is likely to lead Ofcom to find greater network

⁹³ WFTMR 2020, Volume 2 paragraph 7.76.

⁹⁴ CAT Judgement, paragraph 171.

⁹⁵ For example, in its response Openreach cite its pricing reductions in the CLA as “indicative of increasing buyer power”.

competition in both HNR and Area 2 today, in a dynamic and fast evolving market, characterised by declining price trends and strong buyer power.

DPA reduces barriers to entry and lowers the cost of network rollout

- 2.99. Ofcom itself has confirmed that "*PIA has the potential to increase the strength of competition*" (physical infrastructure access or 'PIA' is the name Ofcom use for the regulated wholesale access products comprising Openreach ducts and poles).⁹⁶
- 2.100. Ofcom makes repeated reference to DPA leading to more leased lines deployment and consequently more competition in the future. It finds "*prospects of material build in ... HNR areas*" as well as "*prospects of material build in Area 2 by MSNs*".⁹⁷ This is reinforced by the CAT finding that "*some providers were already making some use of [DPA in the CLA] ... and that it would be likely to have some effect on competitive conditions*".⁹⁸
- 2.101. Ofcom accepts that DPA will deliver a range of potential benefits to altnets seeking to extend their roll out namely: lower upfront build costs (by approximately a half); and speedier (and less disrupted) deployments.⁹⁹ Ofcom nonetheless fails to recognise the game-changing nature of this remedy for competition in the LLA market where rival network providers and aggregators use it to build themselves, or to support third party build where wholesale access is too costly.
- 2.102. DPA increases the viability of network build over greater distances. A study by AlixPartners found that the use of DPA increases the radius within which network build is commercially viable by a factor of ten (as shown in Figure 2.3 below).¹⁰⁰ The study concludes that the availability of DPA will "*constrain Openreach*" by allowing "*CPs to deploy ... fibre more cheaply, rapidly and in more locations*" than without the remedy.¹⁰¹

⁹⁶ WFTMR 2020, Annex 7, paragraph A7.18.

⁹⁷ WFTMR 2020, Annex 7, paragraph A7.37. MSNs are multi-purpose networks, i.e. networks that serve both business and residential customers.

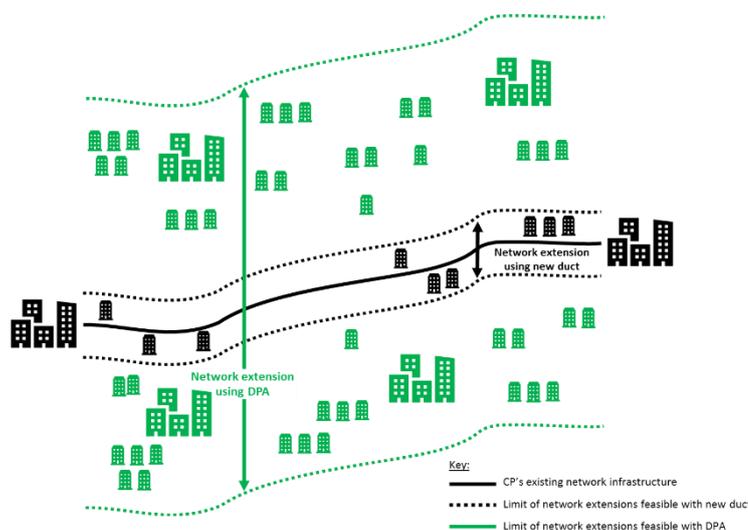
⁹⁸ CAT Judgement, paragraph 290.

⁹⁹ WFTMR 2020, Volume 1, page 4 and WFTMR 2020, Volume 2, paragraph 1.28.

¹⁰⁰ Using Ofcom's own model, analysis by Alix Partners for BT found material cost savings from using DPA for business services that could increase the viable supply distance between a customer site and rival infrastructure by a factor of ten: the one-off cost of providing a 1Gbps circuit which requires 100 metres of new duct construction is £11,000 in present value terms over five years, but only £2,300 if the duct is already in place. Source: BT, 18 January 2019. [Response to Ofcom's consultation on PIMR and BCMR](#), paragraph 3.7.

¹⁰¹ AlixPartners, 25 January 2019. [The impact of duct and pole access on the BCMR 2019](#), paragraphs 12 and 14.

Figure 2.3: Stylised illustration of the impact of DPA on CPs ability to reach business sites



Source: AlixPartners

2.103. As noted at paragraph 2.25 above, DPA has reduced the cost and time for entry and levelled the playing field with respect to Openreach in the deployment of ultrafast networks. Ofcom reports that 80 companies are looking to use Openreach's telegraph poles and underground ducts to lay new fibre and planning to use over 40,000 poles and 5,000km of duct, up from around 12,000 and 2,500km in May 2019.² CityFibre has also stated that it expects to be the largest DPA customer in the UK.³ Openreach usage statistics suggest [X].¹⁰²

2.104. The above suggests a potential rapid uptake of DPA over the 2021-26 period, driving network competition. Use cases we are aware of including Virgin Media using DPA to circumnavigate structural objects posing additional build challenges, e.g. underneath rail lines or near bridges.¹⁰³ CPs like Next Gen Access use DPA as a key component in their business model, creating Dark Fibre which they sell on.¹⁰⁴ CityFibre and Hyperoptic blend DPA with network build where they are rolling out full fibre to reduce cost and time for deployment.¹⁰⁵

2.105. Ofcom recognises this to an extent but does not place much weight on it in its SMP assessment. It explains that Three noted that "PIA could be attractive for the supply of mobile backhaul and told us 'the access tails of the [mobile] backhaul network are more attractive to infrastructure providers using a PIA remedy than inter-exchange lines, as there is a larger market for these lines (they are more numerous

¹⁰² [X]

¹⁰³ ISP Review, 1 April 2019, [Virgin Media UK Start Using Openreach Cable Ducts to Expand Network](#) [accessed 20 April 2020].

¹⁰⁴ www.nextgenaccess.com, accessed on 20 April 2020: "Utilising our innovative technology and expertise, the nextgenaccess planning team have access to our own UK network as well Openreach infrastructure [sic]. We can use DPA/PIA and ATI Legislation to deploy our own new fibre across other utility infrastructures."

¹⁰⁵ CityFibre, September 2017, [Response to Ofcom consultation on DPA pricing](#), paragraph 1.1.2: "CityFibre has recently completed the only large-scale trial of PIA in the UK in Southend where a total of 62.5 km fill-fibre network was constructed with substantial parts of this using PIA."; Hyperoptic, September 2017, Response to [Ofcom consultation on DPA pricing](#), page 8: "Hyperoptic is intending to and has already deployed large numbers of network joints (connection points) using PIA."

than inter-exchange lines) and access tail line lengths are much shorter, reducing the costs to operators of deploying their own fibre"', adding that it "expects future demand from MNOs to be increasingly for VHB services."¹⁰⁶

2.106. However, the corresponding pricing pressure is already being exerted. As set out in Bailey 1 in the 2019 BCMR appeal, [X].¹⁰⁷ The more certain prospects of material DPA-based network build, and the pricing pressure it creates, should be reflected in Ofcom's updated SMP assessment.

2.107. Ofcom is reluctant to place weight on pricing pressure in its SMP assessment or to consider the viability of leased lines build using DPA and the resulting likely competitive impact. Even where it is aware of existing plans by individual network providers, Ofcom discounts this evidence as the precise timing and location of new network is still uncertain.¹⁰⁸ But this uncertainty creates competitive pressure (particularly in tenders) well ahead of the actual rollout, and across a wider area, consistent with effectively competitive markets. These factors should be reflected in a forward looking SMP assessment.

Competitive tendering is commonplace in LLA markets

2.108. As highlighted above, in the LLA markets Openreach and other providers¹⁰⁹ compete for the provision of infrastructure on its own or in combination with connectivity services. This competition is increasingly through tenders, typically for VHB services (above 1Gbps) and dark fibre, but lower bandwidth circuits and FTTP technology can also be awarded through tenders in the LLA market.¹¹⁰

2.109. Large, long term tenders normally originate from a relatively limited number of large sophisticated buyers, often requiring a mixture of VHB and lower bandwidth connections. These buyers hold a strong negotiating position because of the high value of their business to network providers and their role as 'anchor tenants' which enables supply to further business customers at low incremental cost. They include:

- MNOs for mobile backhaul (VHB lines for aggregated traffic or macro cells; and typically up to 1Gbps for micro cells)¹¹¹
- Public sector bodies for large regional Wide Area Networks
- Large corporates for data centre connectivity or other business critical networks, including for high data volumes and sensitive processes.

2.110. As noted above, the demand by end customers for enhanced mobile services leads to significant demand by MNOs for mobile backhaul services. Competition is intense for mobile backhaul contracts, fuelled by the availability of DPA – which Ofcom recognises. All MNOs have struck partnerships to work with preferred network

¹⁰⁶ WFTMR 2020, Annex 7, paragraph 7.41.

¹⁰⁷ Bailey 1, paragraph 39.

¹⁰⁸ WFTMR 2020, Volume 2, paragraph 8.102c.

¹⁰⁹ In addition to multi-service networks such as Virgin or CityFibre there are a number of network providers specialising in leased lines only access networks, for example Vodafone/Cable and Wireless, Colt, Exponential-e, Zayo and SSE; as wireless providers such as: Optimity, M247, and Orbital. Competition is also exerted by network aggregators and service providers using Openreach inputs, including BT Enterprise.

¹¹⁰ [X]

¹¹¹ MNOs require mobile backhaul to connect base stations ("cells") back to their own core networks. This includes the access to each cell, aggregation of traffic from several cells over a spine that connects to the MNO's core network.

providers to de-risk their investments and reduce costs. In its preliminary Q4 results, Virgin Media reported an increase in revenue from dark fibre contract wins.¹¹² Virgin Media subsequently announced long-term backhaul contracts with Three (for connecting its 5G mobile masts) and Vodafone.¹¹³ News reports on the merger between Virgin Media and O2 suggest that the joint venture may internalise O2's backhaul requirements (indicating a transfer of share from BT and Openreach to Virgin Media).¹¹⁴ This comes after an announcement by Three that it had signed CityFibre as its preferred backhaul provider outside London.¹¹⁵ These developments suggest highly dynamic markets particularly at the high value end of the LLA market.

- 2.111. In the public sector, councils and local healthcare trusts tender for the provision of new Wide Area Networks to connect a range of public sector sites such as town halls, schools, libraries or hospitals.¹¹⁶ There has been increased activity over the last two years, driven by Government funding schemes such as the LFFN¹¹⁷ and RGC¹¹⁸ programmes discussed earlier. The rollout of the NHS's Health and Social Care Network (HSCN) from 2017 has also led to more tenders for new local networks to support the HSCN.¹¹⁹ This provides a window of opportunity for established and new network providers to enter new areas, or to solidify their existing presence.
- 2.112. Public sector tenders for network provision may include the provision of service solutions but these may or may not be provided by the same firm, and network providers may enter partnerships to offer an integrated solution.¹²⁰
- 2.113. Medium and large corporate customers require network services to connect different business sites (e.g. retail branches, warehouses, central offices or data processing sites). In some sectors, notably the financial services sector, networks have to be capable of carrying very large data volumes with minimal time delay and maximum security, as these dataflows are critical to the effective functioning of the financial markets. Contracts normally last three to seven years and their values range from several thousand pounds to tens of millions of pounds per annum.
- 2.114. High value contracts are usually tendered, include a significant share of VHB services and require a significant amount of new network build (for a new customer). Every year around [X] of BT Enterprise's public and corporate networking business is subject to competitive tendering. Competition tends to be fierce and margins low, given the level of sophistication of the customers and the high value at stake.

¹¹² Virgin Media, 13 February 2020. [Preliminary Q4 results](#).

¹¹³ Financial Times, 7 May 2020. [Virgin Media to dominate market connecting 5G after contract win](#); and ISP Review, 7 May 2020. [Virgin Media and O2 Agree UK Broadband and Mobile Merger](#).

¹¹⁴ See above.

¹¹⁵ CityFibre, 18 February 2020. [CityFibre chosen as preferred provider of full capacity for Three's 5G rollout nationwide](#).

¹¹⁶ Table A3.1 in Annex 3 provides some examples of bids won by rivals to BT Enterprise.

¹¹⁷ The [Local Full Fibre Networks \(LFFN\) programme](#) was designed to stimulate commercial investment in full fibre networks in both rural and urban locations across the whole of the UK. The LFFN Challenge Fund (£190m) awards grants to local public sector bodies on a competitive basis. It aims to support full-fibre infrastructure projects that have the potential to leverage further commercial investment in the area. [Funding has been awarded in three waves, and is expected to run until March 2021](#).

¹¹⁸ [The Rural Gigabit Connectivity \(RGC\) programme](#) has allocated £200m (of a potential £5bn) to encourage take-up of gigabit-capable connectivity to residents and businesses in rural areas.

¹¹⁹ [NHS Digital](#), [Last accessed 11 May 2020.]

¹²⁰ CityFibre has been successfully partnering with network aggregator MLL on a number of public sector bids whereby CityFibre provides the fibre over which MLL provides managed network services. CityFibre. 6 February 2019. [press release](#).

2.115. The above dynamics suggest a highly dynamic and competitive market, and one where it is hard to see how Openreach could be found have market power given the strength of customers and the highly contested nature of tenders.

Tendering market dynamics need to be properly reflected in Ofcom's SMP assessment

2.116. Competition in tendering markets often involves '*winner takes all*' (i.e. each supplier either wins all or none of the CP's specific order for the area). Competition can also be '*lumpy*' i.e. a significant part of the market that is up for renewal in a given year is won or lost for a long time (which increases the stakes and incentives to participate and compete), and competition begins afresh for each contract (i.e. customers are not locked into their supplier).¹²¹

2.117. DPA, by lowering barriers to entry, encourages wider participation and bidding based on the likely viability of build not actual network presence. Specifically, network build often occurs *after* a bid is won – it is the commercial viability of building new network that creates competitive pressure at the bidding stage. Customers can, therefore, benefit from competition, investment and low prices where they organise their procurement through tendering, irrespective of the presence (or non-presence) of networks prior to the tender.

2.118. Ofcom, therefore, should place comparatively greater weight on the following SMP criteria:

- **Pricing levels and trends:** Effective tendering markets are likely to exhibit competitive price levels and decreasing prices over time. Ofcom should collect evidence on market prices in particular for VHB circuits over time – and not just limited to Openreach prices.
- **Countervailing buyer power:** Buyers can have very strong negotiating positions where business opportunities are lumpy (i.e. they represent larger shares of the overall market) and where bidders are uncertain about their rivals' network locations (and potential locations) and pricing strategies. Ofcom should collect evidence on the prevalence of purchasing through tenders (in particular for VHB circuits), their typical size, impact on market share changes, and effectiveness in driving down prices.
- **Barriers to entry:** The value of tenders varies widely, from tens of thousands to tens of millions of pounds. Tenders often include new network build to connect up a number of different sites. The higher the value of the tender the more commercially attractive it becomes to fund incremental new build through the tender. This reduces the barriers to entry significantly as it means there is little, or no demand risk associated with the network investment.

2.119. Below we describe some of the competitive pressure that BT Enterprise faces from alternative network providers.

¹²¹ P. Klemperer, June 2005. Bidding markets. page 7.

BT Enterprise faces intense competitive pressure from alternative network providers

- 2.120. As a result of the intense competitive pressure from existing, planned (or viable) leased line networks, BT Enterprise, which currently relies exclusively on the Openreach network, is considering alternative approaches to using Openreach's active LLA services to remain competitive on price. For example, [X].¹²²
- 2.121. BT Enterprise has bid for many public sector contracts over the last two years and has found it challenging to meet alternative network providers' price levels. [X.] In these cases, it is likely that alternative network providers expanded into areas offering prices based on lower local cost of network provision (e.g. in dense urban areas, business parks or smaller areas with high concentrations of demand for business grade connectivity). In Annex 3 we provide a list of bids lost by BT Enterprise to alternative network providers due to fierce price competition.
- 2.122. [X.] As these costs are publicly available, it is easy for rival network providers to orient their bids on Openreach's prices to undercut Openreach-based providers on price. For example, Virgin Media (and any other alternative network provider) are able to orient their bid pricing on Openreach's published input prices, making it easier to undercut Openreach-based providers on price.
- 2.123. In addition, network aggregators such as MLL Telecom or SSE have been successful in winning contracts. As noted above, their business model relies on selecting the cheapest providers (including Openreach, MSNs such as Virgin Media or CityFibre, leased line only networks such as Zayo as well as dark fibre providers), depending on the area and the relative cost of provision (e.g. dense urban areas, urban, semi-rural and rural business parks) and may use Openreach only for a sub-set of sites.
- 2.124. Long term strategic partnerships between aggregators or customers and new network entrants can effectively de-risk their investment and lower the price for the customer. For example, CityFibre works in partnership with MLL Telecom in bidding for public sector and LFFN funded local council networks¹²³.
- 2.125. The competitive environment in which BT Enterprise operates highlights the risk that constraining Openreach's ability to compete may have unintended effects. For example, if Openreach's flexibility to offer geographic prices reflecting different local costs of provision is constrained through regulation, providers using Openreach inputs will find it increasingly difficult to compete on the merits with alternative network providers. Moreover, restrictions on Openreach's pricing flexibility in areas where Virgin Media is present may give Virgin Media, not smaller new entrants, an arbitrary competitive advantage. As set out further in chapter 4 below, while we welcome that Ofcom has not imposed a prohibition on geographic pricing in the HNRs we consider the remaining pricing restrictions in the HNRs and Area 2 are not justified given the competitive context.

¹²² [X]

¹²³ CityFibre and MLL Telecom won Suffolk LFFN in February 2020. ISP Review, 6 February 2020. [MLL Telecom and Cityfibre Unveil Gigabit Fibre Network for Suffolk UK](#).

BT has no SMP in the CLA and HNR areas and neither should be regulated

The CLA is highly competitive and must remain deregulated

- 2.126. We strongly support Ofcom's confirmation that it continues to find no SMP in the CLA and therefore it remains deregulated. Imposing SMP remedies absent market power leads to remedies being disproportionate, distorting prices and hence reducing incentives to invest to the detriment of consumers.
- 2.127. Ofcom defined the CLA in its 2016 review of business connectivity markets, on the basis of higher levels of '*network reach*' in the CLA which indicated distinct competitive conditions from the surrounding areas.¹²⁴ Network reach is a measure of the number of networks present within a given '*buffer distance*' and measures competitive intensity by determining "*which networks could competitively supply a customer*".¹²⁵
- 2.128. Ofcom's network reach analysis from its 2019 BCMR showed that, in the CLA, 90% of businesses had access to at least two rival networks to BT, and 64% of businesses had access to at least four. We note that despite DPA being made available for leased lines only build for the first time in 2019, the threshold Ofcom use in its network reach analysis is significantly above the threshold that Ofcom set in the BCMR 2019 Statement for finding an area to "*have the potential to support effective competition*".¹²⁶
- 2.129. The availability of unrestricted DPA that "*other providers were already making some use of*",¹²⁷ and the evidence on use of DPA set out above (and additional evidence already available to Ofcom) demonstrate that these thresholds should have been reduced, not increased.
- 2.130. Openreach's pricing reductions which provide "*substantive, albeit modest*" support for a finding of no SMP are amongst other factors pointing toward the strength of the competitive constraint faced by Openreach in the CLA.¹²⁸
- 2.131. In the following we note that these characteristics are present also in the HNR areas.

The current HNR areas are effectively competitive and should be deregulated

- 2.132. We welcome that Ofcom retained the HNR areas as a distinct geographic market, based on the significantly higher competitive pressures in these areas compared to Areas 2 and 3. However, we consider the HNR areas share the key characteristics that make the CLA effectively competitive. There are, therefore, strong grounds for Ofcom to review its proposed SMP finding for the HNRs.

¹²⁴ Ofcom, April 2016. [Business Connectivity Market Review - Review of competition in the provision of leased lines](#), Statement, Volume I, paragraph 4.320.

¹²⁵ Expert report of Ciara Anne Kalmus, TalkTalk and Vodafone appeal against Ofcom, Competition Appeal Tribunal Case number 1330/3/319, 1 November 2019, Annex B, paragraph 3.

¹²⁶ Ofcom's threshold is that within a postcode sector at least 65% of business premises need to have access to at least two networks other than BT, with access being defined as being within 50m from the network. BCMR 2019 Statement Volume 2, paragraph 5.98.

¹²⁷ CAT Judgement, paragraph 290.

¹²⁸ CAT Judgement, paragraph 270.

- 2.133. Ofcom has reflected the higher competitive pressures in the HNR areas in its remedies, in particular by excluding the LLA market in the HNR areas from the proposed geographic pricing prohibition subject to prior consent.
- 2.134. Ofcom also recognises that its proposed SMP finding in HNR areas is "*finely balanced*",¹²⁹ but argues that actual and potential competition from rival networks is insufficient to rebut the presumption of dominance implied by Openreach's high market share. And while Ofcom "*think that competition in the HNR areas may eliminate BT's SMP in the future, this is not sufficiently certain ... [to] find no SMP on a prospective basis for the period of this review*".¹³⁰
- 2.135. This restates the position in the 2019 BCMR Statement, that also found SMP to be "*finely balanced*".¹³¹ At the time DPA was being made available to leased line only operators for the first time, and there was uncertainty about its use for leased lines access. As a result, Ofcom expected that DPA would be used "*in some, but probably not all, HNR areas*".¹³²
- 2.136. As set out above, Ofcom itself has collected new evidence of planned LLA network build using DPA (via discussion with CPs), expecting "*prospects of material build*" in the CLA, HNRs, and Area 2, enabled by DPA.¹³³ As noted at paragraph 2.16 (and evidenced in Bailey 1, this had led to strong pricing constraints on Openreach across the CLA and the HNRs.¹³⁴ The prospects of material DPA based competitive network build and its effect on LLA prices should be reflected in Ofcom's updated SMP assessment.
- 2.137. There are also a number of other factors that suggest competition in HNR areas is already effective today:
- As Ofcom itself recognised, Openreach already offers lower prices for EAD 1Gbps circuits in HNR areas compared to Areas 2 and 3.¹³⁵ Since May 2018 Openreach made the same offers available in the HNR as in the CLA area. Furthermore, from October 2019 Openreach voluntarily reduced its prices for EAD circuits both in the CLA and the HNR areas.¹³⁶ ~~✗~~.¹³⁷ The fact that the pricing decisions were the same for the CLA and the HNR indicates that competitive conditions in the HNR are similar to the CLA (i.e. effectively competitive).
 - Ofcom argued that the "*current density of rival infrastructure [in the HNR areas] may not be sufficient to impose effective competitive constraints on BT*"¹³⁸. But Ofcom's data shows that, similar to the CLA, there is evidence of significant network presence: 84% of businesses in HNR areas have access to at least two rival networks, and 40% have access to at least three rival networks.¹³⁹ Updating Ofcom's 2017 data will show greater network presence that is likely to grow over the next market review period as DPA unlocks

¹²⁹ WFTMR 2020, Volume 2, paragraph 8.100.

¹³⁰ WFTMR 2020, Volume 2, paragraph 8.103.

¹³¹ BCMR 2019 Statement, paragraph 6.147.

¹³² BCMR 2019 Statement, paragraph A6.68.

¹³³ WFTMR 2020, Annex 7, paragraph A7.37.

¹³⁴ Bailey 1, paragraph 39.

¹³⁵ WFTMR 2020, Volume 2, paragraph 8.102.

¹³⁶ Bailey 1, paragraphs 53 to 55, table 2, figure 5 and table 3.

¹³⁷ Bailey 1, paragraph 51.

¹³⁸ WFTMR 2020, Volume 2, paragraph 8.102.

¹³⁹ WFTMR 2020, Volume 2, table 8.3.

competitive entry and expansion. The evidence of DPA use being viable in the HNR (and more widely for higher value tenders) suggests that Ofcom should review its SMP finding with these factors in mind.

- 2.138. As we noted above, Ofcom has restated its BCMR finding that SMP is “*finely balanced*”. But that finding is based on a historical view of network presence up-to 2017, and an out of-date view of the extent to which DPA affects competitive dynamics.
- 2.139. Without prejudice to our view that even on the old (December 2017) evidence base Ofcom did not make the case for SMP in the HNR areas¹⁴⁰, once Ofcom takes account of all factors listed above and updates its evidence base on network presence (as well as the prospects of build enabled by DPA), we believe that a finding of SMP in HNR areas will become untenable.¹⁴¹

Area 2 also exhibits more competition than Ofcom recognise

- 2.140. Competition across all of Area 2 is significantly stronger than is currently recognised. It is driven by the competitive dynamics of tendering, particularly for VHB services and dark fibre, and by the availability of DPA (lowering barriers to entry), as described above. In tendering markets, we have evidenced recent contract wins by Virgin Media (in particular in the mobile backhaul space) and by CityFibre which indicates that Openreach does not have the ability to set prices or terms independently of its competitors, customers or ultimately consumers.
- 2.141. Furthermore, including all network build since 2017 is likely to show higher network density across much of Area 2 and lower Openreach market shares (although market shares are likely to follow competitive pressure and network build with a time lag). We consider that given the length of the 2021-2026 market review period Ofcom must at least conduct a truly forward-looking assessment of competition in Area 2.
- 2.142. For VHB (and for dark fibre) evidence on from market participants is likely to show that Openreach does not have pricing power. Evidence submitted by BT as part of the 2019 BCMR appeal suggests that, for services above 1Gbps, [X].¹⁴². This is likely due to the strength of Virgin Media's existing network, its on-going expansion, existing leased lines only networks, and the continuing deployment of networks by MSNs. Market dynamics are no longer those observed in the past, suggest barriers to entry and expansion are not high, and that the market may well tend toward effective competition, i.e. the TCT may not be met.
- 2.143. Given these dynamics there is a high risk that ex ante restrictions on Openreach pricing are likely to harm customers (and ultimately consumers) in the high value tendering segments of the LLA market. In particular, they are likely to lead to higher market prices and reduce Openreach's (and by consequence BT Enterprise as well as other CPs who rely on the Openreach network) ability to set prices efficiently at cost and to respond flexibly to customer's demands. They could also have the unintended consequence of protecting strong competitors with existing networks,

¹⁴⁰ BT, 18 January 2019. [Response to Ofcom's consultations on the Physical Infrastructure and the Business Connectivity Market Reviews](#), paragraph 3.1.

¹⁴¹ The extent of network build not captured in Ofcom's data is shown in table 2.1 above.

¹⁴² Bailey 1, paragraph 58.

and in particular Virgin Media and existing leased lines providers rather than protect nascent providers as Ofcom intends.

3. The proposed pricing remedies in Area 2 support fibre investment but longer-term signals are needed

- 3.1. We welcome Ofcom's proposal to allow Openreach to maintain flat, inflation-adjusted, regulated prices in Area 2. This will provide some certainty and stability for investors during a period of transformational change. We also support the proposal to allow Openreach to charge a modest premium for the 40/10Mbps broadband service where it is delivered over full fibre, consistent with the benefits that the service provides. This policy strikes the right balance between promoting competitive investment and protecting customers during this transformative period (spanning decades) as the UK transitions away from copper and towards full fibre.
- 3.2. But Ofcom could do more to signal their policy intent over the longer term. Specifically, it should clarify that this policy is intended to endure for the entirety of this transformative period (rather than for 10 years which Ofcom indicated orally at a recent investor and analyst call). BT, and other firms making long-term investments, need to know that Ofcom's policy for supercharging full fibre investment will endure beyond the end of the upcoming five-year market review period (given that full fibre investment is recovered over timelines much longer than 5 years). This would help these firms commit to delivering world-class connectivity at scale and at pace in line with the Government's ambition (and is consistent with the Government's Statement of Strategic Priorities which makes clear the need for stable and long-term regulation).
- 3.3. As we set out below, Ofcom should also be more explicit about how it intends to treat the commercial 'bets' we are taking, should it decide to impose price caps on higher speed bandwidth products in the future (as discussed in detail in this chapter). Downsides exist, even after allowing for the support provided by Ofcom's proposals (see paragraph 3.31 and following). Investors (reasonably) want to know what opportunity they will have to keep upside to compensate for these downside risks, before Ofcom would step in to cap returns. The downsides they see relate to take-up risk, cost risk, technology risk and exposure to macro-economic impacts.
- 3.4. Ofcom has said orally at a recent investor and analyst call, that it expects its framework to endure for two control periods, i.e. until 2031. This is helpful. But we think that Ofcom should confirm that no additional regulation of higher speed products is intended for 15 years, because this would be consistent with investment horizons which will exceed 15, and possibly 20 years.
- 3.5. Ofcom should also indicate a level of upside returns which BT would have the opportunity to retain (but with no guarantee of earning) if the investment turns out to be successful, and if BT is not otherwise constrained by competition. This can be set for different tranches of full fibre investment allowing the fair bet assessment to reflect the risk conditions applicable at the time of the investment.
- 3.6. There is enormous benefit in identifying risks upfront (tranche by tranche) rather than many years later when outcomes can give a bias to how these initial risks are perceived. Waiting does not reveal any relevant new information on the risks at the outset of the investment tranche, and memories can be short and/or rose-tinted.

- 3.7. Regulation further down the line may or may not be needed - this depends on how competition plays out. But if we can agree with Ofcom what risks we are bearing now, then we can proceed with more comfort that, should price regulation be imposed, our investors will be fairly treated for the bets they took. All firms who are investing private capital into enhanced broadband services care about this, because any regulation of BT in the future affects the returns of every operator.

Ofcom's 'pricing continuity' policy supports investment in full fibre networks

- 3.8. Ofcom's proposed 'pricing continuity' policy would keep caps on regulated wholesale services the same in real terms (with no new price caps) until 2026 (the end of the review period). We agree with Ofcom that this policy supports investment in full fibre networks and balances this appropriately with the need to protect customers from high prices (alongside the protection provided by greater competition). The policy is also consistent with the Government's view that promoting investment should be prioritised over interventions to reduce retail prices in the near term.¹⁴³
- 3.9. Ofcom's pivot towards pricing continuity (following the deep wholesale pricing cuts imposed as part of BCMR 2016 and WLA 2018) has sent an important signal to investors with a demonstrable effect on investment. Any reversion to steeply declining prices during the period that copper is transitioning to full fibre would see this momentum stall by undermining incentives for telecoms providers to build new networks.¹⁴⁴ Linked to this, we welcome Ofcom's recognition that pricing continuity is needed to support BT's ambition for FTTP rollout at scale.¹⁴⁵
- 3.10. The recovery of our efficiently incurred expenditure on legacy assets (both existing and any forward-looking capital expenditure on legacy assets) is critical in order to support our investment case. The principle of cost recovery has always underpinned Ofcom's regulatory approach in line with its duty to have regard to the need for consistency in its regulatory activity.¹⁴⁶ For example, when Ofcom imposed a charge control on Openreach's FTTC 40/10Mbps product as part of WLA 2018, it assumed that future regulation would allow Openreach to recover the undepreciated FTTC asset value.^{147 148}

¹⁴³ "The Government's view is that promoting investment should be prioritised over interventions to further reduce retail prices in the near term." Department for Digital, Culture, Media & Sport, 18 July 2019. [Statement of Strategic Priorities for telecommunications, the management of radio spectrum, and postal services](#), page 18, paragraph 18

¹⁴⁴ We agree with Ofcom's position that a dark fibre remedy is not appropriate for the market for leased line services in Area 2. We agree that a dark fibre remedy in Area 2 will undermine investment in high-quality, innovative services by "increase[ing] incentives for telecoms providers to continue to rely on access to Openreach's network rather than build new networks themselves and/or enter into commercial arrangements with alternative network builders." (WFTMR 2020 Volume 3, paragraph 6.11). Any change in this position will also cause momentum to stall in competitive investment.

¹⁴⁵ WFTMR 2020 Volume 4, paragraph 1.24.

¹⁴⁶ [Communications Act 2003](#), section 3(3).

¹⁴⁷ WLA 2018 Statement, Annex 6, paragraph A6.39 "The terminal value we have used for the end of March 2019 is based on the undepreciated FTTC asset value in our charge control modelling of VULA, as this is the value on which we would expect to allow a return in the future. We assume that future regulation will allow Openreach to recover this asset value. If future regulation does not deliver this, certain questions re-surface, in particular, whether BT has been allowed a 'fair bet' on its superfast investment.

¹⁴⁸ A further question would be whether Ofcom has complied with its legal obligation under section 88(2) of the Act to take account of the extent of BT's investment when setting charge controls.

- 3.11. BT recognises the need to invest in order for Openreach to remain competitive. But an accelerated full fibre deployment (ahead of strong demand) will mean that certain copper assets retire before the end of their useful life as we migrate customers to full fibre. Ofcom recognises this, as well as the reality that Openreach must continue to invest in copper to ensure a good quality of service on the copper network until customers have switched to full fibre. Ofcom states "*BT's copper retirement is expected to occur between 2025/26 and 2030/31. This switch off date means that there is a possibility not all capital expenditure spent on copper assets will be able to be recovered through depreciating assets over their useful lives (this is commonly referred to as 'asset stranding')*".¹⁴⁹
- 3.12. It is appropriate, in this context, that price caps are set which allow BT to fully recover its capital expenditure on copper assets, i.e. depreciation and a fair return to cover the cost of capital.¹⁵⁰ We agree, therefore, with Ofcom's view that "*it is appropriate and in line with our objectives to give Openreach the opportunity to recover these efficiently incurred costs*".¹⁵¹
- 3.13. We also agree that it is consistent with this objective to accelerate the depreciation and return on capital profiles for certain copper assets (as Ofcom proposes). We note Ofcom's finding that, with this adjustment, wholesale prices which are capped at CPI indexation would not diverge from costs to a large extent.
- 3.14. That said, Ofcom's analysis still over-estimates our returns in the 2021 to 2026 period. The key reasons for this are that Ofcom's assessment of Openreach's costs:
- underestimates the cost of capital¹⁵²
 - overestimates Openreach's potential future efficiency gains
 - does not account for our future FTTP rollout which will reduce the demand for legacy services.¹⁵³
- 3.15. Furthermore, Ofcom does not include existing legacy assets in its accelerated depreciation adjustment. Including existing legacy assets in the cost base would be consistent with the principle of allowing Openreach the opportunity to recover efficiently incurred costs and would increase the nominal costs that Ofcom should bring back into the 2021 to 2026 period by around [X].

We support the proposed FTTP anchor uplift but Ofcom's range for the premium is too low and the premium should at least remain stable in real terms

- 3.16. Ofcom has proposed that a charge control on FTTP 40/10Mbps rental charges would apply where a copper-based 40/10Mbps service is not available. Where an FTTP service is charge controlled, Ofcom considers that the additional value offered by

¹⁴⁹ WFTMR 2020 Annex 16, paragraph A16.124.

¹⁵⁰ WFTMR 2020 Annex 16, paragraph A16.125.

¹⁵¹ WFTMR 2020 Annex 16, paragraph A16.124.

¹⁵² For further details on why we believe Ofcom has underestimated the cost of capital for several services, see Annex 6.

¹⁵³ See Openreach's response to the WFTMR 2020 for details.

the service (the 'fibre premium') should be reflected in the regulated price. Ofcom proposes to set a premium of £1.50 - £1.85 per month above the FTTC 40/10Mbps price.

- 3.17. We agree with Ofcom that FTTP 40/10Mbps is a higher quality services compared to FTTC 40/10Mbps and is not, therefore, an equivalent service. We also agree with Ofcom that FTTP 40/10Mbps brings additional benefits to:
- end-users, from having a broadband service with higher and more stable speeds
 - end-users, from a broadband service that is more reliable (i.e. subject to lower faults)
 - retail providers, from cost-savings through delivering a more reliable service to customers and lower exchange-based costs. The cost savings to retail providers should allow them to absorb a degree of difference in the wholesale price (between FTTC 40/10Mbps and FTTP 40/10Mbps) without loss of margin or putting up prices for end customers.
- 3.18. Therefore, a modest FTTP premium reflecting the added value of the service relative to FTTC is appropriate. This will help support investment in full fibre by both BT and altnets (although increased competition would tend to push prices below the regulated price). As set out in chapter 2 above, we see this competition playing out in negotiations between retail providers and network providers for commercial access arrangements.
- 3.19. We note that Ofcom's proposed range for the premium is based on estimates for only two of the three categories of benefits Ofcom identifies. Ofcom states that it does "*not explicitly estimate the value to customers from having a more reliable service with fibre*".¹⁵⁴ We agree that FTTP will deliver lower fault rates, and that customers will value an uninterrupted service. This justifies a premium above the upper end of Ofcom's range.
- 3.20. To ensure this support for investment in FTTP does not reduce over time, it is important that the premium remains stable in real terms. This approach would reflect customers' willingness to pay increasing over time and is consistent with Ofcom's own inflation adjustment to the FTTP premium (for the proposed K factor adjustment in Area 3). We assume, therefore, that an inflation adjustment is Ofcom's intention and would welcome confirmation of this.

Longer term regulatory signals are required to underpin long-term fibre investment

- 3.21. The Government has identified "*stable and long-term regulation as a strategic priority*"¹⁵⁵ following its Future Telecoms Infrastructure Review (FTIR), which found that full fibre investment (with timeframes of 15 to 20 years, or longer) was made riskier by the possibility of regulatory change.¹⁵⁶

¹⁵⁴ WFTMR 2020, Annex 22, A21.11.

¹⁵⁵ DCMS, 29 October 2019. [Statement of Strategic Priorities](#), page 8.

¹⁵⁶ DCMS, 23 July 2018. [Future Telecoms Infrastructure Review](#), paragraph 27.

- 3.22. The National Infrastructure Commission says that investors in “*major transformational projects*” including full fibre investment need certainty that regulators’ views on prices will not change “*half-way through*”.¹⁵⁷ The Government’s own analysis (for the FTIR) indicated a gradual expansion of full fibre coverage in competitive areas between now and 2034 (i.e. fourteen years).¹⁵⁸ Ofcom’s market review period is merely the first third of this period. For investors, the timeframe of cost recovery extends beyond 2034 (if viewed as a 20- or 25-year window from the start of each tranche, which is a prudent estimate given technology risk beyond this timeframe).
- 3.23. Investor reports have demonstrated how pricing signals (and their consistency over time) contribute to investor confidence and a positive regulatory environment (as acknowledged by Ofcom).¹⁵⁹ Network competitors (such as Virgin Media) highlight the importance of clarity on Ofcom’s long-term intentions, given that: (i) some investors will wait for Ofcom’s proposals to crystallize before making decisions and; (ii) investment will not be complete (or even start in some cases) within the first five years to 2026.¹⁶⁰

¹⁵⁷ National Infrastructure Commission 2019. [Strategic Investment and Public Confidence](#), page 40.

¹⁵⁸ This is the fibre build trajectory assumed for the ‘enhanced competition’ model. DCMS, 23 July 2018. [Future Telecoms Infrastructure Review](#). Annex A, page 84.

¹⁵⁹ WFTMR 2020, Volume 4, paragraph 1.18.

¹⁶⁰ Virgin Media, 5 July 2019. [Promoting competition and investment in fibre networks – Virgin Media’s response](#). page 6.

- 3.24. Ofcom has been open to pro-investment longer term signals in the past. In 2007, it highlighted two key principles needed to support the move to next generation access (NGA), namely regulatory certainty and a regime which reflected risk in returns (as set out in the box below).

Examples of long-term signals given by Ofcom to support investment in the past

In its 2007 consultation entitled '**Future broadband - Policy approach to next generation access**', Ofcom said,

"We are proposing to achieve the conditions for this investment by adapting the existing principles of contestability, innovation and equivalence that we have used for the regulation of current generation broadband. In addition, we think that two further principles will be necessary as we move to next generation access, to reflect the commercial risks and different characteristics of these investments compared to existing access networks, which are largely sunk cost investments.

- reflecting risk in returns: we recognise that anyone who makes investments in next generation access is likely to face significant commercial risks. Regulation should reflect these risks in order to provide appropriate incentives for investment in the first place. We are consulting on a range of approaches to reflect such risk such as anchor product regulation, and risk-adjusted returns; and

- regulatory certainty: It is also important that the regulatory regime we adopt is clear and in place for a reasonable period of time, to allow investors the clarity that they need to invest with confidence. We are publishing this consultation and establishing a program of seminars and meetings supporting it to provide this clarity." (Underline added.)

Following a consultation in March 2010, Ofcom issued a statement in September 2010 which formally endorsed fibre pricing freedom. Ofcom said,

"We have decided not to regulate the prices of the product(s) that BT provides under its VULA obligation. We consider that this approach will give BT the flexibility to price its VULA services according to emerging information on the demand for, and supply costs of, NGA services. At the same time, the prices of these services will be constrained by the availability of current generation broadband services and by competition from services provided over cable TV network infrastructure." (Paragraph 1.27.)

Ofcom allowed an extended period (which turned out to be ten years) within which it committed not to cap wholesale FTTC prices allowing BT to capitalise on upside should demand prove strong.

- 3.25. More recently, Ofcom has highlighted how regulatory risk can deter investment. It says that Openreach might choose not to invest in Area 3 because a reliance on Ofcom maintaining regulatory commitments over multiple review periods would make the investment too risky.¹⁶¹ Ofcom also accepts that a continuing commitment to "*prices that support investment*" would support competitive investment.¹⁶² But Ofcom won't make this commitment (beyond 2026) as it says it cannot prejudge the actions it will take in the future.
- 3.26. We accept that Ofcom cannot definitively commit to specifics beyond 2026 but there is more it can do to signal its future policy intentions. Greater certainty would not remove future discretion as any regulator is bound to consider the appropriateness of its existing policies in light of the circumstances at the time. It

¹⁶¹ WFTMR 2020, Volume 4, paragraph 2.16.

¹⁶² WFTMR 2020, Volume 4, paragraph 1.20.

would, however, provide greater certainty and clarity which would be valuable for network builders, shareholders and investors more generally.

- 3.27. Ofcom can, for example, signal that its policy of pricing continuity is expected to continue for several decades as the UK transitions from copper to full fibre; much as it indicated (in 2007) that its NGA regulation would be clear and in place for 'a reasonable period of time'.
- 3.28. It is common for regulators of infrastructure sectors to indicate the principles which will endure across regulatory review periods to provide the assurance to infrastructure investors that Government, NIC, investors and firms are saying is required in telecoms. Examples include:
- in 2012 Ofwat set the principles it would apply at Price Review 2014 and beyond, including their intention to index water companies' regulatory capital value over the long term.¹⁶³ In 2017 Ofwat provided a commitment to protect water companies' historic RCV over the long term¹⁶⁴
 - in the run up to the 2007 quinquennial (5 yearly) airport regulation reviews, the Civil Aviation Authority (CAA) indicated that it saw constructive engagement between airport operators and airlines to be a key input to its determination of airport regulation. This was an important policy change which was communicated as an enduring core principle of airport regulation from that point onwards.
- 3.29. Ofcom indicated, at its analyst and investor call on 8 January 2020, its 'intention' not to return to cost-orientated regulation or introduce further price regulation of higher bandwidth products in the subsequent regulatory cycle. Some analysts interpret this as an attempt to provide 10 years of stability, with one describing this as "*a huge improvement on the past.*"¹⁶⁵
- 3.30. We agree and strongly urge Ofcom to set out an enduring regulatory framework that it intends to apply over a timescale consistent with investor timescales, i.e. no reversion to real terms price decreases for MPF/FTTC products as the UK transitions away from these copper-based products to full fibre; and the application of a more specifically defined 'fair bet' to determine any future regulation of fibre services (as discussed in the remaining sections).

Ofcom should explain how it will treat the 'bets' we are taking today if it decides to regulate in the future

- 3.31. Ofcom says it would take account of the fair bet should there be a need to impose further price regulation on Openreach's fibre services in the future.¹⁶⁶ Ofcom also helpfully explains that this would mean not clawing back upside (should it occur) where BT takes on the risk that things could turn out less well than expected.¹⁶⁷
- 3.32. We welcome this restatement of the long-held principle of the 'fair bet'. But Ofcom should be more explicit about how it will treat the commercial 'bets' we are taking,

¹⁶³ See [Future price limits – statement of principles 2011](#), pages 2 and 16.

¹⁶⁴ See [PR19 final methodology](#), page 169.

¹⁶⁵ HSBC Global Research, 8 January 2020. Ofcom addresses the big asks on fibre.

¹⁶⁶ WFTMR 2020, Volume 4, paragraph 1.89.

¹⁶⁷ WFTMR 2020, Volume 4, paragraph 1.87.

should it decide to regulate in the future. We explain in this section: (i) the sizeable risks involved in the deployment of full fibre at scale (even allowing for Ofcom's supportive regulation); (ii) the mechanism for applying the fair bet in this context; and (iii) the need for this to be done upfront (and for each tranche of investment) rather than further down the line.

BT's bet is sizeable due to demand risk, cost risk and technology risk

- 3.33. Full fibre investment is transformational in nature. The NIC agrees. It says that larger and more strategic investments are needed than in the past (including on full fibre and 5G) to meet the UK's infrastructure challenges.¹⁶⁸ Investors (reasonably) want to know what opportunity they have to keep upside to compensate for the downside risks associated with this large, strategic and transformational investment, before Ofcom would step in to cap returns.
- 3.34. We recognise that Ofcom's proposals (if they remain unchanged by 2021) will help to mitigate full fibre investment risk.¹⁶⁹ But downsides still exist. In fact, the bets being taken by BT (and others) are very sizeable. We set out these risks in detail in Annex 5. By way of summary, investment outcomes vary depending on uncertain demand, cost and technology factors. Specifically, we see the following sources of risk:
- Full fibre customers may not take up higher speed ultrafast products as expected, or their willingness to pay may be lower than expected. Even if a timely migration to FTTP 40/10Mbps is achieved, there is a risk that customers will sit on this product for longer than expected rather than moving up the speed tiers to higher value products. Even if we do see take-up, the premium that can be charged for these products may be modest if demand remains weak. Ofcom's own analysis does not envisage strong demand within the review period. This creates uncertainty in our ability to generate incremental value. Investment where payoffs occur in the (potentially far) future are inherently risky.¹⁷⁰
 - Communications providers may switch to rival networks after we have built a full fibre network designed to serve them. If, responding to competition and the needs of its customers, Openreach builds a network for customers but they subsequently switch in large numbers to rivals after the early years of

¹⁶⁸ NIC states "The current regulatory system has successfully supported large scale investment in the energy, water and telecoms sectors over the past decade: around £6-8 billion a year for telecoms, £10-13 billion a year in energy generation and networks, and £4-5 billion a year for water. This has generated significant improvements in the UK's infrastructure networks. But investment will be needed at an even larger scale, and in a more strategic way, to meet the coming challenges, including achieving net zero greenhouse gas emissions, increasing water resilience, delivering full fibre networks, and providing 5G coverage." NIC, October 2019. [Strategic investment and public confidence](#), page 21.

¹⁶⁹ This support should also be seen in the context of other regulatory interventions which have the effect of increasing our commercial risk: such as physical infrastructure access which Ofcom hopes will result in significant alternative network rollout in competition with BT, as well as potential constraints on Openreach's ability to strike commercial deals to support its network rollout (even where these comply with competition law requirements, as they must).

¹⁷⁰ However, regulation of CP to CP migration charges still goes against Ofcom's overall supportive position vis-a-vis switchover. Currently, whilst charges for initial FTTP connections are uncapped (Openreach charge £97 as standard), Openreach can only charge £2.99 for CP to CP migrations on FTTP. This leads to a market dynamic where retail CPs are incentivised to "go second", waiting for another CP to move the customer to FTTP (incurring the full connection charge) and then investing to win the customer when only having to pay the modest migration charge. The impact of this reticence to go first could delay fibre take-up. Whilst we recognise the importance of a dynamic switching market, we suggest Ofcom should allow more flexibility for Openreach to rebalance these charges.

rapid build (creating an under-utilised asset, after costs have been sunk), then Openreach may earn insufficient returns. Investors bear this commercial risk, as would occur in a competitive market. But unlike a competitive market, there is a risk of a regulatory cap on returns if Openreach successfully competes but remains regulated. Any such cap must, therefore, take into account the risk (at the outset) of competition causing a large sunk full fibre asset to be under-utilised.

- The return on investment on the full fibre asset will depend on the incremental revenue for full fibre services. This in turn depends on the extent of avoided losses to rival networks which follow from the fibre investment, as these volumes do not cannibalise Openreach's customer base. The uncertainty and risk relating to the size of this benefit from investing (and avoiding cannibalisation) must, therefore, feature in the estimation of the fair bet cap.
- The costs of full fibre deployment are uncertain. Full fibre build costs are uncertain as they depend on a range of local and other factors which are difficult to predict with accuracy. Labour costs, for example, are uncertain, which is exacerbated by possible limitations on use of overseas labour. Deployment costs are also uncertain because of difficulties in getting timely and cost-effective access to land, tenanted properties and public roads. We welcome the Government's intention to "*work with industry to identify and mitigate the practical challenges*" but for BT (and other fibre operators) cost risks remain significant until these mitigations are found and implemented.¹⁷¹
- There are medium to longer term risks posed by rival technologies. Within the timeframe of full fibre investment (i.e. over several decades) technologies such as 5G fixed wireless access, meshed networks (using a combination of fixed and wireless components) and LEO satellite could offer a high-quality and cost-effective alternative to full fibre customers. 5G FWA offers the prospect of much higher speeds and fewer restrictions on data usage than 4G FWA services and may be a reasonable alternative for many customers as 5G becomes more widespread. LEO satellite offers the prospect of commercial broadband at low latency and higher speeds, ranging from 100Mbps to gigabits per second. Several companies (notably SpaceX and Telesat) are launching LEO constellations aiming for commercial offers as early as 2020. HSBC has set out the potential for LEO satellite broadband to become economically feasible, as "*costs of launches are being reduced by re-usable and bigger rockets*".¹⁷² SpaceX will target unconnected areas in developed markets with its first batch of LEOs, showing that fixed line broadband provided over FTTP in the UK could face competition from satellite broadband in the medium term.

3.35. Risks also arise from factors which make full fibre investment returns more correlated with the macro-economic cycle, known as systematic risks. We see strong (and economically robust) reasons why the asset beta for new fibre access services will be higher than for existing services reflecting both demand and cost factors. Specifically:

¹⁷¹ DCMS, 23 July 2018. [Future Telecoms Infrastructure Review](#), page 6.

¹⁷² HSBC Global Research, 3 October 2019. From Hype to Reality: Low Earth Orbit Networks, pages 5 to 6.

- Higher operating leverage: A project with high fixed costs will tend to have profits that are more sensitive to changes in revenues. Our full fibre investment requires a high degree of capital outlay in early stages of the project, creating larger fixed assets and higher operating leverage than for existing networks. The upfront capital outlay and operating leverage is considerably higher for FTTP than for FTTC given the need to re-build rather than overlay the relevant network components (as accepted by Ofcom).¹⁷³
 - Higher income elasticity of demand: Even where demand for entry level full fibre products is supported by regulatory enablers, higher speed full fibre products are likely to be perceived and treated as luxury products. The uptake of such products will be more sensitive to income levels and would therefore slow down during an economic downturn. This indicates a higher systematic risk for full fibre than for copper-based services which are likely to be more stable during a downturn. The risk of slower uptake of higher speed services is heightened following the current COVID-19 crisis.
- 3.36. Ofcom recognises and accepts both of these factors as leading to higher systematic risk for FTTP services (than for FTTC services).¹⁷⁴ But Ofcom reflects a differential between FTTP and FTTC systematic risk not by increasing the asset beta for FTTP, but by lowering FTTC to align it with Openreach copper assets, thereby lowering its asset beta from 0.65 to 0.57.
- 3.37. This implies that the systematic risk associated with FTTC and standard broadband provided over copper is the same. We disagree. FTTC continues to hold a premium position relative to standard copper broadband with 36% of the market continuing to be unwilling to pay the price premium. This premium position points to demand which is more sensitive to wider economic changes than demand for standard copper broadband, and hence a higher asset beta. If there has been a decline in the asset beta (as FTTC matures) then it has already been captured in the decline in the 'Other telecoms' asset beta from 0.73 in Ofcom's 2018 WLA Statement to 0.65 today. A further reduction to 0.57 implies a 22% reduction in the FTTC asset beta in the space of 2 years which is not justified by any empirical evidence.
- 3.38. Ofcom's decision to re-categorise FTTC threatens to undermine its commitment to the fair bet principle. At a time when investors are seeking long-term signals on Ofcom's commitment to supporting FTTP investment, Ofcom's decision to lower the FTTC asset beta without any good evidence creates uncertainty for investors and undermines confidence in the fair bet as it applies to FTTP.

These risk estimates can be used to indicate (upfront) the future returns that should not be clawed back by regulation

- 3.39. To be clear, regulatory action cannot guarantee that BT earns a particular return. But as future regulation cannot be ruled out, a mechanism is needed to provide comfort, in advance of investing, that returns will be allowed which fairly compensate for the risks outlined above.
- 3.40. Ofcom has previously considered mechanisms for doing this. In July 2018, for example, it said:

¹⁷³ WFTMR 2020, Annex 21 paragraphs A21.49.

¹⁷⁴ WFTMR 2020, Annex 21 paragraphs A21.54 and A21.56.

"In principle, it could be possible to give even more certainty to investors [than Ofcom gave for FTTC through its ex post assessment]. For example, we might seek to reach a conclusion on the appropriate cost of capital that should be used when undertaking any future fair bet assessment. Alternatively, we could seek to evaluate up-front the risks that Openreach faces in its full fibre investments. Based on the upfront analysis, it might be possible to pre-specify the long run period over which Openreach will have pricing flexibility. There may also be other ways of providing more detailed guidance on the circumstances in which we might conclude in future that the fair bet had been met."¹⁷⁵

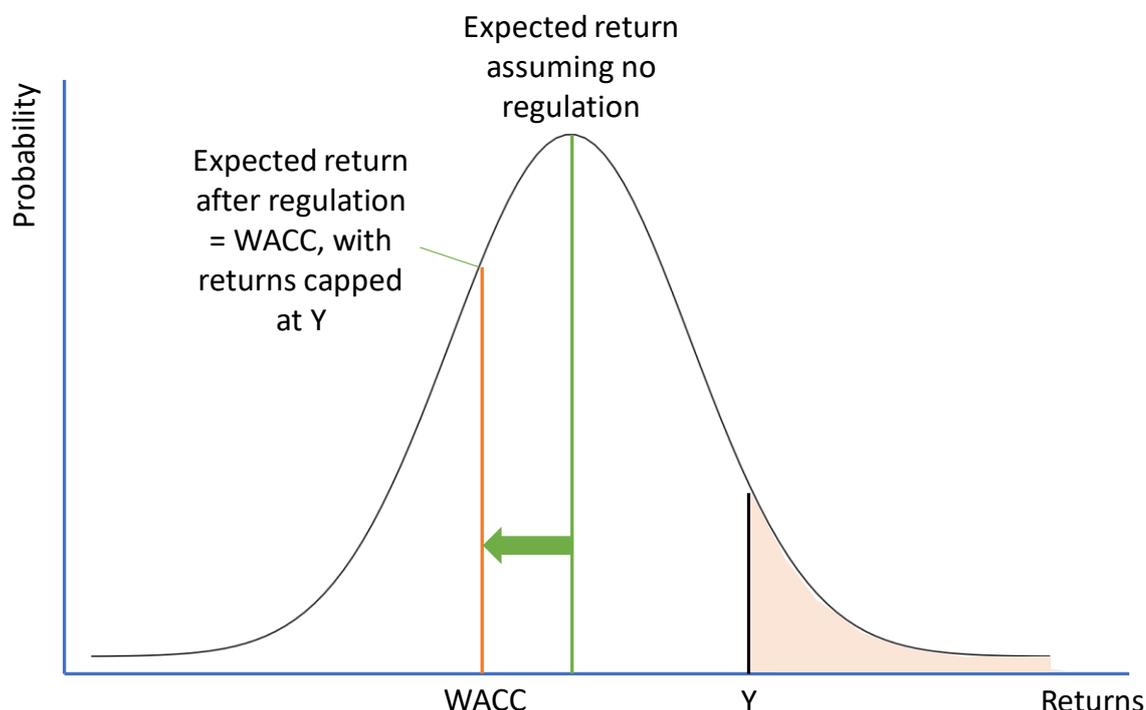
- 3.41. As noted above, Ofcom has already orally indicated its intention not to impose further price regulation on full fibre services for the initial two market review periods (until 2031). This is welcome (as it would remove the risk of early intervention) but should become an explicit commitment and should be fifteen years (not ten years, the period allowed for FTTC) given that our paybacks for this investment will be [X]. Such an explicit commitment will provide transparency and greater credibility, which will be of value to investors both now and in the future.
- 3.42. Beyond this, a fair bet requires that upside outcomes are not truncated to the point where the initial investment decision would not be taken. Following this principle, an evaluation of up-front risks would allow Ofcom to indicate (broadly, and for each tranche of investment) the project returns that Openreach would have the opportunity (but no guarantee) of retaining, should Ofcom consider imposing price regulation after the initial fifteen years.
- 3.43. Ofcom considered this to be a *"useful and legitimate"* approach in the context of the FTTC fair bet assessment (albeit it was applied ex post rather than at project inception).¹⁷⁶ Ofcom agreed with BT that *"a full evaluation of whether the fair bet is met requires more explicit appreciation of the risks faced at the time of making the investment."*¹⁷⁷ Other approaches (for example, imposing regulation when expected payback is reached) de-couple the fair bet question from up-front risks and do not, therefore, ensure that any regulation will honour the fair bet.
- 3.44. In the case of FTTC, a probability distribution of possible returns was estimated capturing the expected upsides and downsides of that investment, and their relative likelihood. When combined with an estimate of the project specific weighted average cost of capital (WACC) it was possible to estimate the level at which returns could be truncated (Y) without the expected return falling below the WACC. Put simply, if regulation capped returns at this level, the investment would still proceed because the ex-ante return would still align with the WACC. As illustrated in the figure below, a cap below this level would not honour the fair bet.

¹⁷⁵ Ofcom, July 2018. Regulatory certainty to support investment in full-fibre broadband, paragraph 4.39. Sharon White confirmed in a presentation that Ofcom was considering giving extra clarity on "Appropriate cost of capital; Evaluation of up-front risks faced by Openreach on full-fibre investments; Possibility of specifying long-run period over which Openreach would have pricing flexibility" Sharon White, 24 July 2018, [Ofcom's approach to future regulation](#)

¹⁷⁶ WLA Statement 2018, Annex 6, paragraph A6.3.

¹⁷⁷ WLA Statement 2018, Annex 6, paragraph A6.26.

figure 3.1 – Capping returns under the fair bet framework



- 3.45. This approach can be applied to FTTP, albeit amendments are needed where the investment case is constructed to reflect the benefits from avoiding losses to competitors (which Ofcom indicates should be recognised) and the impact on existing services – both of which align with how private investors view the case.¹⁷⁸
- 3.46. If required, the approach can also adapt to an investment programme which is undertaken in tranches. Each tranche of FTTP investment will require a separate fair bet cap calculation based on the risk conditions applicable at the time, i.e. a different WACC and different assessment of demand and cost risk. Ofcom would have the ability to evaluate such factors, and their impact on the overall programme of investment, based on an evolving understanding of investment risks over time.
- 3.47. This would address Ofcom's observation that "[m]any investments are made in stages and each of these stages is likely to have a different risk profile. For example, investing in a new service for the first one million customers will be riskier than investing in the same service three years later to increase availability from 10 to 15 million. This is because both supply and demand conditions will be better understood for the later tranches of investment."¹⁷⁹
- 3.48. More specifically, to assess whether any future regulation would honour the fair bet, Ofcom would estimate a weighted average Y for different tranches of investment and assess the actual lifetime project returns against this weighted average Y estimate.

¹⁷⁸ Ofcom states "one reason that assessment [of FTTC actual returns] was conservative was because a significant driver of FTTC roll out was to avoid potential losses of customer volumes to Virgin, but these volumes losses were not taken into account in the counterfactual. As a result, the assessment understated the benefit to Openreach of investing in FTTC." WFTMR 2020, Volume 4, paragraph 1.88.

¹⁷⁹ Ofcom, July 2018. [Regulatory certainty to support investment in full-fibre broadband](#), paragraph 4.34.

An up-front assessment of the fair bet parameters is essential to allow investors to make decisions on new and risky investment

- 3.49. In the early years of the FTTC investment, Ofcom refrained from capping FTTC wholesale prices. At the project outset, however "Ofcom did not spell out ... how long this period should be, or precisely how Ofcom would evaluate at future reviews whether a fair bet had been provided for or not."¹⁸⁰
- 3.50. When Ofcom came to the question of regulation in 2018, therefore, it was necessary to determine a method to implement the fair bet principle.¹⁸¹ The approach Ofcom adopted (describing it as "*useful and legitimate*") required it to exercise some judgment on the risks that BT faced at the outset of the FTTC investment.
- 3.51. Virgin Media remarked (at the time) on the difficulty of assessing ex ante risk in the context of successful investment outcomes. It likened this to "*judging whether the odds on a horse at the Grand National were fair, based on the hindsight that it was in fact first past the post.*"¹⁸² Ofcom, itself, admitted that "*we cannot precisely understand now what investors perceived about the risks they faced at the time the investment was made, [so] the fair bet is a matter of judgement in light of the evidence now before us.*" (emphasis added)¹⁸³
- 3.52. Government describes an "effective 'fair bet' regime" as one that allows "firms making large and risky investments to have confidence that any regulation will reflect a fair return on investment, commensurate to the level of risk incurred at the time of making the investment decision."¹⁸⁴ Government envisages clarity being provided 'ex ante' allowing firms to factor this into their decisions on new and risky investments.¹⁸⁵ It expects Ofcom to set out the approach and information it will use in determining a 'fair bet' return.
- 3.53. Enders Analysis says "Ofcom is missing an opportunity here in not giving BT's investors (and indeed Virgin Media and the altnet investors) more reassurance by being more specific on the eventual allowable return. Surely the "upfront downside risks" are apparent now, and indeed will only become less clear with the passage of time, so making the assessment now makes more sense to us than waiting 10 years."¹⁸⁶
- 3.54. We agree. There is enormous benefit in identifying risks upfront tranche by tranche and setting tranche specific 'Ys'. All investing firms can then better understand the range of possible outcomes, including ones where BT's investment turns out to be successful, potentially inviting more regulation which could affect all operator's returns. The upfront assessment we believe Ofcom should undertake is the same assessment Ofcom undertook ex post in the case of FTTC. There is, therefore, no disagreement on the method of implementation, but rather, on the timing of when such method should be applied.

¹⁸⁰ WLA Statement 2018, Annex 6, paragraph A6.23.

¹⁸¹ Ofcom stated "[r]ecognising we did not state how we would implement the fair bet principle at the time the investment was made, we consider the Oxera framework offers a useful and legitimate way of evaluating the fair bet." Wholesale Local Access Statement 2018, Annex 6, paragraph A6.30.

¹⁸² Virgin Media, 2018. [Response to the March 2017 WLA Consultation](#), paragraph 88.

¹⁸³ WLA 2018, Annex 6, paragraph A6.23.

¹⁸⁴ DCMS, 29 October 2019. [Statement of Strategic Priorities](#), page 8.

¹⁸⁵ DCMS, 23 July 2018. [Future Telecoms Infrastructure Review](#), paragraphs 96 to 98.

¹⁸⁶ Enders Analysis, 28 January 2020. [Winners and losers as the UK fibres up](#), page 16.

- 3.55. In this regard, we firmly agree with Enders (and Virgin Media back in 2017) that risks can be more objectively assessed at the time they exist, rather than many years later when outcomes can bias how these initial risks are perceived. Waiting does not reveal relevant new information about the risks at project outset and memories can be short and/or rose tinted.

Clarity on the treatment of these risks would help unlock larger and quicker investment

- 3.56. We appreciate that greater clarity and certainty on the approach to regulation over the long term might appear to limit Ofcom's future discretion to a degree. However, the statements made by Ofcom in its July Strategy Document (as well as by Government in the FTIR) make clear that greater regulatory stability and clarity is needed over the longer term to attract "patient long-term investors."¹⁸⁷
- 3.57. Were Ofcom to do this, in particular by setting out ex ante its approach to the fair bet, and its assessment of the remaining risks with the full fibre investment, it would go a long way to bolster investor confidence, ultimately bringing down the costs of investment not just for BT, but for the industry as a whole. In the current market conditions of heightened investor risk aversion following COVID-19, greater regulatory stability and clarity would be welcomed by investors seeking to minimise their risk exposure.
- 3.58. Our proposal is intended to be a balanced approach which offers a very good prospect of reassuring investors and, at the same time, through the use of tranches, allows Ofcom to take into account how risks will evolve over time.

¹⁸⁷ DCMS, 23 July 2018. [Future Telecoms Infrastructure Review](#), paragraph 93.

4. Ofcom should facilitate wholesale deals that will deliver real benefits to customers

- 4.1. Telecoms regulation has traditionally focussed more on protecting customers from high or discriminatory prices charged by telecoms operators with market power where such conduct might inhibit *retail* competition. At this market review, Ofcom wants to promote more *infrastructure* competition. Therefore, it is also now particularly concerned about low wholesale prices targeted at areas with new networks; or other commercial terms which might discourage CPs' use of new network entrants.
- 4.2. This poses a much trickier regulatory challenge because Ofcom's efforts to limit competition (i.e. through restrictions on how Openreach can price its services) may inadvertently limit pro-competitive and pro-investment pricing and commercial arrangements, which deliver benefits to end customers through lower, more stable prices and/or accelerated investment.
- 4.3. Commercial deals and partnerships that share the risks and gains of network investment are being struck (or negotiated) widely, following the lead of fibre-rich countries like Spain and Portugal. The UK Government has said that firms should have flexibility to manage risks in this way, and it expects Ofcom to facilitate such arrangements "where appropriate". At the very least, Ofcom should not inhibit such arrangements. Openreach's ability to compete fairly and negotiate agreements with CPs is critical to manage the substantial risks of investing in full fibre at scale and at pace, particularly given Virgin Media's established (and sunk) ultrafast network.
- 4.4. For Ofcom's regulation to do more good than harm, it should:
 - Enable competition with established networks to the benefit of end customers (for example, competition with Virgin Media's cable network and other established leased line operators).
 - Enable operators to reach commercial deals with CPs where the deals are important to support investment in new or expanded networks and/or facilitate lower long-term prices or other benefits to consumers.
 - Limit restrictions on prices to protect new entrants to only what is proportionate and consistent with promoting efficient competition, with entrants being required to compete on their merits over the medium-to-long run.
 - Ensure that all providers including Openreach can offer cost reflective prices to its customers, including by geography.
- 4.5. Consistent with these principles, we think that customers would gain more through investment and keener prices (and smaller players would still be protected) if FTTP and leased lines were excluded entirely from Ofcom's proposed restrictions on geographic discounts; and for existing restrictions (on FTTC and G.Fast) to be limited to preventing the targeting of discounts at new entrants, and be limited to Area 2.
- 4.6. There is more reason to expect benefits than harms to arise from allowing Openreach the flexibility to compete, as it does not have significant market power in ultrafast markets and leased line competition is fierce in the CLA, the HNRs and beyond, in particular in the market segments where tenders are the norm. There is no evidence

of unfair pricing practices today, or the risk of them. Openreach's pricing is already and will continue to be shaped by powerful customers who have no interest in harming infrastructure competition. Prescriptive regulation is therefore neither objectively necessary nor proportionate.

- 4.7. If Ofcom nevertheless decides to proceed, it should indicate that wholesale pricing structures which do not target nascent networks are outside the scope of the geographic pricing remedy, and do not require a consent request. At a minimum, Ofcom should provide guidance on the types of schemes and offers it would expect to consent to, as it did when geographic pricing restrictions were first imposed as part of the WLA 2018. Equally, for commercial terms which are contingent on the volume and/or range of services purchased, but which have no impact on nascent networks, there is no case for a change to notification periods.
- 4.8. Ofcom should also clarify its analytical framework for deciding whether to grant consent or to intervene following a review. The criteria Ofcom applies must be proportionate to its goal of promoting network competition. Otherwise there is a risk that regulation itself unduly stifles competitive responses by Openreach – and possibly investment - through the application of excessively cautious, and unpassable, thresholds.
- 4.9. Ofcom should confirm that the principles established in competition law will form the basis of its assessment as these have been designed to assess (or reliably predict) competition effects. It is not appropriate to limit Openreach's conduct unless Ofcom can show that Openreach's pricing has (or will be likely to) materially harm end customers. Furthermore, we expect Ofcom to reflect the market conditions prevailing at the time. This would ensure that Ofcom's assessment appropriately reflects the likely competition and consumer impact.
- 4.10. Finally, Ofcom should indicate how long any restrictions it ultimately decides to impose will last so that rivals can appropriately reflect fair competition with Openreach in their business cases. This would help avoid protracted regulatory disputes in which rivals rely on general statements from Ofcom which are misinterpreted as a guarantee of their business case or particular market share outcomes.

There is reason to expect greater benefit than harm from Openreach's efforts to compete as an ultrafast and leased lines operator

- 4.11. Ofcom is concerned that Openreach may use geographically targeted offers and/or other types of commercial deals to deter or harm network rollout by nascent operators. Ofcom proposes to use regulation to address this concern by:
 - Prohibiting geographic discounts (for all wholesale products) unless they can be justified by Openreach.
 - Requiring an extended (90-day) notification process allowing Ofcom to review whether other types of commercial arrangements may harm entry.
- 4.12. Ofcom considers that these restrictions are needed because Openreach might use market power to harm emerging competition (now or later in the market review

period). Consumers might then be harmed by the loss of the longer-term benefits of network competition.

- 4.13. But there is no case for imposing restrictions on Openreach's pricing and commercial terms for ultrafast and leased lines products given the effective competitive constraints set out in chapter 2 above. Limiting Openreach's ability to compete instead risks harming consumers through higher prices and less and/or slower network investment.
- 4.14. As we set out below, the evidence indicates that the proposed regulation is unnecessary in relation to FTTP and leased lines. It is not, therefore, the minimum required to address Ofcom's competition concern and is not proportionate. Ofcom should exclude FTTP and leased lines from the scope of its proposed geographic pricing restriction (as it did as part of relevant market reviews in 2018 and 2019 without creating a barrier to the vigorous fibre competition which has emerged since then). We also think there is no strong case for changes to the proposed changes to the notification requirements for these products (again reflecting that existing requirements and commercial terms have not impeded the emergence of competition to date).

Openreach needs pricing flexibility to support its investment and develop as an effective ultrafast competitor

- 4.15. Ofcom has raised concerns with Openreach's use of:
- Geographic discounts: Ofcom says that, "*Openreach could use targeted FTTP pricing to deter alternative network rollout over the upcoming review period.*"¹⁸⁸ Ofcom argues that Openreach has larger scale FTTP roll-out plans now than in 2018 when Ofcom decided not to impose such restrictions on FTTP. Ofcom's view is that, where Openreach has market power, it may choose to sacrifice profit in the short term by lowering prices in areas targeted by new entrants, with recoupment through higher prices in the future (or in other areas) if competition is successfully deterred.¹⁸⁹
 - Other commercial terms: Ofcom is concerned about commercial arrangements which penalise access seekers for moving volumes from Openreach to an alternative network operator. Ofcom refers to Openreach's "*national network footprint*" making it an unavoidable trading partner for customers seeking access nationally.¹⁹⁰ Ofcom argues that commercial terms could result in "*a significantly higher average charge for services purchased*

¹⁸⁸ WFTMR 2020, Annex 15, paragraph A15.44.

¹⁸⁹ WFTMR 2020, Annex 15, paragraph A15.8 "If Openreach lowers its prices in a selective geographic area where it faces competition, this may reduce the returns to Openreach in that area. However, this strategy may benefit Openreach in the longer term. If its actions deter alternative network rollout then it will face reduced competition and benefit from a higher market share (and the ability to charge higher prices) in that area over the longer term. In addition, the benefits to Openreach from this strategy could be much larger if it curtails alternative network operators' rollout plans in other areas (as Openreach will face reduced competition across a much wider area). We also note that Openreach is currently proposing to rollout FTTP on a relatively large scale. Even if reducing local prices results in lower returns in local areas – this may not be significant in the context of the overall FTTP investment."

¹⁹⁰ WFTMR 2020, Annex 15, paragraph A15.12.

from Openreach if [access seekers] also purchase from an alternative network operator.”¹⁹¹

- 4.16. Underpinning these theories is Ofcom's belief that Openreach will have SMP (across all broadband speeds and all geographies) in the upcoming review period and that this will create the ability and incentive to harm competition. We explain in this section that (i) Openreach does not have SMP in ultrafast markets in any geography; (ii) Ofcom's theories of harm are not reasonable in the market context; and (iii) allowing Openreach price flexibility is more likely to support, than hinder, investment and competitive pricing to the benefit of end customers.

Openreach is an emerging ultrafast operator without the scale and advantages asserted by Ofcom

- 4.17. As we set out in chapter 2, the evidence on market dynamics is not consistent with Openreach having SMP in ultrafast capable networks on a forward-looking basis. It has only 11% of current ultrafast connections and has more limited ultrafast coverage than Virgin Media, both now, and for the entire review period. The costs of the cable network are largely sunk (allowing it to compete at low prices with Openreach); and its incentive to wholesale is growing over time as the emergence of other ultrafast capable networks erodes its advantage in ultrafast.
- 4.18. Chapter 2 also sets out that a host of new networks are already being rolled out (backed by large investment groups with investment in excess of £2 billion since 1 January 2018). This is supported by access to Openreach's ducts and poles and the wholesale deals that have already been struck (between CityFibre on the one hand and Vodafone and TalkTalk on the other, for example). We also note that CPs supported by new fibre entrants already offer among the cheapest prices for services at and above 300Mbps in retail markets.
- 4.19. Ofcom appears to suggest that Openreach has incumbency advantages over rivals when it comes to fibre investment. We don't agree. Taking Ofcom's assertions in turn:
- *“Openreach benefits from economies of scale meaning it has lower unit costs than an entrant”.*¹⁹² Openreach has a fraction of the ultrafast connections that Virgin Media has, and is likely to remain smaller than Virgin Media by 2026 even if it fulfils the target to pass 20m premises by mid to late 2020s. While Openreach operates BT's physical infrastructure, the advantage of this infrastructure is open to all operators at very low access charges mandated by Ofcom.
 - *“In relation to FTTP, a key advantage comes from it having higher customer volumes i.e. due to having BT Consumer as an 'anchor tenant’”.*¹⁹³ [3<.] Virgin Media has by far the largest share of retail ultrafast connections, and the opportunity to cross-sell to O2 customers should the recently announced deal proceed. CityFibre has established supply arrangements for ultrafast services

¹⁹¹ WFTMR 2020, Annex 15, paragraph A15.12. Ofcom highlights a concern about Openreach discount schemes covering areas where access seekers could take their business elsewhere as well as areas where they cannot. If a discount scheme is structured such that a CP switching to a rival (in the area where a rival option if available) causes prices the CP faces for the remaining services with Openreach to be higher, then the effective price that the rival is able to charge (to ensure the access seeker is no worse off) may be very low and potentially unprofitable.

¹⁹² WFTMR 2020, Annex 15, paragraph A15.16.

¹⁹³ WFTMR 2020, Annex 15, paragraph A15.16.

with TalkTalk and Vodafone, creating its own anchor tenants. A sizeable chunk of the retail market is up for grabs, in particular Sky, described by some analysts as the 'kingmaker.'

- *"Openreach has an established relationship with existing access seekers and some level of system/process integration"*.¹⁹⁴ Ofcom has not presented evidence that established supply relationships matter. Access seekers are engaged in shrewd market testing and negotiating commercial deals to ensure they get the best network supply deal for ultrafast services. Sky issued a request for tender last year. TalkTalk has signed up as an anchor tenant to CityFibre (following the sale of FibreNation to CityFibre). Systems integration costs are unlikely to constitute a material barrier to switching provider or multi-sourcing network access given the aggregate cost savings from lower wholesale access charges potentially available.
- *"[A]ccess seekers will have to purchase wholesale services from Openreach in some parts of the country"*.¹⁹⁵ Virgin Media currently has a much larger ultrafast-capable network footprint and plans to extend its network to pass 80% of premises. Virgin Media's ultrafast network likely to remain larger than Openreach's over the review period. Furthermore, even if access seekers do purchase from Openreach in some parts of the country (where competitive options are not available), Openreach cannot use this to harm competition where it does exist for the reasons set out below.
- *"There is a cost to dealing with multiple network operators"*. As noted above, this must be weighed against the benefit for CPs of and sourcing from multiple providers as well as the incentive of Openreach's rivals to make such arrangements as smooth and low cost as possible. Commercial agreements already struck (as set out in chapter 2 above) both in residential and business markets suggest the benefits are sufficiently high to make this commercially attractive.

In the absence of market power, Ofcom's theories of harm are unlikely to materialise

- 4.20. The absence of market power for the relevant services is the first fundamental flaw in Ofcom's theories of harm. There is no case to impose specific restrictions on Openreach's ability to reach commercial deals for ultrafast services when Openreach does not have significant market power for these services. Conspicuous in Ofcom's reasoning is the lack of any comparison of Openreach's position with that of Virgin Media. There is also no consideration of whether Virgin Media is more likely (than Openreach) to engage in the conduct Ofcom is concerned about, given its strong market position in both WLA and LLA markets.
- 4.21. Openreach competes as an ultrafast player on a much more level playing field than Ofcom suggests and is noticeably at a disadvantage with respect to Virgin Media. It cannot be presumed that Openreach will end up with market power in ultrafast capable networks. Nor can it be presumed that Openreach has (or will have) the ability and incentive to harm smaller players.

¹⁹⁴ WFTMR 2020, Annex 15, paragraph A15.17.

¹⁹⁵ WFTMR 2020, Annex 15, paragraph A15.17.

- 4.22. Take, for example, the assertion that Openreach might have an incentive to reduce prices (and returns) in selective geographic areas where it faces competition to deter alternative network rollout and be able to price higher in the future. Ofcom allows for the possibility that price reductions might be a normal (and profit maximising) response by Openreach to competition.¹⁹⁶ But, in fact, the allegation is that the strategy *only* makes commercial sense because Openreach benefits from weaker competition (and higher prices) further down the line (in economic terms, a predatory strategy).¹⁹⁷
- 4.23. For Ofcom to substantiate this competition concern, a number of assumptions would need to hold including that:
- *Openreach has significantly better ability to sustain low FTTP prices than rivals, in particular, Virgin Media.* Absent market power, this is not a reasonable assumption. In ultrafast, Virgin Media (not Openreach) is the established, scale operator with a largely sunk cost base which could support price reductions. Openreach, on the other hand, must build FTTP and recover the costs of its investment. Its position (and pricing incentives) are, therefore, much more like that of an entrant.
 - *At some point in the future, Openreach would have the ability to set FTTP prices at a sufficiently high level so as to recover the profit sacrificed in the initial years.* However, in contestable Area 2, Virgin Media's already deployed network passes 60-70% of premises and in areas where both BT and Virgin Media are present, Virgin Media has passed approximately 80% of premises.¹⁹⁸ Openreach could only 'recoup' through excessive future prices, therefore, if Virgin Media allowed this by not undercutting Openreach. Unless Openreach can be confident of Virgin Media not undercutting excessive future prices, it would be irrational for Openreach to set unprofitably low prices initially. Equally, Openreach would be unable to charge higher future prices in Area 3 because Ofcom's charge controls are designed to ensure that Openreach recovers its cost of legacy services and fibre services (once built) and no more. Across both Areas 2 and 3 Ofcom could also impose regulation in future if an operator were to gain significant market power.
- 4.24. Ofcom's theory does not reflect that Openreach has yet to roll out FTTP extensively while there is an existing established (sunk) ultrafast network (namely, Virgin Media). Predation would be highly costly in this context as it would require Openreach to incur the extremely large costs of rolling out FTTP and then price at a level which sacrificed profits with no guarantee of higher prices in the future. Virgin Media could easily withstand lower ultrafast prices than Openreach (given its sunk cost base) and would be expected to constrain any attempt to raise prices later on.
- 4.25. Put simply, predation makes no commercial sense for Openreach, reflecting its lack of market power. We note that some experts are sceptical about the likelihood of

¹⁹⁶ WFTMR 2020, Annex 15, footnote 172, Ofcom states "When facing competition in an area it may also be profit maximising to reduce prices in order to retain market share."

¹⁹⁷ WFTMR 2020, Annex 15, paragraph A15.8.

¹⁹⁸ WFTMR 2020, Vol.2 Table 8.1 and paragraph 8.53.

predatory pricing (even where dominance is found) because cases are rare and can be confused with vigorous competition even where prices are below costs.¹⁹⁹

- 4.26. There are similar flaws in Ofcom's suggestion that Openreach can design commercial terms which leverage its position in non-competitive areas to contestable areas. As noted above, the scale, pace and coverage of BT's fibre roll-out remains uncertain. In ultrafast, Virgin Media has a larger footprint and is expected to continue to have a larger footprint over the review period. As we set out in chapter 2 above, there can be no presumption that Openreach will have wider national ultrafast coverage than Virgin Media by the end of the review period, allowing it to design deals which leverage its position in areas where access seekers have no alternative.

The flexibility to compete supports investment and competitive pricing to the benefit of customers

- 4.27. Ofcom must weigh up the benefits of intervening against the risks of intervening. Based on the above, it is much more likely that competitive pricing and other commercial deals by Openreach – as an ultrafast challenger to Virgin Media - are pro-competition and pro-investment.
- 4.28. Pricing flexibility is important for new FTTP build, which already carries significant risks (as described in chapter 3). Enabling pricing flexibility would be consistent with Ofcom's aim "to support investment in very high-speed networks through network competition where this is viable".²⁰⁰
- 4.29. Geographic pricing, for example, can be beneficial where it reflects local cost differences or stimulates demand from particular customer groups in certain areas (reflecting differences in demand-side conditions between areas – e.g. due to socio-economic or demographic factors, or the clustering of certain customer types in business markets). Ofcom recognises there can be valid reasons for varying FTTP prices geographically, for example as part of trials. Nor does it want to discourage innovative pricing of a new service where Openreach is using pricing flexibility for "good reasons"²⁰¹ For example, on its 8 January call with investors and analysts following publication of the Ofcom's consultation, Ofcom noted "...an example of where geographic pricing might be allowed to subjectively (sic) justified... is if there are identifiable differences in costs".²⁰²
- 4.30. Ofcom makes no reference to risk sharing arrangements, nor to pricing offered through competitive tendering arrangements, but both constitute 'good reasons' for pricing flexibility. In the specific case of ultrafast, the ability to set lower prices in areas where Openreach competes with Virgin Media may be critical to protecting the viability of Openreach's investment in these areas.
- 4.31. Commercial arrangements between Openreach and customers for fibre services which allow demand risk to be mitigated (through keen pricing/terms in return for volume commitments) can be effective in boosting the investment case. These deals are shaped by customers who are shopping around (including with Virgin Media) to

¹⁹⁹ "Although early theorists made intuitive arguments on the dangers of predation, this view has been largely displaced by theories that price predation is irrational and should therefore be rare." Source: Law 360, 24 July 2019. [EU's 1st Fine In 16 Years Shows Predatory Pricing Challenges.](#)

²⁰⁰ WFTMR 2020, Annex 15, paragraph A15.15.

²⁰¹ WFTMR 2020, Annex 15, paragraph A15.45.

²⁰² Ofcom, 8 January 2020. Promoting Competition and Investment in Fibre Networks. [Analyst call](#), page 9.

secure the highest speeds at the best prices and are prepared to offer committed volumes to get this. These customers have no interest in harming infrastructure competition, as it gives them choice and leverage in commercial access negotiations.

- 4.32. The Government has also set out that regulation should be used only to the extent necessary to address competition concerns and ensure the interests of consumers are safeguarded and *“that regulatory forbearance, where appropriate, should be considered by Ofcom in developing its regulatory approach to incentivise the roll-out of full fibre networks.”*²⁰³
- 4.33. Ofcom recognises the importance of volume discounts stating that *“[r]educed risk will be greatest where the wholesale customer commits to long term volume take up.”*²⁰⁴ Ofcom, however, proposes to restrict, without any sound basis, Openreach's ability to agree such arrangements to support investment in its nascent FTTP network.

²⁰³ DCMS, 29 October 2019. [Statement of Strategic Priorities for telecommunications, the management of radio spectrum, and postal service](#), paragraph 20.

²⁰⁴ WFTMR 2020, Volume 2, paragraph 8.59.

- 4.34. The box below summarises the position of the UK Government and the European Commission both of which see a place for such deals where they support investment.²⁰⁵

The benefits of commercial deals in supporting investment in fibre networks are widely recognised

UK Government Future Telecoms Infrastructure Review *"It is important that firms are able to agree appropriate commercial deals that share the risks (and gains) from fibre networks and support investment. Risk-sharing arrangements between networks and service providers and co-investment agreements between network providers have been important in the successful deployment of full fibre in other countries, notably in Spain, Portugal and France."*¹

UK Government Statement of Strategic Priorities *"There should be flexibility for firms to develop new approaches to reduce deployment costs and manage risks through commercial risk-sharing and co-investment arrangements. Although these will be commercial decisions for operators, the Government expects Ofcom to play a role in facilitating such arrangements where appropriate."*

European Commission. The new EU Electronic Communications Code recognises the benefits of such commercial risk-sharing arrangements by allowing regulatory relief on certain types of co-investment. This regulatory relief is intended to support deployment of new very high capacity networks.

The Commission has previously acknowledged the importance of volume discounts and long-term access arrangements as an 'important tool' in fostering investment in next generation networks as part of its Recommendations: *"Volume discounts and/or long-term access pricing agreements are an important tool to foster NGA investment, in particular where take-up by consumers is still low, and can be compatible with an EoI and EoO approach";*³ and *"In cases where investment into NGAs depends for its profitability on uncertain factors such as assumptions of significantly higher ARPUs or increased market shares, NRAs should assess whether the cost of capital reflects the higher risk of investment relative to investment into current networks based on copper. Additional mechanisms serving to allocate the investment risk between investors and access seekers and to foster market penetration could also be used, such as long-term access pricing or volume discounts."*⁴

1.DCMS,23 July 2018. [Future Telecoms Infrastructure Review](#). paragraph 120, page 42. 2. DCMS, 29 October 2019. [Statement of Strategic Priorities for telecommunications, the management of radio spectrum, and postal services](#) paragraph 20, page 9. 3. [COMMISSION RECOMMENDATION](#) of 11.9.2013 on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment. 4. [COMMISSION RECOMMENDATION](#) of 20 September 2010 on regulated access to Next Generation Access Networks.

- 4.35. To summarise, Ofcom has not justified limiting Openreach's ability to compete with rivals in the supply of new fibre services. Openreach is a relatively small ultrafast operator seeking to compete with Virgin Media (the established operator). Its pricing will be shaped by powerful customers who have no interest in harming infrastructure competition. On that basis, the proposed restrictions are not necessary. This intervention also risks depriving customers of the benefits of competition and limits our ability to deliver the benefits of new fibre services through investment.

²⁰⁵ The benefits of commercial agreements supported by regulatory forbearance of ultrafast networks can be seen in Portugal and Spain, which have some of the highest full fibre coverage in Europe. Both incumbent operators in Spain and Portugal have made commercial fibre wholesale offers and reached reciprocal access agreements. Regulatory forbearance of ultrafast networks strengthened incentives for operators to reach commercial agreement to facilitate deployment. Note: FTTH coverage was reported at 71% in Spain and 89% in Portugal in 2017. WIK-Consult, 28 February 2019. [Prospective competition and deregulation - An analysis of European approaches to regulating full fibre](#). Page XI.

Openreach also has incentives to compete fairly in leased line markets

- 4.36. For the HNR areas, Ofcom indicates that “imposing a prohibition on geographic discounts could impede Openreach’s ability to compete with established rivals and deprive consumers of the benefits of that competition.”²⁰⁶ As we have set out in chapter 2 above we consider the HNR areas are effectively competitive (like the CLA) and therefore no regulation is necessary. If Ofcom proceeds with regulation in the HNR areas, it is correct in refraining from imposing a prohibition on geographic discounts. We consider that the same applies across LLA Area 2. This is because – as we have set out above, customers are more likely to benefit than be harmed from cost reflective prices; or pricing which reflects the nature of customer demand.
- 4.37. Ofcom proposes to prevent geographic discounts for leased lines in Area 2 because if Openreach can undercut alternative network rivals where they plan/start to rollout, this could undermine alternative network investment. Ofcom sees prospects for material network build in Area 2 including networks focused on leased lines and networks offering both broadband and leased lines. However, Ofcom does not explain why – even if Openreach has SMP in LLA Area 2 as Ofcom proposes - its previous charge control design was insufficient to meet its objectives.²⁰⁷ In addition, it does not explain why restricting Openreach’s ability to price differentiate by geography would not leave scope for Virgin Media – at least in those parts of LLA Area 2 where it has existing network – to do the same.
- 4.38. Ofcom’s SMP assessment thus does not adequately capture the differences in competitive conditions between areas where Virgin Media is and is not present (or has concrete plans to extend its network). It also does not adequately capture the game-changing nature of DPA being available to network providers including Virgin Media and altnets (both existing and new).
- 4.39. In turn, this leads Ofcom to focus on restricting Openreach’s commercial flexibility but not considering that this may not only be ineffective at achieving its objective of protecting nascent competition but may also end up protecting existing rivals to Openreach.
- 4.40. As set out in chapter 2, new entry and expansion of leased lines networks across LLA Area 2 has continued and will be confirmed once Ofcom has updated the data on network presence as part of its market analysis. It has already resulted in declining price trends (across all bandwidths). This reflects pressure from Virgin Media’s and other competitors’ existing network presence, as well as new entry facilitated by DPA and competitive tendering. Network aggregators are also using a mix of DPA, self-build and third-party wholesale access to compete in a market characterised by recurring long term tenders.
- 4.41. BT Enterprise’s ability to compete depends on Openreach’s. Ofcom says that any damage could be mitigated by BT downstream businesses purchasing wholesale services from alternative providers, or self-build using DPA.²⁰⁸ BT Enterprise might well consider such options if Openreach failed to compete effectively on the merits with network rivals. But such significant steps, which may result in inefficient asset

²⁰⁶ WFTMR 2020, Annex 15, paragraph A15.52.

²⁰⁷ WFTMR 2020, Annex 15, paragraph A15.48.

²⁰⁸ WFTMR 2020, Annex 15, paragraph A15.21.

duplication within BT Group, are not justified where it is engineered by regulation that prevents Openreach from competing fairly.

- 4.42. This is not a proportionate degree of intervention given that competition on the merits in leased lines will deliver significant benefits to consumers through lower prices. In addition, any disclosure by Openreach of its pricing as part of a consent or notification process creates a risk that competition is dampened if rival's gain insights which affect their own pricing or bids. In competitive tender and bid processes it is precisely the uncertainty about the costs and likely offer price of the competitor(s) which generates good price and quality outcomes for customers.
- 4.43. Furthermore, the costs of introducing the proposed restriction for leased lines could be significant where BT and Openreach are invited to bid against competitors on a localised basis to serve customer demand in high value tenders. For these cases, any friction caused by the proposed consent/review procedures could impede BT and Openreach's commercial agility and competitiveness.
- 4.44. Table 4.1 below describes typical tender response times for a range of BT Enterprise products, most of which require respondents to submit their tender much quicker than Ofcom's proposed 90-day notification period for other commercial deals. In many cases, customers require respondents to submit tenders within a month, which means Ofcom's 28-day consent process for geographic pricing may also be too long to allow Openreach and its downstream CPs to be in a position to respond to the tender.

Table 4.1 – Typical tender response times for BT Enterprise products

[X]

Source: BT Enterprise

- 4.45. For public sector tenders, the Crown Commercial Service, which sets out guidance on public sector procurement of gigabit capable connectivity, proposes only a 4-week period for tender responses.²⁰⁹ This timescale would prevent Openreach and its downstream CPs from submitting a response to the tender if Ofcom were to apply its 28-day consent process for geographic pricing or 90-day notification process for other commercial deals. The Crown Commercial Service's guidance is followed by local councils, with BT Enterprise responding to tenders within a 3-5 week period for recent bids.²¹⁰

The proposed consent and review procedures should allow beneficial and sustainable competition

- 4.46. Ofcom is proposing to grant consent for targeted geographic discounts "*where they are objectively justified and consistent with our policy objectives*".²¹¹ For other commercial terms, Ofcom may choose not to intervene (using its direction powers under SMP conditions) if it is satisfied, following a review, that the arrangements have clear and demonstrable benefits and will not deter alternative network rollout. Ofcom says that it will apply an 'analytical framework' which appears to constitute the following:

²⁰⁹ Crown Commercial Service. [Gigabit Capable Connectivity \(RM6095\) – Buyer Guidance](#). Annex 1, page 15.

²¹⁰ [X] Source: BT Enterprise.

²¹¹ WFTMR 2020, Annex 15, paragraph A15.76.

- For geographic pricing, Ofcom expects Openreach to provide an 'objective justification' and to show that the pricing proposal is consistent with Ofcom's overarching policy objectives (including its strategy to promote network competition).²¹²
- For other commercial arrangements, Ofcom gives more detail on possible justifications for an arrangement which contains an element of loyalty inducement. Openreach must show that the impact on nascent competitors is unlikely to be material, and that there are clear and demonstrable benefits. For example, where the arrangements are 'essential' to Openreach's business case for fibre rollout; or where the arrangements are necessary to offer more efficient prices that would deliver benefits for consumers.

4.47. Should Ofcom decide to proceed with its proposed consent and notification regime, for those services where Ofcom determines at the time of its WFTMR Statement that they remain within the scope of Ofcom's remedy, these procedures need to ensure that pro-competition, pro-investment arrangements can proceed (thereby avoiding harm to customers from Ofcom's regulation).

4.48. Establishing a consent process that places an unspecified, disproportionate and unfairly high evidential burden on Openreach risks putting in place overly cautious regulation that will have the effect of deterring rather than incentivising investment. Any consent process must be fair and balanced, (with due regard to Openreach's as much as to other operators' investment proposals), and evidential requirements must be reasonable and achievable.²¹³ The process must also not unduly hamper Openreach and its customers' ability to compete in tender processes.²¹⁴

4.49. More generally, any remedies put in place by Ofcom must protect the competitive process, and not specific competitors. To deliver the long-term benefits that Ofcom expects, competition which is protected by regulation must be sustainable (and hence economically efficient) and likely to deliver lower prices in the future (so that consumers do not bear initial high prices for no ultimate benefit). We also expect that Ofcom - when implementing the provisions of its Statement - will assess any consent requests or commercial arrangements in light of the prevailing market conditions.²¹⁵

4.50. We explain below that these objectives are more likely to be achieved where: (i) Ofcom provides clearer guidance that it is seeking to protect nascent competitors (not prevent schemes or offers which do not target such operators and which offer clear benefits); (ii) Ofcom assesses likely competition effects and only restricts pricing where it finds a significant risk of competitive harm (using principles and tests established in competition law); and (iii) the restrictions have a specified end date so as to encourage sustainable entry. Such an approach would also be consistent with best regulatory practice, enabling swift and fair processes and decisions.

²¹² WFTMR 2020, Annex 15, paragraph A15.55.

²¹³ Indeed Annex 15, paragraphs 15.54 to 15.56 could be interpreted as unpassable in terms of what Ofcom is asking Openreach to prove to get consent (and similarly Annex 15, paragraph 15.61). Openreach can only provide information in its possession.

²¹⁴ As described above and shown in Table 4.1 above, a 90-day notification process would prevent Openreach and its downstream CPs from competing in tenders for leased lines contracts, which typically have a much shorter response time. The 90-day time period Ofcom is proposing would mean end customers benefit from a less competitive tender process, ultimately leading to worse customer outcomes.

²¹⁵ Future competitive developments may well invalidate Ofcom's market power findings bringing into question whether an intervention is needed at all.

Ofcom should provide guidance which clarifies that fair competition will be allowed

- 4.51. Given Ofcom's focus on nascent competition,²¹⁶ it should make clear in guidance that wholesale pricing structures which do not target nascent networks are outside the scope of the geographic pricing remedy, and do not require a consent request. This would avoid an unnecessary and onerous administrative process which might dampen commercial agility to meet competition and customer demand and which may unfairly reveal Openreach's commercial strategy (in those cases where Ofcom decides to consult).²¹⁷ We also consider that Ofcom should not require 90-days' notice for other commercial terms where it can clearly be shown that the impact of such terms on nascent network competition is unlikely to be material.
- 4.52. Even if specific schemes are not exempted, we would expect Ofcom to give guidance on the types of schemes and offers it would expect to consent to, absent anti-competitive evidence to the contrary. We do not agree with Ofcom that such guidance is not possible because it would be "*context specific*."²¹⁸ Ofcom provided exactly this clarification when it first imposed geographic pricing restrictions as part of the WLA 2018. It stated, "...we would envisage granting BT consent for geographic price differentiation that represented commercial behaviour not targeted at such new investment, for example where BT was responding to customer demand, making more efficient use of assets in the network, or engaging in competition with Virgin Media. ... As such, it would seem unlikely that they were being used to target new network build. ...".
- 4.53. We are unaware of any changes in market conditions (and indeed Ofcom has not referred to any) which would require a departure from that approach. We request Ofcom to give the same guidance in the WFTMR, signalling the willingness to grant consent for similar deals and therefore giving more comfort to investors that such deals would not be blocked.

Ofcom should assess likely competition effects and only restrict pricing where it finds a significant risk of competitive harm

- 4.54. Ofcom should provide much greater guidance on the principles it will apply when considering consent requests, and when deciding whether to intervene. The proposed 'analytical framework' is poorly specified creating uncertainty for BT (and other operators) on how far Ofcom might restrict commercial terms that could be permissible under competition law.
- 4.55. Ofcom indicates that it is prepared to limit "*pricing arrangements that might normally be regarded as legitimate commercial reactions to competitive entry for operators with SMP*".²¹⁹ It also states, "*our concern goes beyond Openreach setting potentially*

²¹⁶ Ofcom's overarching competition concern is expressed as follows "... nascent alternative network deployment is relatively fragile while it establishes scale and reputation. In these early stages we consider that it is potentially vulnerable to conduct on the part of Openreach", WFTMR 2020, Annex 15, paragraph 15.5.

²¹⁷ In its response, Openreach sets out the schemes that should be exempted and we support Openreach's submission.

²¹⁸ WFTMR 2020, Annex 15, paragraph 15.76.

²¹⁹ WFTMR 2020, Annex 15, paragraph A15.18.

anti-competitive prices within the meaning of competition law and extends to the broader impact that commercial terms may have on alternative network operators' incentives to invest in FTTP."²²⁰ We assume this means that Ofcom will not necessarily be guided by competition law principles and tests in reaching its view on consent and when to intervene.

- 4.56. In undertaking these processes, we urge Ofcom *not* to move away from the established principles of competition law, even if applied as *ex ante* rules.²²¹ Ofcom should permit any pricing by Openreach that does not materially harm competition. There are established tests which are commonly used to investigate such effects (although we recognise that Ofcom will consider all relevant circumstances to reach a view).
- 4.57. For example, where commercial arrangements contain an element of loyalty inducement, pricing should be allowed where the effective price that rivals would need to match to win contestable sales is above long run average incremental cost 'LRAIC'. As the European Commission's Article 102 guidance states "*as long as the effective price remains consistently above the LRAIC of the dominant undertaking, this would normally allow an equally efficient competitor to compete profitably notwithstanding the rebate. In those circumstances the rebate is normally not capable of foreclosing in an anti-competitive way.*"²²²
- 4.58. Only where pricing is found to materially harm competition is it relevant for Ofcom to consider whether the pricing would nonetheless be beneficial to consumers such as by supporting new investment or promoting efficiency. Such an approach would be consistent with the principle Ofcom states "[w]e expect to *prohibit any commercial terms which pose a substantial threat to emerging competition without compensating benefits.*"²²³ There is no basis to require *both* no material impact on competition *and* clear and demonstrable benefits.
- 4.59. Where Ofcom sees reason to support smaller operators that have the potential to be 'equally efficient' once they gain scale, Ofcom will need to explain how it will measure an acceptable degree of competitive impact, specifically, what would constitute a 'material' impact on nascent competitors; or, indeed, a business case being 'undermined'.
- 4.60. For example, Ofcom expresses concern about wholesale pricing structures used by Openreach which "*reduces the returns to investors in new fibre networks.*"²²⁴ But competition typically has this effect. We assume that it is not Ofcom's intention to insulate alternative network providers entirely from competitive impact. If this is

²²⁰ WFTMR 2020, Annex 15, paragraph A15.15.

²²¹ This creates a high risk of protecting specific competitors, rather than the process of competition (which competition law is careful to guard against because of the potential cost to customers) "The emphasis of the Commission's enforcement activity in relation to exclusionary conduct is on safeguarding the competitive process in the internal market and ensuring that undertakings which hold a dominant position do not exclude their competitors by other means than competing on the merits of the products or services they provide. In doing so the Commission is mindful that what really matters is protecting an effective competitive process and not simply protecting competitors. This may well mean that competitors who deliver less to consumers in terms of price, choice, quality and innovation will leave the market." European Commission, 24 February 2009. [Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings](#) (Text with EEA relevance). paragraph 6.

²²² European Commission, 24 February 2009. [Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings](#). paragraph 43.

²²³ WFTMR 2020, Annex 15, paragraph A15.4

²²⁴ WFTMR 2020, Annex 15, paragraph A15.6

Ofcom's intention, then it has yet to justify such an extreme intervention by reference to specific and quantified future benefits (which is needed to show that such a remedy is proportionate).

- 4.61. We are concerned that such an intervention would create perverse incentives for alternative networks to invest on the presumption they would be insulated from fair competition, even if they could not compete efficiently once they reached scale. Ultimately, the cost of this unsustainable entry would be borne by customers, who would pay higher prices for gigabit services they could otherwise receive at lower cost.
- 4.62. Guidance is particularly critical if the scope of restrictions is to include FTTP services. It is not reasonable for BT's investors to be expected to fund risky and costly investment in FTTP (in line with the Government's objectives) without Ofcom making clear in advance whether Openreach will be able to discount prices in response to potential and actual competition, in particular, from its main network rival, Virgin Media.
- 4.63. Equally such guidance will be of value to other operators, to provide transparency and certainty on the approach that Ofcom is taking to assessing such requests for consent.

Ofcom should time-limit its intervention to avoid promoting unsustainable entry

- 4.64. Ofcom wants to encourage nascent competitors who have the potential to be efficient in the long-run. We understand this objective, but fair competition with Openreach in the medium term must be factored into alternative networks' business cases.
- 4.65. Ofcom recognised this when it first imposed geographic pricing restrictions on Openreach's legacy copper products in 2018. It stated "*[i]n the longer term, consumers' interests are likely to be best served by removing such restrictions and allowing BT to respond to competition. New investors will know that they will have to compete with BT without this provision in the longer term. We consider that this significantly mitigates the risk of that they will enter when they are inefficient, especially as the assets have very long lives.*"²²⁵ In the WFTMR, Ofcom says "[o]ur emphasis on supporting the emergence of new competition does not extend to permanent protection or measures that risk eliminating price competition with the consequential harm to consumers that would result."²²⁶
- 4.66. We have said in previous submissions that sheltering network rivals from normal competitive pressure creates the risk of unsustainable competition. Put simply, it may allow operators to gain scale when they are unlikely to deliver the hoped-for benefits of competition because they cannot operate sustainably without protection.
- 4.67. To mitigate against this risk, entrants need to know upfront that they will need to compete with Openreach without protection at some point (as Ofcom accepted in 2018). They should be told when this is (through a sunset provision or, at least, clarity on criteria and thresholds for lifting the restrictions) so they can develop their business plans. This would help avoid protracted regulatory disputes in which rivals rely on

²²⁵ WLA Statement 2018, Volume 1, paragraph 11.37.

²²⁶ WFTMR 2020, Annex 15, paragraph A15.88.

general statements from Ofcom which are mis-interpreted as a guarantee of particular market share outcomes.

The BT Commitments and regulation must enable a level playing field in downstream markets

- 4.68. When considering the extent to which there is a competition problem and the proportionality of any remedy, Ofcom should give greater weight to the other regulatory conditions that ensure Openreach treats CPs fairly (no undue discrimination, equivalence of inputs obligations) and the Commitments (as indicated in the July 2017 Statement and the Access Directive).²²⁷
- 4.69. The Commitments envisage that in the event of deregulation, SMP products and their related assets shall be provided and managed by a division of BT other than Openreach unless it is impractical to do so.²²⁸ The proposed WFTMR framework creates an increased likelihood of deregulation in localised geographic areas (or even dispersed individual assets as currently the case for data centres). But it may be impractical for BT's downstream business units to provide or manage newly deregulated products/assets where de-regulation occurs on a piecemeal basis. In turn, this can prevent BT from benefitting from deregulation in practice.
- 4.70. In order to maximise competition at the downstream level to the benefit of consumers, BT should be able to benefit from deregulation without incurring significant, unnecessary cost. This would enable BT to differentiate its products downstream so it can compete on a level playing field. Ofcom must ensure that the way in which it regulates (and interprets the Commitments) does not restrict this competition.
- 4.71. Even where Ofcom persists with an SMP finding in markets downstream of physical infrastructure (despite the competitive environment set out in chapter 2 above), we expect our downstream businesses (i.e. BT Consumer and BT Enterprise) to be able to compete on a level playing field alongside rival CPs. This is particularly important in tendering markets where the ability for providers to compete on a level playing field ensures that consumers can benefit from innovative products and more competitive prices in retail markets.
- 4.72. In line with the Commitments, BT's downstream business units are permitted to make network deployments using, for example Openreach dark fibre or PI, provided they do not 'materially substitute' Openreach products supplied in markets in which Ofcom has found SMP. Where that is the case, we expect that the downstream products supplied by BT would not be subject to access regulation and Ofcom would make this clear in its final statement. This approach would be consistent with what Ofcom has previously determined in relation to the 2016 BCMR dark fibre remedy.²²⁹ Similar to the case of the BCMR in the past, a level playing field in these

²²⁷ BT, 18 January 2019. [Response to Ofcom's consultations on the Physical Infrastructure and the Business Connectivity Market Reviews](#), paragraph 4.24.

²²⁸ BT, 4 March 2019. [Commitments of BT Plc and Openreach Limited to Ofcom](#), Issue 3, paragraph 3.6.

²²⁹ Ofcom has previously acknowledged that where BT Downstream uses an upstream passive input (i.e. dark fibre), BT downstream businesses should have the flexibility to compete on a level playing field with other Openreach CP customers. In particular, in Ofcom's 9 July 2015 clarifications and corrections document to the BCMR it stated: "we do not propose to impose SMP conditions ex ante on products which BT divisions, downstream of Openreach, might provide by using the dark fibre products which Openreach would provide in complying with our proposed Dark Fibre Access remedy, as long as BT fulfils otherwise the SMP conditions we propose in relation to active services. If

downstream markets (retail and wholesale active markets) is needed so that consumers can benefit from the regulatory measures introduced in the markets further upstream.

- 4.73. Consistent with this approach, SMP conditions should not apply to BT Enterprise where it builds physical infrastructure (for the physical infrastructure itself and the products created using it), where such self-build enables it to have the same commercial flexibility as rival CPs in respect of their network supply options. Rival CPs tend to combine Openreach passives with self-build and therefore BT's downstream business units need to be able to do the same (provided they operate in line with the Commitments).
- 4.74. For example, [8]. As set out in greater detail in Annex 8 we do not consider that such commercial practices would put at risk Ofcom's policy objective of promoting competition downstream of physical infrastructure. Rather, we consider it would foster competition to the benefit of consumers by helping to ensure a level playing field.
- 4.75. Ofcom should, therefore, explicitly set out in the final Statement that SMP conditions would not attach to i) products or assets created which BT downstream provides using DPA (and mandated dark fibre), where such activities are in line with our Commitments and ii) to BT downstream self-build where this enables Enterprise to have the same commercial flexibility as rival CPs. Applying SMP obligations in such circumstances would not be necessary or in consumers' interests as it would unfairly restrict the ability of BT's downstream business units to set commercial terms flexibly and tailor products to what customers demand. Annex 8 sets the above out in further detail.

Openreach were to fulfil all BT's obligations in relation to active services, and BT's downstream divisions were to provide additional active services by consuming regulated dark fibre from Openreach, we consider that our proposal to require BT to provide dark fibre on the basis of Equivalence of Inputs (EOI) should give sufficient assurance that CPs could compete in the provision of these downstream active services on a level playing field." See: Ofcom, 9 July 2015. [Clarifications and corrections to the Business Connectivity Market Review consultation document of 15 May 2015 and the Leased Lines Charge Controls and Dark Fibre Pricing consultation document of 12 June 2015.](#)

5. Significant investment in Area 3 requires a new form of regulation but proposals for dark fibre will undermine this

- 5.1. We agree with Ofcom that the benefits of full fibre investment should be available to people and businesses everywhere – whether in rural areas, smaller towns or cities. We welcome Ofcom's willingness to flex its regulation in the harder to reach areas, specifically, the proposal to allow BT to recover full fibre build costs across a wider range of services. At our recent annual results, we announced a new target, to pass 20m premises with full fibre by the mid- to late-2020s, conditional on critical regulatory and policy enablers. We said that this will include a significant build in those parts of the UK that are the hardest to reach (i.e. in Area 3) and we stand ready to make a commitment, with the right regulatory conditions, so we can get going quickly.²³⁰ We also welcome the announcement in this year's budget that £5bn will be earmarked to fund ultrafast rollout in the hardest-to-reach areas.²³¹
- 5.2. Ofcom's preferred option would allow full fibre build costs to be spread across wholesale copper services from the outset of the review period (rather than ex post once the fibre investment is delivered). This 'forecast' approach allows us to get going quickly and has the added advantage of a consistent pricing approach across geographies.
- 5.3. The specific commitment we make will appropriately reflect the benefit of being able to recover costs in the way Ofcom suggests. But the model is not (as Ofcom suggests) similar to a regulatory asset base (RAB). A RAB exposes infrastructure providers to an efficiency challenge but not (usually) to volume risk. We remain exposed to this risk even in non-competitive areas - take up of higher speed tiers may be less than expected, government intervention may be higher than expected, there is still some competition risk (which is exacerbated by the availability of DPA and mandated dark fibre) and there is also a risk of competition from new technologies.
- 5.4. The scale of any Openreach commitment to build will need to reflect these uncertainties. More can be committed if Ofcom signals that fibre build costs can be spread across copper services in subsequent review periods and indicates the 'uplift' that will be allowed on copper prices in the future to support the recovery of fibre build costs.
- 5.5. Ofcom's alternative approach for encouraging BT to invest (the 'post build' option) is unlikely to be effective as proposed. This is because the proposed uplifts to copper prices are insufficient to support the necessary investment given the costs and risks involved. Copper prices would be adjusted downward until full fibre build occurs, at which point prices would be lifted to help support the investment, which could result in significant price differentials between different parts of the country for full fibre and copper-based services.
- 5.6. In the remainder of this section we explain why we support the principle of a forecast approach for Area 3, which can deliver full fibre for millions of customers. To support

²³⁰ BT, 7 May 2020. [Earnings Call](#).

²³¹ HM Treasury Policy Paper, 12 March 2020. [Budget 2020](#).

a commitment from BT, we think Ofcom should indicate how any pre-committed full fibre build will be supported beyond 2026. We explain why we doubt Ofcom's post-build alternative is likely to be successful, as the uplifts to copper based broadband prices proposed by Ofcom (and described as 'K' factors) are insufficient. We also discuss the proposed large CPI-X reductions in FTTC prices over the period which we think would threaten investment levels. We conclude with comments on the proposed dark fibre remedy which could discourage fibre investment and, at proposed prices, deny Openreach cost recovery.

We welcome Ofcom's proposals to adapt price controls in order to incentivise full fibre investment in Area 3

- 5.7. Ofcom proposes to set charge controls on copper based broadband services in Area 3 in a way that encourages full fibre investment by BT (recognising the challenges this area poses). It proposes that Openreach services are entered into "a common pool known as the regulatory asset base (or RAB) which is recovered across all of the firm's services. This allows an operator to recover the costs of a particular service (e.g. Service A) through revenues earned from multiple services (e.g. Service A and Service B)."²³² To operationalise this, Ofcom has proposed two possible types of MPF and FTTC charge control:
- a **forecast** approach where the level of controls would be set to allow recovery of the full fibre investment costs based on an upfront commitment from BT regarding the level of full fibre deployment over a specified period, or
 - a **post-build** approach whereby copper prices are lifted (by a 'K' factor) only after investment by BT has occurred with the level of the mark-up depending on the level of full fibre investment that BT chooses to make.
- 5.8. We agree with Ofcom that any price controls must recognise the need to encourage full fibre investment, and that a price control which spreads full fibre costs across all services is an appropriate way to do this. This can contribute to meeting Ofcom and Government's stated aim of securing full fibre investment right across the UK.
- 5.9. In contrast, charge controls on Openreach set in the traditional way will not deliver the levels of investment that Ofcom, and Government, are seeking. As Ofcom notes,²³³ full fibre investment is long-term in nature and costs in Area 3 are likely to be higher than in Area 2. Incremental revenues, on which the commercial case relies, are not likely to be large, at least until demand for higher speeds becomes established in the medium to longer term. These factors point to an approach which allows costs to be spread more widely and for Ofcom to give longer-term regulatory signals on cost recovery.
- 5.10. The revised form of price control will, however, not be sufficient to support complete coverage in Area 3 - for coverage to the highest cost customers in the UK, direct government funding will be required (and has been committed).

²³² WFTMR 2020, Volume 4, paragraph 2.19.

²³³ WFTMR 2020, Volume 4, paragraphs 2.15 and 2.16.

Our preference is for a forecast build approach to price regulation: a post build approach is unlikely to be effective at achieving Ofcom's objectives

- 5.11. We support Ofcom's preference for a forecast approach to price controls, under which BT would commit, in advance, to a level of build in Area 3. Charge controls would be adjusted so that Openreach has an expectation that it would recover its costs (for copper and full fibre services) and earn a fair rate of return on the capital invested. One specific form of this control would be to keep prices constant in real terms (so services for copper based broadband services, and the full fibre 40/10Mbps service, would be the same as in Area 2) with a full fibre build commitment commensurate with the uplift created by this level of pricing.
- 5.12. A forecast approach would be simpler to administer and (in contrast to a post-build approach) provide stakeholders with a known and certain level of investment, and hence of fibre coverage. We appreciate that Ofcom will need to ensure delivery of any commitment by BT, and we are ready to work with Ofcom to devise an appropriate process to this end.
- 5.13. Central to the forecast approach is the level of commitment which needs to be made in order to meet what Ofcom describes as a value-for-money assessment. In making this assessment Ofcom must recognise that the RAB approach it is proposing differs in significant ways from RAB regulation in other utilities and provides much less assurance of cost recovery than is usually the case for utilities.

An agreed build commitment must offer BT a fair prospect of cost recovery recognising the risks remaining

- 5.14. A RAB regime is typically used as a commitment device. It signals to investors that, once made, their investment will be treated fairly, and there will not be retrospective asset 'taking' or prospective asset 'stranding'. In short, a regulated utility has assurance that investment in assets required to deliver regulated services will earn a return for their shareholders over the lifetime of the assets. However, RABs are typically used for monopoly infrastructure (i.e. where there is no, or very little, competition), and where the main risk to asset integrity is future regulatory policy. This is not the situation in telecommunications, even in Area 3.
- 5.15. RABs are usually used where there is no (or very little) risk of demand not materialising or being competed away.²³⁴ Openreach, however, faces considerable revenue risk from uncertainty over the size of its future customer base. For example, customers may be lost to competitors in Area 3, both from commercial build and from government funded programmes (which Ofcom accepts, and sees as a virtue of an approach which sets higher copper prices from the start).²³⁵
- 5.16. Competition may also emerge from new technologies which may emerge over the full fibre investment timescale (for example, to FWA and the deployment of 5G

²³⁴ BT, 14 June 2019. [Promoting competition and investment in fibre networks - Approach to remedies](#), BT's Response to Ofcom's consultation published on 29 March 2019.

²³⁵ WFTMR 2020 Volume 4, paragraph 2.28, "there is uncertainty where the boundary between Area 2 and Area 3 will materialise over the course of the review period. Further, although we do not expect widescale competing fibre deployment to develop in Area 3, it is possible that some limited investment will occur. In this case, higher prices for copper services from the beginning of the control could have a positive impact on rival network investment."

technology or to LEO satellite broadband). There may also be weak demand for higher bandwidth services provided over full fibre and therefore lower revenues than anticipated.

- 5.17. The commitment which BT is able to offer could be improved if Ofcom sets out how regulation will support a full fibre build in Area 3 beyond the first five-year review period. Indeed, this is essential to address one of the dis-incentives to investment by BT in Area 3 which Ofcom accepts, namely, the reliance on Ofcom to "*maintain regulatory consistency over multiple review periods.*"²³⁶ The forecast approach involves setting charge controls for legacy services (we suggest at the same level as in Area 2) to allow recovery of a pre-committed full fibre deployment from the start of the review period in 2021 until 2026. But Ofcom is silent on whether prices in the *next* review period and beyond (starting in 2026) would *remain* supportive of the committed build.
- 5.18. Given the long-term nature of full fibre investment, we think there is a strong case for Ofcom to indicate how any pre-committed full fibre build will be supported beyond 2026. It could, for example, commit to preserving an agreed 'wedge' between cost-based copper prices and charged controlled pricing in subsequent review periods.
- 5.19. This would allow Ofcom (at subsequent reviews) to check that copper pricing was sufficient to recover Openreach's costs (allowing for losses to alternative suppliers), as well as allowing Openreach to recover enough of the full fibre investment cost from copper services to make the business case for investing profitable.
- 5.20. It is possible that a continuation of indexed prices (beyond 2026) may create some 'headroom' for further build (i.e. another committed tranche for the review period after 2026). But this would depend on the difference between indexed prices and charge controlled legacy pricing (for the period 2026 to 2031) *after* allowing for the 'wedge' for recovery of the costs of the commitment delivered in the period 2021 to 2026. This would be a matter for discussion between BT and Ofcom at the next review.
- 5.21. Such a mechanism would reflect an important aspect of RAB-style regulation - that the supplier which has incurred an efficient level of costs, and built an asset base to provide regulated services, is permitted to recover efficiently incurred costs plus a reasonable return on those assets over the timeframe of the investment. It is also consistent with the principle of allowing 'K' uplifts (in the post-build model) which we understand would be recoverable in subsequent review periods (out to 2041).

The post-build model will not be effective because the proposed adjustments to prices would not be sufficient to incentivise build

- 5.22. Without a build commitment, Ofcom proposes a CPI-X+K control allowing copper based broadband prices to be lifted after any full fibre investment occurs. The 'K' factor is intended to reflect the shortfall in net present value as a result of full fibre investment in Area 3 and would increase according to the level of build which BT

²³⁶ WFTMR 2020, Volume 4, paragraph 2.16 "Additionally, the long-term nature of the FTTP investment may discourage Openreach from investing. Openreach might prefer to invest in shorter-term projects with quicker payback periods that may satisfy shareholder demands and will not rely on needing Ofcom to maintain regulatory commitments over multiple review periods." (Underline added.)

completes (i.e. incremental uplifts as coverage increases). Whilst we understand that Ofcom has developed an approach for use in the absence of a commitment, our strong preference is for a forecast build commitment rather than a post-build model for a number of reasons.

- 5.23. For CPI-X+K to succeed in enabling and incentivising investment, it must provide Openreach with a fair opportunity to recover its incremental costs for what will be a very capital-intensive programme. On the basis of Ofcom's current proposals, this will not be achieved.
- 5.24. Ofcom's proposal would mean that, even at the top end of the range for the K uplift, the wholesale charge for copper-based broadband would decline in real terms by nearly 10% over the control period even if BT built to 5m lines. We do not believe that significant, transformational investment is possible alongside such steeply declining prices.
- 5.25. Further, prices would be adjusted downward until full fibre build occurs, at which point prices would be lifted to help support the investment. This would result in significant price differentials between different parts of the country for both full fibre and copper-based broadband.
- 5.26. Lower prices in Area 3 are also likely to increase the level of public funding required to support full fibre investment to serve the harder to reach customers in Area 3. This is because gap funding will need to make good the shortfall between commercial revenues that can be earned by the full fibre provider (based on prevailing prices in Area 3) and the costs of supply. But a steep reduction in regulated prices would reduce the revenue that could be generated commercially from a given number of homes and increase the net revenue shortfall. Hence the subsidy required to fill the gap between revenues and costs would be higher.
- 5.27. In terms of the K model itself, we note that the uplift is premised on continued application for the next 20 years and that the value of the uplift is assumed to apply to 8.815m premises (i.e. almost the entirety of Area 3). Although we agree that such a commitment would be necessary, Ofcom provides no indication of how it might work beyond the end of the review period ending in 2026. Nor does Ofcom explain what would happen if the number of premises served by Openreach declined materially over the period (for example, if other suppliers were to build using government-aided schemes or if 5G became a popular alternative) which would materially reduce the benefit of the K uplift which applies to copper lines that Ofcom assumes Openreach will continue to serve.
- 5.28. The K schedule (table A18.4) is also based, in part, on an assumed average increase in monthly revenues of £4 per line (following the migration to FTTP) which BT does not believe is plausible in the short to medium term at least. Ofcom itself notes that "*Openreach's ability to charge more for fibre services will be limited*"²³⁷ which is not consistent with such a large assumed incremental ARPU.
- 5.29. If agreement to an investment commitment is not possible, and Ofcom uses the K uplift as an incentive, such issues need to be addressed if there is to be a prospect of Openreach making significant investments in response to the incentives provided by K. As it stands, Ofcom's alternative 'post-build' approach will not be effective and is unlikely to incentivise build.

²³⁷ WFTMR 2020, Volume 4, paragraph 2.15.

The proposed charge control price reductions on existing copper based broadband service will discourage investment

- 5.30. We also have serious concerns about the level of proposed controls on legacy products (between CPI-5.75% and CPI-15% for FTTC) which is proposed if Openreach does not provide a sufficient investment commitment to justify use of the forecast approach. As we note above, these imply very large real terms price reductions which we believe will be detrimental to BT's ability to fund large scale investments.
- 5.31. We are particularly concerned that Ofcom appears to assume high levels of cost efficiency gains can be made over the period when Openreach has been increasing its workforce (in part to ensure higher service standards on copper services can be met) and is projected by Ofcom to lose 10% of its lines over the period.²³⁸ As Openreach shows, it has not been possible in recent years to continue achieving historic efficiency levels, nor are they planned to resume in the medium term (in 2018/19 there was actually a substantial increase in unit costs, as Openreach increased its engineering resources to meet service performance metrics).
- 5.32. We note further that the FTTC 'X' assumes a very high growth in FTTC volumes up to 2025/6. But if the aim of this charge control is to allow Openreach to recover the cost of copper services whilst minimising the stranding of any copper asset due to full fibre build (and copper retirement) by BT under the forecast or post-build approach (or by altnets),²³⁹ then Ofcom must reflect the impact of full fibre investment on copper volumes. As Openreach explains in its response, a lower forecast of FTTC volumes will result in lower scale economies and, therefore, a lower X.

Dark fibre access in Area 3 must be priced to allow cost recovery and avoid working against FTTP build

- 5.33. To address a finding of SMP in leased lines active services, Ofcom proposes introducing a new set of regulated wholesale services in Area 3 (namely dark fibre) and to impose a cost-based charge control. Ofcom considers that dark fibre will become the "primary remedy" for SMP in the leased lines market. The proposed charges for dark fibre (for the single fibre variant which is the predominant service) are £1,419 (for service connection) and £701 (for annual rental). Ofcom further proposes that the connection charge decreases by 2.5% each year and the rental charge by 7% in real terms (and so by 30% over 5 years).
- 5.34. Openreach indicates (in its response) that such charges fail to reflect the true level of its costs, and that both the starting charges and annual reductions warrant substantial revision. Specifically, Ofcom's proposals do not reflect Openreach's higher than average costs in Area 3, which is the central reason why the area is deemed not to support more than one commercial supplier. Imposing a dark fibre price control based on the average level of national costs will not therefore set charges which will recover costs in the Area 3 market. Further, setting regulated prices for dark fibre below Openreach's costs will create an arbitrage opportunity. In other words, dark fibre will be preferred over purchasing active leased lines not

²³⁸ WFTMR 2020, Annex 16, Table A16.5.

²³⁹ WFTMR 2020, Annex 16, paragraph A18.15 "in calculating the cost of copper services, we have also sought to minimise the stranding of any copper assets due to the retirement of the copper network."

because purchasers see an efficiency opportunity of self-providing the electronics but because dark fibre is under-priced.

- 5.35. In its response, Openreach has provided evidence of the scale of the cost differential in Area 3 as opposed to nationally averaged costs, and we fully support Openreach's request that this cost differential between Area 3 and other UK leased lines markets is reflected in mandated dark fibre prices.
- 5.36. Openreach also explains that there are further significant adjustments needed to more accurately reflect the actual costs incurred in providing dark fibre. These adjustments also have material implications for prices. In total, Openreach's calculations show dark fibre rental charges should [X] than as estimated by Ofcom.

Rate of change in prices needs a major revision

- 5.37. Regarding the rate of change in dark fibre prices from their initial level, Openreach explain that Ofcom has omitted two large impacts of the proposed dark fibre remedy, these being:
- the early redundancy of electronics equipment which will not have been fully depreciated when active circuits are replaced by the new passive regulated services; and
 - the extensive engineering resource costs incurred by Openreach in migrating services from its active portfolio to a passive service.
- 5.38. Openreach should have the opportunity to recover efficiently incurred costs in the leased lines market given that these have been incurred in meeting regulatory obligations imposed on BT. It is not reasonable to expose BT to under-recovery of costs incurred in the provision of services under one regime due to a decision by Ofcom to prioritise a new regulated service which makes the initial service superfluous. Recognition of these efficiently incurred costs (estimated by Openreach to be over [X]) would have a very material impact on prices over the period.
- 5.39. Second, a consequence of mandating the provision of dark fibre will be the migration of existing active services to the regulated dark fibre product. Ofcom has not made sufficient allowance for the resource costs involved, in particular, skilled engineers who will transfer existing lines from one form of wholesale product to another. Openreach expects this task to be resource intensive because of the need to avoid a break in service.
- 5.40. Recognising these two material items (and also allowing for efficiency improvements which are consistent with recent trends), Openreach estimates that, even starting from a much higher level of initial prices, dark fibre rental services over the control period should be [X].
- 5.41. The consequences of a failure to reflect costs in providing dark fibre could be severe for investment and for customers. The dark fibre remedy as proposed would increase the risk of investment in network building, by reducing future revenues which Openreach can expect to earn from its investment in fibre access assets. If prices are set below cost in Area 3, migration rates from active services will be accelerated and an excessive level of scarce engineering resources will be engaged in swapping out fibre from one type of service to another. In its response, Openreach provides specific evidence indicating that this is a material issue which may push out fibre build timescales.

Importance of usage rules

- 5.42. The problems relating to cost under-recovery and migration resource requirements will be made even more severe if the dark fibre remedy is used for purposes for which it has not been intended. We note that Ofcom defines leased lined access services as circuits between end-user sites and the first point of aggregation, and sometimes between customer sites, but excludes from the market other access services, such as broadband and EFM.²⁴⁰
- 5.43. It is vital that dark fibre usage is consistent with these definitions, so it only addresses the competition issues which Ofcom states it has identified, and that there are not unintended consequences. We are concerned that dark fibre could be used, alongside DPA, to supply broadband lines in the lower cost (and therefore "more commercial") parts of Area 3. Such cherry picking of customers would reduce the effectiveness of the incentive mechanism for promoting investment in full fibre by BT in Area 3 (which relies on fibre costs being spread over a wider range of services provided by Openreach). We therefore support Openreach's proposals that any dark fibre reference offer includes "usage rules" that ensure that the new remedy is used only for its stated purpose.

Ofcom's guidance on network adjustments needs clarification

- 5.44. Finally, BT is concerned that Ofcom's guidance on network adjustments²⁴¹ could be interpreted, in effect, to require Openreach to supply new dark fibre in response to any request. As set out by Openreach, such guidance would not be consistent with Ofcom's legal powers to impose Network Access obligations and could result in Openreach being required to deliver requests that are disproportionate, or that in reality require Openreach to extend its network rather than adjust the existing network.
- 5.45. Openreach has therefore proposed a set of definitions that allow a distinction to be made between requests for supply of dark fibre which are subject to regulatory obligations from those which are not and can therefore be rejected. These definitions will provide clarity for Openreach and more certainty for its customers.

Conclusion on the dark fibre remedy

- 5.46. Given the likely adverse impact of dark fibre on the case to invest in full fibre in Area 3, we believe Ofcom ought to give serious consideration to its decision to introduce this further remedy. Customers will be better served if Openreach has the resources to build new full fibre access services, rather than be required to accommodate a further intervention (on top of active wholesale access services and DPA) designed to promote another form of competition.
- 5.47. If Ofcom, nevertheless, goes ahead and introduces a new obligation to provide dark fibre, it should do so in a way that avoids the serious negative impacts we have indicated above, and which is therefore consistent with its wider policy objectives for Area 3. This requires prices which give Openreach a full opportunity to recover its

²⁴⁰ WFTMR 2020, Volume 2, paragraphs 6.68 and 6.71(b).

²⁴¹ Ofcom has provided guidance on the extent of the network access obligation to provide dark fibre in relation to the provision of new infrastructure. This sets out that network adjustments are required only where they are necessary, feasible and improve efficiency.

costs; usage rules to target the remedy at the competition issue for which it has been designed; and proportionate obligations regarding obligations to supply.

6. Physical infrastructure pricing needs to adapt to better reflect Ofcom's policy objectives

- 6.1. Ofcom is not envisaging fostering competition in the build of physical infrastructure. It wants Openreach's Physical Infrastructure (PI), including ducts and poles, to be accessible on equal terms to all downstream communications providers to facilitate competition in full fibre networks.²⁴² This is despite by-pass of Openreach's PI by other builders of ultrafast networks (as set out in chapter 2 above, and Virgin Media self-supplying PI in its existing footprint in half of the UK).
- 6.2. DPA²⁴³ is an attractive product and we agree with Ofcom's assessment that it *"has the potential to significantly reduce the cost and time involved in rolling out networks"*, increasing the strength of infrastructure competition faced by Openreach.²⁴⁴
- 6.3. We also agree with Ofcom's intention that its DPA pricing proposals should ensure:
- *"Openreach has the opportunity to recover its efficiently incurred costs"*
 - *"a level playing field exists between Openreach and competing telecoms providers that make use of PIA to provide downstream products"*.²⁴⁵
- 6.4. More broadly, we welcome Ofcom's recognition that Openreach will be investing to upgrade its duct and pole infrastructure, so that it, and other CPs, can rollout full fibre.²⁴⁶ But to ensure DPA pricing is sustainable and can continue to achieve Ofcom's goals, Ofcom should make a number of adjustments to the DPA pricing regime as set out below and in Openreach's response.
- 6.5. Specifically, Ofcom needs to more clearly set out the long-term principles it will follow in determining DPA prices. In particular, Ofcom must (i) ensure its forecast of costs is accurate and reflects all Openreach investments in its physical infrastructure that can be used by altnets; (ii) ensure the allocation of costs between Openreach and other providers (including Virgin Media and alternative operators) is amended for some product components to better reflect their use of the PI and their opportunity to earn revenues related to that usage; and (iii) confirm in its Statement that it will reconsider its access and pricing regime in the following market review should risks to cost recovery arise due to the selective use of Openreach ducts and poles. Finally, we expect Ofcom to review the PI market at the next review and deregulate our ducts and poles in areas where competition in PI (including wireless and non-telecoms PI) indicates that Openreach does not have market power. Openreach has provided a separate response on the pricing of ducts and poles and we support Openreach's response.

²⁴² Ofcom set out its aim "to facilitate third party network build using BT's infrastructure nationally which in turn will promote competition in downstream services". Volume 3, paragraph 4.14.

²⁴³ We use DPA (or duct and pole access) to refer to Ofcom's PIA (or Physical Infrastructure Access) remedy.

²⁴⁴ WFTMR 2020, Annex 7, paragraph A7.18.

²⁴⁵ WFTMR 2020, Volume 4, paragraph 5.8.

²⁴⁶ In this consultation Ofcom has forecast regulatory costs in the charge control period to 2025-26 compared to its previous 'static' view of costs. WFTMR 2020, Volume 4, paragraph 5.17b.

DPA prices should reflect Openreach's forecast investment over the market review period

- 6.6. We welcome Ofcom's recognition that Openreach will be investing to upgrade its duct and pole infrastructure, so that Openreach, as well as other CPs, can rollout full fibre.²⁴⁷ But Ofcom will need to ensure that the cost base used to derive DPA prices is reflective of Openreach's actual and forecast physical infrastructure costs.
- 6.7. Ofcom's remedies require Openreach to act as the sole provider of access to its infrastructure nationally, at cost.²⁴⁸ Openreach's physical infrastructure will need to be upgraded, driven by fibre build (both by Openreach itself and third parties).
- 6.8. Ofcom has created a pricing regime which ensures that those requesting changes ('network adjustments') to the Openreach physical infrastructure do not have to pay for the full cost of these adjustments. Ofcom's objective is to reduce a barrier to DPA take-up from having to bear such costs. Ofcom also argues that, requiring altnets to bear the full cost of each adjustment may result in competitive deployments being less viable. Ofcom also observes that Openreach is able to spread the cost of such changes across all its customer base.²⁴⁹
- 6.9. As a result, Openreach is obliged to make network adjustments to its infrastructure (under certain conditions) while only charging DPA users directly for costs above a threshold of £4,750.²⁵⁰ For adjustments to Openreach's poles network, Ofcom has gone even further by not proposing any charge for DPA users requesting upgrades to poles.²⁵¹ The cost incurred, but not recovered from the party requesting the adjustment, is reflected in the physical infrastructure asset base but recovered across all of Openreach's active services (i.e. the retail broadband providers and ultimately consumers buying Openreach active products).
- 6.10. Regarding network adjustments for poles, Openreach has explained in the past that this incentivises inefficient requests for network adjustments²⁵² as the cost is not incurred where it is caused. Ofcom considered "*the risks associated with not applying a financial limit for these [poles] network adjustments are small*",²⁵³ and continued with its proposed approach.

²⁴⁷ In this consultation Ofcom has forecast PI costs in the charge control period to 2025-26 compared to its previous 'static' view of costs. WFTMR 2020, Volume 4, paragraph 5.17b.

²⁴⁸ The ATI Regulations provide for a telecoms provider to access BT's (and other's) physical infrastructure on fair and reasonable terms. However, Ofcom "consider that these regulations do not address our competition concerns sufficiently such that it would be unnecessary to impose an obligation to provide network access on BT". Ofcom considers an "obligation requiring Openreach to provide network access where a third party reasonably requests it ... vital to promoting and protecting competition in downstream markets. Without such a requirement BT would have the incentive and ability to refuse access at the level of each relevant fixed telecoms market or provide access on less favourable terms, thereby benefiting its own retail divisions and hindering downstream competition, ultimately against the interests of consumers". WFTMR 2020, Volume 2, paragraphs 3.7 and 3.8.

²⁴⁹ Ofcom sets out that if the DPA price included the full up-front costs of network adjustments it would reduce the scope for competitive network investment. WFTMR 2020, Volume 3, paragraph. 4.38.

²⁵⁰ WFTMR 2020, Volume 4, paragraph 5.88.

²⁵¹ WFTMR 2020, Volume 4, paragraph 5.89.

²⁵² For example, Openreach has previously cited incentives to "build in areas where the underlying costs would typically be prohibitive". Openreach, 19 June 2017. [Response to Ofcom's consultation on duct and pole access remedies](#), paragraph 312.

²⁵³ WLA 2018, Volume 3, paragraph 4.64.

- 6.11. BT Group and Openreach continue to believe that a reasonable financial limit that is a fair reflection of the cost of the adjustment demanded by the customer would have important incentive effects.
- 6.12. Openreach's response also sets out evidence that the high limit for ducts already drives inefficient requests, and proposes an alternative limit. Similar dynamics can be expected in relation to poles in particular if Ofcom persists with lower pole prices which in our view are not consistent with the long-term steady state value of poles assets.²⁵⁴ In considering prices and network adjustment costs for ducts and poles we expect Ofcom to ensure inefficient arbitrage between ducts and poles is avoided. Its charge controls should reflect the underlying cost of the service (including network adjustments), the need for a level playing field between Openreach and altnets and ensure that Openreach CP customers do not carry an unfair burden by subsidising Virgin Media or altnets' customers.
- 6.13. In this context it is important that DPA prices are an appropriate reflection of the forward looking cost of maintaining and investing in the underlying assets:
- Ofcom must put in place the right starting value for PI assets. For example, Ofcom's estimate of the value of poles is not consistent with their current value nor Openreach's investment plans which a forward-looking valuation must recognise.
 - It must rely on more accurate estimates of operating costs. Openreach's response to the WFTMR 2020 sets out how Ofcom has understated the expected levels of operating costs, for example, to cover expected wayleaves costs and productisation costs as the DPA service matures.
 - It must reflect any investment Openreach forecasts it will make in its PI over the charge control period including where it is driven by Openreach's own full fibre build (insofar as the infrastructure created can be used by third parties) in its valuation of PI assets.²⁵⁵
- 6.14. Since the DPA remedy was introduced, investment by Openreach in PI has been driven by third party (and own) demand. Openreach expects to ramp up this investment as it continues to upgrade its PI to rollout its own full fibre network and upon reasonable request by other network builders. We expect the value of these assets – insofar as they can be used by third party network builders – to be reflected in Ofcom's forecast PI MCE.
- 6.15. Even with appropriate adjustments to the PI MCE at the outset, there is a high risk of significant deviations between actual and forecast costs, and this risk increases over the market review period. This is because there is uncertainty around the volume of both the network adjustments requested by altnets (which are outside of Openreach's control), and the network adjustments needed by Openreach to rollout its own full fibre network. The recent COVID-19 crisis is an example of an 'unknown' that could affect the scale and pace of full fibre network build by all CPs.

²⁵⁴ See Openreach's response to the WFTMR 2020.

²⁵⁵ We recognise that where Openreach builds infrastructure that cannot be used by any other network builders, for example where it uses micro-trenching, it may not be reasonable to include in the PI asset base and charged to third party network builders.

The cost of network adjustments is also uncertain and determined at least in part by the geographic areas where investment (by Openreach and altnets) will take place.

- 6.16. These risks could be addressed through a reconciliation (also known as a 'true-up' mechanism) which would apply a correction when Ofcom sets regulated prices for the following control period (i.e. from 2026-27 to 2031-32). Applying a reconciliation in this way would support Ofcom's goal of price stability.²⁵⁶ This is because a reconciliation would not affect prices in the 2021 to 2026 period, with any price change spread over the next five-year control period.
- 6.17. Typically, such reconciliations are used in the regulation of utilities. For example, following criticism for having previously not set water companies' allowed revenue sufficiently close to their costs,²⁵⁷ Ofwat extended the number of reconciliations at PR19. Ofwat reconciliations now include:
- A 'developer services reconciliation' to avoid any disincentive on water companies from extending their network in response to customer demand and to ensure water companies' allowed revenues are more cost-reflective in the face of uncertain customer demand.
 - A 'cost sharing mechanism' to reduce the extent to which allowed revenue could deviate from water companies' actually incurred costs.
- 6.18. A reconciliation is a 'win-win'. It would protect customers and DPA access seekers from paying for PI investment that was below forecast (resulting in 2021-26 outturn charges above actual cost incurred), as well as protecting Openreach from PI investment that was above forecast (resulting in 2021-2026 outturn charges below actual cost incurred).

Ofcom must change its cost allocation methodology so the DPA price more closely reflects future value

- 6.19. We agree with Ofcom that DPA prices should reflect an assessment of "*how competing telecoms providers might use the physical infrastructure over the medium term, the opportunity to earn revenues related to that usage, and the consequential impact on Openreach's opportunity to earn revenues from its own network*".²⁵⁸ In other words, we agree that DPA prices should reflect an assessment of the value of infrastructure use for DPA access seekers, as well as for Openreach.
- 6.20. The current prices of many DPA components do not, however, reflect the value of use of the PI because Ofcom bases them on Openreach asset utilisation in the transition from copper to fibre. As we show, using a simple example, this leads to prices becoming less, not more reflective of value as Openreach invests in full fibre, while running two networks in parallel until copper retirement.
- 6.21. Ofcom proposes to set regulated DPA prices by estimating a unit cost for each DPA service (where units are, for example, metres of duct and number of pole attachments). It then calculates the share of that unit cost third party DPA users should contribute, which is then used to set the price.

²⁵⁶ Ofcom "place a high value on pricing stability". WFTMR 2020, Volume 4, paragraph 3.46.

²⁵⁷ National Audit Office, 14 October 2015. [The economic regulation of the water sector](#).

²⁵⁸ WFTMR 2020, Volume 4, paragraph 5.26.

- 6.22. For some DPA components we agree with how Ofcom has calculated the share that DPA users should contribute because it appropriately reflects usage and value that can be derived from usage. For example, the price of lead-in duct (typically only used by a single CP to serve a premise) is proposed to be paid almost entirely by the CP using it. This is consistent with a value-based approach, because only one CP can generate value from the customer served by the lead-in duct. Similarly, 50% of the cost of single bore duct is allocated to altnets, because Ofcom *"assume that competing telecoms providers deploying one sub-duct will be able to compete for the same end customers [as Openreach] served by that duct"*.²⁵⁹
- 6.23. Based on the same set of principles, Ofcom note that *"in general, the greater number of bores, the greater the number of premises served by that duct"*²⁶⁰. Ofcom also notes that *"competing telecoms providers will not compete to serve all end customers served by multi-bore spine duct, and/or that there is greater potential for multiple competing telecoms providers to be sharing these ducts"*.²⁶¹
- 6.24. While the above is correct, we are concerned that Ofcom has not considered the divergence over time between the occupancy of the common components in the duct network (for example dual and multi-bore duct) on the one hand, and the value generating capacity of the cables placed in them.
- 6.25. We are therefore concerned that the current pricing arrangements already no longer reflect the revenue generating capacity of the underlying assets - and will do so less and less over time as we move through the 2021-26 market review period (and as altnets deploy fibre and connect new customers). This could negatively impact Ofcom's policy objective of a level playing field between Openreach and altnets; as well as put at risk fair cost recovery for Openreach in the medium to long run if left unaddressed.
- 6.26. An example of this is the proposed reduction in DPA prices reflecting Openreach's increasing occupancy of its ducts. Openreach is deploying fibre in its duct before it decommissions its legacy network, because it cannot decommission while it continues to have wholesale supply obligations for copper services. Openreach occupancy is increasing, therefore, at the same time as its ability to generate value is becoming more contested where Openreach and others deploy fibre in the duct.
- 6.27. As the table below indicates, under the current Ofcom allocation proposals, Openreach would contribute an increasing share of duct cost as its duct occupancy increases in the transition to full fibre, even though Openreach's share of value (in terms of the proportion of customers served or the potential to connect customers) remains unchanged (and may in the future reduce). Altnets are also deploying full fibre, thus increasing their opportunity to generate revenue, but will pay a decreasing share for Openreach PI over time.

²⁵⁹ WFTMR 2020, Volume 4, paragraph 5.31b).

²⁶⁰ WFTMR 2020, Volume 4, paragraph 4.31 b).

²⁶¹ WFTMR 2020, Volume 4, paragraph 5.31 b). The Openreach's response to the WFTMR 2020 addresses Ofcom's pricing proposals in detail.

Table 6.1: Falling share of altnet contribution to DPA unit costs WLA 2018 -WFTMR 2020

Product	Share of unit costs	
	WLA ²⁶²	WFTMR ²⁶³
1 bore duct	50%	50%
2 bore duct	22%	19%
3+ bore duct	10%	9%

- 6.28. Table 6.1 shows that Ofcom has not adequately considered how cost allocation and pricing will need to evolve as we move from copper to fibre, including how to avoid sudden adjustments in price. For example, once Openreach decommissions copper, if left unchanged, Ofcom's allocation methodology would result in a sudden reduction in cost allocated to Openreach vis-à-vis altnets, which could equally conflict with Ofcom's desire to avoid sudden adjustments in price.
- 6.29. For Ofcom's charge control to adequately reflect its regulatory objectives it must review its pricing proposals for the common components of the duct network. A fairer way to allocate cost that is better aligned with Ofcom's policy objectives of a level playing field, reasonable cost recovery and avoidance of sudden changes in prices would be to base prices on the number of network operators expected to serve customers in an area in future. As Openreach sets out this could, for example, be achieved by [X].²⁶⁴ Ofcom could implement this as part of a glide path toward to avoid abrupt changes to DPA prices in future.

Ofcom must commit to fully reconsidering its SMP findings and remedies in the next market review

- 6.30. Openreach's network can and is being by-passed on a selective basis. Firstly, altnets may use DPA selectively, combining its use with self-build depending on the cost of DPA compared to the cost of self-build (given their network topology). Secondly, altnets may not use DPA at all in some areas and may instead fully by-pass the Openreach network.
- 6.31. Telecoms is not like a utility (for example, an electricity or water distribution network), where the network is a natural monopoly and cannot usually be economically duplicated (see also Annex 4 where we comment on Ofcom's findings of market power in the physical infrastructure market which gives insufficient weight to the availability of alternative infrastructures).
- 6.32. Firstly, access seekers use Openreach access to ducts and poles selectively and in combination with self-build. While this can facilitate market entry it also puts Openreach's share of active lines at risk, and ultimately cost recovery of its physical infrastructure. This may be consumer welfare enhancing in some circumstances, for example where it allows for more efficient scale full fibre build by Openreach competitors. However, this may not be the case in all circumstances for example where use of Openreach infrastructure by Virgin Media or altnets leads to cherry-picking of easy to serve buildings while leaving the more expensive to serve areas to be left for Openreach to serve, or where users of DPA prefer serving premises using

²⁶² WLA 2018, Volume 3, footnote 494.

²⁶³ WFTMR 2020, Volume 4, Table 5.3.

²⁶⁴ Modelling for Ofcom's 'base case' assumes 'the market is evenly split amongst three rival networks'. WFTMR 2020, Annex 17, paragraph A17.93. See also Openreach's response to the WFTMR 2020.

PIA components selectively (for example by serving premises that can predominantly be served by poles). This could lead to allocative inefficiency and reduced consumer benefit.

- 6.33. Today little is known about how other network builders may use DPA in the time period up to 2026 and we recognise that Ofcom would require more evidence to reflect such risks in its regulated prices. However, should such selective use turn out to become a material risk (in particular where it leads to partial coverage of exchange areas which is not aligned with Ofcom's policy objectives for full fibre build at scale), Ofcom should recognise it would review its pricing regime with that in mind to ensure Openreach can continue to recover its efficiently incurred investment fairly.
- 6.34. The reality of full network by-pass means the access obligation to Openreach ducts and poles (which for example does not apply to Virgin Media or other competitors who build their own network) may not remain appropriate as time passes. Should Ofcom find material self-build by Openreach competitors in some postcode areas at the time of the next market review, or should competition from other technologies including wireless have developed further so as to pose a competitive constraint to fixed ultrafast networks, we would expect Ofcom to deregulate access to our ducts and poles in these areas.

