

Ofcom's Strategic Review of Digital Communications: "*Strengthening Openreach's strategic and operational independence*": Proposal for comment

An economic analysis of Ofcom's concerns and proposals

4 October 2016

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Section 1

Summary

- 1.1 This report assesses Ofcom’s Proposal to reform the relationship of Openreach to BT Group on a ‘first principles’ economics basis as well as against the relevant criteria of the Article 13a framework.
- 1.2 Ofcom states that “*Openreach must change*” in light of two concerns.¹ First, Ofcom considers that BT may discriminate against its competitors through its choice of strategic investments to be undertaken by Openreach.² Secondly, Ofcom considers that a step change in consumer and business outcomes is needed such that more homes and businesses receive FTTP, implying that the current arrangements are leading to an under-delivery of FTTP.³ The two concerns are not linked by Ofcom; there is no suggestion that FTTP outcomes represent an instance of strategic discrimination.
- 1.3 Ofcom provides no past or prospective examples of BT having engaged in strategic discrimination or explain under what circumstances such discrimination may happen in theory. Rather, Ofcom states that such issues would be “*hard to identify*”⁴ even though Ofcom’s concern relates to major investments that “*shape the network itself*”;⁵ statements which are hard to reconcile.
- 1.4 *Prima facie* evidence contradicts Ofcom’s discrimination concern. Ofcom does not argue, and on the basis of available evidence we do not see how

¹ Openreach Consultation, paragraph 1.16.

² Openreach Consultation, paragraph 1.14.

³ Openreach Consultation, paragraph 1.15.

⁴ Openreach Consultation, paragraph 7.32.

⁵ Openreach Consultation, paragraph 3.12.

Ofcom could argue, that BT can geographically differentiate strategic investments that “*shape the network itself*”⁶ depending on the local level of network competition. BT’s strategic investment decisions are, therefore, disciplined by the parts of the country with the highest degrees of network competition. Moreover, it is not explained by Ofcom, and is in any case unclear, why BT’s choice of strategic investments would not be aligned with the interests of other CPs that, like BT’s downstream business, are reliant on Openreach inputs to address the same consumer needs downstream. Put simply, there is no mismatch between BT and CPs as regards the investment required to meet the needs of consumers, for which they compete strongly.

- 1.5 In relation to Ofcom’s FTTP under-delivery concern, Ofcom does not present any analysis to show that accelerated roll-out of FTTP would be a preferable market outcome in the UK, in the light of the costs, benefits and timescale of such an investment relative to alternatives which have been deployed or are being considered. Ofcom even appears to accept that its FTTP under-delivery concern is unrelated to BT’s vertical integration.⁷ Finally, Ofcom does not challenge BT’s evidence that the current level of availability of FTTP reflects a lack of commercial rationale for increasing FTTP roll-out significantly rather than a regulatory failing.
- 1.6 Ofcom hence assumes its two concerns or identifies them as theoretical possibilities and does not present any meaningful evidence to support, let alone quantify, any benefits associated with addressing these concerns.
- 1.7 Ofcom does not assess the cost of its Proposal vis-à-vis the *status quo* but only argues that it has found the least onerous model “*within a model of legal separation*”.⁸ Ofcom thereby does not assess the likely significant costs of moving from the *status quo* to legal separation. This is contrary to regulatory best practice.

⁶ Openreach Consultation, paragraph 3.12.

⁷ Initial Conclusions, paragraph 6.59.

⁸ Openreach Consultation, paragraph 4.9.

- 1.8 Ofcom’s stated intention that “*Openreach would independently develop its priorities*”⁹ and “*take decisions that are not influenced by the wider interests of BT Group*”¹⁰ suggests that Openreach would need to act as if not part of the vertically integrated BT Group. If so, Ofcom’s proposal would incur substantially the same economic costs as structural separation by introducing the risk of hold-up, compounding upstream investment risk by excluding downstream margins when assessing upstream pay-back times, and by limiting efficient exchange of information between upstream and downstream entities. These factors increase the risk of upstream investments and thereby blunt investment incentives. Ofcom previously recognised that these costs would be “*substantial*”¹¹ yet has not referred to them, less so assessed them, in the context of its Proposal.
- 1.9 Ofcom does not explain why alternative investment models are expected to emerge and lead to better investment outcomes. It is not clear whether any third parties would be willing to co-invest without any associated competitive advantage. This may in turn introduce discrimination between co-investors and other downstream buyers. Even a hypothetical benefit from further co-investment may therefore be difficult to achieve in practice whilst maintaining equivalence of inputs (“EOI”)¹² access. Ofcom does not address this trade-off between EOI and co-investment.
- 1.10 Ofcom hence does not present a factual basis for its concerns or a meaningful analysis of whether the benefits of its proposed remedy exceed the associated costs.
- 1.11 It is clear that in the absence of substantiated benefits from further integration, BT’s Proposal should be preferred to Ofcom’s on the basis that it is likely to give rise to substantially lower costs. If, hypothetically, Ofcom were

⁹ Openreach Consultation, paragraph 4.50.

¹⁰ Openreach Consultation, paragraph 4.5

¹¹ Initial Conclusions, paragraph 6.61.

¹² Initial Conclusions, paragraph 6.3: “*This means they are supplied to BT’s downstream competitors in the same way as to BT’s own downstream divisions, with the same timescales, terms (including price and service levels) and processes. This principle aims to ensure a level playing field between BT and its downstream competitors, notwithstanding BT’s vertical integration*”.

to substantiate its concerns, it would then need to address the degree to which its own Proposal addressed these concerns over and above the benefits of BT's Proposal and compare the associated costs. We understand that those costs are large and based on the information available to us we consider it is implausible that Ofcom could justify its greater intervention.

- 1.12 Assessed against the requirements of Article 13a, we consider that Ofcom neither establishes the presence of important and persisting competition problems nor demonstrates that current and prospective competition will not be adequate to address any concerns. We also consider that Ofcom neither performs meaningful analyses of the expected impact on BT, investment incentives, competition, and consumers, nor justifies that its Proposal "*would be the most efficient means*" to address Ofcom's concerns. We therefore consider that Ofcom's analysis does not meet the standard set out in Article 13a.
- 1.13 Ofcom states that "*If our preferred model of legal separation cannot be made to work, then full structural separation remains an option*".¹³ The shortcomings of Ofcom's analysis set out in relation to Ofcom's Proposal apply equally or, where structural separation implies higher costs than functional separation, *a fortiori* for structural separation. For this reason, Ofcom has not shown structural separation to be a credible fall back option.

¹³ Openreach Consultation, paragraph 1.20.

Section 2

Introduction

Ofcom's concerns and its proposals

- 2.1 Ofcom launched its Strategic Review of Digital Communications (“DCR”) on 12 March 2015.¹⁴ It published a Discussion Document on 16 July 2015¹⁵ and set out its Initial Conclusions on 25 February 2016.¹⁶ On 26 July 2016, Ofcom published its proposal for “*Strengthening Openreach’s strategic and operational independence*” (“the Openreach Consultation”).¹⁷
- 2.2 Whereas Ofcom acknowledges that “*SMP obligations and the Undertakings have achieved good outcomes by preventing BT from supplying inferior products and services to its competitors compared with its own retail businesses*”,¹⁸ Ofcom identifies the following two concerns in the Openreach Consultation:
- a. **Ofcom’s concern about ‘strategic discrimination’:** Ofcom claims that BT has an ability and incentive to discriminate against its competitors “*through the way strategic decisions are made about new investments by*

¹⁴ Ofcom, Strategic Review of Digital Communications: Terms of Reference – Competition and investment in converged communications infrastructure, 12 March 2015.

¹⁵ Ofcom, Strategic Review of Digital Communications: Discussion document, 16 July 2015.

¹⁶ Ofcom, Making communications work for everyone: Initial conclusions from the Strategic Review of Digital Communications, 25 February 2016 (“Ofcom’s Initial Conclusions”).

¹⁷ Ofcom, Strengthening Openreach’s strategic and operational independence: Proposal for comment, 26 July 2016 (“The Openreach Consultation”).

¹⁸ Openreach Consultation, paragraph 3.12.

Openreach".¹⁹ Ofcom explains that this concern relates to "*key decisions that shape the network itself*";²⁰ and

- b. **Ofcom's concern about 'under-delivery of FTTP'**: Ofcom also claims that "*a step change is required in the outcomes delivered to consumers and businesses*" such that "*more homes and offices receive 'fibre to the premises' (FTTP)*" offering "*average broadband speeds many times higher than those of today*".²¹

2.3 Ofcom concludes that "*in view of these concerns, Openreach must change*" and that a "*new structure is required*" for Openreach.²² Thus, Ofcom's view that a remedy is needed appears to be predicated on both concerns.

2.4 Ofcom does not identify any connection between its two concerns. In particular, Ofcom does not say that BT's choices with regard to FTTP investment are an instance of its strategic discrimination concern. Moreover, Ofcom appears to consider that its remedy may not be relevant to addressing under-delivery of FTTP, suggesting that Ofcom views it as distinct from its strategic discrimination concern.²³

2.5 Ofcom identifies the following categories of "*positive outcomes that [Ofcom] would expect to see from [its] proposal*":²⁴

- a. "*Openreach behaviours, in particular its responsiveness to customers*";

¹⁹ Openreach Consultation, paragraph 1.14.

²⁰ Openreach Consultation, paragraph 3.12.

²¹ Openreach Consultation, paragraph 1.15. In this paper we make reference to three next generation access technologies: FTTC, FTTP and G.Fast. FTTC (Fibre to the Cabinet) refers to the provision of optical fibre to the street cabinet (typically within a few hundred metres of the customer's premises) with the remaining segment of the access network from the cabinet to the customer's premises usually being a copper access line. FTTP (Fibre to the Premises) refers to the provision of optical fibre to the customer's premises. G.Fast is a broadband transmission standard that increases the speeds possible on copper access lines, typically as an addition to FTTC.

²² Openreach Consultation, paragraph 1.16.

²³ See paragraph 5.9 below.

²⁴ Openreach Consultation, paragraph 6.1 and 6.2.

- b. “Industry outcomes, in particular levels of competition, investment and innovation”; and
 - c. “Consumer and business outcomes, including availability, quality, choice and pricing of services”.
- 2.6 Ofcom states that “these outcomes are not solely under the control of Openreach, but they are still a critical part of our assessment, since they are the ultimate goal of our intervention”.²⁵
- 2.7 Ofcom indicates that its preferred model for achieving what it considers necessary change is legal separation of Openreach from the BT Group, but with BT Group retaining ownership of Openreach (“Ofcom’s Proposal”).²⁶ However, Ofcom also indicates that structural separation – i.e., whereby BT Group would relinquish ownership of Openreach – remains “a credible option”.²⁷ Ofcom appears *not* to propose structural separation at this time primarily on the basis of (i) pension costs, and (ii) giving BT an opportunity to make the Ofcom Proposal work.²⁸

Instructions

- 2.8 We have been asked by BT to assess the following three issues as a matter of economics:
- a. whether Ofcom has justified its concerns, and thus the rationale behind its Proposal;
 - b. whether Ofcom has demonstrated the proportionality of its Proposal; and
 - c. whether Ofcom has justified its view that structural separation is a credible option or would be in the event that it perceived its Proposal to have been ineffective.

²⁵ Openreach Consultation, paragraph 6.3.

²⁶ We describe the Ofcom Proposal in more detail in paragraph 3.5 *et seq.*

²⁷ Openreach Consultation, paragraph 1.23

²⁸ Openreach Consultation, paragraph 1.23.

- 2.9 We have been asked to provide our own conclusions on the issues above, based on the information available to us, but not to conduct our own full-fledged cost-benefit analysis.
- 2.10 In light of the economic analysis above, we have also been asked to comment on whether Ofcom has satisfied the key economic provisions contained in Article 13a of the Access Directive.²⁹
- 2.11 We note that Article 13a addresses requirements for functional separation rather than structural (or quasi-structural) separation. We consider that more demanding standards should be met to justify structural (or quasi-structural) separation than functional separation due to its irreversibility.³⁰ Having noted this, we proceed in the remainder of this report on the basis of applying the Article 13a criteria, which we summarise immediately below.³¹

Economic provisions of Article 13a

- 2.12 The key economic provisions of Article 13a and associated BEREC guidance are:³²
- a. **important and persisting competition problems and/or market failures:** a requirement to present “*evidence justifying the conclusions of the national regulatory authority*” that “*the appropriate obligations imposed under Articles 9 to 13 have failed to achieve effective competition and that there are important and persisting competition problems and/or market failures identified in relation to the wholesale provision of certain access*

²⁹ Directive 2002/19/EC of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive) as amended by Directive 2009/140/EC.

³⁰ There may be other reasons for requiring a higher standard, including respect for property rights.

³¹ In so doing, we do not intend to imply that even if the criteria of Article 13a were hypothetically satisfied (contrary to our findings in this report), that this would justify full structural separation, which is a legal matter that is not within our expertise.

³² The Access Directive’s Article 13a includes references to a number of considerations that are not of a strictly economic nature, such as social and territorial cohesion, and a number of practical requirements for the draft measure (Article 13a(3)). We do not consider these.

*product markets”.*³³ BEREC explains that “*due to the nature of functional separation as a measure of last resort, [...] the NRA [National Regulatory Authority] should evaluate to what extent a more comprehensive design and stricter enforcement of the wholesale measures covered by Articles 9 to 13 of the Access Directive may be sufficient to remedy the competition problems that have been detected, without the need to resort to functional separation*”,³⁴

- b. **no or little prospect of network competition:** a requirement to present “*a reasoned assessment that there is no or little prospect of effective and sustainable infrastructure-based competition within a reasonable time-frame*”.³⁵ BEREC notes in this context that functional separation “*may lead to a reduction of incentives for other operators to invest in alternative access infrastructures, thereby inhibiting infrastructure-based competition*”,³⁶
- c. **impact on the undertaking:** a requirement to present “*an analysis of the expected impact [...] on the undertaking*”.³⁷ BEREC notes in this context that “*the incumbent may incur high costs to implement separation*”,³⁸
- d. **impact on sector-wide investment incentives:** a requirement to present “*an analysis of the expected impact [...] on incentives to invest in a sector as a whole*”.³⁹ BEREC notes in this context that “*The incentives to invest in these new [NGA] networks by the incumbent could be deterred if it anticipates that the new assets could be transferred to the separated*

³³ Access Directive (2002/19/EC of 7 March 2002) Article 13a(2)(a) and Article 13a(1).

³⁴ BEREC (BoR (10) 44 Rev1), page 10.

³⁵ Access Directive (2002/19/EC of 7 March 2002) Article 13a(2)(b).

³⁶ BEREC (BoR (10) 44 Rev1), page 14.

³⁷ Access Directive (2002/19/EC of 7 March 2002) Article 13a(2)(c).

³⁸ BEREC (BoR (10) 44 Rev1), page 16.

³⁹ Access Directive (2002/19/EC of 7 March 2002) Article 13a(2)(c).

entity. Therefore, the NRA should consider individually the imposition of functional separation of assets related to NGA”,⁴⁰

- e. **impact on competition and consumers:** a requirement to present “an analysis of the expected impact [...] on competition and any potential consequential effects on consumers”.⁴¹ BEREC notes in this context that “If both requirements [important and persistent market failure] are not fulfilled, the expected benefits of functional separation, i.e. improving competition, may not outweigh⁴² its costs”,⁴³ and
- f. **proportionality of remedy:** a requirement to present “an analysis of the reasons justifying that this obligation would be the most efficient means to enforce remedies aimed at addressing the competition problems/markets failures identified”.⁴⁴ BEREC notes in this context that “the NRA could include an assessment of other possible regulatory/legal options available to solve the issues identified”.⁴⁵

2.13 Points (a) and (b) above relate to the preconditions for intervention. We consider these in the context of our assessment of Ofcom’s concerns in Section 4 below.

2.14 Points (c) to (f) above relate to the assessment that a regulator would need to undertake in relation to its proposed remedy. We consider these in the context of our assessment of Ofcom’s Proposal in Section 5. Since Ofcom is maintaining structural separation as a fall-back option, we also consider these points briefly in Section 6. As noted above, we consider that more stringent criteria should apply in respect of structural separation than those set out in Article 13a relating to functional separation. Aside from the property rights considerations, this is because structural separation is an irreversible

⁴⁰ BEREC (BoR (10) 44 Rev1), page 16.

⁴¹ Access Directive (2002/19/EC of 7 March 2002) Article 13a(2)(c).

⁴² Sic: we assume this means “outweigh”.

⁴³ BEREC (BoR (10) 44 Rev1), page 17, footnote 8.

⁴⁴ Access Directive (2002/19/EC of 7 March 2002) Article 13a(2)(d).

⁴⁵ BEREC (BoR (10) 44 Rev1), page 17.

remedy which cannot be adapted, for example, in response to future market developments.

Structure of report

- 2.15 Following a short overview of different operating models for Openreach, including Ofcom's Proposal, we address the three issues set out in paragraph 2.8 in Section 4, Section 5, and Section 6 respectively. In each case, we address whether Ofcom has substantiated its conclusions in economic terms, explain our own economic conclusions, and set out our comments on the application of Article 13a of the Access Directive.

Credentials

- 2.16 The academic credentials and experience of the authors of this paper can be found at the links provided below:
- a. Neil Dryden: <http://www.compasslexecon.com/professionals/bio?id=209>.
 - b. Lau Nilausen: <http://www.fticonsulting.com/our-people/lau-nilausen>.
 - c. Jorge Padilla: <http://www.compasslexecon.com/professionals/bio?id=211>.
 - d. Andrew Swan:
<http://www.compasslexecon.com/professionals/bio?id=6411>.

Statement of truth

- 2.17 We have prepared this report on the basis that our duty is to help on matters within our expertise. We are independent from the parties and their legal advisors. The assumptions upon which our opinions are based are not, in our opinion, unreasonable or unlikely assumptions.
- 2.18 We confirm that we have made clear which facts and matters referred to in this report are within our own knowledge and which are not. Those that are within our own knowledge we confirm to be true. The opinions we have expressed represent our true and complete professional opinions on the matters to which they refer.

Section 3

Operating models for Openreach

- 3.1 Our analysis in the following sections refers to four operating models for Openreach. Our analysis does not depend on the precise details of each, but rather depends on how these models compare to each other in terms of the key attributes of ownership and control exerted by BT Group over Openreach, and the incentives on which BT Group and Openreach would act in making investment decisions.
- 3.2 We provide a brief summary of these models below.

Status quo: ownership and circumscribed control

- 3.3 BT currently operates subject to undertakings (“the Undertakings”) offered *in lieu* of a reference under the Enterprise Act 2002 following Ofcom’s strategic review of telecommunications in 2005.⁴⁶ The essential features of the Undertakings are:
- a. the functional separation of BT’s upstream and downstream operations, with Openreach established as BT’s operationally separate upstream division supplying network access;⁴⁷
 - b. the requirement that Openreach supplies services to itself and all third party communication providers (“CPs”) on an EOI basis; and
 - c. Openreach being subject to certain rules that seek to promote a high degree of operational independence from BT Group. These rules include separate incentives for senior management and restrictions on the basis

⁴⁶ Ofcom, Final statements on the Strategic Review of Telecommunications, and undertakings *in lieu* of a reference under the Enterprise Act 2002.

⁴⁷ Initial Conclusions, paragraph 6.3.

upon which employees in any other part of BT Group can access commercial Openreach information.⁴⁸

3.4 Openreach also operates under an extensive regime of SMP regulation, applicable to markets in which BT (notably Openreach) is found to have SMP. We proceed on the basis that this SMP regime will continue to operate in parallel with any supplemental model for separation of Openreach as Ofcom (correctly in our view) considers that its proposed remedy will not address Openreach’s upstream market power, to the extent this has been identified through market reviews.⁴⁹

Ofcom’s Proposal: ownership and more limited control

3.5 Ofcom proposes that Openreach should be established as a legally separate entity incorporating all relevant assets and people, but still owned by BT Group.⁵⁰

3.6 Whereas Openreach would gain autonomy on which investments to undertake, BT would retain its rights as owner to set overall financial targets for Openreach including the size of Openreach’s budget (or “financial envelope”).⁵¹

3.7 A new Openreach board would be established with a majority of independent directors and an independent chair. BT would have the right to appoint board members subject to Ofcom approval. The Openreach CEO would report to the Openreach board.⁵²

3.8 Openreach would be under an obligation to treat its customers equally. Specifically, Openreach’s Articles of Association would specify that a core

⁴⁸ Initial Conclusions, paragraph 6.6

⁴⁹ See paragraph 4.18.

⁵⁰ Openreach Consultation, paragraphs 4.11.1, and 4.11.7 to 4.11.8.

⁵¹ Openreach Consultation, paragraph 4.11.6.

⁵² Openreach Consultation, paragraphs 4.11.3 to 4.11.4.

purpose is to act in the interests of all downstream customers equally and the Openreach Directors would have duties to act accordingly.⁵³

- 3.9 In our analysis that follows, we assume that these requirements – including Openreach acting independently within the financial envelope and treating customers equally - means that Openreach would approach investment decisions within the financial envelope in all respects as *if* BT’s downstream business was a non-integrated CP.⁵⁴ In particular, we assume that Openreach would have to act without reference to, or knowledge of, BT’s downstream interests or taking into account any implied commitment by BT Group downstream divisions to act as an anchor tenant for Openreach investments.
- 3.10 We also proceed on the basis that where BT Group can approve or reject proposals by Openreach for expenditure outside of the financial envelope, BT Group could not exercise this discretion taking into account wider Group interests as this would be seen by Ofcom as “*undue influence*”.⁵⁵
- 3.11 We understand this differs from the *status quo*, in which Openreach is required, where relevant, to supply existing products on EOI terms but where BT Group is not prevented from taking into account the wider interests of the Group when developing new products and can direct Openreach to make investments that shape the network.

⁵³ Openreach Consultation, paragraph 4.11.2.

⁵⁴ Openreach Consultation, paragraph 4.5: “*Our objective is to create a governance and operational structure that gives the right incentives and sufficient authority for the Openreach Board to take decisions that are not influenced by the wider interests of BT Group. The Openreach Board must consider equally the interests of all downstream customers, alongside the success of Openreach as a company” (emphasis added).*

⁵⁵ Openreach Consultation, paragraphs 4.56 to 4.57: “*Where Openreach recommends a major decision, it would be an independent recommendation, free from the risk of undue influence from BT Group and its wider interests, including its own downstream operations.*

Any decision by the BT Group Board not to proceed with such a recommendation would be transparent to the independent members of the Openreach Board. It would also be transparent to Ofcom, and be taken into consideration in Ofcom’s ongoing reviews of the effectiveness of our preferred model” (emphasis added).

3.12 As we explain later in this report,⁵⁶ Ofcom's Proposal would be a fundamental change, amounting to quasi-structural separation with respect to how Openreach and BT Group would approach investment decisions, and as a result would be likely to result in the types of costs that economists normally associate with structural separation.

Structural separation: neither ownership nor control

3.13 Ofcom considers full structural separation an alternative to its Proposal. Under structural separation, Openreach would not only be a legally separate entity but also no longer owned by BT Group. BT Group and the structurally separated Openreach would be subject to restrictions to prevent them from re-entering each other's activities.⁵⁷

BT's Proposal: enhanced Openreach autonomy within BT Group

3.14 During the DCR process, BT has indicated that it intends to make some changes to the way that Openreach operates within BT Group ("BT's Proposal").⁵⁸

3.15 In broad terms, we understand BT's Proposal to reflect aspects of, but not go as far as, Ofcom's Proposal. Rather than Ofcom's proposed full legal separation, BT has proposed to retain Openreach as a separate division of BT Group with the establishment of an Openreach board as a committee under the BT plc board. Openreach's CEO would report to the BT CEO and the Openreach board.⁵⁹

3.16 We understand, however, that under BT's Proposal, Openreach could – in contrast to the position described in paragraph 3.8 - take into account BT's downstream business in approaching investment decisions, subject to the various reforms proposed by BT concerning the governance of Openreach

⁵⁶ See paragraphs 5.17 *et seq.*

⁵⁷ Openreach Consultation, Figure 2.

⁵⁸ BT, Strengthening Openreach's independence: BT's Notification to Ofcom under section 89C of the Communications Act 2003 and Application to vary its Undertakings given to Ofcom pursuant to Section 154 of the Enterprise Act 2002, 18 July 2016.

⁵⁹ BT Proposal, Term Sheet point 8, page 34 and Annex 1, paragraph 3.3.

which are designed to deliver materially enhanced independence for Openreach and transparency for CPs.⁶⁰

⁶⁰

In particular, the BT proposal gives Openreach greater autonomy over budgets and decision-making, and control over day-to-day activities. Moreover, circumstances in which BT Group has oversight or involvement are to be set out in the Openreach Governance Protocol and incorporated into the Undertakings.

Section 4

Ofcom's concerns are not economically robust

- 4.1 The first issue we have been asked to address is whether Ofcom's concerns are economically robust. We consider it uncontroversial that a concern must be shown to be realistic based on evidence. A concern cannot be considered to have been robustly identified and established in fact if it is merely a theoretical possibility or simply assumed.
- 4.2 We understand Ofcom's concerns to be that (i) BT has an ability and incentive to discriminate against its competitors through its choice of strategic investments to be undertaken by Openreach, and (ii) a step change in consumer and business outcomes is needed such that more homes and businesses receive FTTP, implying that the current arrangements are leading to an under-delivery of FTTP, both with adverse consequences for consumers.⁶¹ Ofcom states that "*Openreach must change*" in light of these two concerns.⁶²
- 4.3 In what follows, we first explain our view that Ofcom has not presented any evidence for its concerns, and secondly explain why we consider that Ofcom's concerns are implausible from an economic perspective based on the available evidence.
- 4.4 Having set out our 'first principles' assessment of Ofcom's concerns we then assess these concerns in the context of the economic provisions of Article

⁶¹ Openreach Consultation, paragraphs 1.14 and 1.15. See summary in paragraphs 2.2 to 2.3 above.

⁶² Openreach Consultation, paragraph 1.16.

13a.⁶³ We consider that Ofcom does not meet these standards in relation to either of its concerns.

Ofcom has not presented any economic evidence for its concerns

4.5 In our view, Ofcom has not presented any meaningful analysis or evidence to substantiate either of its concerns.

Ofcom’s lack of evidence for its strategic discrimination concern

4.6 Ofcom asserts that BT has the ability and incentive to engage in strategic discrimination in relation to “*key decisions that shape the network itself*”.⁶⁴ Specifically, Ofcom states that “*the underlying incentive for BT to discriminate against its competitors remains*”⁶⁵ (i.e., in the *status quo*, despite the Undertakings), and that “*BT can act on this incentive through the way strategic decisions are made about new investments by Openreach*”.⁶⁶

4.7 However, Ofcom does not provide any meaningful analysis of this ability or incentive; does not identify any specific past or possible future instances of its strategic discrimination concern; does not provide any evidence that downstream market outcomes reflect, or are even suggestive of, such strategic discrimination; and does not explain why strategic discrimination may be a greater risk in the future than in the past.

4.8 *No meaningful analysis of incentive or ability:* Ofcom does not address the implications of either (i) network competition or (ii) the nature of BT’s major investments and their relationship to competition in the relevant downstream markets, for whether BT is likely to possess the ability and incentive to engage in strategic discrimination. Yet, as we explain in our own analysis

⁶³ See paragraphs 2.12a and 2.12b above.

⁶⁴ Openreach Consultation, paragraph 3.12.

⁶⁵ Openreach Consultation, paragraph 1.14.

⁶⁶ Openreach Consultation, paragraph 1.14.

below, these factors are highly material to the assessment and suggest that Ofcom's concern is misplaced.⁶⁷

4.9 *No past or possible future instances of strategic discrimination:* Nor does Ofcom provide any past or prospective examples of BT having made investment and/or portfolio decisions that involved strategic discrimination:

- a. Ofcom refers to BT's "*initial strategic decision to invest in ultrafast broadband and adopt a particular technology*",⁶⁸ which we understand to refer to G.Fast.⁶⁹ However, Ofcom refers to G.Fast only in relation to a concern about inadequate customer consultation. It is beyond the scope of our report to address Ofcom's concern about consultation,⁷⁰ but the relevant point here is that Ofcom does not say, far less demonstrate, that BT's prospective investment in G.Fast would amount to a case of strategic discrimination in the sense of an investment choice that BT only made (or developed in a particular way) because it advantaged BT's downstream business compared to other CPs to the detriment of final consumers.
- b. We understand that during the DCR various rival CPs have alleged that BT has under-invested in its copper assets.⁷¹ While we understand BT contests this allegation, and it is beyond the scope of our report to assess it, we only note that Ofcom also does not identify Openreach's level of investment in copper assets as an instance of strategic discrimination. In fact, Ofcom recognises that "*Structural separation may not in itself change Openreach's incentives to operate efficiently, invest, or deliver a good*

⁶⁷ See paragraph 4.18 *et seq.*

⁶⁸ Openreach Consultation, paragraph 3.27.

⁶⁹ See footnote 21 for a short description of G.Fast. Although Ofcom refers to this decision having been made by BT, we understand from BT that it has not yet formally decided to proceed with the G.Fast investment. However, this is not relevant to the points that we make.

⁷⁰ BT discusses this issue in their main response, Section 3.5.

⁷¹ Initial Conclusions, paragraph 6.35: "*Respondents highlighted that, as an integrated group, BT has an incentive to prioritise investment in areas that benefit its own retail operations over investment in the copper access network, which would benefit all Openreach customers*".

*quality of service.*⁷² We also understand that potential underinvestment resulting in poor service levels may in any event be addressed through Ofcom’s ongoing SMP regulation of BT.⁷³

- c. As noted above, Ofcom’s concerns centre on “*the ability of BT to discriminate when making key decisions that shape the network itself*”.⁷⁴ The only recent past example of such an investment is BT’s decision to start investments in fibre-based access in 2008. However, Ofcom also does not claim that this is an example of strategic discrimination.
- d. Ofcom recognises that Openreach’s SOR process works well and does not identify any discrimination concerns in relation to SOR.⁷⁵ We understand that no rival CP has ever requested any new product requiring “*key decisions that shape the network itself*”⁷⁶ and that Ofcom has not at any point found that Openreach has unjustifiably rejected an SOR.

4.10 When considering BT’s Proposal, Ofcom states that BT Group’s influence over Openreach’s decision-making would be “*hard to identify*”.⁷⁷ However it seems to us that the “*key decisions that shape the network itself*”⁷⁸ about which Ofcom is concerned will – by their very nature – be infrequent, large

⁷² Initial Conclusions, paragraph 6.59.

⁷³ The Openreach Consultation, 1.1: “*greater investment will be needed to meet future consumer demands for better quality of service*”. The Openreach Consultation, 1.8, second bullet, under the heading “*other areas of work*”: “*We highlighted the need for a step change in quality of service across the industry. We are setting tougher quality of service standards for Openreach; we will publish performance data for all operators; and ensure consumers and small businesses receive automatic compensation if things go wrong. In April, we introduced new service-quality standards for the bespoke broadband services used by larger businesses.*”

⁷⁴ Openreach Consultation, paragraph 3.12.

⁷⁵ Initial Conclusions, paragraph 6.18: “*We examined product development as part of our market review programme and have not found any significant differences in acceptance rates or completion times between new products requested by BT’s retail businesses and those requested by its competitors. That said, the stakeholder responses we have received on this issue suggest a lack of confidence from the industry that the statement of requirements process is delivered in an equivalent manner*”.

⁷⁶ Openreach Consultation, paragraph 3.12.

⁷⁷ Openreach Consultation, paragraph 7.32.

⁷⁸ Openreach Consultation, paragraph 3.12.

and conspicuous.⁷⁹ It should therefore be possible for Ofcom to identify and scrutinise both past investments and current investment plans in order to identify the key factors which are driving BT's investment conduct.⁸⁰

4.11 *No evidence of downstream market outcomes consistent with strategic discrimination:* Ofcom states that past regulatory intervention and BT's Undertakings "have enabled BT's competitors to achieve a retail scale comparable to BT itself".⁸¹ Thus, as well as not providing examples of past strategic discrimination occurring upstream, Ofcom has not provided any evidence of a causal effect between its concerns and any past or current detrimental effects on market outcomes. Indeed the evidence indicates that vigorous competition has emerged in retail markets as CPs have successfully contested market share in competition with BT using Openreach's access products.

4.12 *No explanation of why strategic discrimination may be a greater risk in the future than in the past:* In so far as Ofcom considers that strategic discrimination has not occurred in the past but is a risk in the future, Ofcom does not explain what has changed (or will change) to make strategic discrimination more likely.⁸²

Ofcom's lack of evidence for its FTTP under-delivery concern

4.13 As we note above, Ofcom's second concern relates to an alleged under-delivery of FTTP. Ofcom states that FTTP "is currently available to just 2% of premises in the UK, compared to 60% and higher in world-leading countries".⁸³ Ofcom refers to this in support of its conclusion that "Openreach

⁷⁹ See discussion in paragraph 4.45 below.

⁸⁰ Openreach Consultation, paragraph 7.32.

⁸¹ Openreach Consultation, paragraph 1.13.

⁸² However, this does not address why this could not be achieved through similar undertakings as in 2005. Ofcom suggests that "the same intent and principles" set out in the Undertakings for "BT's original next-generation core network [...] should clearly have applied to subsequent investment decisions" (Openreach Consultation, paragraph 3.30). However, Ofcom's Proposal goes far beyond simply extending the Undertakings to explicitly apply also to such subsequent investments.

⁸³ Openreach Consultation, paragraph 1.15.

must change”, although no direct connection is established by Ofcom between the need for change and comparative FTTP outcomes.⁸⁴

- 4.14 Ofcom appears simply to assume that more widespread provision of FTTP in the UK would be a preferable market outcome, such that anything falling short of this must, axiomatically, amount to a market failure. Ofcom has not presented any analysis to show that accelerated roll-out of FTTP would represent a preferable market outcome in the UK, in the light of the costs, benefits, and timescale of such an investment, relative to alternatives including G.Fast (or even FTTC).
- 4.15 Thus, Ofcom does not challenge, and does not provide any evidence that would challenge, BT’s view that BT does “*not see that there is sufficient user-demand for mass market FTTP, especially given the enhanced performance of copper loops, in particular via G.Fast*”.⁸⁵
- 4.16 Ofcom’s assumption that anything short of world-leading FTTP coverage evidences a market failure is also out of step with the European Commission. The Commission’s communication “Connectivity for a Competitive Digital Single Market - Towards a European Gigabit Society” states that “*Analysis of trends in technology and demand indicates that provision of many products, services and applications will only be sustainable where optical fibre networks are deployed up to a fixed or wireless access point close to the end user*” by 2025.⁸⁶ Critically, the Commission recognises that it may be possible to meet these bandwidth requirements with alternatives to FTTP deployment as long as fibre reaches an “*access point close to the end user*”. Ofcom’s FTTP under-delivery concern suggests that Ofcom does not take a similarly technology neutral view on how to meet future, let alone current, bandwidth requirements, and does so without any evidence of which we are aware.
- 4.17 Having addressed the lack of evidence presented, we now explain why we consider that there are *prima facie* reasons to doubt Ofcom’s two concerns,

⁸⁴ Openreach Consultation, paragraph 1.16.

⁸⁵ BT DCR Response, 8 October 2015, page 69. See also BT’s main response Section 3.5.

⁸⁶ European Commission, COM(2016) 587 final, page 4.

suggesting that Ofcom’s hypothetical concerns would be unlikely to be confirmed by a thorough market investigation.

***Prima facie* indicators undermine Ofcom’s concerns (I)
‘strategic discrimination’**

- 4.18 Ofcom’s statement that “*Openreach’s incentives to operate efficiently, invest, or deliver a good quality of service [...] are dampened by a lack of sufficient competition at the infrastructure level, and not because BT is vertically-integrated*” acknowledges – correctly in our view – that underinvestment and other performance issues that arise solely from the exercise of upstream market power is *not* strategic discrimination.⁸⁷
- 4.19 However, while the previous paragraph explains what strategic discrimination is not, Ofcom has not articulated what strategic discrimination is. In our view, this is problematic because there is a risk of viewing the notion too broadly leading to interventions which are unnecessary or too intrusive, giving rise to unintended adverse effects.
- 4.20 In our view, the possibility that an investment is advantageous for BT’s downstream business relative to some other CPs is not sufficient for such an investment to be considered as strategic discrimination. For example, Sky may prefer that Openreach not invest in network upgrades that facilitate TV transmission over Openreach’s network because Sky distributes TV via satellites, a rival technology. However, such an investment would be competition enhancing with respect to TV transmission, as all of Openreach’s customers, including BT, now get the same capability and are better able to compete with Sky. Similarly, Virgin Media may prefer that Openreach not invest in network upgrades, such as FTTC, that facilitate superfast broadband because Virgin Media can already deliver superfast broadband over its proprietary network. However, this is again competition enhancing as all BT’s rivals now get the same capability and are able to compete with Virgin Media.

⁸⁷ Initial Conclusions paragraph 6.59.

4.21 Any relevant discrimination would therefore, at a minimum, either need to relate to investments favouring BT relative to other CPs *relying on relevant Openreach access products* or relate to Openreach not making investments that would favour such CPs relative to BT.

4.22 However, for the reasons set out below, we consider that there are *prima facie* reasons why strategic discrimination is unlikely.

Why network competition reduces BT's ability and incentive to engage in strategic discrimination

4.23 Ofcom appears to consider that its strategic discrimination concern does not apply in areas where there is network competition. This makes sense as network competition would allow rival CPs to switch between infrastructure providers offering wholesale access or self-supply and thereby deny BT the ability to engage in strategic discrimination. Thus, Ofcom states that it is only in areas "*where full network competition is not viable*" that Openreach's investment decisions are "*fundamental to the choice and quality of these services*",⁸⁸ and Ofcom therefore considers that it is "*critical that Openreach operates in a way that is responsive to its customers*".⁸⁹

4.24 However, Ofcom does not address that network competition in part of the country is also likely to affect BT's incentives in relation to major investments that "*shape the network itself*" outside of these areas.⁹⁰

4.25 In particular, suppose that BT determines that a certain network-shaping investment (e.g. G.Fast as opposed to FTTP) represents its best strategic response to competition from rival networks *in geographic areas covered by competitors*. If (as seems likely) such an investment choice involves very high fixed costs associated with developing and marketing the technology, the same choice is likely to become BT's strategic network investment choice *in geographic areas in which BT does not face network competition*. This approach would allow BT to use experience and knowhow from the network

⁸⁸ Openreach Consultation, paragraph 2.4.

⁸⁹ Openreach Consultation, paragraph 2.5.

⁹⁰ Openreach Consultation, paragraph 3.12.

roll-out more widely, eliminate duplicated fixed costs of maintaining two network designs, and enjoy other economies of scale and scope.

- 4.26 As a corollary, Ofcom's concern requires that BT would either make a single country-wide network-shaping investment decision based on the part of the country where it does not face competition but to its own detriment where it does face competition, or run different network designs depending on whether BT does or does not face network competition, which would be likely to increase BT's costs substantially.
- 4.27 Even if Openreach were, hypothetically, to roll out its network investment (e.g. G.Fast) less quickly in areas where it would be economically justifiable to roll out but where it does not face network competition this would not reflect strategic discrimination as it would not benefit BT relative to rivals also relying on Openreach: it may be an instance of upstream market power but not of strategic discrimination, as Ofcom has recognised.⁹¹
- 4.28 Any strategic investment that Openreach introduces in response to network competition will equally benefit other CPs relying on Openreach access. Likewise, Openreach has the incentive to adopt any alternative, better ideas that other CPs may bring to Openreach to be able to respond to such network competition. Whereas equal access regulation means that no CP, including BT's retail operations, relying on Openreach access can expect to have first mover advantages, it remains the case that all these CPs have a common incentive to be as competitive as possible compared to other platforms.
- 4.29 Moreover, network competition needs to be assessed prospectively and not statically. Ofcom states that "*a good long-term outcome would be to achieve full competition between three or more networks for around 40% of premises*".⁹² Setting aside whether this is realistic, and assuming at least some increase of network competition over time,⁹³ the geographic area in

⁹¹ See paragraph 4.18 above.

⁹² Openreach Consultation, paragraph 2.3.

⁹³ For example, Virgin announced in 2015 investment plans to expand the footprint of its network by about 4 million premises taking Virgin Media's network coverage to 65% of premises by 2020. Source:

which Ofcom's concern may hypothetically apply will become progressively smaller. But it also implies that in so far as BT is making strategic choices about its network today, or in the near future, which will take a number of years to crystallise (as is likely to be the case for network-shaping investments), BT's incentives will be determined by the expected degree and nature of network competition in the future and not just the present level of network competition. It is therefore even less likely that BT would either (i) adopt a single country-wide investment choice based on a shrinking non-competitive part of the country or (ii) choose to adopt two networks, given the shrinking size of the non-competitive part of the country.

- 4.30 Thus, we do not consider that Ofcom has adequately addressed the relevance of network competition for BT's incentive to engage in strategic discrimination in relation to major decisions that shape the network.

Why the nature of the investments reduces BT's ability and incentive to engage in strategic discrimination

- 4.31 Even in the absence of network competition, Ofcom's strategic discrimination concern can only arise if BT faces major investment choices, the selection among which would have significant and predictable benefits for BT's downstream business compared to rival CPs.

- 4.32 Ofcom acknowledges this, saying that: *"Taken together these concerns mean that, practically, BT has the incentive and ability to influence or determine strategic investment and operational decisions that favour its own retail businesses over the retail businesses of others. Where BT acts on this incentive, other retail providers will be less able to deliver the innovation and services that their customers demand, unless this accords with the needs of BT Group"*.⁹⁴

- 4.33 Ofcom has not assessed in any meaningful way whether this concern is likely, yet in our view there are *prima facie* indications that this is unlikely. This is because BT and other CP have largely aligned incentives pre-

Virgin Medias response to Ofcom's Strategic Review of Digital Communications, paragraphs 45 and 51.

⁹⁴ Openreach Consultation, paragraph 3.14.

investment and equal opportunities to commercialise investments once these have been made.

- 4.34 We proceed on the basis that BT and rival CPs are targeting broadly the same final consumers. This reflects our understanding that there is no segment of the retail market that BT does not seek to serve and where it does not face competition from other CPs using Openreach inputs. In any case, BT would not have a strategic incentive to impede its rivals if BT's rivals were targeting different groups of final consumers because if the consumers in question were deemed hard to reach by BT's retail operations, BT would have a strong incentive to supply on a wholesale basis as it would not be sacrificing potential retail margin in doing so.
- 4.35 The question then becomes whether BT can make an *ex ante* choice of network design that favours its own downstream business relative to rival CPs *ex post* (i.e. when the investment is commercialised), taking account of the fact that investment will be available on equal access terms.
- 4.36 However, no such advantage can arise to BT provided that BT's rivals who are reliant on Openreach are equally capable of exploiting that network design as is BT's downstream business. We are not aware of reasons why this would not be the case.
- 4.37 Ofcom recognises that the current regime achieves "*good outcomes [...] once Openreach has invested in the network*".⁹⁵ In that context, it is not clear, and Ofcom does not explain, how any strategic decision by BT relating to the shape of the network may disadvantage BT's rivals.
- 4.38 Moreover, "*key decisions that shape the network itself*"⁹⁶ have long lead times from inception of the idea to commercial introduction to mass-market take-up.⁹⁷ Even if BT could make a network investment choice that would in some way be to the advantage of its own downstream business if

⁹⁵ Openreach Consultation, paragraph 3.12.

⁹⁶ Openreach Consultation, paragraph 3.12.

⁹⁷ BT estimates that FTTP may take 20 years and G.Fast may take longer than 10 years to deploy (BT DCR Response, 8 October 2015, page 27).

commercialised immediately, the time lag between (public) investment choice and commercialisation provides time for BT's downstream business and rival CPs to adapt their commercial offers in anticipation of the infrastructure that will only later become available.

- 4.39 It is hard to know at the time of the investment decision which CP will be best placed to make use of it by the time of the commercial introduction of a product. Thus, even if Openreach's strategic choices today were for investments that appeared more suited to BT's downstream business than rival CPs, it is far from clear that BT would have any advantage when the investments are commercialised given the rapid rate of change in downstream markets.
- 4.40 We have already referred to the case of G.Fast, which Ofcom criticised for having proceeded with inadequate consultation.⁹⁸ Ofcom does not explain why, if BT was to invest in G.Fast, it would be to the advantage of BT's retail business relative to other CPs, compared to some other network-shaping choice, given that G.Fast would provide CPs with the same opportunity to meet the needs of consumers and businesses as the retail operations of BT, CPs would have a number of years to get ready to make use of G.Fast, and over that time period BT's and its rivals downstream strategies may evolve considerably.
- 4.41 We now illustrate the points above with a hypothetical scenario: suppose that BT had a choice between two strategic investments, one that represented a major network improvement and would lead many consumers to upgrading the retail products they consume, and another that represented a lesser network improvement and would lead fewer consumers to upgrade. Ofcom might be concerned that, in circumstances where BT had a large retail market share, BT would have an incentive to adopt the lesser improvement because its retail share would be more 'at risk' in the event of a large proportion of consumers choosing to upgrade. However, this seems implausible given that Ofcom has assessed downstream markets to be competitive meaning that the incumbency advantage of current retail market shares is small. Furthermore, switching and churn means that it would be

⁹⁸ See paragraph 4.9a.

risky for BT to predicate the inferior network strategy on retail shares that may have changed significantly by the time the network investment was commercialised. Moreover, a strategy to invest in inferior network solutions would likely be self-defeating because it would encourage other networks to develop superior infrastructure and BT would risk losing both the upstream wholesale margin from CPs who would switch or self-supply as well as BT's own retail margin due to consumers switching to CPs offering the superior network.

- 4.42 Just as it is unlikely that BT could predicate investment choices based on any competitive advantage through “*key decisions that shape the network itself*”,⁹⁹ equal access and the common utility of investments mean that no rival could expect to gain a significant competitive advantage (compared to other CPs, including BT, also reliant on Openreach) from bringing proposals to Openreach to make major investments that change the shape of the network.¹⁰⁰
- 4.43 Put simply, Ofcom's concern is predicated on a scenario which is not likely to arise because the incentives of BT to invest in order to anticipate and meet the needs of end users (in competition with, for example, Virgin Media) are likely to be aligned with the investment choices that CPs would like Openreach to make in order to allow them to compete for the very same end users.
- 4.44 Under these circumstances, it is therefore not clear that BT has the ability, let alone the incentive, to engage in strategic discrimination.

***Prima facie* indicators undermine Ofcom's concerns (II) 'under-delivery of FTTP'**

- 4.45 BT has previously explained that:¹⁰¹

⁹⁹ Openreach Consultation, paragraph 3.12.

¹⁰⁰ We discuss co-investment in paragraphs 5.12 to 5.13 below.

¹⁰¹ BT DCR Response, 8 October 2015, page 27.

- a. *“Ubiquitous fibre to the premise (FTTP) would deliver the highest bandwidth but would cost c£20 billion and could take 20 years to deliver across the UK. It would require the digging up of driveways and gardens in around 29 million locations”;*
- b. *“G.Fast, the next generation of ‘fast copper’ technology, as currently conceived would meet bandwidth requirements but could cost c£8 billion, would require deployment to 4 million locations (DPs), provision of power to these locations and would take longer than ten years to deploy”;* and
- c. *“there is [not] sufficient user-demand for mass market FTTP, especially given the enhanced performance of copper loops, in particular via G.Fast”.*¹⁰²

4.46 Ofcom does not challenge BT’s conclusion. This suggests that the current level of availability of FTTP reflects a lack of commercial rationale for increasing FTTP roll-out rather than a failing of the current regulatory model for Openreach.

Assessment against Article 13a provisions

4.47 We do not consider that Ofcom’s analysis satisfies the two pre-conditions required in Article 13a. This is for the following reasons.

4.48 Ofcom does not demonstrate that either of its concerns are *“important and persisting competition problems”*.¹⁰³ Ofcom’s strategic discrimination concern is merely hypothetical and the alleged issue is unlikely to exist based on our analysis above. Likewise, Ofcom provides no justification for the assumption that its under-delivery of FTTP concern reflects anything other than lack of commercial rationale for FTTP to date.

4.49 Ofcom does not demonstrate that network competition would not address its concerns. In relation to its strategic discrimination concern, Ofcom does not assess the extent to which current (and Ofcom’s desired) enhanced network

¹⁰² BT DCR Response, 8 October 2015, page 69.

¹⁰³ Access Directive (2002/19/EC of 7 March 2002) Article 13a(2)(a) and Article 13a(1).

competition may limit any ability and incentive for BT to engage in hypothetical strategic discrimination across BT's network or whether the relevant type of investments may exhibit sufficient common utility for Ofcom's concern not to be applicable at all. Ofcom also does not establish whether FTTP would be a rational commercial response from BT to current and prospective network competition, or to meeting the need of consumers more generally, and whether Ofcom's concern therefore in fact represents a competition issue.

Conclusion

- 4.50 Ofcom identifies its concerns as theoretical possibilities or simply assumes that they apply. Ofcom presents no evidence for its concerns and ignores *prima facie* reasons to doubt Ofcom's concerns. On these grounds, we do not consider that Ofcom's concerns are economically robust on a 'first principles' basis.
- 4.51 Assessed against the requirements of Article 13a, we consider that Ofcom neither establishes the presence of important and persisting competition problems nor demonstrates that current and prospective competition will not be adequate to address any concerns. Ofcom's analysis therefore does not meet the standard set out in Article 13a.

Section 5

Ofcom does not provide an adequate economic case for its Proposal

- 5.1 The second issue we have been asked to address is whether Ofcom has justified its Proposal in economic terms.
- 5.2 We consider it self-evident that any regulatory intervention should be effective, net beneficial, and proportionate to the issue it seeks to address. This requires demonstrating, by means of a robust cost-benefit analysis, that the intervention will create benefits in excess of its costs both with respect to a counterfactual of no intervention and with respect to alternative interventions. This approach is identified as best regulatory practice in regulatory guidance, including Ofcom’s own guidance, and is central to the economic provisions under Article 13a.¹⁰⁴
- 5.3 In this section we first set out our ‘first principles’ analysis and demonstrate the following:
- a. First, Ofcom considers proportionality “*within a model of legal separation*” (i.e. different ways to implement legal separation) without assessing whether any form of enhanced functional separation (including the weakest form of legal separation) over and above the *status quo* is proportionate. Ofcom thereby bases its argument on a counterfactual that

¹⁰⁴ See, for example, Ofcom, Better Policy Making, 21 July 2005; Competition Commission, Guidelines for market investigations: Their role, procedures, assessment and remedies, April 2013, CC3 (Revised); and BEREC, Guidance on functional separation under Articles 13a and 13b of the revised Access Directive and national experiences, February 2011, BoR (10) 44 Rev1. Depending on the context, it may also be a legal requirement that more onerous interventions need to be justified to a higher standard of proof.

is incorrect because it already embeds major changes to governance arrangements compared to the *status quo*.

- b. Secondly, as we explain in Section 4, Ofcom does not provide evidence in support of its concerns and thus a remedy predicated on these concerns is not justified. However, even if, contrary to our conclusions, Ofcom had demonstrated its concerns, Ofcom does not adequately explain the causal connection between its concerns and its proposed remedy.
- c. Thirdly, Ofcom has not analysed the costs of its Proposal (other than, erroneously, comparing its Proposal to structural separation). This is an extremely serious omission, because Ofcom's requirement to give Openreach autonomy over investment decisions and for Openreach to treat customers equally with respect to those decisions would amount to quasi-structural separation in relation to how those decisions are made. Quasi-structural separation would result in the loss of vertical integration benefits with an adverse impact on investment incentives, and yet Ofcom has not assessed these costs.
- d. Finally, BT's Proposal is a further alternative counterfactual to the *status quo* against which to assess Ofcom's Proposal. We consider that BT's Proposal would result in lower cost than Ofcom's Proposal and, given our view that Ofcom has not identified benefits of its Proposal compared to the *status quo*, should be preferred on that basis.

5.4 At the end of this section, we assess Ofcom's Proposal against the associated requirements in Article 13a.¹⁰⁵ We consider that Ofcom's reasoning for its Proposal does not meet these requirements.

Ofcom has adopted the wrong counterfactual for assessing proportionality

5.5 Ofcom's guidelines state that the option not to regulate "*will generally be the benchmark against which other options are judged*".¹⁰⁶ The guidelines also

¹⁰⁵ See paragraphs 2.12c to 2.12f above.

state that “*If a case for regulation can be made, we will choose the least intrusive means of achieving our objective*”.¹⁰⁷ A regulatory intervention must, therefore, not only represent an improvement to no intervention, but also be superior to alternative interventions.

5.6 However, in the present case Ofcom assesses proportionality “*within a model of legal separation*” and justifies its preferred model as proportionate because, according to Ofcom, it provides Openreach with the greatest degree of flexibility within this model.¹⁰⁸ Ofcom hence does not test whether legal separation is proportionate by reference to the regime which currently exists, nor by reference to any alternative interventions (including whereby Ofcom mandated BT’s Proposal), but only argues that it has found the least onerous model for implementing legal separation.

5.7 Ofcom has not, therefore, demonstrated that legal separation is proportionate on a first principles basis.

Ofcom has not demonstrated the benefits of its Proposal

5.8 Ofcom presents its remedy as addressing its specific concerns. The benefit from the remedy therefore needs to relate to the resolution of these concerns. However, as we have set out in Section 4, Ofcom does not provide evidence to substantiate its concerns and, therefore, provides no evidence for any potential benefit that a remedy could produce.

5.9 Ofcom, moreover, raises questions about whether there is a causal link between its desired outcomes and any remedy in its statement that Ofcom’s desired “*outcomes are not solely under the control of Openreach*”.¹⁰⁹

¹⁰⁶ Ofcom, Better Policy Making, paragraph 3.3.

¹⁰⁷ Ofcom, Better Policy Making, paragraph 5.24.

¹⁰⁸ Openreach Consultation, paragraph 4.9: “*Our preferred model provides Openreach with the greatest degree of strategic and operational independence to Openreach that is practically possible within a model of legal separation. We therefore consider that this is a proportionate response to the concerns that we have identified*” (emphasis added).

¹⁰⁹ Openreach Consultation, paragraph 6.3.

- 5.10 In relation to its FTTP under-delivery concern, Ofcom explicitly acknowledges that “*Openreach’s incentives to operate efficiently, invest, or deliver a good quality of service*” may be “*dampened by a lack of sufficient competition at the infrastructure level, and not because BT is vertically-integrated*”.¹¹⁰ The absence of such a causal link between Ofcom’s concern and structural separation undermines any claim of potential benefits from increased FTTP delivery that would be attributable to this remedy.
- 5.11 If, contrary to our analysis in Section 4, Ofcom had demonstrated its other concern - strategic discrimination - Ofcom would need to assess the likelihood and expected costs of that harm, but it has not done so. We recognise that estimating such costs would be difficult, but we do not consider that their nature and scale can be left wholly unaddressed.
- 5.12 Ofcom refers to “*improved investment outcomes arising from new potential models of investment, such as co-investment and risk sharing*”.¹¹¹ However, we understand that co-investment is theoretically feasible under the current regulatory regime. Ofcom has not explained why co-investment would lead to better investment outcomes. We consider that this is doubtful given our observations in Section 4 that BT’s investment incentives are likely to be highly aligned with those of CPs reliant on Openreach.¹¹²
- 5.13 Sky argues that Openreach would be free to coordinate with all of its customers to help mitigate the risk of significant network investments, including through “*co-investment models, anchor tenancy agreements or minimum guarantees*”.¹¹³ However, it is not clear, and Ofcom does not explain, how co-investment would work in practice and there are, in our view, reasons to doubt that it would work effectively.
- 5.14 In particular, the strategic discrimination theory of harm requires network investments to be, to a degree, of specific benefit to particular CPs (if they

¹¹⁰ Initial Conclusions, paragraph 6.59.

¹¹¹ Openreach Consultation, paragraph 1.47.

¹¹² See paragraphs 4.18 *et seq.*

¹¹³ Sky Response to Ofcom’s Strategic Review of Digital Communications – Discussion Document, paragraph 60.

are of equal benefit to all CPs reliant upon them, discrimination concerns cannot arise in the first place). Therefore, when analysing the costs and benefits of Ofcom's Proposal, we proceed on the hypothetical basis – contrary to our analysis in Section 4 - that investments are to a degree CP-specific. In that case, however, it is far from clear that Openreach would make such investments (or do so to the optimal extent) because of the 'hold up' problem (described further at paragraphs 5.37 *et seq.* below). Openreach would be exposed to being 'held up' by the downstream CP benefitting from the investment beneficial to it if it did not enter into a contract covering all contingencies before the investment, yet such contracts may be impossible to devise.¹¹⁴ Even if investments do not benefit specific CPs, Openreach would still be at risk being held up because individual CPs would have an incentive to free-ride on each other in relation to the funding of such investments.

- 5.15 Furthermore, it is not clear whether any third parties would be willing to co-invest without the prospect of gaining some competitive advantage by doing so. This in turn would create the possibility for discrimination between co-investors and other downstream buyers as it is not clear, and not explained by Ofcom, how EOI would apply to these arrangements. This suggests that even a hypothetical benefit from further co-investment may be difficult to achieve in practice whilst maintaining EOI access. The cost of such co-investment/anchor tenancy/minimum guarantee driven investments may therefore be a weaker EOI regime, if EOI is at all practically feasible in that context, with potential implications for retail competition.
- 5.16 Theoretically, Ofcom might consider sacrificing EOI to some degree if it thought that co-investment models could deliver superior investment outcomes. But in that case, Ofcom has not demonstrated that the outcome for consumers would be sufficiently better in a world with exclusive co-investment to justify sacrificing the known benefits of equal access. Ofcom has also not addressed whether BT should have the same ability as rival CPs to invest with Openreach on such exclusive terms. Denying BT such ability would imply discrimination against BT's downstream divisions.

¹¹⁴ Compass Lexecon, A review of CRA's 'The hold-up problem in vertically-related industries', paragraph 5.11-5.13.

Ofcom has not analysed the costs of its Proposal

- 5.17 As well as not demonstrating the benefits of its Proposal, Ofcom does not adequately analyse its costs. Ofcom simply relies on the assumption that these will be lower than under structural separation and therefore justifiable, which, as noted in paragraphs 5.5 to 5.7 above, is to adopt the wrong counterfactual.¹¹⁵
- 5.18 As noted above, we proceed on the assumption that under Ofcom's Proposal, Openreach would be required to approach investment decisions in all respects as *if* BT's downstream business was a non-integrated CP, and that BT Group could not allocate funds outside the envelope taking into account its own interests.¹¹⁶ The consequence of this would be that Ofcom's Proposal would result in quasi-structural separation as regards investment decisions, leading to a loss of the benefits of vertical integration.
- 5.19 Ofcom has previously recognised that "*structural separation would carry substantial costs, which we would need to consider carefully*".¹¹⁷ Yet it does not recognise that its Proposal would cause many of these costs, and it has not analysed them.
- 5.20 Protecting the benefits of integration is not just a question of retaining common ownership but of retaining appropriate economic management and supervision rights – i.e. rights which go beyond the passive investor role envisaged by Ofcom.¹¹⁸
- 5.21 This point has been recognised by others: Cave and Doyle (2007) state that "*A standard objection to the imposition of structural separation in telecommunications is that it will, inter alia, impede desirable coordination of retail, core network and access network investment activities. In fact, the same charge can be levied against functional separation which, if it is to be*

¹¹⁵ Openreach Consultation, paragraph 1.30.

¹¹⁶ See paragraphs 3.9 to 3.10.

¹¹⁷ Initial Conclusions, paragraph 6.61.

¹¹⁸ Initial Conclusions, paragraph 6.71: "*The wholly owned subsidiary model would have some wider benefits. It would deliver greater independence for Openreach while retaining BT Group ownership, therefore preserving some of the benefits associated with vertical integration*".

*implemented in a way which prevents discrimination, requires the 'ring-fencing' of both operational and investment activities undertaken by the separated entities, in order to exclude the possibility of abusive strategies".*¹¹⁹

5.22 In the remainder of this section, we first summarise the economic literature which contains a general presumption that vertical integration has gross benefits (and, as a corollary, that vertical separation has costs amounting to the loss of those benefits). We then address specific categories of cost arising from Ofcom's Proposal in more detail.

Economic evidence provides *a priori* support for integration rather than separation

5.23 The economic literature and various policy guidelines suggest that vertical integration is normally *net* beneficial. This means that vertical integration generally can be expected to have significant *gross* benefits (and, thus, structural separation or quasi-structural separation is likely to have significant gross costs).

5.24 For example:

a. according to Lafontaine and Slade's (2007)¹²⁰ comprehensive survey of the empirical literature on this subject, "*under most circumstances, profit-maximizing vertical-integration and merger decisions are efficient, not just from the firms' but also from the consumers' points of view*",¹²¹ and "*even when we limit attention to natural monopolies or tight oligopolies, the evidence of anticompetitive harm is not strong*";¹²²

¹¹⁹ Cave, M. and C. Doyle, 2007, "Network separation and investment incentives in telecommunications", Warwick Business School, University of Warwick, pages 5 and 6.

¹²⁰ Lafontaine, F. and M. Slade, 2007, "Vertical Integration and Firm Boundaries: The Evidence." *Journal of Economic Literature*, 45(3): 629-685.

¹²¹ Lafontaine and Slade (2007), page 680.

¹²² Lafontaine and Slade (2007), page 677.

- b. Motta (2004) finds that “*although in some circumstances [vertical integration] may have some anti-competitive effects*” efficiency effects “*are likely to dominate in most cases*”;¹²³ and
- c. Salop and Culley (2014) note that “*Most vertical mergers do not raise competitive concerns and likely are procompetitive*”.¹²⁴ In addition, the authors note that “*Improved vertical cooperation from a vertical merger might lead to greater investment. One reason is that the merger can improve communication and coordination between firms at different levels of production. The merger also can spur investment by reducing the risk of hold-up*”.¹²⁵

5.25 These insights from economic theory and evidence are reflected in a clear presumption in regulatory guidelines that vertical integration is more likely than not to be welfare-enhancing and to give rise to public policy concerns only in limited circumstances:

- a. the UK Merger Assessment Guidelines state that “*it is a well-established principle that most [non-horizontal mergers] are benign and do not raise competition concerns*”;¹²⁶ and
- b. the EC Non-horizontal Merger Guidelines state that: “*A characteristic of vertical mergers and certain conglomerate mergers is that the activities and/or the products of the companies involved are complementary to each other. The integration of complementary activities or products within*

¹²³ Motta, M., 2004, “Competition Policy: Theory and Practice”, Cambridge, Cambridge University Press.

¹²⁴ Salop and Culley, 2014, Potential Competitive Effects of Vertical Mergers: A How-To Guide for Practitioners, revised draft of 8 December 2014, page 5.

¹²⁵ Salop and Culley, 2014, page 36.

¹²⁶ OFT and Competition Commission, Merger Assessment Guidelines, OFT1254 and CC2 (revised), September 2010, paragraph 5.6.1.

a single firm may produce significant efficiencies and be pro-competitive".¹²⁷

5.26 We do not suggest that general conclusions of the literature and the presumptions set out in authority guidelines should be determinative in any one case. We also recognise that any benefits of vertical integration may be lower in circumstances, as in the present case, where the upstream firm is constrained by regulation. For example, price regulation of upstream inputs would mean that the benefit of eliminating double marginalisation from vertical integration would be reduced.¹²⁸

5.27 However, in view of economic research and how this has been accepted in regulatory guidance, we consider that an appropriate starting presumption should be that the vertical integration of Openreach with BT Group is likely to include significant *gross* benefits (and, thus, structural separation or quasi-structural separation is likely to have significant *gross* costs), which would need to be identified, assessed, and weighed in any cost-benefit analysis of Ofcom's Proposal.

Economic costs of separation and quasi-separation

5.28 Consistent with the academic literature, and the approach we describe immediately above, at an earlier stage of the DCR Ofcom recognised that "*structural separation would carry substantial costs, which we would need to consider carefully*".¹²⁹

5.29 The costs identified by Ofcom include:¹³⁰

- a. the complexity of establishing a final boundary between network assets and the difficulty of modifying this boundary in the future as networks and services evolve;

¹²⁷ European Commission, Guidelines on the assessment of non-horizontal mergers under Council Regulation on the control of concentrations between undertakings, Official Journal C 265 of 18/10/2008, paragraph 13.

¹²⁸ See also discussion in paragraphs 5.42 to 5.44 below.

¹²⁹ Initial Conclusions, paragraph 6.61.

¹³⁰ Initial Conclusions, paragraph 6.61.

- b. “*practical challenges*” including the effect of separation on the BT Pension Scheme and the costs and risks associated with the renegotiation of legal agreements; and
- c. economic costs associated with the risk of hold-up and the loss of other efficiencies made possible by vertical integration, such as cost synergies and the removal of double marginalisation.

5.30 The main focus of this report is on the last of these, but we address the first two categories of cost very briefly in what follows.

Establishing a boundary

5.31 We agree with Ofcom that defining what should be included in a structurally separated upstream entity is likely to be complex. Setting such a boundary may impose a static cost (if the boundary is set in the wrong place) or a dynamic one (if – as seems likely – the optimal boundary changes over time, for example due to changes in the level of network competition).

5.32 Ofcom has not addressed the extent to which such costs may arise under structural separation or under its Proposal of quasi-structural separation. While Ofcom’s Proposal may be more dynamically flexible than structural separation this does not mean the costs associated with establishing a boundary are absent.

“Practical challenges”

5.33 While it is outside our expertise to assess them, we understand that BT considers there to be significant costs associated with Ofcom’s Proposal, in addition to the ‘economic costs’ to which we turn next.

5.34 We understand that the higher the degree of additional separation implied by the models under consideration, the higher the associated costs. This applies to one-off costs as well as ongoing costs. We understand that BT Group estimates that Ofcom’s Proposal could imply such loss of control as to trigger a demerger of Openreach. The costs of a demerger of Openreach would be c. £[X] of one-off costs and c. £[X] of ongoing annual costs. Considering the mitigating measures presented by Ofcom, it may be possible to reduce

these costs to, still significant, one-off of c. £[X] and ongoing annual costs of c. £[X].¹³¹

- 5.35 While we understand that Ofcom may take a different view on some of these costs, its Consultation recognises that de-consolidation of Openreach's financial performance from that of BT Group would trigger "*substantial costs*".¹³²

Economic costs

- 5.36 We now turn to the third category of costs identified by Ofcom, which are the main focus of this report. We label these "*economic costs*" because they are the type of costs associated with vertical separation that are addressed in the economics literature, but they should be understood as giving rise to financial costs for BT and CPs and to a loss of welfare for final consumers.

Hold-up

- 5.37 A hold-up problem can arise when the investing party makes irreversible, customer-specific investments.¹³³ Once a supplier has made such investments, the customer may seek to renegotiate trading terms ('hold up' the supplier) knowing that the supplier will be better off providing a lower price than risk holding a stranded asset. This reduces the expected benefits of the investment to the supplier and may thereby deter the supplier from making the investment in the first place.
- 5.38 In our view, hold-up costs are a key issue in any cost-benefit analysis of structural or quasi-structural separation. This is because Ofcom's presumption that strategic discrimination is possible and justifies a remedy *requires* investments to have a degree of specificity to individual downstream buyers. As discussed above,¹³⁴ absent such specificity, investments are of

¹³¹ BT's main response, Section 4.9.2.

¹³² Openreach Consultation, paragraph 4.7.

¹³³ A firm's vulnerability to hold-up stems from (i) the relationship-specific nature of certain investments ('asset specificity'); and (ii) the inability of the trading partners to identify precisely the benefits created by an investment and to pre-commit to an appropriate division of these benefits before the investment is made ('contractual incompleteness').

¹³⁴ See paragraphs 4.31 to 4.44.

common utility and no strategic discrimination concern can arise. So it is exactly in the circumstances where Ofcom's strategic discrimination concern may apply that the type of hold-up problem described above is likely to arise.¹³⁵

- 5.39 In addition to customer specificity, hold-up requires the absence of ability for customers to commit to specific terms through contracts. Whether, how, and to what extent contractual commitments can address the risk of hold-up therefore requires an assessment of the feasibility and costs of designing and enforcing contracts that enable the sharing of the risks and benefits of the specific investments. Yet such contracts may be very difficult to design because of the extremely large and the long-term nature of investments and the high degree of uncertainty about demand conditions when the investments would come to be commercialised and over the life of the investment. Contracting is also complicated by potential limits on Openreach's ability to enter customer specific contracts due to the obligation on Openreach to supply all buyers on EOI terms.¹³⁶ This would also need to be assessed as part of any cost-benefit analysis.
- 5.40 Hold-up problems might also arise even where the investments do not benefit any particular CP. To illustrate why consider a scenario where a separate Openreach has the opportunity to invest in a project that benefits all CPs equally, but such investment cannot be undertaken profitably unless it is co-funded by the CPs. Openreach may be 'held up' by customers who seek to renegotiate their *ex ante* agreements (which promised a certain financial contribution to fund the investment) in order to free-ride on the funding commitments made by other customers. Openreach would be constrained in its ability to combat free-riding because its equal access obligations would prevent it from withdrawing supply from customers seeking re-negotiation (in order to free ride). Knowledge of these risks would tend to undermine Openreach's investment incentives compared to a scenario in which upstream and downstream interests were aligned through vertical integration.

¹³⁵ This is also what makes co-investment as a solution to resolve strategic discrimination unlikely: see paragraph 5.14 above.

¹³⁶ See also discussion in paragraphs 5.15 to 5.16 above.

A contractual solution would involve CPs making their contributions prior to Openreach's investments. In other words, they should be prepared to contract on Openreach's investment. This is unlikely, however, to be a realistic option, because of a range of complexities involving in writing effective, enforceable contracts, which are described in another paper.¹³⁷

- 5.41 We note that Sky submitted a paper by CRA during the DCR consultation in which CRA suggests that contracts may address any hold-up concerns.¹³⁸ We provide a separate assessment of CRA's analysis in the above-mentioned paper.¹³⁹ In summary, we consider that CRA's summary of the literature is unbalanced and presents an unjustifiably optimistic view of contractual completeness in the present context. We therefore do not consider that CRA's paper addresses the risk of hold-up for hypothetical customer-specific investments undertaken under the implementation of Ofcom's Proposal. We also note that CRA recognises that structural separation may give rise to economic costs in addition to those associated with hold-up, although these are outside the scope of CRA's paper.¹⁴⁰

Double marginalisation

- 5.42 Double marginalisation may occur when non-integrated upstream and downstream firms each has a degree of market power. The upstream firm sets its price not taking into account the negative effect on downstream firms and *vice versa*. This results in retail prices that are higher than with vertical integration.
- 5.43 One type of double marginalisation arises when an upstream supplier uses its market power to set prices above costs. However, regulation will in many instances limit Openreach's ability to do so. To the extent that Openreach would be subject to the same pricing constraints under Ofcom's Proposal as

¹³⁷ Compass Lexecon, A review of CRA's 'The hold-up problem in vertically-related industries'.

¹³⁸ CRA on behalf Sky, "The 'Hold-Up' Problem in Vertically-Related Industries".

¹³⁹ Compass Lexecon, A review of CRA's 'The hold-up problem in vertically-related industries'.

¹⁴⁰ See, for example, page 22: "*In sum, it appears that efficient contractual solutions for hold-up problems in this industry are typically available and that vertical integration was mainly motivated by other factors, such as the need to coordinate production and information flows*" (emphasis added).

are applied under the *status quo*, this would therefore mitigate the risk of structural separation giving rise to double marginalisation.

- 5.44 However, in the *status quo*, BT may also take into account the effects on BT's downstream profits when assessing the profitability of Openreach investments.¹⁴¹ We understand that this has been a consideration in the context of large-scale investments.¹⁴² Structural separation and – as we explain above¹⁴³ – quasi-structural separation would remove this integrated view and may thereby reduce Openreach investment incentives. In particular, the regulator may set price caps that under-remunerate investment (thus, leading to lower investment) because it is concerned that there is a moral hazard problem due to asymmetric information; for example it may be concerned that the regulated entity would have an incentive to exploit any informational advantage to insist on more costly projects. Vertical integration may lead to greater investment because Openreach will fully internalise BT's downstream margins and also because to the extent that the upstream division is risking the money of the vertically integrated group, the regulator's concern about moral hazard will be mitigated.

Coordination

- 5.45 Vertical integration can give rise to other pro-efficiency coordination benefits, including facilitating as frictionless and cost-effective interactions between the upstream and downstream business units as possible. For example, as part of a single entity, Openreach and the rest of BT do not need to formalise risk allocation contractually. This may be particularly relevant in the context of strategic investments the benefits of which will not be known for many years.

¹⁴¹ We note that this does not imply an incentive to discriminate against investments requested by rival downstream retailers. This is because Openreach supplies on EOI terms. BT therefore has the ability and incentive to adopt (and generate retail margins from) at retail level any new product feature introduced by a rival over Openreach's network and that otherwise would put BT's retail margins under pressure.

¹⁴² For example, BT has explained that the NGA "*payback at the Group level of about 12 years and at the Openreach level of just under 20 years*" and that "*This has delivered clearly positive outcomes in terms of roll-out, take-up and ongoing competition*" (BT DCR Response, 8 October 2015, page 83). See also discussion in BT's main response, Section 3.5.

¹⁴³ See paragraphs 3.9 to 3.10.

5.46 As part of BT Group, Openreach also benefits from access to, for example, BT Retail's insights about consumers' needs and the technology choices that may address these needs. As vertically integrated entities, BT Retail has an incentive to provide such insights in a timely and unbiased manner and Openreach can act on these insights with this knowledge. Such incentives are unlikely to be replicable through contracts rather than integration.¹⁴⁴

5.47 The loss of coordination benefits would also need to be assessed as part of any cost-benefit analysis.

Additional costs arising under Ofcom's Proposal but not under structural separation

5.48 Ofcom's Proposal may also incur economic costs in addition to those normally associated with structural separation. In particular, further costs are likely to arise from introducing an extra layer of principal-agent complexity.

5.49 For example, for Openreach to be able independently to decide to roll out FTTP nationally the BT board would need to provide an investment budget of £20 billion¹⁴⁵ whilst recognising that Openreach may ultimately decide to do something different with this budget. The risk of moral hazard associated with such weakened oversight may in itself limit BT's board's incentive to provide funding to Openreach than would be the case for a better integrated company.

5.50 Whereas Ofcom's Proposal would give Openreach control over how to deploy its budget, the Proposal may hence as a direct consequence thereof incentivise BT to reduce the amount of funding to Openreach in response to the associated risks. This is a critical issue for the extent to which Openreach in fact would be able to meaningfully choose between, or implement at all, "*key decisions that shape the network*".¹⁴⁶ It is also critical in relation to the

¹⁴⁴ For example, such information sharing may happen even before it becomes clear that there is a basis for developing a product. It is therefore difficult, if not impossible, to tie some sort of incentive payment to any measurable metric.

¹⁴⁵ BT DCR Response, 8 October 2015, page 27.

¹⁴⁶ Openreach Consultation, paragraph 3.12.

question of whether Ofcom's Proposal may lead to higher investment levels, including through co-investments with other CPs.¹⁴⁷

- 5.51 On the other hand, purely in theory, if Ofcom were to mandate BT Group to increase its funding for Openreach (for example to reduce constraints on Openreach's ability to pursue investments) it seems very likely that would increase BT Group's cost of capital, as well as introducing a risk of potentially extremely costly false positives (i.e. Ofcom mandating a budget allowing Openreach to engage in inefficient investments).
- 5.52 Ofcom's proposal may hence result in a number of economic costs. These costs are not only likely to be substantial but also imply detrimental effects for investment incentives and thereby directly undermine Ofcom's stated objectives. Any analysis of the proportionality and likely effectiveness of Ofcom's Proposal therefore requires a detailed assessment of these costs.

BT's Proposal a relevant counterfactual

- 5.53 BT's Proposal forms a further alternative counterfactual to the *status quo* against which to assess Ofcom's Proposal. This is because we understand BT intends to implement the proposal irrespective of any requirement to do so.
- 5.54 We do not consider that BT's Proposal would give rise to the economic costs associated with quasi-structural separation identified above, because it would allow BT to continue to plan and take on risk on an integrated basis. We understand that it would avoid the pension costs that BT considers arises from Ofcom's Proposal. In particular, PwC expects the cost of implementing BT's proposal to be "*relatively immaterial in the context of BT's overall cost base*".¹⁴⁸
- 5.55 It is beyond the scope of our paper to assess what benefits BT's Proposal would give rise to, and any such assessment would be necessarily somewhat abstract as we do not consider that Ofcom has substantiated its theory of

¹⁴⁷ See also discussion about co-investment in paragraphs 5.12 to 5.16 above.

¹⁴⁸ PwC, Project Europe Covenant considerations on BT's 18 July Offer to Ofcom – "Strengthening Openreach's Independence", page 2.

harm. However, we understand that BT's Proposal would seek to enhance the independence of Openreach, as well as equality and transparency for CPs. Openreach would be allowed to fund major network investments under co-investment or risk-sharing agreements with CPs. It also appears that Ofcom considers that BT's Proposal shares some features of Ofcom's Proposal.¹⁴⁹

- 5.56 However, it is clear that in the absence of substantiated benefits BT's Proposal should be preferred to Ofcom's on the basis that it is likely to give rise to substantially lower costs. If, hypothetically, Ofcom were to substantiate its concerns, it would then need to address the degree to which its own Proposal addressed these concerns over and above the benefits of BT's Proposal and compare the associated cost. Those costs are large, and based on the information available to us we consider it is implausible Ofcom could justify its greater intervention.

Assessment against Article 13a provisions

- 5.57 We do not consider that Ofcom performs the necessary assessment to justify its Proposal to the standard required in Article 13a.¹⁵⁰ This is for the following reasons.
- 5.58 Ofcom does not adequately perform "*an analysis of the expected impact [...] on the undertaking*"¹⁵¹ considering that "*the incumbent may incur high costs to implement separation*".¹⁵² We understand that these costs indeed are high.¹⁵³ Simply relying on such costs likely being lower than under structural separation does not constitute a meaningful or adequate analysis.

¹⁴⁹ Openreach Consultation, paragraph 7.30: "*BT's plans demonstrate several areas of common ground between Ofcom and BT on how specific measures could support greater strategic and operational independence for Openreach*".

¹⁵⁰ See paragraphs 2.12c to 2.12f above.

¹⁵¹ Access Directive (2002/19/EC of 7 March 2002) Article 13a(2)(c).

¹⁵² BEREC (BoR (10) 44 Rev1), page 16.

¹⁵³ KPMG, Project Iceberg, "Impact of Ofcom's 26 July 2016 proposal for Openreach", slides 5, 8 and 9.

- 5.59 Ofcom does not adequately perform “*an analysis of the expected impact [...] on incentives to invest in a sector as a whole*”.¹⁵⁴ Compared to the *status quo*, Ofcom’s Proposal may reduce investment incentives due to exacerbation of potential hold-up, double marginalisation, and coordination problems as well as increased risks of moral hazard from increased principal agent complexity.
- 5.60 Ofcom does not adequately perform “*an analysis of the expected impact [...] on competition and any potential consequential effects on consumers*”.¹⁵⁵ Ofcom simply hypothesises a link between its Proposal and its desired market outcome and ignores the potential detrimental effects for competition and consumers of the above-mentioned potential reduction in investment incentives.
- 5.61 Finally, Ofcom does not adequately perform an analysis demonstrating that its Proposal “*would be the most efficient means*” to address its concerns.¹⁵⁶ Without robust economic support for its concerns (as discussed in Section 4), without a meaningful assessment of the costs of its Proposal, and without an adequate proportionality assessment against the correct counterfactual, we consider that Ofcom’s Proposal does not meet the standard set out in Article 13a.

Conclusion

- 5.62 Ofcom’s proportionality assessment is based on the wrong counterfactual and Ofcom has not performed any meaningful cost-benefit analysis. Ofcom therefore does not provide an adequate economic case for its Proposal on a ‘first principles’ basis. Whereas Ofcom currently rejects aspects of BT’s Proposal, this remains the lowest-cost option for Ofcom to pursue some of the benefits that Ofcom hopes to achieve.
- 5.63 Assessed against the requirements of Article 13a, we consider that Ofcom neither performs meaningful analyses of the expected impact on BT,

¹⁵⁴ Access Directive (2002/19/EC of 7 March 2002) Article 13a(2)(c).

¹⁵⁵ Access Directive (2002/19/EC of 7 March 2002) Article 13a(2)(c).

¹⁵⁶ Access Directive (2002/19/EC of 7 March 2002) Article 13a(2)(d).

investment incentives, competition, and consumers nor justifies that its Proposal “*would be the most efficient means*” to address Ofcom’s concerns. We therefore consider that Ofcom’s analysis does not meet the standard set out in Article 13a.

Section 6

Ofcom does not provide an adequate economic case for potential structural separation

- 6.1 The final issue we have been asked to address is whether Ofcom has justified potential structural separation in economic terms.
- 6.2 Ofcom states that “*If our preferred model of legal separation cannot be made to work, then full structural separation remains an option*”.¹⁵⁷ Ofcom appears *not* to propose structural separation primarily on the basis of (i) pension costs and (ii) giving BT an opportunity to make the Ofcom Proposal work.¹⁵⁸
- 6.3 Thus, while Ofcom is not proposing structural separation at the present time, it does consider it to be a fall-back option. In what follows, we explain why Ofcom’s analysis does not justify its view that structural separation is a valid fall-back option. Our analysis is very brief as it draws on that in the previous sections.
- 6.4 First, Ofcom’s position appears to be that it considers structural separation to be a valid option “*If our preferred model of legal separation cannot be made to work*”. However, as we explain in Section 5, Ofcom is advancing its Proposal without having assessed it against the correct counterfactual. If, despite this, Ofcom required BT to implement the Ofcom Proposal, it is possible that Ofcom could, after a period of time, deem its own Proposal ‘not to work’ and consider this to justify structural separation, despite both Ofcom’s Proposal and structural separation sharing largely common

¹⁵⁷ Openreach Consultation, paragraph 1.20.

¹⁵⁸ Openreach Consultation, paragraph 1.23.

problems (the loss of vertical integration benefits) compared to a counterfactual (the *status quo*) against which neither remedy had been assessed.

6.5 Secondly, as we explain in Section 4, Ofcom does not provide evidence in support of its concerns and thus a remedy predicated on them is not justified. However, even if, contrary to our conclusions there, Ofcom had demonstrated its concerns Ofcom does not adequately explain the causal connection between its concerns and its proposed remedy. The same is true of structural separation.

6.6 Thirdly, as we also explain in Section 4, Ofcom has not analysed the costs of its Proposal relative to the *status quo*. In particular, Ofcom's requirement to treat customers equally with respect to investment decisions would amount to quasi-structural separation in relation to how those decisions are made and result in the loss of vertical integration benefits with a resulting adverse impact on investment incentives. The same economic costs would arise under structural separation, but directly rather than as a consequence of the requirement to treat customers equally imposing quasi-structural separation.¹⁵⁹

Assessment

6.7 As discussed above,¹⁶⁰ Article 13a addresses requirements for functional separation rather than structural (or quasi-structural) separation. From an economic perspective, we consider that more demanding standards should be met to justify structural (or quasi-structural) separation due to its irreversibility.¹⁶¹ The shortcomings of Ofcom's analysis by reference to the Article 13a requirements (as a proxy for an appropriate standard for such an extreme form of regulatory intervention) set out in the Section 5 assessment of Ofcom's Proposal apply equally or, where structural separation implies higher costs than functional separation, *a fortiori* for structural separation. We

¹⁵⁹ With the exception of one category of costs that are specific to Ofcom's Proposal: see paragraphs 5.48 to 5.50.

¹⁶⁰ See paragraph 2.11.

¹⁶¹ There may be other reasons for requiring a higher standard, including respect for property rights.

therefore do not consider that Ofcom's analysis of structural separation meets an appropriate economic standard for such an extreme form of regulatory intervention.

- 6.8 We recognise that Ofcom considers that the fall-back would only be relevant if the Ofcom Proposal failed to address the problems that Ofcom perceives. Thus, Ofcom would only advance structural separation at some future date in the light, hypothetically, of such failure. However, it would not be sufficient in our view for Ofcom, some years hence, to predicate structural separation on not finding sufficient perceived change in BT's level and mix of investment because, as we explain in this report, Ofcom has no evidence for its concerns as of the present time and, in particular, has not explained the causal link between its concerns and market outcomes in respect of investment.

Conclusion

- 6.9 Ofcom has not provided evidence to substantiate its concerns, which in itself is sufficient to conclude that any remedy is not justified. Moreover, Ofcom appears to consider that its concern about FTTP under-delivery does not have a causal connection to any reform of Openreach's relationship to BT Group. However, even assuming that structural separation may lead to positive benefits, it would then be necessary to analyse the costs of structural separation. These are likely to include significant economic costs, previously recognised by Ofcom, but which Ofcom has not analysed. For this reason, Ofcom has also not shown structural separation to be a credible fall back option on a 'first principles' basis.
- 6.10 Assessed against the proxy of the requirements of Article 13a, our assessment that Ofcom does not meet the standard required in the context of the Ofcom Proposal in Section 5 applies equally, and potentially *a fortiori*, in the context of structural separation.