Fixed Access Market Reviews: Approach to the VULA margin

Non-Confidential Version

Consultation

Publication date:	19 June 2014
Closing Date for Responses:	28 August 2014

About this document

This is a consultation on our proposals for regulating the margin between BT's wholesale and retail superfast broadband prices.

Superfast broadband forms a moderate but growing part of the overall broadband market and we expect it will become more important over time. Ensuring effective retail competition in superfast broadband is important in maintaining the UK's competitive retail broadband market, which benefits consumers.

BT is required to provide communication providers with access to its next generation, superfast broadband network through a wholesale product called Virtual Unbundled Local Access (VULA).

This consultation sets out detailed proposals for the minimum margin that BT must maintain between its wholesale VULA and retail superfast broadband prices. Our proposals are designed to ensure that other communication providers can continue to compete with BT in the supply of superfast broadband to consumers, whilst maintaining the pricing flexibility for VULA that preserves BT's investment incentives in relation to superfast broadband.

The consultation closes on 28 August 2014. Subject to the responses that we receive, we intend to publish a final statement in Q4 2014.

Contents

Section 1

Executive Summary

1.1 This consultation sets out our proposals for our approach to the VULA[1] margin. The VULA margin is the differential between the price of the wholesale VULA input offered by Openreach and the price of those retail packages offered by BT's retail divisions that use VULA as an input. These proposals, among others, seek to promote competition in electronic communications services, including ensuring that there is no distortion or restriction of competition.

1.2 The proposals in this consultation form part of the overall suite of remedies imposed on BT to address the significant market power (SMP) we have provisionally found in the Wholesale Local Access (WLA) market[2], as set out in the draft 2014 FAMR Statement.[3]

1.3 In the draft 2014 FAMR Statement, we continue to provide BT with broad flexibility over the level of VULA prices. The proposals in this consultation preserve that pricing flexibility, but seek to protect and promote competition at the retail level by clearly setting out the minimum VULA margin BT must maintain.

1.4 We expect to publish our final conclusions on the FAMR in June 2014 and intend to publish our final conclusions on the VULA margin in Q4 2014.

1.5 Our proposals for the VULA margin cover the 2014-17 market review period which we consider is likely to be an important period in the transition from standard to superfast broadband and will thus be important in determining whether the effective retail competition in broadband services currently observed is maintained in superfast broadband services as this transition occurs.

1.6 During this market review period there is a heightened opportunity for retailers (including BT) to compete to attract new subscribers. This competition could be dampened, however, if BT manipulated the VULA price relative to its retail offering in a way that allowed it to distort competition.

1.7 Were BT to acquire a significant share of superfast broadband subscribers by engaging in such activity, we would be concerned that BT's position could endure into the long term, potentially resulting in a distortion to (and weakening of) retail competition, to the detriment of consumers.

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[1] Virtual Unbundled Local Access (VULA) provides access to BT's NGA network in a way that is similar to how LLU provides access on the CGA network. However, rather than providing a physical line, VULA provides a virtual connection that gives CPs a direct link to their customers and provides flexibility over how this link is integrated into their network and over product offerings.

[2] We propose concluding in the VULA Margin Statement that there has not been a material change in circumstances in the WLA market between the final FAMR Statement in June 2014 and the 2014 VULA Margin Statement we expect to publish in Q4 2014.

[3] Ofcom, *Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30 Volume 1: Draft statement on the markets, market power determinations and remedies*, 19 May 2014, http://stakeholders.ofcom.org.uk/telecoms/ga-scheme/specific-conditions-entitlement/market-power/fixed-access-market-reviews-2014/draftstatement/.

1.8 In light of this, we consider that we should ensure that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted.

1.9 We consider that our objective in relation to the VULA margin should be to enable an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) to profitably match BT's retail superfast broadband offers.

1.10 Therefore, we propose to put in place an SMP condition requiring BT to maintain a minimum VULA margin. The proposed SMP condition:

- is based on an adjusted equally efficient operator (EEO) approach, and which requires BT to make adjustments to its costs to reflect other CPs' lower average customer lifetimes (ACL);[4]
- sets out that we would use the LRIC+[5] standard to assess BT's costs; and
- is based on an assessment of BT Consumer's portfolio of fibre-based packages, rather than individual products or bundles.

1.11 We also propose to supplement the SMP condition with guidance on how we are likely to undertake our assessment of compliance with the condition. This guidance is intended to provide further clarity on what is required under our proposed SMP condition and will also provide transparency to other CPs about our likely approach.

1.12 This draft guidance sets out the detail of our proposed approach to the treatment of both upfront and ongoing costs and revenues. This includes setting out how we would likely allocate the costs of BT Sport to each superfast broadband subscriber, namely by dividing the net cost of BT Sport[6] by the total number of BT's residential broadband subscribers. It also describes in detail the revenues and costs that we would likely take into account (e.g. we are likely to consider the prices that BT charges to new superfast broadband subscribers).

1.13 Having set out our proposed SMP condition and draft guidance in this consultation, we also undertake an indicative assessment of the VULA margin in order to check the consistency of our proposed approach with our overall regulatory aim. This suggests that the cumulative impact of adopting a LRIC+ cost standard and our proposed ACL adjustment is in the region of a few pounds per superfast broadband subscriber per month. Our indicative assessment also shows that BT would be close to the proposed VULA margin boundary. That is, either slightly falling short or slightly exceeding it.

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[4] The proposed SMP condition also includes a floor on unit bandwidth costs that would effectively adjust these costs in certain circumstances.

[5] i.e. long-run incremental cost plus a contribution to fixed and common costs.

[6] i.e. the total costs of BT Sport (e.g. content and production costs) having subtracted direct revenues from BT Sport (e.g. wholesale deals with Virgin and Setanta in Ireland, sales to pubs and clubs, sales to residential customers on the Sky TV platform, channel advertising revenues).

1.14 We emphasise however that this is an indicative assessment. BT's costs and revenues may have changed by the time our proposed SMP condition comes into effect. Moreover, we may revise our proposals in the light of consultation responses.[7]

1.15 Going forward, we propose that BT will be required to provide us with sufficient information so that we can monitor compliance with the proposed VULA margin condition, both following the proposed condition coming into force and then every six months. We will use this information to undertake a high level internal assessment of BT's compliance. We may also investigate potential non-compliance as a result of a dispute or complaint by a third party or as an own-initiative investigation if we have reason to believe BT may not be compliant.

[7] Given that our indicative assessment is based on our proposed VULA margin condition, this indicative assessment does not therefore assess whether BT is complying with its current SMP obligations.

Section 2

Introduction and background

2.1 In this section we set out:

- the purpose of the consultation;
- the relationship with the FAMR and the Superfast Broadband Competition Act Investigation;
- our previous proposals in the 2013 and 2014 FAMR Consultations;
- an impact assessment and equality impact assessment;
- next steps and timing;
- a provisional no material change assessment; and
- the structure of this document.

Purpose of this consultation

2.2 This consultation sets out our proposed approach to the regulation of the VULA margin[8], covering our reasons for proposing regulation including our regulatory aim and the detail of our proposed remedy to achieve this objective.

Relationship with the Fixed Access Market Reviews

2.3 The proposals in this consultation form part of the remedies we are putting in place to address BT's SMP in the WLA market. We consulted on these remedies in the 2013[9] and 2014[10] FAMR Consultations[11] and published our provisional conclusions in the

[8] As defined in paragraph 2.4.

[9] Ofcom, *Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30: Consultation on the proposed markets, market power determinations and remedies*, 3 July 2013, http://stakeholders.ofcom.org.uk/binaries/consultations/fixed-access-market-reviews/summary/fixed-access-markets.pdf.

[10] Ofcom, *Fixed access market reviews, Further consultation on notification periods, compliance with requirements on the VULA margin, and approach to pricing for TRCs and SFIs*, 16 January 2014, http://stakeholders.ofcom.org.uk/binaries/consultations/famr-2014/summary/famr-2014.pdf.

[11] We also consulted on remedies not directly relevant to this consultation in Ofcom, *Fixed access market reviews: Approach to setting LLU and WLR Charge Controls – Consultation*, 20 August 2013, http://stakeholders.ofcom.org.uk/binaries/consultations/llu-wlr-cc-13/summary/LLU_WLR_CC_2014.pdf; Ofcom, *Fixed access market reviews: Openreach quality of service and approach to setting LLU and WLR Charge Controls – Consultation*, 19 December 2013 http://stakeholders.ofcom.org.uk/binaries/consultations/fixed-access-market-llu-wlr-charge-controls/summary/famr-2013.pdf; and Ofcom, *Regulatory Financial Reporting – A review*, 20 December 2013, http://stakeholders.ofcom.org.uk/binaries/consultations/bt-transparency/summary/BTRFS.pdf.

draft 2014 FAMR Statement. These remedies include requiring BT to continue to offer local loop unbundling (LLU) in relation to current generation access networks (CGA) and VULA, sub-loop unbundling (SLU) and physical infrastructure access (PIA) in relation to next generation access (NGA) networks.

2.4 We also set out specific proposals in the 2013 and 2014 FAMR Consultations in relation to our regulation of the VULA margin, which is the differential between the price of the wholesale VULA input offered by Openreach and the price of those retail packages offered by BT's retail divisions that use VULA as an input.[12] We summarise these proposals from paragraph 2.6. Following on from responses to these consultations, we have revised our VULA margin regulation proposals in this document, which accordingly considers what (if any) *ex ante* regulation is appropriate in relation to the VULA margin.

2.5 We note that in the draft 2014 FAMR Statement we continue to provide BT with broad flexibility over the level of VULA prices. The proposals in this consultation preserve that pricing flexibility, while seeking to protect and promote competition at the retail level by clearly setting out the minimum VULA margin BT must maintain.

Proposals in the FAMR Consultations

2.6 In the 2013 FAMR Consultation, we set out a series of proposals for our regulation of the VULA margin:

- that it is appropriate to intervene to promote competition in relation to superfast broadband by requiring BT to set a VULA margin under our *ex ante* powers and not to rely solely on *ex post* competition law;

- that our intervention be specifically designed to address the potential concern that BT sets a VULA margin that does not allow an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) to profitably match BT's retail superfast broadband prices; and

- that we would supplement the proposed obligation on BT to supply VULA on fair and reasonable terms conditions and charges with guidance on how we are likely to undertake our assessment when testing whether the VULA margin complies with that obligation.

2.7 We received responses to the 2013 FAMR Consultation on the VULA margin issue from BT, Sky, TalkTalk, Virgin, Vodafone and two confidential respondents [✂] and [✂].

2.8 We supplemented our VULA margin regulation proposals in the 2014 FAMR Consultation with a proposed requirement for BT to provide to Ofcom every six months information necessary to monitor its compliance with the obligation in respect of the VULA margin. We received responses on this issue from BT, Sky, TalkTalk, Verizon, Virgin, Vodafone and a confidential respondent [✂].

[12] Note that our proposals in this consultation are based on the wholesale input of VULA and the retail packages that use VULA as an input (i.e. VULA-based products). For ease of reading in this consultation, we also use the terms 'fibre' and 'superfast broadband'. For the purposes of this consultation these terms generally refer to VULA or VULA-based products.

2.9 This consultation includes consideration of these stakeholder responses.

Superfast Broadband Competition Act Investigation

2.10 On 1 May 2013 Ofcom opened an investigation in response to a complaint from TalkTalk that BT has, in breach of the Chapter II prohibition in the Competition Act 1998 and Article 102 of the Treaty on the Functioning of the European Union, abused a dominant position in the supply of superfast broadband (the Superfast Broadband Competition Act Investigation). Specifically, TalkTalk alleged that BT has failed to maintain a sufficient margin between its upstream and downstream prices, thereby operating an abusive margin squeeze.[13]

2.11 On 19 June 2014 we announced that we would be issuing a provisional decision that there are no grounds for action on this case. The Superfast Broadband Competition Act Investigation is separate to our consideration of the appropriate *ex ante* approach to our regulation of the VULA margin.

Impact assessment and equality impact assessment framework

Impact assessment

2.12 The analysis presented in this document constitutes an impact assessment as defined in section 7 of the Communications Act 2003 (CA03).

2.13 Impact assessments provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making. This is reflected in section 7 of the CA03, which sets out that we have to carry out impact assessments where our proposals would be likely to have a significant effect on businesses or the general public, or when there is a major change in Ofcom's activities. However, as a matter of policy Ofcom is committed to carrying out impact assessments in relation to the great majority of our policy decisions. For further information about our approach to impact assessments, see our impact assessment guidelines.[14]

Equality impact assessment (EIA)

2.14 Annex 2 of the draft 2014 FAMR Statement set out our EIA for the FAMR and we consider that assessment to apply equally to the proposals set out in this consultation (which themselves form part of our review of the fixed access markets). Ofcom is required by statute to assess the potential impact of all our functions, policies, projects and practices on race, disability and gender equality. EIAs also assist us in making sure that we are meeting our principle duty of furthering the interests of citizens and consumers regardless of their background or identity.

[13] Ofcom, *Complaint from TalkTalk Telecom Group Plc. against BT Group Plc. about alleged margin squeeze in superfast broadband pricing*, *CW/01103/03/13,* http://www.stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01103/.

[14] Ofcom, *Better policy making: Ofcom's approach to impact assessment*, 21 July 2005, http://www.stakeholders.ofcom.org.uk/binaries/consultations/ia_guidelines/summary/condoc.pdf.

2.15 It is not apparent to us that the outcome of our proposals is likely to have any particular impact on race, disability and gender equality. Specifically, we do not envisage the impact of any outcome to be to the detriment of any particular group of society. Nor are we envisaging any need to carry out separate EIAs in relation to race or gender equality or equality schemes under the Northern Ireland and Disability Equality Schemes.

Next steps and timing

2.16 We are consulting for a period of ten weeks, with a deadline for responses of 28 August 2014.

2.17 We anticipate publishing a final VULA Margin Statement in Q4 2014 and propose that our SMP condition will come into force at the end of the month following the publication of the VULA Margin Statement. We note that this will be after publication of the final 2014 FAMR Statement in June 2014.

Provisional no material change assessment

2.18 Section 86 of the CA03 provides that Ofcom must not set an SMP services condition by a notification that does not also make the market power determination by reference to which that condition is set unless the condition is set by reference to a market power determination:

- which has been reviewed and, as a consequence of that review, is reconfirmed in the notification setting the condition; or
- made in relation to a market in which Ofcom is satisfied that there has been no material change since the determination was made.

2.19 Given that we are proposing to impose an SMP condition relating to the VULA margin after making a market power determination in the forthcoming 2014 FAMR Statement, in order to satisfy the requirements of section 86, we will need to assess whether there has been a material change over the period between the publication of the 2014 FAMR Statement in June 2014 and the publication of our VULA Margin Statement in Q4 2014. In doing so, we are required to assess whether the forecast of the market set out in the 2014 FAMR Statement is falsified to a material extent by events between that Statement and the VULA Margin Statement.[15] This also means that in this particular case, we are consulting on our provisional assessment *before* we have concluded on our market definition and SMP findings.[16]

2.20 In the draft 2014 FAMR Statement we set out our provisional conclusion on market definition and SMP. On market definition, we provisionally concluded that the scope of the relevant market is the provision of copper loop-based, cable-based and fibre-based wholesale local access at a fixed location. We said that mobile, fixed wireless and satellite access lie outside the relevant market and that there are two distinct geographic markets: the UK excluding the Hull Area; and the Hull Area. In reaching

[15] Competition Appeals Tribunal, *TalkTalk Telecom Group plc. (Wholesale Broadband Access Charge Control) v Office of Communications [2013] EWCA Civ 1318*, http://www.catribunal.org.uk/238-7275/1186-3-3-11-TalkTalk-Telecom-Group-plc-Wholesale-Broadband-Access-Charge-Control.html.

[16] The findings in the 2014 FAMR Statement will relate to the period ending 2016/17.

this provisional conclusion, as set out in paragraphs 7.29-7.76 of the draft 2014 FAMR Statement:

- we adopted the provision of wholesale local access at a fixed location by a network that uses a mixture of copper loops and fibre as the focal product;

- for the purposes of determining the boundaries of the relevant wholesale product market, we considered that the key issue was likely to be the extent of indirect constraints due to substitution at the retail level. Under the modified Greenfield approach we considered that CPs such as BT, Virgin and KCOM were unlikely to grant third party access to their networks, meaning direct constraints on the provision of the focal product were unlikely to be relevant. Similarly, the very high entry barriers to establishing a substantial new fixed network meant that supply-side substitution was not plausible;

- we identified the following alternative networks which potentially offer substitutable retail services for consumers: cable-based wholesale local access, mobile access, and other forms of access (satellite, fixed wireless access and small-scale fibre-based NGA deployments alongside BT's network). We assessed each of these by considering the extent of demand side substitutability by retail consumers, to determine whether retail switching was likely to exert a sufficient indirect competitive constraint on our focal product such that it should be included in the wholesale market definition. While we found cable-based access to be in the WLA market, our analysis found mobile, fixed wireless and satellite access to be outside of the relevant market; and

- in considering the geographic market definition, we considered how to treat the following three issues: the Hull Area; new build areas where BT is not present; and areas covered by Virgin's cable network. We considered that analysis of these issues indicated two distinct geographic markets: the UK excluding the Hull Area; and the Hull Area.

2.21 On market power, we provisionally concluded that BT has SMP in the supply of WLA in the UK excluding the Hull Area. In reaching this provisional conclusion, we took into account the following (as set out in paragraphs 7.84-7.91 of the draft 2014 FAMR Statement):

- market shares – we found that BT's market share was very high (over 80%), and has been stable for many years;

- barriers to entry – we considered that entry on a significant scale would be extremely risky, would take a considerable period of time, and would require very high levels of investment, and so found that entry barriers were very high; and

- countervailing buyer power – we considered this was unlikely to be sufficient to constrain BT's position as a supplier of WLA, at either the retail level of the wholesale level.

2.22 Our final conclusions will be set out in the 2014 FAMR Statement. For the purposes of this consultation, we do not anticipate that there will be any changes in the WLA market in the UK excluding the Hull Area, as determined in the 2014 FAMR Statement, between the publication of that statement and our VULA Margin Statement that would falsify to a material extent the forecast of the market set out in the 2014 FAMR Statement. We invite stakeholders' comments on this. In reaching any final view in the VULA Margin Statement on whether there has been a material change, we will take into account stakeholder responses and where necessary, refresh the data underpinning our conclusions on market definition and SMP in the 2014 FAMR Statement.

Q2.1 Do you consider that there has been a material change in circumstances in the WLA market since the 2014 FAMR Statement? Please provide supporting evidence as necessary.

Structure of this document

2.23 The remainder of this document is structured in the following way:

- Section 3 covers our proposed regulatory objective with respect to regulating the VULA margin;
- Section 4 sets out our consideration of appropriate remedies;
- Section 5 sets out the detail of the requirement we are proposing to impose on BT to regulate the VULA margin;
- Section 6 provides a detailed discussion of treatment of costs and revenues for the purposes of assessing BT's compliance with our proposed requirement in respect of the VULA margin; and
- Section 7 sets out our overall conclusion on regulating the VULA margin and explains why this satisfies the applicable legal tests and is consistent with the EC Recommendations and BEREC Common Positions.

2.24 The Annexes are as follows:

- Annex 1 – Responding to this consultation
- Annex 2 – Ofcom's consultation principles
- Annex 3 – Consultation response cover sheet
- Annex 4 – Consultation questions
- Annex 5 – Draft legal instrument
- Annex 6 – Draft guidance on assessment of the VULA margin
- Annex 7 – Sources of evidence
- Annex 8 – Glossary

Section 3

Overall regulatory objective

Introduction

3.1 Having provisionally found BT to have SMP in the WLA market, we need to consider whether it is appropriate and proportionate to regulate the VULA margin. In order to inform this, we have considered what our overall regulatory aim should be in this context, which we discuss in this section.

3.2 We first set out a summary of the position in the previous review, including the prevailing regime implemented in the 2010 WLA Statement.[17] We then set out our provisional conclusions from the 2013 FAMR Consultation, and provide a summary of stakeholder responses to that consultation. We then set out our updated analysis in light of those responses, setting out our overall regulatory aim and our view of how this aim is best achieved in this review period.

3.3 We are not proposing to put in place a specific obligation on KCOM regarding the VULA margin as we do not specifically require KCOM to offer VULA (although as stated in the draft 2014 FAMR Statement, we provisionally consider that the general remedies would require KCOM to offer VULA services on reasonable request).[18] Therefore this analysis relates to BT in the UK excluding the Hull Area WLA market only.

Position in 2010 WLA statement

3.4 In the 2010 WLA Statement, we stated that the constraints from purchasing CGA services on regulated terms and from Virgin's cable network may not be sufficient to prevent some anti-competitive strategies by BT, such as setting inappropriate price differentials between VULA and downstream products. We considered that relying solely on *ex post* competition law may be insufficient to ensure BT's conduct did not undermine the development of a competitive market. This was a particular concern as we viewed VULA as the primary focus of NGA competition in the WLA market.

3.5 As a result, BT is currently subject to a condition (Condition FAA11.2) which requires it to provide VULA and any ancillary services on fair and reasonable terms, conditions and charges, and, in order to promote competition in superfast broadband, we indicated that we would assess this condition (and specifically the impact of the VULA margin) on the basis of a reasonably efficient operator (REO, as distinct from one that is equally efficient to BT).[19]

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[17] Paragraph 8.128, Ofcom, *Review of the wholesale local access market*, 7 October 2010, http://stakeholders.ofcom.org.uk/binaries/consultations/wla/statement/WLA_statement.pdf.
[18] Paragraph 11.106.
[19] Paragraphs 8.129-8.130 and 8.132 of the 2010 WLA Statement.

Summary of provisional conclusions from 2013 FAMR Consultation

3.6 In the 2013 FAMR Consultation we identified three potential competition concerns arising from price distortion through BT imposing a price squeeze over the forward look period of this market review:[20]

- Potential Concern 1 – BT abuses a dominant position by engaging in a margin squeeze in relation to VULA.
- Potential Concern 2 – BT sets a VULA margin that does not allow an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) to profitably match BT's retail superfast broadband prices.
- Potential Concern 3 – BT sets a VULA margin that does not allow an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) to profitably significantly undercut BT's retail superfast broadband prices.

3.7 We considered that there was a material risk of Potential Concerns 2 and 3 arising during the period covered by the fixed access market reviews. We therefore provisionally concluded that there was a relevant risk of adverse effects arising from price distortion through BT imposing a price squeeze in the manner of Potential Concerns 2 and 3.

3.8 Our provisional policy position was that it was appropriate to intervene to address Potential Concern 2. We considered that this would strike an appropriate balance between promoting competition and the potential negative effects of requiring BT to set a large VULA margin, and so would be consistent with our duties in respect of the promotion of competition and encouraging investment.

Summary of stakeholder responses

3.9 In the 2013 FAMR Consultation, we asked the following question in relation to the objective:

> *Q11.5 Do you agree with our proposed approach to regulating the margin between the VULA price and BT's downstream prices? In particular:*
>
> *(a) Do you agree that our objective should be to ensure that BT sets a VULA margin that allows an operator with slightly higher costs than BT (or some other slight commercial drawback relative to BT) to profitably match BT retail superfast broadband prices?*
> *…*
> *Please provide reasons in support of your view.*

[20] For the purposes of identifying the nature of our concern, we assumed the absence of any regulation that would address Potential Concerns 1 to 3.

BT

3.10 While BT acknowledged the concerns raised by some CPs about their ability to compete in the provision of fibre services, and the relatively high share of VULA consumption by BT Consumer to date, BT disagreed with Ofcom's assessment of the state of competition in the relevant downstream market and the implications for future competition. It instead argued that competition in the supply of broadband services (including fibre) in the UK is effective and will be strong throughout this market review period on the basis of BT's provision of VULA and other regulated upstream inputs.

3.11 In particular, it argued that:

- the market for the supply of broadband is indisputably competitive with four major players with significant market shares;[21]
- both Virgin and BT have clearly been active in providing fibre connections to their customers.[22] Sky and TalkTalk have publicly stated that the provision of fibre is profitable and are now offering (and promoting) fibre-based services, and are doing so at discounts to BT's prices;[23]
- BT having a larger fibre base today should not, of itself, raise regulatory concerns because if a Sky or TalkTalk customer wanted to upgrade their standard broadband service to fibre, they could do so without switching their provider;
- BT faces a number of significantly sized competitors, each with its own commercial/strategic advantages (e.g. in relation to costs, range of propositions offered, or both), and each is differentiating its propositions to reflect these strategic aims (e.g. supply of content by Sky and value provision of communications services (including content) by TalkTalk). As such, it should be no surprise to observe differences in the pace at which CPs have sought to upgrade their existing customer base or promote fibre to new customers;[24] and
- given Ofcom's own evidence shows that over 50% of broadband customers are "*interested*" or "*engaged*" in the broadband market, it is not clear why this should be presented as "*inertia*" or should raise a particular concern in the context of fibre broadband when the overall broadband market is clearly competitive. Specifically, there is no reason to believe that the fibre broadband market will not develop in an equally competitive fashion.[25]

3.12 As such, BT argued that the evidence suggests TalkTalk and Sky can profitably migrate existing customers onto fibre, and so any observations about current VULA

[21] Paragraph 67, page 13, BT response to the 2013 FAMR Consultation.
[22] Paragraph 67, page 13, BT response to the 2013 FAMR Consultation.
[23] BT cited TalkTalk having cut the price of its entry level offer to £12.50/month.
[24] Paragraphs 19-20, page 10-11, paragraph 267, page 61 and paragraphs 283-289, Page 66, BT response to the 2013 FAMR Consultation.
[25] Paragraphs 283-289, page 66, BT response to the 2013 FAMR Consultation.

uptake by other CPs do not indicate competition problems in the supply of VULA or the development of retail fibre competition that require regulatory intervention.[26]

3.13 BT argued that given the status of competition in the overall broadband market and the lack of obvious or clear barriers to CPs choosing to supply fibre services, it is unclear why Ofcom has selected its policy objective. Specifically, BT considered that it is not clear what the detrimental effect on competition would be if competitors with "*slightly higher costs*" could not match BT's prices. BT stated that Ofcom had failed to take into account the presence of significantly sized competitors with strategic advantages of their own in setting out the proposed policy objective. BT stated that this "*market context*" is relevant to the view that competition law is "*insufficient*" and frames the detail of the proposed approach to addressing "*margin squeeze concerns*" under the SMP framework.[27]

3.14 Finally, BT argued that Ofcom should draw a distinction in assessing retail competition which includes audio-visual content. Specifically, it argued that Ofcom should clarify whether any aspect of BT's provision of VULA services gives rise to specific competition or market entry problems in relation to the provision of Pay TV/content services provided alongside fibre broadband. If not, BT stated that Ofcom should limit its assessment of competition concerns to where BT, as the SMP supplier of upstream inputs from the fixed access markets, could exclude retail competition in the relevant downstream market for the provision of services directly based on those inputs (i.e. fibre broadband propositions provided with narrowband line access and calls – 'dual play'), and exclude 'triple-play'[28] services.[29]

Public Accounts Committee

3.15 The Public Accounts Committee recommended that as part of this market review, Ofcom should explicitly address the effects on competition of BT's wholesale pricing. It said that there are concerns that existing regulation has allowed BT to set its wholesale price too high, so alternative CPs find the margin between wholesale and retail prices is squeezed to the extent that they cannot operate profitably.[30]

Sky

3.16 Sky considered that the most significant competitors to BT are only likely to have slight cost or commercial disadvantages relative to BT. Concomitantly such firms

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[26] Paragraphs 19-20, page 10-11; paragraph 290, page 66; and paragraph 310-311, page 69, BT response to the 2013 FAMR Consultation. BT repeated its view that the provision of broadband services (including fibre-based services) is currently competitive in its letter to Ofcom on 9 April 2014 (ref: CW/01103/03/13). BT stated that other CPs can – and are – purchasing GEA services and are able to offer retail propositions that are competitive with BT's pricing of comparable services. As such, BT expected Ofcom to provide "*an assessment of the nature of current downstream competition in the supply of broadband services, thereby setting out detailed evidence of the 'problem' it intends to seek to cure*".

[27] Paragraphs 291-294, pages 66-67, BT response to the 2013 FAMR Consultation.

[28] i.e. with the addition to TV services.

[29] Paragraphs 310-312, pages 69-70, BT response to the 2013 FAMR Consultation.

[30] Page 6-7, House of Commons Committee of Public Accounts, *The rural broadband programme Twenty-fourth Report of Session 2013–14,* 26 September 2013, http://www.publications.parliament.uk/pa/cm201314/cmselect/cmpubacc/474/474.pdf.

may enjoy their own advantages. Accordingly Sky considered that we should focus on whether an operator with the same costs as BT is able to compete.[31]

TalkTalk

3.17 TalkTalk emphasised that the period covered by this market review is crucial in determining the market structure for superfast broadband. It agreed with the theories of harm identified in the 2013 FAMR Consultation.[32]

3.18 TalkTalk considered that BT has "*particularly strong*" incentives to margin squeeze in relation to superfast broadband.[33] In support of this view, TalkTalk argued that:

- BT's SMP in the provision of WLA gives it the ability to act anti-competitively;[34]

- since superfast products are in a developing market segment, there is a risk that BT engages in exclusionary conduct to "*lock in*" a dominant retail position. Subsequently, barriers to switching will make it much harder for CPs to increase their share of subscribers;[35]

- the negative effects on BT's short term profits from engaging in a margin squeeze (due to fewer overall VULA subscribers on Openreach's network) are likely to be "*fairly limited*", as, for example, Virgin's network has smaller geographic coverage, and there is a tendency for households to see internet access as an essential product. Therefore these costs are likely to be offset by BT's higher retail market share and higher wholesale VULA prices;[36] and

- there are a number of longer term factors that increase BT's incentives to engage in a margin squeeze: "*substantial*" switching costs in the superfast segment; the probability of smaller firms exiting the market; "*substantial*" barriers to re-entry into retail broadband; and the possibility that BT builds a reputation for making entry unprofitable.[37]

3.19 TalkTalk strongly disagreed with the view in the 2013 FAMR Consultation that one possible explanation for the current market position of operators was the different commercial strategies that CPs have adopted. TalkTalk argued that other CPs would

[31] Sky positioned this argument in terms of why an EEO approach (which it characterised as the "*normal*" competition law approach for assessing a margin squeeze) is preferable. Paragraphs 3.25-3.35, pages 10-11, Sky response to the 2013 FAMR Consultation.
[32] Paragraphs 4.36-4.37, page 24, Annex 4, TalkTalk response to the 2013 FAMR Consultation.
[33] Paragraphs 3.1, 3.3 and 3.6, page 2-3; and paragraphs 2.1, page 9 and paragraph 2.23, page 14 of Annex 2, TalkTalk response to the 2013 FAMR Consultation.
[34] Paragraph 2.3, page 9, Annex 2, TalkTalk response to the 2013 FAMR Consultation.
[35] Paragraph 3.2, page 2 and paragraph 2.5, page 9, Annex 2, TalkTalk response to the 2013 FAMR Consultation.
[36] Paragraphs 3.4 and 3.6, page 2-3 and paragraphs 2.7-2.12, page 10-13, Annex 2, TalkTalk response to the 2013 FAMR Consultation. Note that TalkTalk appeared to focus on the situation where BT raises wholesale VULA prices without raising retail prices by a corresponding amount. It stated that BT's incentives to reduce the VULA margin by cutting retail prices will be considerably less strong. Paragraph 3.15, page 18, Annex 3, TalkTalk response to the 2013 FAMR Consultation.
[37] Paragraph 3.5, page 2-3 and paragraphs 2.14-2.16, page 12-13, Annex 2, TalkTalk response to the 2013 FAMR Consultation.

clearly seek to win a share in the "*vital and developing*" provision of superfast broadband[38], and so BT's high share of VULA connections provides evidence of an ongoing "*margin squeeze*".[39]

3.20 TalkTalk considered that it would be most appropriate to address Potential Concern 2. It considered that this concern would arise absent regulation.[40] In relation to the potential disadvantages of addressing Potential Concern 2, TalkTalk argued that:

- the risk of higher retail prices was not significant given: the limited extent to which Potential Concern 2 goes beyond Potential Concern 1; the potential for "*excessive*" wholesale charges to fall instead; and the positive impacts of increased competition on retail prices in the longer term;

- BT's investment incentives are unlikely to be harmed for four reasons. First, BT's current wholesale VULA price exceeds the competitive level. Second, the limited extent to which Potential Concern 2 goes beyond Potential Concern 1. Third, BT could increase the VULA margin by raising its retail price. Fourth, BT will already have committed to the majority of its superfast broadband investment by the start of the market review period;

- the risk of inefficiency was not relevant in practice due to the positive impacts of increased competition (including on BT's own efficiency incentives) in the longer term; and

- even if smaller CPs do not substantially benefit from addressing this concern (as the margin is insufficient for them to operate profitably), they may find other ways to compete, for example by operating different business models or bundling with different products.[41]

3.21 TalkTalk considered that addressing Potential Concern 3 could only be justified if BT had already eliminated the majority of competition in superfast broadband. TalkTalk did not consider that this was presently the case.[42]

3.22 TalkTalk also argued that if BT were to build up a substantial base of superfast broadband subscribers, it may not be possible to significantly erode BT's retail customer base after 2017 without substantial regulatory intervention.[43]

Virgin

3.23 Virgin considered that the period covered by this market review was likely to be "*critical*" to the development of superfast broadband and VULA.[44]

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[38] TalkTalk also rejected the possibility that BT's current retail share of superfast broadband connections reflects its greater efficiency. Paragraph 3.7, page 3 and Annex 4, paragraphs 4.56-4.57, page 29, TalkTalk response to the 2013 FAMR Consultation.
[39] Paragraph 3.7, page 3, TalkTalk response to the 2013 FAMR Consultation.
[40] Paragraph 5.54, page 15; and paragraphs 4.43-4.46, page 26, and paragraphs 4.54-4.55, pages 28-29 of Annex 4, TalkTalk response to the 2013 FAMR Consultation.
[41] Paragraphs 4.47-4.52, page 26-27, Annex 4, TalkTalk response to the 2013 FAMR Consultation.
[42] Paragraphs 4.40-4.41, page 25, Annex 4, TalkTalk response to the 2013 FAMR Consultation.
[43] Paragraph 4.46, page 26, Annex 4, TalkTalk response to the 2013 FAMR Consultation.
[44] Page 15, Virgin response to the 2013 FAMR Consultation.

3.24 Virgin presented a table showing that Sky, TalkTalk and EE's average monthly retail prices for superfast broadband (£29.68, £28.73 and £30.22 respectively) were considerably lower than BT's price for Infinity 1 (£38.50) in September 2013. Virgin considered that this shows that other operators that use VULA are already significantly undercutting BT and so questioned whether additional regulation is appropriate.[45]

3.25 Virgin considered that, since there is effective retail competition, any *ex ante* intervention is likely to result in a decrease in the wholesale price of VULA.[46] It considered that this risks introducing wholesale price regulation "*via the back door*". In particular, Virgin was concerned that allowing sufficient margin for operators that have higher costs than BT would lead to lower wholesale VULA prices. It argued that this could adversely affect investor confidence in NGA investment and thus curb future investment by both BT and other networks. It considered that the 2013 FAMR Consultation underestimated the extent of ongoing infrastructure investment in superfast broadband through the period covered by this market review, and anticipated deployment of technology such as vectoring by BT. In light of this, Virgin disagreed with our view that going beyond Potential Concern 1 would be unlikely to materially affect investment incentives. Instead, it noted that one of the main aims of the Costing and Non-discrimination Recommendation[47] is to promote infrastructure investment, and considered that it was not appropriate to deviate from this recommendation.[48]

Vodafone

3.26 Vodafone agreed with Ofcom's provisional conclusion that our objective should be to address Potential Concern 2.[49]

Confidential respondent [✂]

3.27 A confidential respondent [✂] argued that the next market review period will be significant for the mass-market adoption of superfast broadband[50], and as a result, it is critical that Ofcom acts now to ensure that the development of effective NGA retail competition is not undermined.

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[45] Pages 15 and 19-20, Virgin response to the 2013 FAMR Consultation.

[46] Virgin also considered that the 2013 FAMR Consultation failed to consider the risk and effects if BT set wholesale prices below cost, arguing that there was evidence that BT is currently pricing below cost, pages 5 and 20-21, Virgin response to the 2013 FAMR Consultation. Given our focus here is the VULA margin (rather than the absolute level of either the VULA charge or retail price), we do not consider these issues raised by Virgin in this regard further here, and instead consider them in Section 12, Volume 1, of the draft 2014 FAMR Statement.

[47] EC, *Commission recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment*, C(2013) 5761, 11 September 2013, http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=2735.

[48] Pages 5-6, 18-19 and 21, Virgin response to the 2013 FAMR Consultation.

[49] Pages 23, Vodafone response to the 2013 FAMR Consultation.

[50] [✂] argued this based on typical technology adoption trends (referencing the Roger's Bell Curve). It also noted the role of competition and pricing on the speed of uptake, stating that this emphasised the importance of wholesale regulatory intervention to enable other CPs to offer compelling and differentiated retail NGA offers and thus facilitate mass market adoption.

3.28 The confidential respondent [✂] argued that superfast broadband is not characterised by effective retail competition, and instead considered that BT currently dominates the non-cable based retail supply of this product. It argued that this is a result of the existing VULA margin being insufficient to allow vigorous retail competition from other CPs, rather than reflecting the different commercial strategies of non-BT operators. In particular, it noted that a number of CPs have been proactively marketing their fibre products since late 2012 [✂].

3.29 Further, the confidential respondent [✂] disputed BT's claim that the volume of NGA connections supplied by non-BT CPs is growing strongly. While over eighty CPs may use GEA, in March 2013 these CPs together accounted for only 0.2m of the customers connected to BT's NGA network, as compared to the 1.3m retail customers served by BT.[51]

3.30 In light of this, the confidential respondent [✂] argued that there is a risk that all three potential competition concerns identified in the 2013 FAMR Consultation could arise during this review period, particularly in the future as the competitive constraint exerted by standard broadband products weakens and a separate superfast broadband market emerges. Without effective *ex ante* regulation of the VULA margin, the confidential respondent [✂] argued that the development of vigorous competition will be undermined[52], meaning superfast broadband penetration will be unduly constrained and BT's retail position will be further reinforced.[53] Such a market structure, the confidential respondent [✂] argued, is not conducive to effective retail competition and will not facilitate the development of well-priced and differentiated superfast broadband retail offers (or product innovation) for consumers in the long term. The confidential respondent [✂] also argued that customer inertia and switching barriers will mean that it is difficult for non-BT CPs to subsequently win customers from BT once they have taken a superfast broadband package from BT.[54]

3.31 The confidential respondent [✂] agreed with Ofcom's description of the advantages that would arise from *ex ante* regulatory intervention to address Potential Concerns 2 and 3 and considered that the advantages of intervention outweigh the disadvantages of intervention.[55] In particular, it argued that:

- Although it is possible that BT may react to the introduction of *ex ante* regulation by raising its superfast broadband retail prices, it is unlikely, particularly in the presence of more vigorous competition from other CPs (who would be better able to compete once any NGA margin squeeze is removed). Instead, BT is more likely to reduce wholesale VULA prices, particularly as they are currently above cost (which also means a reduction should not have an undue effect on BT's investment incentives). In any event, in the long-term, effective competition will benefit consumers through the development of well-priced, innovative and differentiated retail offers from a variety of competitors, as has been seen by the regulatory intervention by Ofcom in the wholesale supply of standard broadband services.

[51] [✂]
[52] For example, "*margin squeeze practices*" may undermine other operators' ability to compete by denying them economies of scale and scope.
[53] [✂]
[54] [✂]
[55] [✂]

- Whilst some productive inefficiencies might arise from intervention to address Potential Concerns 2 and 3, such intervention would achieve larger countervailing dynamic efficiency benefits, as has been visible as a result of intervention in the standard broadband retail market. Further, keeping the policy under review will enable Ofcom to balance between these two efficiency considerations.

- Although it has a significantly smaller market share than the top [✂] operators in the broadband market, the confidential respondent [✂] has still been able to compete vigorously in the supply of standard broadband services. Further, [✂]. It considered that the regulatory regime should enable it (and other small fixed operators, particularly those with larger complementary businesses e.g. [✂]) to compete as vigorously in superfast broadband as in standard broadband.

- Given Openreach's roll-out is already well advanced, any negative impact on investment incentives is likely to be outweighed by the positive impacts of promoting effective retail competition. Further, there is no evidence that the proposed VULA margin remedies would likely have an impact on BT's investment incentives. As such, in balancing these concerns, Ofcom should give much greater weight to evidence of actual competitive harm being caused by BT's current NGA pricing than "*purely theoretical concerns*" of potential future harm to investment incentives.[56]

3.32 The confidential correspondent [✂] argued that to effectively promote the same level of retail competition in superfast broadband as currently observed with standard broadband, Ofcom would need to intervene to address Potential Concern 3. The confidential respondent [✂] re-characterised this concern as an inability to profitably make an equally attractive retail offering to that of BT without undercutting BT in order to balance-out the non-price features of the BT offer (such as the consumer trust engendered by its first mover advantages). However, at the very minimum, the confidential respondent [✂] welcomed Ofcom's conclusion that we should intervene to address Potential Concern 2.[57]

Confidential respondent [✂]

3.33 A confidential respondent [✂] appeared to be in support of going beyond Potential Concern 1, given its preference for an REO test (discussed further in Section 5).[58]

Our analysis

Overall aim in regulating the VULA margin: preventing a distortion to competition

The legal framework and our regulatory aim

3.34 In considering whether it is appropriate and proportionate to regulate the VULA margin, we have considered what our overall regulatory aim should be in this context.

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[56] [✂]
[57] [✂]
[58] [✂]

3.35 The framework under which Ofcom reviews electronic communications markets is set out in the Common Regulatory Framework, in particular the Framework Directive (Directive 2002/21/EC as amended) and the Access Directive (Directive 2002/19/EC as amended). This framework requires National Regulatory Agencies (NRAs), including Ofcom, to identify and review markets for the purposes of identifying whether an undertaking(s) has SMP on a specific market (see in particular Articles 14 to 16 of the Framework Directive).

3.36 Where an NRA determines that a relevant market is not effectively competitive, and identifies undertakings with SMP on that market, the NRA must impose appropriate specific regulatory obligations authorised by Articles 9 to 13a of the Access Directive to address that SMP. Any such obligations should be "*based on the nature of the problem identified, proportionate and justified in light of the objectives laid down in*" Article 8 of the Framework Directive. The objectives set out in Article 8 include the promotion of competition in the provision of electronic communications networks and services by, amongst other things, ensuring that there is no distortion or restriction of competition in the electronic communications sector.

3.37 The market review framework set out in the Common Regulatory Framework is implemented in the UK in the CA03. In carrying out its functions, including reviewing markets, Ofcom must act in accordance with its duties which reflect Article 8 and which include:

- furthering the interests of citizens in relation to communications matters and to further the interests of consumers in relevant markets, where appropriate by promoting competition;
- having regard to the desirability of promoting competition in relevant markets;
- having regard to the desirability of encouraging investment and innovation in relevant markets;
- having regard to the desirability of encouraging the availability and use of high speed data transfer services throughout the UK;
- promoting competition in relation to the provision of electronic communication networks and electronic communications services; and
- encouraging the provision of network access for the purpose of securing efficiency and sustainable competition, efficient investment and innovation and the maximum benefit for the persons who are customers of communication providers and persons who make associated facilities available.

3.38 It follows on from this that, having provisionally found BT to have SMP in the WLA market, it is necessary to impose remedies to address BT's SMP which are both proportionate and justified in light of Ofcom's duties. In the context of VULA, this means that it is necessary to impose regulation if we consider that BT has the ability, by virtue of its SMP, to set a VULA margin, such that competition is distorted. In addition, we consider that, given its vertically integrated position, BT may also have the incentive to set prices in this way due to the downstream gains it could achieve by doing so (which would not be relevant for a wholesale-only provider). For the reasons we now set out below, we consider that in this context this means that our overall regulatory aim should be to ensure that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted.[59]

3.39 We also explain why we are concerned about these distortions (setting out the relevant risk of adverse effects arising from such a price distortion), and therefore the rationale for focusing on the promotion of competition in the long term and during this period of transition. We then consider whether, in light of this concern, BT has the ability and incentive to use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted.

What are the risks of distortions to competition?

3.40 There are two broad elements which explain why we need to ensure sufficient retail competition in the provision of superfast broadband:

- the future role of superfast broadband, and the view that the next three years will be an important period in the transition from standard broadband; and
- the risks posed to effective retail competition.

Superfast broadband and the role of this period for the transition from standard broadband

3.41 In the UK, effective wholesale regulation has enabled retail consumers to benefit from competition in the provision of broadband services, through choice of provider, lower prices, and product innovation. Currently, the large majority of consumers in the broadband market purchase standard broadband services, and a regulatory requirement on BT to provide local loop unbundling (LLU) has supported the emergence of competition in these standard broadband services. However, an increasing minority are now purchasing superfast broadband, and a shift to superfast broadband will reduce the role of LLU as superfast broadband is instead provided on BT's network using VULA.

3.42 Superfast broadband services are expected to be highly important in the future, including beyond the period covered by the current market review. Fast, reliable broadband is likely to benefit consumers and can help support economic growth. This

[59] We note there are circumstances where BT might set the VULA margin at a level which undermines superfast broadband competition even if that is not its intention (i.e. if there are other considerations for setting the VULA margin at that level). In these circumstances a distortion may still occur.

is reflected in the targets that the Government has set in relation to superfast broadband, as well as targets set at the European level.[60,61]

3.43 In this regard, we consider that the period covered by this market review is likely to be important for whether effective competition in superfast broadband emerges.

3.44 This is because we expect this review period to be important for take-up of these services (a view echoed by the majority of stakeholders, including Virgin, [✂] and TalkTalk in their responses to the 2013 FAMR Consultation).[62] While there is clearly a degree of uncertainty, we expect the number of superfast broadband subscribers to grow significantly over the period covered by this market review. This is supported by CP forecasts for the number of superfast broadband subscribers. For example BT's own forecasts indicate that by the end of this review period (i.e. 2016/17) VULA connections may increase to around [✂] times the level in Q1 2014.[63]

3.45 In addition, this period of expected high take-up of (and transition to) superfast broadband represents a disruption to the market and is likely to present an opportunity for retailers to win customers from their rivals. This is because if a customer is considering switching from standard broadband to superfast broadband, this indicates that they are already engaged with the switching process. It thus seems plausible that a consumer will be more willing to consider an alternative supplier. As a result, during this market review period there is a heightened opportunity for retailers (including BT) to compete to attract new subscribers. This could in turn result in greater competitive pressures and incentives to innovate among CPs to the benefit of consumers. However, competition in this disruptive period could be dampened if BT were free to manipulate the VULA price relative to its retail offering without adequate restraint such that it could dilute or eliminate the ability of rivals to compete effectively in superfast broadband at the retail level during this time. This would likely raise concerns given the increased consumer activity expected during this transition period.

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[60] Government wishes to achieve "*a transformation in … broadband access*" with speeds of at least 2 Mbit/s available throughout the UK and with speeds of at least 24 Mbit/s available in 95% of the UK. This is because "*Fast, reliable broadband internet access is essential for homes throughout the country to benefit from online services, and for UK businesses to compete globally*", DCMS, *Stimulating private sector investment to achieve a transformation in broadband in the UK by 2015*, http://www.gov.uk/government/policies/transforming-uk-broadband. The EU also has a series of targets in relation to broadband take-up and availability and the use of online services, http://www.ec.europa.eu/digital-agenda/about-our-goals.

[61] Indeed, one of Ofcom's priorities for 2014/15 is to ensure effective competition and investment in both current and superfast broadband. Figure 2, Ofcom, *Annual Plan 2014/15*, 31 March 2014, http://www.ofcom.org.uk/files/2014/03/Annual-Plan-1415.pdf.

[62] See response summaries at the start of this section. See also paragraphs 11.35-11.36 of the 2013 FAMR Consultation.

[63] As discussed from paragraph 3.63 onwards, BT provided us with two sets of forecasts. The first (provided in December 2012) was that there would be [✂] VULA connections in 2016/17. The second was that there would be [✂] VULA connections in 2016/17. BT responses to Q2.8 of the 1st s135 Notice of 26 November 2012 and to Q1.1 of the 13th s135 Notice of 12 February 2014. There were approximately 2.7m home and business fibre connections in Q1 2014, page 5, BT, *Results for the fourth quarter and year to 31 March 2014,* 8 May 2014, http://www.btPlc.com/News/ResultsPDF/q414-release.pdf.

3.46 As we now discuss, consumer detriment arising from harm to competition is likely to emerge after this market review period (i.e. after 2016/17), however the ability of other retailers to compete for and win superfast broadband subscribers during this period will shape the effectiveness of competition in the future.

The risks to effective retail competition

3.47 We would be concerned if, absent regulation, BT used its SMP in the WLA market to set its wholesale prices so that the VULA margin over the period of the market review undermined the ability of other CPs to compete in the provision of retail superfast broadband services, thus allowing BT to acquire a significant share of superfast broadband subscribers. In particular, a narrow VULA margin limits the ability of other operators to match BT's retail superfast broadband offers. As a result, BT is more likely to retain those subscribers that are interested in superfast broadband and to win them from its rivals. Were BT to build up a sufficiently large retail superfast broadband subscriber base by engaging in such activity, we would be concerned that BT's position could endure into the long term, potentially resulting in a distortion to (and weakening of) retail competition that harms consumers. We consider that there is a risk of adverse effects arising from such a distortion.

3.48 Were BT able to use its SMP in the WLA market over the period of the market review to set an insufficient VULA margin such that, as a result, it was able to build up a large share of retail superfast broadband subscribers in the longer run, BT may obtain first mover advantages over its rivals (e.g. in respect of marketing, economies of scale, and economies of scope between CGA and NGA services). Conversely, the resulting low market shares of rival CPs that result may adversely affect their costs or ability to innovate and attract new customers relative to BT into the long term.[64] This effect is compounded if there are also significant customer switching costs (for example due to minimum contract lengths) or subscriber inertia[65], as this will increase the costs faced by rivals to win customers back from BT in order to establish themselves as effective competitors in superfast broadband.[66] As such, the competitive constraint from these rivals in superfast broadband could be reduced (particularly relative to the position observed in broadband as a whole today). For smaller CPs with a lower existing (standard broadband) subscriber base, this in turn may cast doubt on the long term viability of those retailers (particularly if superfast broadband becomes essential for the majority of consumers). This may, at the extreme, for example, discourage their owners from making further investments in

[64] For example, consumers may not perceive BT's rivals as major suppliers if they have low market shares, and so a significant (and costly) marketing effort might be required to overcome this.

[65] BT argued (see paragraph 3.11) that consumers are engaged, and therefore it is not clear why inertia should be raised as a concern for superfast broadband (particularly given the overall market is competitive). However, our data suggests that only approximately one in ten fixed broadband subscribers switch each year. Page 130, Ofcom, *The Consumer Experience of 2013*, January 2014, http://stakeholders.ofcom.org.uk/market-data-research/market-data/consumer-experience-reports/consumer-experience/. Moreover, [✂].

[66] TalkTalk also identified switching costs and barriers to re-entry into retail broadband as factors increasing BT's incentives to engage in a margin squeeze (see paragraph 3.18).

the business.[67] Therefore as a result of behaviour by BT in this review period, competitive pressure from other CPs may be limited into the longer term.

3.49 In its responses, BT referred to the current extent of competition in the broadband market as a whole, and argued that "*the market for the supply of broadband is indisputably competitive with four major players with significant market shares*". However, we consider that it is important to focus on the position in the supply of superfast broadband. As take-up of superfast broadband increases, the landscape of the retail broadband market is likely to shift. In the draft 2014 WBA Statement[68] we provisionally found that there is likely to be a single retail market for all broadband speeds during this market review.[69] This means that standard broadband is currently likely to be a good substitute to superfast broadband for many broadband consumers. As such, retail superfast broadband prices are likely to be constrained at least to an extent by competition from standard broadband in the short term, even if there is limited competition within the superfast broadband segment itself. However, consumer perceptions may well change such that superfast broadband is considered to be a more differentiated service from standard broadband by more consumers. Indeed, in the draft 2014 WBA Statement, we provisionally found that there are factors pointing to the emergence of a separate retail market for superfast broadband in the future. Such an outcome would weaken the competitive constraint exerted by standard broadband.

3.50 If competition in the provision of superfast broadband services is weak, there is a significant risk that the price of these services will rise in the future, especially as the constraint from standard broadband diminishes. We recognise that some of the likely consumer detriment arising from a lack of effective competition in the provision of superfast broadband is likely to be felt after the current review period (when the constraint exerted by standard broadband may be significantly weaker). We are in a period of transition to superfast broadband (as discussed in paragraph 3.41 onwards), and so because the ability of other retailers to compete for and win superfast broadband subscribers during this review period will shape the effectiveness of competition in the future, it is important to consider whether there is scope for BT to use its SMP over the market review period to bring about these effects such that regulation is appropriate now.

3.51 However, that is not to suggest that there is no risk of adverse effects in the short term. In particular, we consider there is a risk that competitive distortion may also give rise to detriments during the period of transition, for example:

- First, we might be concerned if BT reduced the VULA margin by unduly raising its wholesale charges (as discussed in paragraph 3.60) due to the additional downstream (retail) gains it could achieve (e.g. because BT's rivals may need to raise their retail prices in order to still recover their downstream costs where BT does not), as this is likely to harm consumers.

[67] TalkTalk argued that the risk of smaller firms exiting the market will increase BT's incentives to engage in a margin squeeze (see paragraph 3.18).

[68] Ofcom, *Review of the wholesale broadband access markets, Draft statement on market definition, market power determinations and remedies*, 19 May 2014, http://stakeholders.ofcom.org.uk/binaries/consultations/review-wba-markets/statement/WBA-draft-statement.pdf.

[69] See Section 3 on product market definition, where we set out our provisional conclusion that it is appropriate to define a single market for all broadband speeds.

- Second, retail competition occurs across more dimensions than price alone. Competition in respect of price structures, innovation, marketing, efficiency and other matters are also important. If BT is able to stifle the ability of rivals to compete in the superfast broadband market segment, competition of this type may also be diluted.

- Third, while we consider that superfast broadband is likely to lie within the relevant market during this market review period, we cannot rule out the possibility that the market separates during the next three years. If this were to occur then significant consumer detriment as a result of BT's strong position in the supply of superfast broadband could arise during this market review period.

3.52 Therefore, and contrary to BT's argument that competition will be strong (see paragraph 3.10), were BT to use its SMP in the WLA market over the period of the market review to reduce rivals' ability to compete and achieve a large share of VULA-based retail superfast broadband subscribers as a result (a view supported by TalkTalk, see paragraph 3.18), this would be likely to distort competition to the detriment of competition and consumers. In particular, if BT could establish a degree of retail market power in the provision of superfast broadband, we could observe higher prices, reduced consumer choice, and lower levels of innovation. This is particularly true if standard broadband ceases to constrain the price of superfast broadband in the future (as discussed in paragraph 3.49), as in such a scenario it is important for consumers that there is effective competition between superfast broadband retailers to constrain prices and incentivise innovation. Therefore we consider that there is a risk of adverse effects arising from such a distortion.

3.53 It follows on from this that our specific regulatory aim in this context should be to ensure that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted.

3.54 BT considered that we should clarify whether its provision of VULA services gives rise to specific competition concerns in relation to the provision of "*Pay TV/content services provided alongside fibre broadband*" (see paragraph 3.14). As explained above (see paragraph 3.38), our concern stems from BT's SMP in the supply of WLA. BT has control over a key input in the supply of superfast broadband, namely VULA. In practice, superfast broadband services are supplied in bundles alongside other services such as voice telephony and television services. Competition in the supply of those bundles can be affected by the terms on which VULA is supplied. However we emphasise that our concerns only apply to those bundles insofar as they use VULA as an input. We consider BT's argument that we should not assess the VULA margin on triple-play bundles in Section 5.

BT's ability and incentive to undermine competition during this period

3.55 Having identified our regulatory aim, we consider whether BT has the ability and incentive to use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted.

3.56 The ability of other retailers to compete effectively in the provision of superfast broadband services in this review period is largely dependent upon access to wholesale inputs from BT (with the partial exception of Virgin). As set out in Section 7 of the draft 2014 FAMR Statement, we have provisionally found BT to have SMP in the market for the supply of loop-based, cable-based and fibre-based wholesale local access at a fixed location in the UK excluding the Hull Area. To address BT's SMP in this market, we are intending to impose a requirement on BT to provide VULA to allow CPs to offer NGA services in competition with BT's downstream business. Given that Virgin operates a closed network that only covers approximately half of premises, and the high barriers to CPs establishing a substantial access network, the only practical way for other CPs to supply superfast broadband is to purchase VULA from BT. Therefore VULA is likely to be the key wholesale input for retail competition in superfast broadband in this review period.

3.57 Given BT's position as a vertically integrated firm with upstream dominance and control over a vital wholesale input for retail competitors, it is able to affect the ability of other CPs to compete. In particular, BT will have the ability to raise its rivals' costs in order to weaken their ability to compete effectively during this three year review period, which could ultimately improve its own retail market position in the long term.[70] As well as hampering its retail competitors in the short term, such behaviour can also signal that BT is willing to 'punish' rivals that compete too aggressively in the longer term (e.g. TalkTalk argued that BT could build a reputation for making entry unprofitable, as summarised in paragraph 3.18), weakening competitive pressures in the future.

3.58 Influencing the retail margin available to its competitors, by adjusting its VULA charge relative to its retail price, is one way BT could affect the ability and incentive of its rivals to compete. If, as a result of its dominance upstream in WLA, BT sets an inappropriate VULA margin then this will hamper other CPs' ability (and incentive) to effectively compete against BT in the supply of packages containing superfast broadband. The lower this differential then the harder it is for other CPs to profitably match (or undercut) BT's superfast broadband retail offers. Other CPs will thus find it harder to win and retain the growing segment of consumers that are interested in superfast broadband.

3.59 Even if BT does not actually use any latitude to set a low VULA margin, the threat that it might do that in the future could undermine rivals' incentives to expand as strongly in superfast broadband. For example, even if BT's current VULA margin means it is might make it profitable for rivals to serve superfast broadband customers at present, if in future BT were to cut its VULA margin, those subscribers could become loss making. Anticipating this, rivals to BT may decide to invest less in attracting new superfast broadband subscribers or in migrating existing standard broadband customers to superfast broadband.

3.60 We consider that raising the VULA price while holding retail prices constant, or even having the ability to do this, may be a relatively low cost way for BT to effectively impede retail competitors.[71] The risks here are greater than in the case of standard broadband because we are proposing not to set a cost based charge control for the wholesale price of VULA in this review period, meaning BT has control over both the relevant wholesale price and retail price.[72]

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[70] The requirement to provide VULA means that an outright refusal to supply is not tenable.

[71] We recognise that setting a high VULA price relative to BT's retail offering is not entirely costless to BT overall, since if as a consequence rivals slow their rate of migration of standard broadband customers to superfast, BT's upstream revenues may be reduced.

[72] Absent regulation of the VULA margin, BT could raise the wholesale VULA price to other operators while keeping its own retail superfast broadband prices unchanged (a point also raised by TalkTalk –

3.61 It is our view that BT has the incentive and ability to use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. To inform this analysis, we have considered current market outcomes. To date BT has been winning a substantial share of VULA-based retail superfast broadband subscribers, achieving approximately 72% of the new VULA connections supplied by Openreach in Q1 2014.[73] This is despite BT's claim that EE, Sky and TalkTalk are "*actively marketing retail fibre services*" and its September 2013 view that CPs will "*continue to aggressively market fibre-based broadband services*".[74] This has resulted in BT currently retailing nearly 80% of all VULA connections.[75]

3.62 As argued by BT (see paragraph 3.11), we recognise that to date, different CPs may have sought to upgrade existing customers/promote fibre at different rates, depending on their own strategic focus and commercial strategy, and so current uptake is not necessarily indicative of significant competition concerns or the long term outcome. We also note that TalkTalk (paragraph 3.19) and a confidential respondent [✂] (paragraph 3.28) strongly disagreed with BT's interpretation that current shares are as a result of differing commercial strategies. Therefore given the forward looking nature of this review (and the fact that BT seems to consider that other CPs are now actively promoting fibre-based services), we have sought projections of how this market position may change over this review period. It is important to note that as superfast broadband is a fast growing product, there are inherent uncertainties in any forecasts (which are ultimately subject to judgement). We have taken this into account when interpreting the forecasts of BT and other CPs.

3.63 We have received two sets of forecasts from BT, one in December 2012 (prior to the 2013 FAMR Consultation) (the 'First BT Forecast'), and one in February 2014 (the 'Second BT Forecast'). These are set out in Table 3.1 and Table 3.2 respectively (the variance between the two is set out in Table 3.3). Both indicate that BT expects to build a substantial base of superfast broadband subscribers in the future, despite other CPs increasingly marketing their own fibre offerings.[76]

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see paragraph 3.18). This is unlike the position in relation to standard broadband, where the wholesale input price is regulated, meaning BT only has control over its retail price. As such, BT would need to reduce its retail price (and forgo the associated retail revenue) to reduce the margin available to its competitors on standard broadband.

[73] Based on Openreach adding 347,000 fibre subscribers in Q1 2014 and BT adding 249,000 retail fibre subscribers, page 2, BT, *Results for the fourth quarter and year to 31 March 2014*, 8 May 2014, http://www.btPlc.com/News/ResultsPDF/q414-release.pdf.

[74] Paragraphs 4, page 7 and paragraph 152, page 42, BT response to the 2013 FAMR Consultation. We note that a confidential respondent [✂] also argued that it and other CPs had been proactively marketing fibre products [✂]. [✂]

[75] Based on BT holding approximately 2.1m retail superfast broadband customers, and Openreach connecting approximately 2.7m premises with fibre, page 5, BT, *Results for the fourth quarter and year to 31 March 2014*, 8 May 2014, http://www.btPlc.com/News/ResultsPDF/q414-release.pdf. We note that this proportion has declined slightly since those reported in paragraph 11.27 of the 2013 FAMR Consultation, and the figures referred to by a confidential respondent [✂] (summarised in paragraph 3.29) which were from Q1 2013.

[76] [✂]

Table 3.1 – First BT Forecast (provided December 2012) of superfast broadband take up on the Openreach network

	FY14/15		FY15/16		FY16/17[77]	
	Volumes ('000s)	Share (%)	Volumes ('000s)	Share (%)	Volumes ('000s)	Share (%)
Retail[78]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Openreach + External BT Wholesale sales	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total NGA Connections	[✂]		[✂]		[✂]	

Source: BT response to Q2.8 of the 1st s135 Notice of 26 November 2012.

Table 3.2 – Second BT Forecast (provided February 2014) of superfast broadband take up on the Openreach network

	FY14/15		FY15/16		FY16/17	
	Volumes ('000s)	Share (%)	Volumes ('000s)	Share (%)	Volumes ('000s)	Share (%)
Retail	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Openreach + External BT Wholesale sales	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total NGA Connections	[✂]		[✂]		[✂]	

Source: BT response to Q1.1 of the 13th s135 Notice of 12 February 2014.

Table 3.3 – Variance between First and Second BT Forecasts

Volumes ('000s)	FY14/15	FY15/16	FY16/17
Retail	[✂]	[✂]	[✂]
Openreach + External BT Wholesale sales	[✂]	[✂]	[✂]
Total NGA Connections	[✂]	[✂]	[✂]

Source: BT response to follow up Q1 of the 13th s135 Notice of 12 February 2014.

3.64 In particular, BT expects to still be winning a large share of new subscribers at the retail level by the end of the review period. [✂] Therefore both forecasts consistently indicate BT gaining a high share of new retail superfast broadband subscribers throughout this review period. We also note that these superfast broadband subscribers are unlikely to be purely upgrades of BT's existing standard broadband subscribers, [✂].[79]

3.65 If BT's rivals were able to effectively compete against it, we might expect BT to be winning proportionately fewer of the new superfast broadband subscribers towards

77 [✂]
78 [✂]
79 [✂]

the end of this review period ([✂]), given it is likely to have already converted a significant proportion of its standard broadband subscribers to fibre by 2016/17. Conversely, given Sky and TalkTalk are currently earlier in that conversion process, we might expect them to be winning proportionately more of those new subscribers ([✂]), as they upgrade their existing subscriber bases. [✂][80] This is despite increased marketing by these other CPs to date, (for example [✂]).[81] We also note that, even in 2016/17, the Second BT Forecast implies its share of new additions [(✂].

3.66 Consistent with BT's continuing high share of net additions, the Second BT Forecast suggests that in 2016/17 BT will account for approximately [✂] of retail VULA connections, which (taking into account other data received) could equate to approximately [✂] of overall superfast broadband subscribers (with Virgin with a share of approximately [✂] and the rest sharing [✂]). This represents an increase in BT's share from the shares implied by the First BT Forecast, where BT expected to account for [✂] of retail VULA connections, which (taking into account other data received) could equate to around [✂] of overall superfast broadband subscribers (with Virgin's share at [✂], and the rest sharing [✂]).[82]

3.67 In interpreting this forecast evidence, we have carefully considered the differences between the First BT Forecast and the Second BT Forecast:

- [✂][83,84]
- [✂]
- [✂][85,86,87]

3.68 The potential retail shares of superfast broadband subscribers indicated by our assessment of data received from stakeholders [✂] suggests that BT's retail share of superfast broadband subscribers in 2016/17 could still be higher than it has achieved in relation to the retail broadband market as a whole, where despite increases since 2005, BT's share of residential and small business retail broadband connections has consistently been below 31%.[88] Therefore even in three years' time, the structure of the superfast broadband segment could be very different to what we observe in broadband as a whole.

3.69 We recognise that BT winning a high share of VULA-based superfast broadband subscribers could reflect the legitimate rewards of competition. However we would be concerned if it were instead a consequence of BT exerting its SMP in the provision of

[80] [✂]
[81] [✂]
[82] Overall market share figures calculated by [✂].
[83] [✂]
[84] [✂]
[85] [✂]
[86] [✂]
[87] [✂]
[88] Based on data from Ofcom, *Telecoms Data Updates*, Q1 2005 to Q4 2013, http://stakeholders.ofcom.org.uk/market-data-research/market-data/communications-market-reports/tables/.

WLA to supply VULA on terms that do not allow other operators to compete effectively. The data on BT's current performance and its forecasts for the period to 2016/17 suggest that it will be fiercely competing against other operators in relation to superfast broadband, and that it expects significant success in doing so. In light of our view on BT's ability and incentive to use its SMP in the WLA market to set the VULA margin in this review period such that it causes retail competition in superfast broadband to be distorted, we would be concerned that such an outcome might be a consequence of this type of behaviour by BT in the absence of superfast broadband-specific wholesale regulation. If this were the case, we consider it could lead to negative outcomes for consumers and competition, for the reasons discussed in paragraphs 3.47 onwards.

Options to achieve our regulatory aim

3.70 In light of the preceding analysis, our provisional view is that our specific regulatory aim in this context should be to ensure that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. We further consider that not only does BT have the ability to use its SMP to do this but that there appears to be a real risk of it doing so, in light of both current market outcomes and BT's own expectations.

3.71 In light of this provisional view, before we assess whether there is a need to intervene, we need to consider how, at a conceptual level, our overall regulatory aim is best achieved during this review period. Once we have done so, we can go on to assess whether existing regulation acts to offset this risk or whether it is necessary to impose further regulation.

3.72 We have identified three ways we could achieve our regulatory aim:[89]

- Option 1 – ensure that BT does not set the VULA margin such that it prevents an operator with the same costs as BT being able to profitably match BT's retail superfast broadband offers.

- Option 2 – ensure that BT does not set the VULA margin such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) being able to profitably match BT's retail superfast broadband offers.

- Option 3 – ensure that BT does not set the VULA margin such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) being able to profitably significantly undercut BT's retail superfast broadband offers.

3.73 We note that pursuing Option 2 is likely to require BT to set a larger VULA margin than would be necessary to achieve Option 1, and that pursuing Option 3 is likely to require a larger margin than would be necessary to achieve Option 2. This is

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[89] We referred to these as "*potential concerns*" in the 2013 FAMR Consultation, however for clarity of our position we now present these as options to achieve our overall aim. We do not consider this change to be one of substance, as each option mirrors a previous potential concern. However, we do abstract here from how they could be achieved (e.g. via *ex ante* regulation, or through *ex post* competition law), which is instead discussed separately in Section 4.

because Options 2 and 3 both concern the ability of rival retailers that have slightly higher costs or some other slight commercial drawback relative to BT to compete in the retail provision of superfast broadband. As a result, in order to profitably match BT's offers (Option 2), such rival CPs would require a slightly higher VULA margin than required by BT. In contrast Option 3 involves rival CPs significantly undercutting those prices. Option 3 therefore encapsulates the concern that rival CPs would be unable to sustain their market position unless they maintain a systematically lower price than BT.

3.74 We first consider the effectiveness of these options in achieving our overall regulatory aim of ensuring that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. However, requiring BT to set a larger VULA margin is not a costless exercise, so we then also consider the costs of our options, and then the inevitable trade-off between the effectiveness and proportionality of each to achieve our aim.

3.75 In considering these options, as well as assessing the effectiveness for achieving our overall aim (in line with our statutory duties, including our principal duty), we have also had regard to whether they are appropriate for the purposes of promoting efficiency, promoting sustainable competition and conferring the greatest possible benefits on end users (in line with section 88 of the CA03). We have also considered the impact on BT’s investment incentives.

Assessment of effectiveness of Options 1-3 in achieving our aim

3.76 In general, and all else equal, the greater the VULA margin the greater the ability of other retailers to match BT's retail superfast broadband offers. Increasing the VULA margin may promote retail competition by encouraging entry and allowing rival retailers to grow, and may also allow those rivals to achieve more substantial economies of scale and greater experience of offering fibre than currently. It would also allow BT’s rivals profitably to offer a full suite of retail products (i.e. superfast broadband services alongside their existing services). As such, the risk of a distortion to retail competition would be lower, delivering greater dynamic benefits for consumers through lower retail prices, and more innovation and choice.

3.77 We note that BT and Sky have argued that BT’s main competitors are likely to have their own advantages (see paragraph 3.11 and 3.16 respectively). This might suggest that Option 1 could effectively achieve our aim (e.g. if these advantages were such that they sufficiently countered the slight cost disadvantages experienced by BT’s competitors, so that they were able to profitably compete with BT under Option 1). We recognise that the leading retail competitors to BT such as Sky, TalkTalk and Virgin already operate significant retail broadband businesses, and are also currently offering their own fibre-based retail services. CPs like Sky and Virgin are also likely to enjoy their own advantages such as economies of scope as a result of their substantial pay TV and telephony businesses.

3.78 However, despite this, we consider there to be a real risk that Option 1 would not be effective in addressing the risk of BT setting the VULA margin such that it distorted competition. Although we have not compared other operators' overall costs with those of BT, we have identified some slight disadvantages for rival operators relative to BT.[90] This suggests that if BT were to set a VULA margin only at the level required to meet Option 1, it would likely hamper the ability of rival CPs to compete in the retail provision of superfast broadband in this review period.

3.79 Therefore we consider there is a risk that Option 1 will not be sufficient to promote retail competition in superfast broadband, and could result in BT using its SMP in the WLA market to set the VULA margin such that it is able to build a substantial superfast broadband subscriber base by the end of this review period (resulting in reduced competition).

3.80 BT (see paragraph 3.11) and Virgin (see paragraph 3.24) argued that CPs are currently offering fibre-based services, in some cases for headline prices that are lower than BT's. However we still consider that there is a material risk that Option 1 would be ineffective at preventing a distortion to competition.

- There is a need to be cautious when comparing headline retail prices since the composition of the retail offerings varies significantly. In particular, BT's superfast broadband packages include access to BT Sport for no additional charge.[91]

- Even in the presence of the price differences highlighted by BT and Virgin, BT has been able to win a substantial share of VULA-based retail superfast broadband connections (see paragraph 3.61) and expects to build a substantial base of superfast broadband subscribers in the future (see paragraph 3.63 onwards).

3.81 While Option 1 is unlikely to be effective, we consider that both Options 2 and 3 are likely to be effective in achieving our aim, as both will allow those CPs with slightly higher costs than BT (or some other slight commercial drawback relative to BT) to effectively compete (either by profitably matching or by undercutting BT's retail superfast broadband offers). Therefore both will reduce the risks of the detrimental effects on retail competition occurring.

3.82 Since it is likely to result in a larger VULA margin, we might expect that Option 3 would be more effective in preventing a distortion to competition than Option 2. However, we consider that the incremental effectiveness of Option 3 relative to Option 2 may be relatively low. This is because it is questionable whether CPs require this additional margin in order to effectively compete, or indeed whether CPs (particularly smaller retailers) will substantially benefit from the much larger margin likely to be required under Option 3, over and above Option 2.

3.83 Currently there are four large broadband suppliers, namely BT (with a share of subscribers of around 30%) and Virgin, TalkTalk and Sky (each with a share around 20%). The remaining suppliers are much smaller, with EE being the largest with a

[90] In particular, we discuss in Section 6 evidence that some CPs may experience shorter ACLs. We also consider the possibility that, in the future, BT's estimated unit bandwidth costs are lower than those of other operators.

[91] As a result, the attractiveness of BT's retail packages is affected by the strength of individual consumers' interest in BT Sport. We take this into account when we consider retail prices as part of the assessment of our proposals in Section 6.

share of subscribers of around 3%.[92] To inform the extent of incremental benefits of Option 3 relative to Option 2, we first consider whether a larger VULA margin, to the extent that this was required under Option 3, is likely to be necessary to sustain competition between at least four large retailers in the longer term, and then consider whether it would significantly benefit the smaller CPs.

3.84 We consider that at this stage, it is questionable whether a much larger VULA margin (i.e. as per Option 3) is essential to sustain at least four large retailers.[93] None of the four large retailers supported addressing Potential Concern 3 from the 2013 FAMR Consultation (which corresponds to Option 3). While we consider there to be a risk that they have slightly higher costs or some other slight commercial drawback relative to BT, the three main competitors to BT already operate significant retail broadband businesses on which to build, meaning an even greater adjustment than required under Option 2 is unlikely to be necessary to ensure they remain effective competitors

3.85 A confidential respondent [✂] argued that other CPs would need to undercut BT in order to offset BT's "*first mover advantages*" such as consumer trust and greater scale (see paragraph 3.32).The confidential respondent [✂] provided no evidence to support these claims. We do not consider that any first mover advantage enjoyed by BT is so large that it is necessary to pursue Option 3 and set a much larger VULA margin. In reaching this view we have been mindful that other CPs (most notably Sky and TalkTalk) also have large, well known multi-product operations with large customer bases.

3.86 In relation to the smaller CPs, we acknowledge that some may have even higher costs and/or commercial drawbacks relative to BT and the other large CPs, which may limit the effectiveness of Option 2 for these types of CP. Therefore we recognise that to the extent they do have even higher costs and/or more limited advantages relative to BT, Option 3 may theoretically further improve their ability to effectively compete with BT in the retail provision of superfast broadband. However, we consider that the additional benefits to them of a larger margin are likely to be limited. This is because even if BT is required to set a larger VULA margin, those smaller CPs would still face competitive pressures from the other three large CPs. This is consistent with the historic experience in relation to broadband as a whole, where the largest four firms' share of subscribers has gradually increased over time, reflecting both organic growth and acquisitions of smaller firms. Therefore while smaller CPs may benefit to some extent more from Option 3, these additional benefits over and above Option 2 are unlikely to be significant. As such, it is not clear that Option 3 would be significantly more effective in achieving our aim than Option 2.

Assessment of the costs of Options 1-3

3.87 Increasing the VULA margin is not a costless exercise, and could raise the following issues:

- potential increases in BT's retail prices to accommodate the larger margin;

[92] Figure 5.34, Ofcom, *Communications Market Report 2013*, 1 August 2013, http://stakeholders.ofcom.org.uk/binaries/research/cmr/cmr13/2013_UK_CMR.pdf. Note that since this report was published, Sky has acquired O2's fixed broadband business.

[93] See also the indicative assessment of our proposed approach to the VULA margin and its likely impact on competition in Section 6.

- risk of inefficiency; and
- negative impact on investment incentives.

3.88 We now discuss each of these potential costs, recognising that all else equal, the higher the VULA margin the greater the potential costs.

3.89 First, increasing the VULA margin implies that BT will need to increase its retail prices (which would harm consumers, at least in the short term), reduce its wholesale VULA price (as argued by a confidential respondent [✂], TalkTalk and Virgin[94], which would affect BT's investment incentives), or some combination of the two.[95] We discuss the impact on investment in paragraphs 3.91-3.93. While the possible impact on retail prices has the potential to be higher for Option 2 than 1 (although we note that TalkTalk considered the risk under Option 2 unlikely to be significant compared to Option 1, see paragraph 3.20), we consider it is of greater concern if we were to adopt Option 3, given the significantly larger margin this could require. To illustrate:

- Openreach's current monthly GEA charges (excluding VAT) are £6.90 (for up to 40Mbit/s download / 2Mbit/s upload), £7.40 (for up to 40Mbit/s download / 10Mbit/s upload) and £9.95 (for up to 80Mbit/s download / 20Mbit/s upload).[96]
- Based on an illustrative calculation provided by a confidential respondent [✂], a £6.27/month increase in fibre broadband margins could be required to equalise the margin available on standard (CGA) broadband and fibre broadband.[97] Given that current GEA-FTTC prices are between £6.90 and £9.95 per month, if BT were to absorb a margin increase of this level entirely through reductions in the VULA price, this would virtually eliminate the VULA charge. We consider that an increase in margins of this magnitude is likely to involve an increase in BT's retail prices as well as a fall in wholesale prices.

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[94] In response to the 2013 FAMR Consultation, a confidential respondent [✂] (see paragraph 3.31) and TalkTalk (see paragraph 3.20) argued that BT is more likely to reduce wholesale prices, as they considered BT's wholesale NGA prices to be artificially high and above cost. In addition Virgin argued that wholesale prices are likely to fall because it believes there to be effective retail competition in the provision of fibre services. We do not comment here whether a wholesale price reduction or retail price increase is more likely, but instead consider the potential impact in the round (e.g. if either (or indeed both) occurred).

[95] We note that any obligation imposed to address BT's SMP in the WLA market would only impose requirements on BT in respect of its wholesale VULA charge. Whilst in some circumstances it may be possible for BT to choose to comply with that requirement by adjusting its retail prices, there would be no regulatory requirement for it to do so.

[96] Openreach, *Generic Ethernet Access (FTTC) Price List*, 28 November 2013, http://www.openreach.co.uk/orpg/home/products/pricing/loadProductPriceDetails.do?data=yzq%2FQaGYa3hVgsB2ZYfjHxzfISuq3px%2FWFtgATP2kPRZ6rNZujnCs99NbIKJZPD9hXYmiijxH6wr%0ACQm97GZMyQ%3D%3D.

[97] The confidential respondent [✂] considered that setting margins using this methodology would allow CPs to compete to the same degree as in standard broadband, [✂].

3.90 Second, requiring BT to set a wider VULA margin may result in productive inefficiencies because a high margin could provide headroom for much less efficient firms to win business.[98]

3.91 Third, we have also considered whether requiring BT to set a wider VULA margin than would be required under Option 1 would adversely affect investment incentives (as argued by Virgin, see paragraph 3.25).[99] For example, if it resulted in lower wholesale VULA prices then BT's incentives to invest in fibre may be reduced, and if it resulted in lower retail superfast broadband prices then Virgin's investment incentives may be diminished.

3.92 As explained above (see paragraph 3.4), our approach in the 2010 WLA Statement explicitly went beyond *ex post* competition law and indicated that we would assess the impact of the VULA margin on a REO (as distinct from one that is equally efficient to BT).[100] Despite that approach, there has been substantial investment in superfast broadband in the period to 2013/14 covered by our previous market review. As set out in paragraph 12.11 of the draft 2014 FAMR Statement, we note that BT is nearing the end of its main commercial NGA build, having achieved 66% fibre coverage or around 19m premises. Similarly Virgin has substantially increased broadband speeds on its network.[101] In other words, a high level of investment and deployment has been achieved given the regime set out in the 2010 WLA Statement.[102] Therefore we consider that adopting an option which maintains the approach adopted in the 2010 WLA Statement is, subject to the extent of increase in the VULA margin, unlikely to have a material impact on investment incentives.

3.93 We consider that the underlying approach of Option 2 would be consistent with the existing regime implemented in the 2010 WLA Statement, given Option 2 reflects an operator that has slightly higher costs than BT rather than an EEO. Further, given the limited adjustment to the VULA margin likely to be required for Option 2 relative to Option 1, we consider that any reduction to the VULA charge required under Option 2 would also be limited.[103] Therefore for both of these reasons, we consider that Option

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[98] To the extent that continued competition from Sky, TalkTalk and Virgin makes it hard for smaller CPs to compete even if BT does set a high VULA margin, the risk of productive inefficiencies arising will be reduced.

[99] Virgin also claimed that our proposals in the 2013 FAMR Consultation were inconsistent with the EC Recommendations. We discuss consistency with the EC Recommendations in Section 7.

[100] Paragraph 8.128.

[101] See, for example, Virgin, *New Virgin Media broadband twice as fast as anyone else,* 11 November 2013, http://about.virginmedia.com/press-release/9409/new-virgin-media-broadband-twice-as-fast-as-anyone-else and Virgin, *Virgin Media launches broadband twice as fast as the rest,* 28 February 2014, http://about.virginmedia.com/press-release/9418/virgin-media-launches-broadband-twice-as-fast-as-the-rest.

[102] We note TalkTalk (see paragraph 3.20) and a confidential respondent [✂] (see paragraph 3.31) argued that BT's fibre deployment would not be significantly harmed under Option 2, in part because that deployment is already well advanced (the confidential respondent [✂] also argued this in relation to Option 3, and considered that any negative impact on investment incentives is likely to be outweighed by the benefits of promoting retail competition).

[103] We also note that given the more limited adjustment under Option 2, it is likely that BT could manage its response so as not to undermine the profitability of its own fibre investment (for example by increasing its retail prices instead).

2 is unlikely to have a significant negative impact on investment incentives in this review period.[104]

3.94 However, we consider that Option 3 does have the potential to harm investment incentives. To illustrate, a confidential respondent [✂] claimed that fibre broadband margins should increase by £6.27/month (see paragraph 3.89 above). An increase in margins of this magnitude is likely to involve a material fall in BT's wholesale VULA prices (as well as a potential rise in its retail prices). This is likely to reduce the profitability of BT's investments in fibre (due to the likely reduction in VULA charges required). We note that the confidential respondent [✂] did not think that BT's fibre deployment would be significantly harmed (and in any event considered we should put less weight on what it considers to be a "*theoretical*" concern, see paragraph 3.31), in part because that deployment is already well advanced. However, it is important to note that this investment was made in the light of the regulatory position previously set out by Ofcom, and adopting a consistent and predictable regulatory approach is important in order to support future investment, both in fibre and more generally.[105] Put another way, given BT has already invested large amounts in fibre deployment, if we were to make unanticipated regulatory changes that materially affect the profitability of that investment, this would introduce perceived regulatory uncertainty, harming future investment incentives. Therefore we remain concerned about the potential impact of seeking to achieve Option 3 on investment incentives.

Trade-off of effectiveness and costs

3.95 As set out in paragraph 3.70, we consider that our regulatory aim should be to ensure that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted, particularly given its long term importance and the significant increases in the take up of superfast broadband expected during 2014-17. In considering the best way to achieve this aim, the forward looking nature of our analysis means that there are inherent uncertainties about how the market will develop. Therefore this is a policy area in which we, as the specialist sectoral regulator, have to exercise judgement. Ultimately, this judgement involves a trade-off between reducing the risk of a distortion to retail competition in the provision of superfast broadband, and the costs of requiring BT to set a higher VULA margin.

3.96 As set out in paragraph 3.78, we consider that there is a risk that other CPs have slightly higher costs and/or some other slight commercial disadvantages relative to BT, meaning there is a material risk that Option 1 will be ineffective at achieving our aim. Therefore while Option 1 would ensure only firms that were as efficient as BT could compete in the retail provision of superfast broadband and would not undermine BT's investments, we consider that the risk of BT setting the VULA margin

[104] We note that TalkTalk (see paragraph 3.20) also argued that BT's investment incentives are unlikely to be harmed under Option 2 as BT could respond via a retail price increase instead (particularly given the limited extent to which this option goes beyond Option 1). TalkTalk also argued that the incentives were unlikely to be affected as the current wholesale VULA charge is above the competitive level (an argument also made by a confidential respondent [✂], see paragraph 3.31), but we make no comment on the absolute level of VULA charges here as the focus is purely on the VULA margin.

[105] This is also discussed in Section 12, Volume 1, of the draft 2014 FAMR Statement.

such that it results in a distortion to competition and subsequent negative consequences for consumers is significant.

3.97 We consider that going beyond Option 1 is consistent with the approach in the 2010 WLA Statement. In particular, we stated that "*When considering the differential between retail and wholesale prices, we are initially likely to consider whether the current price differential was above the current long-run incremental cost of the downstream activities of a reasonably efficient operator, including an allowance for subscriber acquisition costs*".[106] Given the importance of the 2014-17 review period to the take up of superfast broadband, we consider that we should at least maintain consistency at this time.

3.98 We consider that Option 2 would effectively prevent the distortion of competition in the retail provision of superfast broadband, to the benefit of consumers. While it could have a short term negative impact on efficiency (by allowing CPs with slightly higher costs than BT to compete) and with some risk that retail prices could be slightly higher relative to the case under Option 1, we consider that these potential impacts, even if they did arise, would likely to be outweighed by the long term dynamic benefits of future competition. This view was also supported by TalkTalk (see paragraph 3.20) and a confidential respondent [✂] (see paragraph 3.31) in their respective responses to the 2013 FAMR consultation. In particular, Option 2 is likely to only require a relatively modest increase in the VULA margin (over and above what would be required under Option 1), which would limit any resulting retail and/or wholesale price change relative to Option 1. As a result, the consumer detriment of higher prices in the short term will be more limited, and investment incentives are unlikely to be significantly adversely affected. It also ensures that any negative impact on short term productive efficiency is limited. Therefore we consider that Option 2 provides a proportionate and effective way to achieve our aim.

3.99 In reaching this view we have been mindful of the balance of risks. In the event that future competition in superfast broadband is distorted, there could be significant harm to consumers given the scale and importance of superfast broadband in the future. In contrast, the risks associated with pursuing Option 2 appear small. While we recognise that it is not certain that competition problems will emerge, given the likely scale of the harm of they do, we consider that pursuing Option 2 is appropriate and proportionate.

3.100 While we consider that Option 3 would also effectively achieve our overall aim, we consider that the additional benefits in this regard relative to Option 2 are likely to be limited, particularly as smaller competitors will still face competitive pressures from retailers such as Sky and TalkTalk. Moreover, we consider that the negative implications for efficiency (by allowing CPs with higher costs to undercut BT) and subsequently on consumers (via higher retail prices) are likely to be relatively high, and significantly higher than those under Option 2. There is also a greater risk of a negative impact on investment incentives under Option 3. Therefore while Option 3 could effectively promote competition, given the costs are likely to be significant relative to the benefits (and the additional costs over and above Option 2 are likely to outweigh the more modest additional benefits), we consider that it does not provide a proportionate way to achieve our aim.

[106] Paragraph 8.132.

3.101 A confidential respondent [✂] referred to our previous pro-competitive regulatory interventions in relation to LLU in support of its view that we should address Potential Concern 3 (which is equivalent to Option 3). However, the position on superfast broadband differs from the position in relation to standard broadband in 2005. In particular, the context is different now, with several established CPs/brands, with existing scale and customer bases in standard broadband. Indeed, in this regard, we note that TalkTalk (see paragraph 3.21) did not consider Option 3 needed to be adopted at this time as it considered it could only be justified if BT had already eliminated the majority of competition in superfast broadband, which is not the case. As such, it is not clear that other CPs currently need to be able to significantly undercut BT's retail superfast broadband offers in order to effectively compete and instead Option 2 can effectively achieve our aim. Further, the risk that regulatory intervention would result in higher retail prices or adverse effects on investment was lower in 2005 (highlighted in the fact that the high broadband prices of the time fell sharply as a result of our regulatory approach[107]).

Our proposed regulatory aim for the VULA margin for this review period

3.102 As set out in paragraph 3.70, our overall aim is to ensure that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. We consider that this aim is best achieved in this review period by ensuring that BT does not set the VULA margin such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) from being able to profitably match BT's retail superfast broadband offers (i.e. Option 2). We consider that this provides an appropriate and proportionate approach to achieve our overall aim, in the interests of citizens and consumers.

3.103 We consider that this aim is consistent with our statutory duties, in particular our principal duty. In our view, our proposed approach promotes efficiency, promotes sustainable competition and confers the greatest possible benefits on end users in the long term. We also consider that such an approach will not undermine investment. We note more generally that it is also in line with our priority for 2014/15, as set out in our annual plan, of "*Ensur[ing] effective competition and investment in both current and superfast broadband*".[108]

3.104 We note at this point that our position may change in future reviews. Our position in any future review will be informed by developments in the supply of superfast broadband over the coming years and the risk that BT might use any position of SMP that it holds in the future to distort competition. For example, in the future other CPs may have had an opportunity to build up a reasonable base of superfast broadband subscribers on BT's network such that *ex ante* regulatory intervention may not be necessary.

Q3.1 Do you agree with our proposed regulatory objective for the VULA margin? Please provide reasons in support of your view.

[107] Average monthly broadband prices fell from £50 (for speeds over 1Mbit/s), £35 (for speeds of 1Mbit/s) and £26 (for speeds of 512 Kbit/s) in 2003 to £41, £30 and £23 (respectively) in 2004 and £16, £15 and £10 (respectively) in 2005. Figure 3.5, Ofcom, *The Communications Market 2006*, July 2006, http://stakeholders.ofcom.org.uk/market-data-research/market-data/communications-market-reports/cm06/.

[108] Figure 2.

Section 4

Form of the VULA margin requirement and compliance monitoring

Introduction

4.1 Having set out in Section 3 our regulatory aim, we now assess the possible options for regulating the VULA margin to achieve that aim. We first summarise our proposals in our previous consultations and stakeholder responses to them. We then set out our assessment of the options before provisionally concluding on our preferred option. This includes consideration of the form of the VULA margin requirement and options for compliance and/or testing of the VULA margin.

Position as at the last review

4.2 In the 2010 WLA Statement we relied on the requirement on BT to maintain fair and reasonable VULA terms, conditions and charges to prevent BT from setting an inappropriate pricing differential between retail superfast broadband prices and wholesale VULA prices and set out what we were likely to initially consider when reviewing that differential, including the cost standard.[109]

4.3 We also expected that BT would need to maintain financial models containing relevant information on VULA and downstream product costs and prices, and their development over time.

Policy proposals as set out in the 2013 and 2014 FAMR Consultations

4.4 In the 2013 FAMR Consultation we set out three options for the form of the VULA margin requirement:[110]

- Consultation Option 1 – An obligation to supply VULA on fair and reasonable terms, conditions and charges supplemented by guidance on how we are likely to undertake our assessment when testing whether the VULA margin complies with that SMP condition.

- Consultation Option 2 – An obligation to supply VULA on fair and reasonable terms, conditions and charges supplemented by Ofcom systematically testing whether changes to BT's prices comply with that SMP condition.

- Consultation Option 3 – An SMP condition specifying the minimum VULA margin that BT should maintain during the review period.

[109] Paragraphs 8.132-8.135.

[110] We also considered not having any specific *ex ante* regulation aimed at controlling the VULA margin. We proposed that competition law alone was not suitable for addressing the competition concern, as the nature of that concern required intervention beyond the level that would be satisfied by competition law alone.

4.5 We set out our provisional conclusion that Consultation Option 1 was the most appropriate approach.

4.6 In the 2014 FAMR Consultation, we proposed an obligation on BT to require it to provide Ofcom with information necessary to monitor its compliance with the fair and reasonable terms, conditions and charges condition with respect to the VULA margin every six months.

Stakeholder responses to the FAMR Consultations

2013 FAMR Consultation

4.7 In the 2013 FAMR Consultation, we asked the following question in relation to the process for addressing our competition concern:

> *Q11.5 Do you agree with our proposed approach to regulating the margin between the VULA price and BT's downstream prices? In particular:*
> *…*
> *(b) Do you agree that we should achieve this objective by requiring BT to set fair and reasonable terms, conditions and charges and setting out guidance on how we would interpret this requirement?*
> *…*
> *Please provide reasons in support of your view.*

<u>BT</u>[111]

4.8 BT said it welcomed Ofcom's rejection of "*even more interventionist*" approaches to regulating BT's retail margin (i.e. Consultation Options 2 and 3), but that any assessment of margins that departed from the established analytical model under competition law would inevitably be something of a "*blunt instrument*".[112] It accepted that at various times regulation or voluntary commitments had been used to control BT's margins in order to actively promote and support market entry. However, it considered that the competitive context to those arrangements was very different in that they applied when there was only limited market entry.

<u>Sky</u>

4.9 Sky stated that for Ofcom's approach to work effectively both BT and other CPs must have a good understanding of how Ofcom would determine a complaint.[113] It considered that the best approach would be for Ofcom to clearly state that the relevant cost concept is an EEO, obviating the need for guidance to explain any adjustments. Guidance could then be provided on how we would estimate the margin.

4.10 Sky considered that Consultation Option 1 would: require Ofcom to make numerous, difficult judgements on a wide range of complex issues; introduce a significant,

[111] Page 67, BT response to the 2013 FAMR Consultation.
[112] In a subsequent letter to Ofcom of 9 April 2014 (ref: CW/01103/03/13), BT stated that Ofcom needed to set out explicitly how it would decide to use its competition or regulatory powers and to explain why competition law was insufficient to address any "*margin squeeze concerns*".
[113] Page 10-11, Sky response to the 2013 FAMR Consultation.

unnecessary cost into regulation; and unless the guidance was detailed and specific would generate uncertainty, which could only be resolved through a complaint. Sky considered the latter point was exemplified by the draft guidance in the 2013 FAMR Consultation which it considered would require substantial further elaboration.

TalkTalk[114]

4.11 TalkTalk said it did not consider that the Competition Act would be sufficient to protect against "*margin squeezes*" as it could not actively promote competition, could take a considerable length of time to have an effect and would impose resource requirements on Ofcom. It agreed with Ofcom that at this stage in the market's development, "*ex ante margin squeeze protection*" was most likely to further consumers' interests. However, it said wholesale price caps should be used if Ofcom was unable to put in place appropriately calibrated and enforced *ex ante* rules reasonably quickly.

4.12 TalkTalk said Consultation Option 1 was not likely to be sufficiently effective in preventing BT from engaging in a "*margin squeeze*". It said it would be unlikely to lead to dispute determinations being resolved quickly enough, particularly due to the need to negotiate commercially with BT following product launch[115], in addition to the four months to resolve the dispute.

4.13 It also said BT would be able to "*game*" the system, e.g. [types of gaming] [✂]. Nor did it consider it as predictable and transparent as possible, due to the absence of a published compliance model and clear detailed assumptions set out upfront. It considered that testing products after launch would be little more than an application of the Competition Act and that it would absorb more of Ofcom's time and resources than the approach suggested by TalkTalk.

4.14 TalkTalk said that the main advantage of Consultation Option 2 over Consultation Option 1 was the predictability and transparency of the process as the compliance model could be available to all parties. However carrying out a compliance check could take up to seven months. TalkTalk considered this was so long it largely removed the benefits of the option, [✂].

4.15 TalkTalk said that while Consultation Option 3 did not face any issues regarding its timeliness, it had significant concerns about having a single set margin for all products. TalkTalk considered that the appropriate margin would be highly case sensitive and dependent on the features and downstream costs of each product. It said it was unclear how a single model could manage this complexity.

4.16 TalkTalk said that the missing element of the options was the testing of products before launch. It said that in order to ensure product launches were not unduly delayed, a model should be developed that could be quickly adapted to a specific product. TalkTalk said the model may periodically be updated (and consulted on) to

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[114] The summary here is based on Page 4-13 of TalkTalk response to the 2013 FAMR Consultation. It also elaborated on these comments in Annexes 3 and 4 of its response [✂].

[115] TalkTalk also said there is a potential problem with such negotiations. It said that in raising a dispute, there had to have been attempts to reach a settlement. Where the GEA price was set at a competitive level, TalkTalk said it would mean effectively asking BT to increase retail prices or similar. It said such discussions would generally breach competition law. TalkTalk said that Ofcom should set out how such discussions could take place without triggering an investigation under these provisions.

take account of developments in the market. It said that BT would test new or revised products against the model[116], adapting the model where necessary. BT would then provide the populated model, and associated assumptions to Ofcom, after which it could then launch the product. Ofcom would not take a decision on compliance at this stage, rather it could do so after launch in response to a complaint or as part of an own-initiative investigation.

4.17 TalkTalk said deterrents were necessary as otherwise BT's optimal strategy would be [✄]. It said that punishments should go beyond any gains made by BT and be punitive in order to act as a deterrent. TalkTalk said Ofcom should consider issuing fining guidelines setting out in detail the methodology to be adopted.

Virgin

4.18 Virgin accepted that BT should be subject to a fair and reasonable terms, conditions and charges condition with regards to its VULA margin.[117] However Virgin considered that the proposed application of explicit guidance was inappropriate in terms of timing and scope. Due to the ongoing Superfast Broadband Competition Act Investigation, it considered it would be premature to issue guidance and there was the potential for confusion should we find that the investigation raises no competition concerns. It considered Ofcom should delay issuing guidance until it had the opportunity to take into account the decision on the Superfast Broadband Competition Act Investigation and any further information in relation to BT's costs and revenues it may receive in the process.[118]

4.19 Virgin suggested the scope of the guidance should be widened to consider the risks and possible effects of BT setting wholesale prices below cost, arguing that any *ex ante* intervention by Ofcom was likely to result in BT decreasing the wholesale price for VULA products.

Vodafone[119]

4.20 Vodafone supported our broad proposals in the 2013 FAMR Consultation but considered they needed some refinement. Vodafone said BT must be obliged to ensure that the margin on new services/offers was assessed and provide the output of the assessment to Ofcom. Only a service/offer that passed could be launched in order to avoid negative competitive outcomes even if the service/offer was withdrawn or modified at a later date. Where a product that passed on first assessment was later found to be in breach (e.g. due to errors in projected costs or volumes), it said there would need to be a mechanism to withdraw the product/offer.

4.21 It considered that the test and model must be transparent to all stakeholders and its variables predictable. Vodafone considered that Ofcom should consult upon a proposed compliance model, with any subsequent changes subject to consultation. It considered there should be a stakeholder review after 12 months on the functioning of the model and the test process.

[116] Subject to a de minimis threshold.
[117] Page 5, Virgin response to the 2013 FAMR Consultation.
[118] Pages 5-6, Virgin response to the 2013 FAMR Consultation.
[119] Page 11, Vodafone response to the 2013 FAMR Consultation.

Confidential respondent [✄][120]

4.22 A confidential respondent [✄] considered that Consultation Option 1 was fundamentally insufficient. It considered that Consultation Option 1 largely replicated the existing approach which it considered had failed to promote effective competition and that it would not remove the risk of "*margin squeeze practices*" as enforcement would remain *ex post*.

4.23 It said Consultation Option 1 did not provide regulatory certainty or timely resolution, as it would allow for a variety of interpretations and would require additional analysis for each complaint. It considered that without a pre-established model, it was unlikely disputes could be resolved in a timely manner. The confidential respondent [✄] considered that in the intervening period, retail competition would continue to be undermined. It would also be susceptible to "*gaming*", as BT could regularly adapt its product offering in order to continue to set a low VULA margin, while its older retail offers were undergoing investigation. The confidential respondent [✄] also considered Consultation Option 1 would be more resource intensive, as there would likely be a number of complaints from multiple complainants, each requiring their own interpretation of the guidance.

4.24 While the confidential respondent [✄]'s preference was Consultation Option 3, due to it providing regulatory certainty and simplicity of application, it said if there were concerns about regulatory failure it would welcome an adapted Consultation Option 2. This would involve establishing and consulting on a model at the beginning of the review period. Subject to a materiality threshold, BT would be required to ensure all offers were compliant, which Ofcom would then verify. The confidential respondent [✄] said this would offer: a swift assessment of new offers, regulatory certainty and transparency for BT, relief of the resource burden on all parties and adaptability, as the model and relevant parameters could be adjusted in the event of fundamental changes in market circumstances.

Confidential respondent [✄][121]

4.25 A confidential respondent [✄] said it would prefer retail wholesale charge controls, as it was "*extremely sceptical*" about Ofcom's ability to use its *ex post* powers in an effective or timely way. In support it referred to Ofcom's investigation of Thus and Gamma's complaints against BT in the market for wholesale end-to-end calls.[122] It considered that a 'minimum margin' obligation would be impossible to police in practice and could lead to "*market segmentation, game playing and margin squeezes*", which it considered were not acceptable in a fast moving and innovative market.

2014 FAMR Consultation

4.26 In the 2014 FAMR Consultation, we asked the following question in relation to the proposed reporting requirement in relation to the VULA margin:

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[120] [✄]
[121] [✄]
[122] Ofcom, *Complaint from Thus Plc. and Gamma Telecom Limited against BT about alleged margin squeeze in wholesale call pricing, CW/00988/06/08*, http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/closed-cases/all-closed-cases/cw_988/.

Q5.1 Do you agree with our proposals for BT to provide information on the VULA margin every six months? Please provide reasons in support of your views.

BT[123]

4.27 BT said given that significant detail around Ofcom's position on *ex ante* VULA margin regulation remained unclear, it was inappropriate for Ofcom to consult on such a proposal. It also said it was concerned that Ofcom considered it appropriate for it to provide detailed information as a matter of routine, which would place an additional regulatory burden on it to demonstrate compliance even where no evidence to the contrary has been put forward.

Sky[124]

4.28 Sky said it agreed with the proposal. Sky said Ofcom should seek the first report from BT within four weeks of publication of the final guidance and that there should be a specific provision requiring BT to report on request. It also said Ofcom should publish its proposed guidance on the VULA margin as soon as possible.

TalkTalk[125]

4.29 TalkTalk welcomed the proposed reporting obligation and considered it would be a useful tool which could help detect "*margin squeeze*". However it said it could not prevent BT from launching "*a product that margin squeezes*" and that it could be six months or more before such a squeeze is detected. It therefore reiterated its calls for pre-launch testing, with the reporting obligation as a complement, not an alternative.

4.30 It said a reporting obligation should be very prescriptive about how the revenues and costs should be derived, be audited by an external party, signed off by a senior BT director and subject to a high degree of transparency. It agreed with a six monthly frequency in the medium term, but considered there should be an additional report after the first three months. Finally, TalkTalk said Ofcom should consider what deterrents would be appropriate for a breach of the reporting obligation, as inaccurate or late reporting would significantly diminish the value of the reporting obligation.

Verizon[126]

4.31 While Verizon said that VULA in its current state was not beneficial to it and therefore did not offer a detailed response, [✄].

Virgin[127]

4.32 Virgin said that while such a reporting requirement was often appropriate, in this case it would only be proportionate if appropriate guidance was issued. However, Virgin said that the guidance in the 2013 FAMR Consultation was not fit for purpose and

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[123] Pages 7-8 and 17-20, BT response to the 2014 FAMR Consultation.
[124] Page 20-21, Sky response to the 2014 FAMR Consultation.
[125] Pages 2-3 and 6-7, TalkTalk response to the 2014 FAMR Consultation.
[126] Page 2, Verizon response to the 2014 FAMR Consultation.
[127] Page 3, Virgin response to the 2014 FAMR Consultation.

that in any case it was premature to issue such guidance (see paragraphs 4.18-4.19).

Vodafone[128]

4.33 Vodafone said that availability of data within reasonable time periods was essential to the effective functioning of the test. However, it reiterated its previous comments in support of testing products before launch (see paragraph 4.20).

Confidential respondent [✂][129]

4.34 A confidential respondent [✂] supported the reporting requirement, subject to the following. It said the reports should be provided on a quarterly basis, given BT regularly changes its promotional pricing, as well as prior to the product launch. It said BT should provide reports on request as BT could manipulate the timing of its price changes and that there should be a pre-established compliance model to assist swift analysis of the reports.

Analysis of options for the framework for regulating the VULA margin

4.35 We now consider the options for regulating the VULA margin to achieve our overall regulatory aim (set out in Section 3) of ensuring that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. We consider that this aim is best achieved in this review period by ensuring that BT does not set the VULA margin such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) from being able to profitably match BT's retail superfast broadband offers.

4.36 We first rule out certain proposals which we consider are simply not capable of achieving the aim or are otherwise disproportionate. We then detail a series of options covering both the form of the specific requirement and the compliance/testing of that requirement that we consider are capable of addressing the aim. For each of these options, we assess how effective they are in achieving the aim; and, for those that are likely to be effective, we consider which achieve our aim in the most proportionate way.

Proposals not further considered in this section

Cost-based wholesale price regulation

4.37 TalkTalk suggested that wholesale price regulation should be put in place if Ofcom was unable to put in place an effective remedy (e.g. in line with its preferred option of pre-launch testing of products). We consider that our proposals (as set out in paragraphs 4.106-4.108) are an effective means of meeting our overall objective, so the need to consider cost-based wholesale price regulation as a remedy does not

[128] Page 10-11, Vodafone response to the 2014 FAMR Consultation.
[129] [✂]

arise.[130] More generally, we set out our reasoning for not applying cost-based price regulation on VULA from paragraph 12.134 of the draft 2014 FAMR Statement.

Low pricing

4.38 We note that Virgin's concerns about potential low VULA charges are not directly related to the VULA margin (given the margin relates to the difference between wholesale VULA charges and retail superfast broadband charges) and were thus addressed in the draft 2014 FAMR Statement. We note that even where BT chose to amend its wholesale VULA charges in order to comply with specific requirements relating to the VULA margin, it still needs to comply with all other relevant *ex ante* or *ex post* pricing obligations.

Penalties

4.39 TalkTalk has argued that effective deterrents are necessary to prevent BT engaging in a "*margin squeeze*" and that we should publish specific guidance on how we would calculate fines. We note that all SMP conditions place a legal obligation on the SMP operator to comply with those conditions and that failure to comply can result in substantial penalties. Therefore, we consider that this ought to act as a substantial deterrent to breaching an obligation set out in the proposed SMP condition. In response to TalkTalk's call for specific guidance, we have published guidelines on determining the amount of penalties imposed by us under the CA03[131] and do not consider that it is necessary to supplement these guidelines in this case.

Does competition law address our aim?

4.40 We have considered whether the constraints imposed on BT under *ex post* competition law under Chapter II of the Competition Act 1998 and/or Article 102 of the Treaty on the Functioning of the European Union already address our aim of ensuring that BT does not set the VULA margin such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) from being able to profitably match BT's retail superfast broadband offers.

4.41 It will be an abuse of a dominant position under *ex post* competition law for a dominant undertaking to engage in a margin squeeze.[132] This typically requires an assessment of whether a dominant undertaking charges a price for a product on the upstream market which, compared to the price it charges on the downstream market, does not allow even an equally efficient competitor to trade profitably in the downstream market on a lasting basis.[133] In order to assess whether the pricing

[130] As explained in paragraphs 4.43-4.47, regulating the VULA margin is equivalent to a 'retail minus' control.

[131] Ofcom, *Penalty guidelines*, June 2011, http://www.ofcom.org.uk/about/policies-and-guidelines/penalty-guidelines/.

[132] *Deutsche Telekom AG v Commission* [2010] Article 102(a); Case C-280/08, 5 CMLR 27; *Konkurrensverket v TeliaSonera Sverige AB* [2011], Case C-52/09, 4 CMLR 982.

[133] Paragraph 80, EC, *Communication from the Commission – Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty (now Article 102 of the Treaty on the Functioning of the European Union) to abusive exclusionary conduct by dominant undertakings (2009/C 45/02)*, 24 February 2009, http://www.eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:045:0007:0020:EN:PDF.

practices of a dominant undertaking are likely to eliminate a competitor contrary to competition law, it is necessary to adopt a test based on the costs and the strategy of the dominant undertaking[134]. In limited circumstances the costs and prices of competitors may be relevant, and adjustments to reflect these may be made to the dominant operator's costs.[135]

4.42 In this case we do not consider that it is likely that all the features of a margin assessment that we consider necessary to achieve our aim (as set out in Sections 5 and 6) would also form part of an *ex post* margin squeeze assessment. Further, to the extent that such features would form part of any such *ex post* assessment, we do not consider that competition law would be effective in achieving our aim; we consider that *ex ante* regulation minimises risks around BT's non-compliance from any uncertainty in respect of the *ex post* position and any uncertainty arising out of the requirement under *ex post* competition law to establish an effect on competition. Accordingly, we consider that ex *ante* regulation is required in order to achieve our aim.

Conceptual features of margin regulation

4.43 Where we find SMP in wholesale telecoms markets, we typically impose some form of *ex ante* regulation on wholesale prices. That wholesale regulation can take a number of different forms.

4.44 As discussed in paragraph 4.37 and in the draft 2014 FAMR Statement, we do not consider that cost-based regulation of the wholesale VULA price is appropriate. This is for a number of reasons including the harm to investment incentives if we were to constrain prices in a way that prevents BT from capturing the upside of risky investments. However, for the reasons set out in Section 3 above, our provisional view is that *ex ante* regulation is needed to ensure that BT maintains an adequate margin between its retail prices and the wholesale price of VULA.

4.45 Conceptually, margin regulation is equivalent to a 'retail minus' control on the wholesale price. Put simply, if BT is required to maintain a retail margin of at least £X/month then this is equivalent to setting a maximum wholesale price equal to the retail price minus £X/month.

4.46 Protecting the retail margin in this way has a number of important differences compared to a 'cost plus' control on wholesale prices. The regulated firm retains the flexibility to set whatever level of wholesale prices it wishes (provided that its retail price is suitably above that wholesale price). As a result, a 'retail minus' control can protect retail competition while still allowing the regulated firm to earn an appropriate

[134] *Deutsche Telekom AG v Commission*, Case C-280/08.

[135] See paragraph 45, *Konkurrensverket v TeliaSonera Sverige AB [2011],* Case C-52/09 4 CMLR 982*: "This might in particular be the case where the cost structure of the dominant undertaking is not precisely identifiable for objective reasons, or where the service supplied to competitors consists in the mere use of an infrastructure the production cost of which has already been written off, so that access to such an infrastructure no longer represents a cost for the dominant undertaking which is economically comparable to the cost which its competitors have to incur to have access to it, or again where the particular market conditions of competition dictate it, by reason, for example, of the fact that the level of the dominant undertaking's costs is specifically attributable to the competitively advantageous situation in which its dominant position places it*".

return at the wholesale level (in particular where an apparently high return may be appropriate where it is the reward for risky investment).

4.47 In summary, we consider that *ex ante* regulation of the VULA margin is in line with our general regulatory approach of intervening to address SMP at the wholesale level. While a cost-based control on the wholesale VULA price is not appropriate, we consider that requiring BT to maintain a minimum margin and thereby preventing it from engaging in a price squeeze at the retail level is appropriate given the discussion in Section 3. We now assess the options for implementing such a requirement.

Form of the VULA margin requirement – assessment of options

4.48 This subsection sets out options for the form of requirement which we might impose on BT (in some cases supplemented by guidance) through which we would regulate the VULA margin. We assess how certain each option is from the perspective of BT's compliance and the extent to which each option gives rise to a risk that market developments mean that the option may no longer be appropriate over the period of the market review. Having done so, we then go on to assess which options are effective in achieving our aim and for those that are, we then consider which of these is the least onerous (i.e. most proportionate) option.

4.49 We have developed the following options, based on our consultation proposals and stakeholder feedback, in particular from [✂], TalkTalk and Vodafone:

- Option A – an SMP condition requiring BT to supply VULA on fair and reasonable terms, conditions and charges supplemented by guidance on how we are likely to undertake our assessment when testing whether the VULA margin complies with that SMP condition.

- Option B – an SMP condition requiring BT to set the VULA charge so as to maintain a minimum differential between the wholesale VULA price and the price of the retail packages offered by BT that use VULA as an input ('minimum VULA margin'), supplemented by guidance on how we are likely to undertake our assessment of compliance with the condition (our preferred option).

- Option C – an SMP condition on BT that requires it to maintain a minimum VULA margin which would be specified by means of a model set out in the SMP condition.

- Option D – an SMP condition specifying a minimum VULA margin (expressed as a precise value) that BT must maintain during the review period.

4.50 We note that Option A would rely on the fair and reasonable VULA terms, conditions and charges obligation set out in the draft 2014 FAMR Statement. Options B-D would remove this requirement insofar as it relates to the VULA margin with respect to the packages offered by BT Consumer[136], replacing it with a specific SMP condition on the VULA margin.

[136] It would still apply to BT Business packages as well as other VULA terms, conditions and charges. Also see discussion from paragraph 5.68.

Option A – an SMP condition requiring BT to supply VULA on fair and reasonable terms, conditions and charges supplemented by guidance on how we are likely to undertake our assessment when testing whether the VULA margin complies with that SMP condition

4.51 As noted in the paragraph above, this option would rely on the requirement that we are provisionally imposing on BT, which would require it to provide VULA on fair and reasonable terms, conditions and charges (SMP Condition 1). When assessing whether BT was complying with this requirement, we would consider whether BT is maintaining a wholesale VULA price which allows for an appropriate differential relative to its retail prices. We would supplement this with guidance on how we would be likely to undertake our assessment when testing whether the VULA margin complies with this requirement.

4.52 The fair and reasonable SMP condition supplemented by detailed guidance would provide BT with a reasonable degree of certainty to enable it to set a margin that complies with the requirement. However, this would provide a lesser degree of certainty than an option which specified as part of the SMP condition elements which under this option would instead be contained in guidance. This is because guidance only gives an indication of the likely approach that Ofcom might take in the future and we may need to revisit our approach each time we make an assessment particularly in relation to a new product not envisaged by the guidance or where market conditions changed during the review period. There would also be uncertainty in relation to adjustments to BT's costs to reflect the costs of its competitors if this was not specified in the SMP condition.[137] We also note these circumstances could equally create uncertainty for other CPs in judging BT's compliance.

4.53 On the other hand the flexibility provided by guidance, which would allow Ofcom to adapt its approach to changing circumstances, means that there is a lower risk that this option may no longer be appropriate or optimal over the market review period. It could, for example, accommodate the launch of a major new type of product by BT[138] or allow for a more appropriate approach to calculating a particular cost than that set out in the guidance. If all the parameters of the test were contained in the SMP condition (e.g. Option C), it may be necessary to update the SMP condition to take into account the changed circumstance(s)[139] which would take time, during which the requirement imposed on BT may no longer be appropriate or optimal.

Option B – an SMP condition requiring BT to set the VULA charge so as to maintain a minimum VULA margin, supplemented by guidance on how we are likely to undertake our assessment of compliance with the condition (our preferred option)

4.54 This option would impose an explicit requirement on BT to set the VULA charge so as to maintain a minimum VULA margin. The obligation would set out the approach

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[137] Under a guidance-based approach Ofcom would need to consider the need for and level of any adjustment, based on the latest available information. However this complicates compliance for BT. Since it may be poorly informed about its competitors' costs, it may find it difficult to judge what adjustments we would consider appropriate.

[138] An historical example of such a change is BT's decision in May 2013 to include its BT Sport channels with its broadband packages for no additional charge.

[139] Otherwise the test may incorrectly conclude BT was non-compliant when in practice it was or that BT was compliant when in practice it was not.

that needs to be applied by BT, including the definition of a price squeeze and the treatment of certain key parameters. We would publish detailed guidance on our likely treatment of specific costs and revenues and the mechanics of how we would assess the VULA margin.

4.55 We have developed this option following significant further analysis and consideration of stakeholder responses to our 2013 and 2014 FAMR Consultations.

4.56 Specifying in detail in the condition the requirement on BT provides certainty to BT and other CPs of the specific obligation and key parameters that BT is required to comply with. In particular, inclusion of certain parameters in the SMP condition that BT must follow limits the scope for ambiguity around what BT is required to do.[140] We note that since this obligation is supplemented by guidance, the considerations set out in paragraph 4.52 also generally apply, although to a lesser extent given certain key parameters are contained in the SMP condition rather than guidance.

4.57 This option involves an SMP condition setting out the basic minimum requirements that BT must comply with but also guidance covering the more detailed treatment of costs, revenues and the mechanics of assessment. This combination means that there is likely to be flexibility sufficient to accommodate the launch of a major new type of product by BT[141] or allow for a more appropriate approach to calculating a particular cost, which limits the extent to which this option may cease to be appropriate or optimal over the market review period as a result of changing circumstances. The circumstances in which it would be necessary to amend the SMP condition to reflect changing circumstances ought to be relatively limited.

Option C – an SMP condition on BT that requires it to maintain a minimum VULA margin which would be specified by means of a model set out in the SMP condition

4.58 Under Option C we would impose a requirement on BT to maintain a minimum VULA margin which would be specified by means of a model set out in the SMP condition. This requirement would set out exactly how costs and revenues should be measured for the purposes of calculating the minimum margin requirement. It would likely involve a complex SMP condition specifying scores of parameters and the calculations that should be performed with them. We have developed this option taking into account suggestions from [✂], TalkTalk and Vodafone.[142]

4.59 Including in the condition detail on exactly how to calculate the minimum margin would provide a high degree of certainty for BT in ensuring it is meeting the requirements of the condition. BT would be able to calculate the precise minimum margin and assess whether it was in compliance.[143] Other CPs could also use the detail set out in the condition in order to assess BT's compliance.[144]

[140] In particular, we propose specifying the adjustments that BT should make to its costs as part of the SMP condition (see Section 5). This addresses the drawback of Option A set out in footnote 137.

[141] As in footnote 138, an historical example of such a change is BT's decision in May 2013 to include its BT Sport channels with its broadband packages for no additional charge.

[142] We note their argument that a pre-specified model would be necessary to support pre-launch testing (as discussed in the next subsection).

[143] Noting it may need to do this on an ongoing basis to ensure the compliance was maintained.

[144] Noting they may need to make assumptions about BT data that is deemed to be confidential.

4.60 However, there is an increased risk that the detailed specifications required under this option may no longer be appropriate or optimal over the market review period as a result of changing circumstances, such as where BT launches a new type of product or where there was a more appropriate way of calculating an individual parameter. At this point, the minimum margin resulting from application of the condition may no longer be appropriate or optimal. In such a case it would be necessary for us to amend the obligation during which time this position would continue.

4.61 This could mean that BT is able to launch products that would be compliant with the stated minimum margin but would not be with a revised margin that took into account the revised set of circumstances.

4.62 We also consider there would be a significant regulatory burden on BT where the model inadvertently required BT to maintain a higher margin than was necessary to achieve the aim or where it prevented BT from launching new or innovative offers. This could prevent BT from competing effectively in the market until changes to the model could be consulted on and implemented.

<u>Option D – an SMP condition specifying the minimum VULA margin (expressed as a precise value) that BT must maintain during the review period</u>

4.63 Option D involves specifying the minimum VULA margin in an SMP condition. We note that a confidential respondent [✂] was supportive of this option. This differs from Option C in that this would specify a precise numerical value rather than calculating the minimum margin by reference to BT’s costs and revenues at any particular point in time.

4.64 Specifying the minimum margin in the condition would provide BT with a high degree of certainty as to how it could comply with the condition as it would simply be a case of ensuring that the difference between its wholesale and retail charges was no less than the minimum margin. This would also be transparent to other CPs.[145]

4.65 However, there is a high risk that this option may no longer be appropriate or optimal over the market review period as a result of changing circumstances, noting the developing nature of the market as discussed in Section 3. It would require assumptions about costs and revenues over the course of the review period and there is a significant risk these could turn out to be incorrect. As with Option C, in such a case it would be necessary to amend the obligation during which time there could be an inappropriate or sub-optimal margin. It could also enable BT to launch products that would be compliant with the stated minimum margin but would not be with a revised margin that took into account the revised set of circumstances.

4.66 In this case, compliance with the minimum margin may in practice not allow a competitor with slightly higher costs to match BT’s offers, which would undermine the achievement of our regulatory aim. There is also a risk it could also have the opposite effect and impose a regulatory burden by requiring BT to maintain a minimum margin higher than that necessary to allow a competitor with slightly higher costs to match BT’s offers.

[145] Noting in the case the minimum margin was based on a portfolio of products (e.g. a basket) they would need to make assumptions about volumes.

Provisional conclusion on options for the form of the VULA margin requirement

4.67 We now consider which of Options A-D are likely to be effective in achieving our aim, and for those that are effective, which is the least onerous option. Our assessment is largely based on whether they will provide sufficient certainty as to the margin that BT needs to maintain and whether they are likely to remain appropriate over the period of the market review. In undertaking this assessment, we also take into account the regulatory burden on BT.

4.68 While we consider that Option A would achieve our aim to some degree, it is not likely to be as effective as Options B-D. It would provide a lesser degree of certainty than an option which specified as part of the SMP condition elements which under this option would be contained in guidance. BT could face uncertainty since all the key requirements would be specified as guidance rather than an SMP condition.

4.69 We consider that Option B is likely to be more effective in achieving our aim, by delivering an appropriate balance between providing sufficient certainty and retaining the flexibility to adjust to the likely changes we might expect with a developing market. It would provide BT with a reasonable degree of certainty of the margin it needed to maintain, by specifying the overall requirement and certain key parameters in an SMP condition supplemented by guidance on the more detailed treatment of costs and revenues and on the detail of our approach to the assessment. It is also likely to remain appropriate over the market review period given that the aspects of the VULA margin assessment most likely to be subject to changes in the market will be set out in the guidance which will allow for modifications in approach. Given this, we consider that Option B provides greater certainty than Option A while not imposing any significantly greater burden on BT.

4.70 Option C would provide BT with a high degree of certainty of the margin it needed to maintain. However, we are concerned that the effectiveness and proportionality of this option could be eroded where the model was not able to adapt to changes in the market or it took time to make such changes. In such a case, until the model could be updated there is a risk it would impose a greater or weaker restriction on BT than was necessary or appropriate. Therefore, we are concerned that changing circumstances over the market review period could cause this option to be either ineffective (where the margin requirement was insufficient to achieve our aim) or could become unduly burdensome and disproportionate (where the margin requirement was more than that required to achieve our aim).

4.71 Option D would set out exactly the margin BT needed to maintain. However, we are concerned that the effectiveness and proportionality of this option could be significantly eroded where the minimum margin no longer reflected current market circumstances. In such a case, until the minimum margin could be updated there is a risk it would impose a greater or weaker restriction on BT than was necessary or appropriate. The former could prevent BT from competing effectively in the market until changes to the minimum margin could be consulted on and implemented. Therefore, as with Option C, we are concerned that changing circumstances over the market review period could cause this option to be either ineffective (where the margin requirement was insufficient to achieve our aim) or could become unduly burdensome and disproportionate (where the margin requirement was more than that required to achieve our aim).

4.72 Therefore, in light of the considerations set out above, we consider that Option B is the most appropriate and proportionate option.

Assessment of compliance/testing options

4.73 Having identified our preferred option on the form of requirement to impose on BT to regulate the VULA margin we have also considered the need, and options, for monitoring BT's compliance with this requirement.

Assessment of the need for additional compliance monitoring and testing obligations

4.74 BT is subject to a number of SMP conditions across a range of markets in which it holds SMP. We may investigate potential non-compliance as a result of a dispute or complaint by a third party. We may also commence an own-initiative investigation if we have reason to believe it may not be compliant (e.g. as a result of our general monitoring of the market). Where any such investigation was appropriate, we would use our statutory information gathering powers to collect evidence for the purposes of our assessment.

4.75 In some cases, we also require BT in the SMP condition to provide certain information necessary for us to assess BT's compliance with that obligation on a periodic basis. One such example is for charge controls, where we impose a specific obligation on BT to record, maintain and supply data necessary for Ofcom to monitor compliance with the price control. This requirement is imposed in recognition of the importance of BT complying with its charge control obligations and the fact that without certain information (particularly volume information) it is difficult to proactively monitor compliance. We consider this is a necessary part of the overall charge control obligation to allow us to monitor and if necessary enforce compliance with the condition.

4.76 We also note more generally that other European NRAs actively ensure compliance through regular testing of the margin, in some cases prior to product launch.[146] While NRAs will have varying reasons for applying such a mechanism, such mechanisms may be considered necessary where they consider there is a very high potential for, and/or significant direct consequences, of non-compliance. In the case of requiring prior approval, this could be to avoid significant detriment caused by a non-compliant product being offered in the market which may not be able to be reversed, for example, if it caused a competitor to exit the market.

4.77 In Section 3, we noted that the period covered by this market review is likely to be important for whether effective competition in superfast broadband emerges. We observed that were BT to use its SMP in the WLA market over the period of the market review to achieve a large share of VULA-based retail superfast broadband subscribers this would be likely to distort competition to the detriment of competition and consumers. A breach of our proposed VULA margin regulation which persists for a period without detection could thus result in a distortion of competition. Therefore, we consider that it is important that we are able to identify any breaches of the proposed VULA margin requirement in a sufficiently timely manner to prevent this, and accordingly, consider it appropriate to put in place specific compliance monitoring and testing processes.

[146] For example, in Ireland and Austria.

Assessment of options

4.78 Based on stakeholder feedback, including from [✂], TalkTalk and Vodafone, we have developed the following three options for compliance monitoring and testing:

- Option (i) – BT to provide the data necessary to monitor compliance with the proposed VULA margin condition to Ofcom every six months, with Ofcom conducting a high level assessment of the margin at six monthly intervals.
- Option (ii) – BT to provide the data necessary to monitor compliance with the proposed VULA margin condition to Ofcom before it launches a new or revised product as well as every six months, with Ofcom conducting a high level assessment of the margin before and after product launch.
- Option (iii) – Ofcom to approve new or revised products prior to launch having assessed whether or not they comply with the proposed VULA margin condition.

4.79 We now describe each of these options in more detail, including assessing the extent to which each is able to assist with identifying any breaches of the proposed VULA margin requirement in a reasonable timeframe, whether the compliance monitoring and/or testing is likely to enable an accurate assessment, the level of transparency or assurance it provides, and the regulatory burden. We then conclude by assessing whether each option is effective in achieving the aim and for those that are, which does so in the most proportionate way.

Option (i) – BT to provide the data necessary to monitor compliance with the proposed VULA margin condition to Ofcom every six months, with Ofcom conducting a high level assessment of the margin at six monthly intervals

Description of Option (i)

4.80 BT would be required to provide details of the cost and revenue necessary to demonstrate its compliance with the proposed VULA margin condition. We would require the first report to be provided two months after the condition comes into force and the second report to be provided by 30 April 2015 (in order to align subsequent reporting periods with BT's financial year end).[147] Subsequent reports would require information to be provided in respect of a previous six month period[148] and reporting would be required to be provided within one month of the end of the relevant six month period.

[147] This first report would be provided on the costs and revenues for the first month the condition is in force. BT would then have a month to prepare the information to submit to Ofcom.

[148] To illustrate, if the condition came into force on 31 October 2014, BT would be require to provide the first report on 31 December 2014 (covering the period 1-30 October 2014), the second on 30 April 2015 (covering the period 1 November 2014 to 31 March 2015), the third on 30 October 2015 (covering the period 1 April 2015 to 30 September 2015) and so on. We note that TalkTalk said an additional report should be provided three months after the condition came into force. We consider this is unnecessary as the likelihood is that the second report will be provided sooner than six months due to the condition coming into force mid-way through a reporting period (in the example, it is provided four months after the first).

4.81 Upon receiving the report we would undertake a high level assessment and make any necessary queries with BT regarding the data. We would consider opening a formal investigation if we considered there was a reasonable suspicion of non-compliance. However, we would not conduct a formal investigation as a matter of course each time we received a report.

Assessment

4.82 In relation to the extent to which this option is able to assist with identifying any breaches of the proposed VULA margin requirement in a reasonable timeframe, we note the following:

- First, while we would not conduct a full investigation each time we received a report, we consider that the cost and revenue data provided is likely to assist our ability to detect non-compliance (in particular more obvious non-compliance) and if warranted, commence a full investigation in a reasonable timeframe. The provision of this information would also mean that such a full investigation would have a good starting position.

- Second, we note that BT generally makes significant changes to its prices once or twice per year and therefore this option would allow Ofcom to monitor compliance within a reasonable timeframe of such price changes occurring. We consider that less frequent reporting, such as once per year, would be insufficient given the frequency of BT's price changes and the general fast moving market nature of the market. The six month reports could be supplemented by our formal information request powers which enable us to seek updated information from BT at any time (e.g. if it changed its prices significantly, shortly after providing the six monthly report).[149]

4.83 We note that TalkTalk said that there should be a very high degree of transparency and Ofcom should consider what can be published of the resulting report.[150] We do not propose to publish the data BT provides pursuant to this obligation, consistent with our approach to charge controls. We also consider the value of doing so would be limited as much of BT's information would be confidential and therefore would need to be redacted. Nor do we consider a public statement on BT's compliance would be appropriate, as we would not be conducting a formal investigation and reaching a definitive conclusion on BT's compliance. However, this option would provide assurance that Ofcom has undertaken a high level assessment of BT's compliance.[151]

4.84 We consider the regulatory burden of providing five or six regular reports to Ofcom during the market review period to be relatively low. We note BT already maintains a model for internal compliance purposes, although this may require adaption and checking in order to meet the requirements of this option.

[149] Given this power, and the frequency of BT's price changes, we therefore do not consider more frequent regular reports, such as quarterly, to be necessary. Nor do we consider it necessary to specifically include in the condition a requirement to provide information on request, as suggested by Sky and a confidential respondent [✂], as we consider our current powers are sufficient to enable us to seek such information.

[150] Page 7, TalkTalk response to the 2014 FAMR Consultation.

[151] We provide more detail on the proposed monitoring condition from paragraph 4.109.

4.85 Finally, some stakeholders considered that both the resource intensity of and time taken to conduct a full assessment of compliance after launch could be higher (as compared to before launch). This was due to the need to test multiple complaints from multiple complainants, each requiring their own model and interpretation of the guidance. We consider that this risk is likely to be lessened by a number of factors:

- it is not clear that we would receive multiple complaints about discrete issues. This is particularly the case with an assessment of the VULA margin across BT's portfolio of superfast broadband bundles as a whole, which is discussed further in Section 5;
- building key aspects of the requirement into the SMP condition and publishing detailed guidance on our likely approach (as proposed under Option B) would limit the number of issues we would have to determine during the investigation;
- in Section 6 we set out an indicative assessment of the VULA margin. The work already undertaken for the purposes of this assessment would provide a starting point for any investigation; and
- the results of any investigation are likely to be a useful comparator or starting point for any subsequent investigation.

Option (ii) - BT to provide the data necessary to monitor compliance with the proposed VULA margin condition to Ofcom before it launches a new or revised product as well as every six months, with Ofcom conducting a high level assessment of the margin before and after product launch

Description of Option (ii)

4.86 Under this option BT would be required to provide the data necessary to monitor compliance with the SMP condition to Ofcom before it could launch a new or revised product[152], as well as every six months. We developed this option based on TalkTalk's suggestion that pre-launch information would help to prevent potentially non-compliant offers from being available in the market.[153]

4.87 While the reporting requirement would be triggered by a new or revised product launch, BT would be required to submit the information necessary to demonstrate compliance. A threshold would be needed to ensure that the reporting requirement was only triggered by material changes to the VULA margin as a result of a new or

[152] We consider that it would be necessary to be provided this data when BT (materially) revises the prices of an existing product, in addition to when it launches a new product. This would avoid the potential for BT to circumvent this requirement by carrying out a low-key product launch before repositioning that product at a much lower retail price at a later date. It would also avoid the potential difficulty of having to define what constitutes a product launch, rather than a change to an existing product.

[153] We have made some amendments to TalkTalk's proposals such that Ofcom would conduct a high level assessment of the information provided by BT. We have done so because we do not consider it would be appropriate for Ofcom to simply "*file*" the assessment without any level of scrutiny of the substance of the information.

revised product launch.[154] The six monthly reports would be provided in the same way as that described under Option (i).

4.88 Upon receiving the reports we would undertake a high level assessment and make any necessary queries with BT regarding the data. We would consider opening a formal investigation if we considered there was a reasonable suspicion of non-compliance. However, we would not conduct a formal investigation as a matter of course each time we received a report. BT would not need to wait for Ofcom's approval before launching the new or revised product.

Assessment

4.89 This option would provide an opportunity to conduct a high assessment of compliance each time BT launches or revises a product above the materiality threshold. Given that we would not conduct a full investigation each time we received a report, this option is therefore similar to Option (i) in terms of detecting and conducting a full investigation, if that was warranted, in a reasonable timeframe, as set out paragraph 4.82.

4.90 We note that the main apparent advantage over Option (i), i.e. being able to conduct a high level assessment of BT's information before rather than after launch, is in practice likely to be limited. This is because in practice we consider that, under Option (ii), the likelihood of detecting non-compliant products in advance or soon after their launch may be low. This is because the information provided pre-launch would be based on forecasts (in particular of revenues) rather than actuals. As Ofcom would only be conducting a high level assessment, it may not be possible to identify whether the forecasts provided by BT were reasonable. This could mean BT could launch a product it deemed compliant at launch on the basis of inaccurate forecasts, but which later turned out to be non-compliant. This may only be identified at a later date (such as when conducting the high level assessment of BT's six monthly report).

4.91 We would not under this option publish the data BT provides pursuant to this obligation, consistent with our approach to charge controls. We also consider the value of doing so would be limited as much of BT's information would be confidential and therefore would need to be redacted. Nor do we consider a public statement on BT's compliance would be appropriate under this option, as we would not be conducting a formal investigation and reaching a definitive conclusion on BT's compliance. However, this option would provide assurance that Ofcom has undertaken a high level assessment of BT's compliance both before and after product launch.

4.92 Given that this option could mean BT providing compliance information to Ofcom on a more frequent basis, we consider that it could impose a moderate regulatory burden on BT. We note BT already maintains a model for internal purposes, which may require adaption if it were to form the basis of the information submitted to Ofcom.

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[154] TalkTalk suggested excluding price/promotion changes totalling less than £25 (Page 10, TalkTalk response to the 2013 FAMR Consultation), however it implied this threshold would need changes where the test was undertaken "*at a very aggregate level*" (Annex 5, TalkTalk response to the 2013 FAMR Consultation*)*.

Option (iii) – Ofcom to approve new or revised products prior to launch

Description of Option (iii)

4.93 Under this option, BT would submit to Ofcom the information necessary to assess the compliance of new or revised products with the VULA margin requirement, with BT only able to launch or revise these products once it had received Ofcom's approval that the products were compliant.[155] It would thus ensure BT's compliance prior to product launch, alongside an additional requirement for BT to provide information to Ofcom on a six monthly basis to enable it to check the product(s) were compliant in practice.[156] A threshold would be needed to ensure that only material changes were captured.

Assessment

4.94 We note that unlike Option (ii), BT's forecasts would be scrutinised by Ofcom in advance through a full investigation and that Ofcom could prevent a product launch where it considered it would lead to a breach of BT's VULA margin requirements. As per Option (i) and (ii), the compliance of the products in practice (i.e. post-launch) would then be checked at a high level by Ofcom on a regular basis. This scrutiny by Ofcom – both in advance of product launch and after – would encourage as great a degree of accuracy as possible in preventing potentially non-compliant products from being launched and if they were (e.g. on the basis of inaccurate forecasts), would facilitate them being withdrawn or amended in a timely manner. However, similar to Option (ii), the information provided pre-launch would be based on forecasts and assessing the reasonableness of those forecasts would be challenging.

4.95 Under this option CPs would know that any products approved by Ofcom were expected to be compliant with the VULA margin condition.

4.96 The key drawback of this approach is that it would place a significant regulatory burden on BT. The need for Ofcom to provide approval could delay BT's product launches, impacting its ability to respond to competitors' offers. This burden could increase if the materiality threshold were set very low, which caused BT to need Ofcom approval to launch even minor changes to its products.

4.97 Additionally there is a risk that Ofcom could prevent a launch (as it considered BT's forecasts to be unreasonable or for another reason) when in practice it would have turned out to be compliant.

Conclusion on compliance/testing options

4.98 We now consider which of Options (i)-(iii) are likely to be effective in achieving our aim and which is the least onerous option.

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[155] As explained in footnote 152, we consider that this option should encompass product revisions as well as product launches.

[156] As described in paragraph 4.90, Ofcom's approval would be in part on the basis of BT's forecasts. Accordingly, Ofcom's approval would allow BT to launch the product, but it would still be required to ensure that following launch, the products remained compliant in practice (i.e. on the basis of actuals). Accordingly, the proposed regular assessment would enable Ofcom to confirm this.

4.99 We consider that Option (i) is likely to assist us in monitoring and if necessary enforcing BT’s compliance with our proposed VULA margin requirement. This will be facilitated primarily by BT providing information on its costs and revenues every six months, supplemented by our formal powers to seek information at any time.

4.100 In terms of effectiveness, our assessment for Option (ii) is broadly similar to that for Option (i). This is because while Ofcom will receive additional reports from BT when it launches or revises a new product, the utility of these reports in monitoring, and if necessary enforcing BT’s compliance, is limited to a certain degree as they will be based on forecast rather than actual data.

4.101 We consider that Option (iii) is likely to be effective in allowing us to monitor and if necessary enforce BT’s compliance with our proposed VULA margin requirement. The scrutiny by Ofcom, both in advance of product launch and after, would provide the maximum oversight of BT’s margins. While this would reduce to the minimum the possibility of potentially non-compliant products being launched, assessing the reasonableness of pre-launch forecasts is likely to be challenging.

4.102 On balance we consider that the proposals for Options (i) and (ii) will provide a strong disincentive for BT to adopt non-compliant conduct and that in practice the additional constraints provided by Option (iii) may be limited.

4.103 Having concluded that Options (i)-(iii) would all be effective to various degrees in meeting our aim, we have assessed these options to determine which is the most proportionate.

4.104 It is our view that Option (i) is the most proportionate option. Option (iii) imposes a very significant burden on BT in that it would significantly restrict its commercial freedom every time it wanted to launch a new product or revise an existing offer, as it would need Ofcom approval first. This would significantly impede BT’s ability to compete in the market and react to events and could only really be justified where the consequences of BT breaching the VULA margin requirement were so significant (e.g. caused a competitor to exit the market before the margin could be rectified). In contrast, Option (i) provides Ofcom with the information required to assess BT’s compliance on a frequent basis such that Ofcom would be able to intervene in a reasonable timeframe to prevent any breach should it be identified without impeding BT’s ability to launch new offers and respond to competition. We do not consider the benefit of the additional requirement under Option (ii) for BT to provide information prior to product launch to be sufficiently greater than Option (i) to justify this additional requirement on BT.

4.105 Therefore, given the burden that would be imposed by Option (iii) relative to Option (i) and the lack of additional benefit of Option (ii) compared to Option (i), it is our view that Option (i) is the most appropriate and proportionate option to achieve our objective.

Final conclusion on our proposals for the approach to regulating the VULA margin

4.106 In light of our assessment above, our provisional view is that Option B combined with Option (i) are the most appropriate and proportionate measures to impose on BT in order to achieve our aim.

4.107 In reaching this provisional view we have considered whether our proposed measures produce adverse effects which are disproportionate to the aim we are pursuing. It is our provisional view that this is not the case.

4.108 In line with paragraph 4.50, we note in implementing the SMP condition (requiring BT to maintain a minimum VULA margin), we would remove the proposed fair and reasonable terms, conditions and charges VULA obligation insofar as it relates to the VULA margin with respect to the packages offered by BT Consumer.[157]

Q4.1 Do you agree with the proposed form of the VULA margin requirement and associated compliance monitoring? Please provide reasons in support of your views.

Further detail of the proposed monitoring condition

4.109 The proposed condition requires information to be provided on the same categories (i.e. upfront and ongoing revenues and costs) which we would use to conduct a full assessment, as well as such other data as Ofcom may direct from time to time. For each of these parameters, it will be necessary for BT to provide this information in a sufficiently disaggregated form to enable Ofcom to monitor and undertake a high level assessment of compliance.

4.110 As noted in the 2014 FAMR Consultation, we would undertake discussions with BT about the exact format we would expect the information to be provided in. This would include the level of aggregation and presentation of the information (e.g. it may be similar to the internal model it currently maintains).

4.111 In response to TalkTalk's detailed comments on the monitoring condition, we would expect the reports to be signed off by a person with sufficient seniority but do not consider it necessary to incorporate this as part of the condition. We would not require it to be subject to external audit, noting (a) much of the data BT provides would already ultimately be subject to external audit as a result of its statutory reporting requirements and (b) this could delay how quickly it could be provided to us. Finally, we note that non-compliance with the reporting obligation would be a breach of the SMP condition with resultant penalties for such a breach available.

[157] It would still apply to BT Business packages as well as other VULA terms, conditions and charges. Also see discussion from paragraph 5.68.

Section 5

Approach to VULA margin assessment

Introduction

5.1 This section considers the approach to assessing the VULA margin that we propose to codify in the proposed SMP condition. Identifying our approach to this assessment allows us to design the proposed SMP condition so that BT is required to set prices that are compatible with that assessment. In Section 6, we go on to provide more detail on how we would likely calculate specific costs and revenues when carrying out that assessment.

5.2 This section is structured as follows:

- explanation of a price squeeze;
- 2013 FAMR Consultation – Ofcom's position and stakeholder responses;
- appropriate conceptual approach for assessing costs – we consider whether to apply an EEO, adjusted EEO or REO standard;
- appropriate cost standard – we consider whether to assess costs on a LRIC or LRIC+ basis;
- scope of the VULA margin assessment – we consider what products should be included or excluded and the level of aggregation across different products;
- copper access technology – we consider whether to assess the costs of a WLR or Metallic Path Facility (MPF, a form of LLU) operator;
- need for an effects based analysis – we consider whether an analysis of the effects of BT's pricing on competition is needed as part of the VULA margin assessment; and
- provisional conclusions.

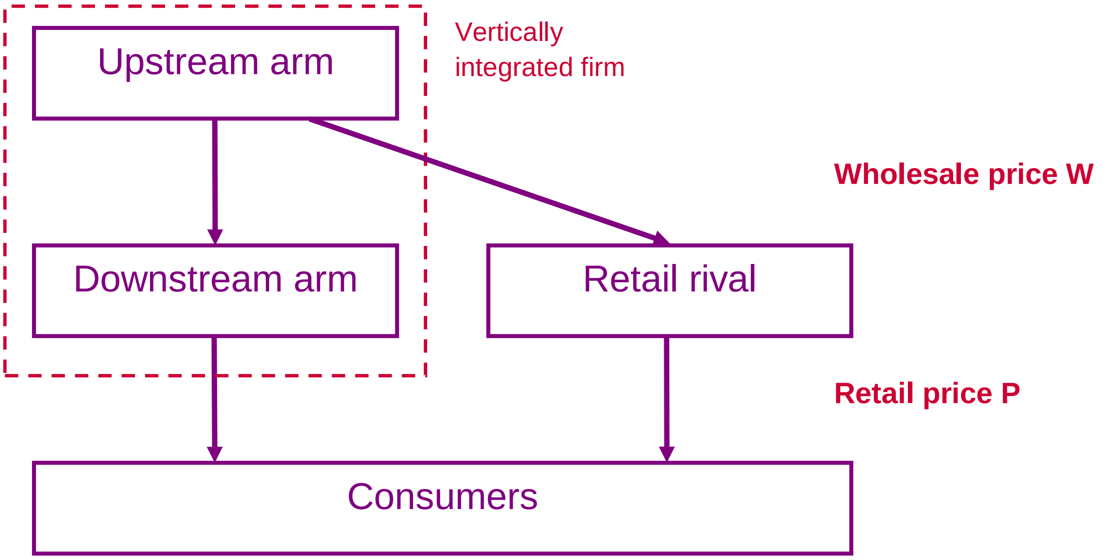
Explanation of a price squeeze

5.3 As set out in Section 3, our overall aim is to ensure that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. Provisionally, we consider that this aim is best achieved in this review period by ensuring that BT does not set the VULA margin such that it prevents an operator with slightly higher costs than BT (or some other slight commercial drawback relative to BT) from being able to profitably match BT's retail superfast broadband offers. By imposing a requirement on BT to set the VULA charge so as to maintain a minimum VULA margin, we are seeking to prevent BT from engaging in a price squeeze.

5.4 We first set out what we mean by a 'price squeeze' in this context.

5.5 To illustrate, Figure 5.1 below sets out the relationship between a vertically integrated firm (with both upstream and downstream arms) and a downstream rival.

Figure 5.1 – Illustration of a price squeeze



5.6 The vertically integrated firm's upstream arm sells the wholesale input at a price of W per unit. Its downstream arm retails the final product to consumers for a price of P per unit. The vertically integrated firm thus sets a margin of (P – W) between its wholesale and retail prices. A downstream rival that incurs costs of DC (downstream costs) per unit will be able to profitably match the vertically integrated firm's price if (W + DC) is less than or equal to P. Put another way, that rival can match the vertically integrated firms price if the margin (P – W) is sufficient to cover its other downstream costs (DC).

5.7 In assessing whether a price squeeze has occurred we need to consider the appropriate methodology for calculating both downstream costs (DC in the example in paragraph 5.6) and the margin between the wholesale price (W) and the retail price (P).

5.8 We set out in paragraphs 5.9-5.10 how we would assess the VULA margin. In terms of the example in Figure 5.1, the wholesale price of VULA forms part of W. In practice there are a number of complications that are omitted from the simple example in Figure 5.1. For example, what analytical approach should be used to calculate downstream costs (DC) and what revenues (P) should be taken into account given that superfast is sold in bundles.

5.9 Acquiring a new superfast broadband subscriber results in upfront costs and upfront revenues (e.g. subscriber acquisition costs, revenues from activation charges) as well as a stream of ongoing costs and ongoing revenues over that customer's lifetime. It is thus appropriate to consider the following factors:

- P = ongoing monthly revenue;
- W = ongoing monthly wholesale costs;[158]

[158] The ongoing monthly wholesale costs reflect the wholesale price that BT charges for VULA as well as BT's charges for WLR. See discussion on copper access technology from paragraph 5.115

- DC = ongoing monthly retail costs;
- UR = upfront customer acquisition revenues; and
- UC = upfront customer acquisition costs.

5.10 The ongoing monthly margin is (P – (W + DC)) and the net upfront costs are (UC – UR). An appropriate way to conduct the VULA margin assessment is to consider whether the ongoing monthly margin is sufficient to cover the upfront net costs by estimating the net present value (NPV) of a customer over its expected average lifetime. This involves comparing the NPV of net upfront costs (UC – UR) and the discounted value of the ongoing margin.

The 2013 FAMR Consultation

Ofcom's position

5.11 The draft guidance that we set out in the 2013 FAMR Consultation sought to ensure that the margin between the wholesale VULA price and downstream prices is sufficient to allow an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) to profitably match BT's retail superfast broadband prices.[159]

5.12 We proposed using an adjusted EEO approach, with a benchmark operator that was likely to be broadly similar to the three largest existing competitors to BT – Sky, TalkTalk and Virgin.[160]

5.13 We proposed that the benchmark operator would have the following characteristics:

- existing subscriber base – a substantial existing subscriber base;[161]
- other services supplied – supplies telephony access and calls, standard broadband and a range of superfast speeds;[162] and
- copper access technology – uses WLR technology for the supply of voice services, as BT does.[163]

5.14 We highlighted the following issues that require further consideration:

- TV services – we said we would consider whether to assume that our benchmark operator had a less profitable TV offering than BT;[164] and
- customer lifetimes – we said that we may need to consider whether our benchmark operator experiences a shorter ACL than BT and provided an overview of how we may approach this issue.[165]

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[159] Paragraphs 11.413-11.456 of 2013 FAMR Consultation.
[160] Paragraphs 11.423 and 11.425 of 2013 FAMR Consultation.
[161] Paragraphs 11.427-11.428 of 2013 FAMR Consultation.
[162] Paragraph 11.430 of 2013 FAMR Consultation.
[163] Paragraph 11.431 of 2013 FAMR Consultation.
[164] Paragraphs 11.432-11.433 of 2013 FAMR Consultation.

5.15 We considered that the appropriate cost standard was likely to be long-run incremental cost plus a contribution to fixed and common costs (i.e. a LRIC+ standard).[166]

Overview of stakeholder responses to the 2013 FAMR Consultation

5.16 In the 2013 FAMR Consultation we asked the following question:

> *Q11.5 Do you agree with our proposed approach to regulating the margin between the VULA price and BT's downstream prices? In particular:*
> *…*
> *(c) Do you agree with our draft guidance? In particular, do you agree with our benchmark operator and the ways in which such an operator differs from BT?*
>
> *Please provide reasons in support of your view.*

<u>BT</u>

5.17 BT welcomed the use of guidance to help it interpret how to comply with its SMP obligations, but had a number of concerns with the specific details of our draft guidance.[167] It considered that:

- the guidance should "*be drafted in a way that reflects market conditions and does not overly-constrain BT's pricing flexibility*";[168]
- BT's triple-play offerings[169] should be excluded from the VULA margin assessment.[170] However, it did consider that we should otherwise take a portfolio approach to assessing the VULA margin;[171]
- the use of an adjusted EEO approach[172] and the use of LRIC+[173] as a cost standard, raises concerns; and
- there was a risk that there would be "*false positives*" if the margin were solely assessed "*on the numbers*". It considered that a numerical assessment of the margin should not be used in isolation to assess its compliance with any SMP condition.[174]

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[165] Paragraphs 11.434-11.439 of 2013 FAMR Consultation.
[166] Paragraphs 11.440-11.433 of 2013 FAMR Consultation.
[167] Paragraph 297, BT response to the 2013 FAMR Consultation.
[168] Paragraph 268, BT response to the 2013 FAMR Consultation.
[169] Where broadband, fixed access, and pay TV content are offered in a bundle.
[170] BT considered that concerns about bundles that include "*Pay TV/content*" should be assessed using a competition law approach, if at all. Paragraphs 21, page 11, and paragraph 267, page 61, BT response to the 2013 FAMR Consultation.
[171] Paragraph 313(b), page 70, BT response to the 2013 FAMR Consultation.
[172] Paragraphs 302-304, page 68, BT response to the 2013 FAMR Consultation.
[173] Paragraphs 305-309, pages 68-69, BT response to the 2013 FAMR Consultation.
[174] Paragraph 300, page 67-68, BT response to the 2013 FAMR Consultation.

Sky

5.18 Sky considered that:

- the VULA margin assessment should be based on an EEO approach;[175]
- we should include the costs of BT Sport in the assessment of BT's VULA margin.[176] It noted that there was no observable wholesale charge for BT Sport and as such we would need to infer the cost that should be attributed to this content.[177] It re-iterated that the cost of content bundled with BT's VULA-based broadband packages should be included in the VULA margin assessment in its December Response.[178] Sky supported this conclusion with the paper from CRAI; and
- the CRAI paper also stated that there would need to be a test (or series of tests) that would apply to all broadband bundles[179] and that in particular triple-play bundles should be included in any assessment[180].

TalkTalk

5.19 TalkTalk agreed with some of our proposals in the 2013 FAMR Consultation, but also provided detailed responses on a number of issues. TalkTalk considered that:

- the VULA margin assessment should be applied to a few "*core product groups*", rather than across the whole fibre portfolio;[181]
- the VULA margin assessment should include bundled elements, in particular BT Sport;[182]
- we should use a LRIC+ cost standard;[183]
- we should make a number of changes to BT's costs, reflecting the higher costs of rivals.[184] We discuss TalkTalk's specific proposals in Section 6 (see in particular

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175 Paragraphs 3.24-3.35, page 10-11, Sky response to the 2013 FAMR Consultation.
176 Paragraph 3.37, page 12, Sky response to the 2013 FAMR Consultation.
177 Paragraphs 3.42-3.43, page 12, Sky response to the 2013 FAMR Consultation.
178 Paragraph 1.7, page 2, Sky, *Ofcom's Fixed Access Market Review Appropriate Scope of Products Included in Ofcom's Proposed VULA Margin Test*, 16 December 2013 ('Sky submission on VULA margin test').
179 Page 1, CRAI Report prepared for Sky.
180 Page 1, CRAI Report prepared for Sky.
181 Paragraphs 2.73-2.79, pages 14-15, TalkTalk reply to BT's FAMR response and paragraphs 5.9-5.20, pages 7-9, Annex 5, TalkTalk response to the 2013 FAMR Consultation. Also [✂].
182 Paragraph 5.52, page 15, TalkTalk response to the 2013 FAMR Consultation; paragraph 5.8, page 43, Annex 5, TalkTalk response to the 2013 FAMR Consultation; and paragraphs 2.63-2.67, page 13, of TalkTalk reply to BT's FAMR response.
183 Paragraph 5.52, page 15, and paragraph 5.7, page 43, Annexe 5, TalkTalk response to the 2013 FAMR Consultation.
184 Paragraphs 5.61-5.80, pages 16-19, TalkTalk response to the 2013 FAMR Consultation and paragraph 5.21-5.63, pages 45-52, Annex 5, TalkTalk response to the 2013 FAMR Consultation.

paragraph 6.22). It also considered that we should assess the position of an MPF operator, rather than a WLR operator;[185] and

- where there was uncertainty in a modelling parameter then we should err towards setting the value that would lead to a higher margin. In other words it thought we should "*aim up*" when assessing the minimum acceptable margin.[186] (We address this issue in Section 6.)

5.20 In its reply to BT's response to the 2013 FAMR Consultation, TalkTalk disagreed with BT's suggestion that we should exclude triple-play bundles from our assessment.[187] It argued that we did not need to undertake a specific review of triple-play packages[188] and that in any case, BT did not face any disadvantages with respect to triple-play packages.[189] TalkTalk argued that it was not necessary for Ofcom to undertake an "*effects based test*" when assessing whether BT has complied with our proposed SMP condition.[190]

Confidential respondent [✂]

5.21 Confidential respondent [✂] considered that:

- while it had previously advocated an REO approach, it also considered that an adjusted EEO approach could be used;[191]
- we should include the costs of BT Sport in the VULA margin assessment;[192]
- [✂];[193] and
- we should use a shorter customer lifetime than BT, in particular taking into account the possibility of supplying broadband-only bundles.[194]

5.22 Note that [✂] we discuss the fourth issue in Section 6.

Other respondents

5.23 Others stakeholder responses are summarised below:

- Virgin considered that we should use an EEO approach.[195]

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[185] Paragraphs 5.56-5.59, pages 15-16, TalkTalk response to the 2013 FAMR Consultation.
[186] Paragraph 5.60, page 16, TalkTalk response to the 2013 FAMR Consultation. See also paragraph 5.5-5.6, pages 42-43, Annex 5, TalkTalk response to the 2013 FAMR Consultation.
[187] Paragraphs 2.52-2.62, pages 11-12, TalkTalk reply to BT's FAMR response.
[188] Paragraphs 2.68-2.72, page 14, TalkTalk reply to BT's FAMR response.
[189] Paragraphs 2.80-2.86, pages 15-16, TalkTalk reply to BT's FAMR response.
[190] Paragraphs 2.36-2.48, pages 8-10, TalkTalk reply to BT's FAMR response.
[191] [✂]
[192] [✂]
[193] [✂]
[194] [✂]
[195] Page 18, Virgin response to the 2013 FAMR Consultation.

- Vodafone considered that an assessment should be made of individual "*services/offers*".[196]

- A confidential respondent [✂] thought that we should use an REO approach.[197]

Appropriate conceptual approach for assessing costs

5.24 In assessing whether a vertically integrated operator is allowing a sufficient margin between its wholesale price and its downstream price, it is possible to distinguish between three possible conceptual approaches for assessing costs:

- EEO approach – this involves assessing whether the vertically integrated firm's downstream arm could operate profitably if it had to pay an equivalent wholesale price as charged to downstream competitors. This approach assesses whether firms that are as efficient as BT would be able to match its retail prices.

- Adjusted EEO approach – this is based on the vertically integrated firm's own costs but some adjustments are made to reflect cost advantages that the firm may have. This approach will result in a larger minimum margin than the EEO approach.

- REO approach – this involves examining whether the difference between the vertically integrated firm's retail and wholesale prices is sufficient for a 'reasonably efficient' downstream competitor to make a normal rate of return. Under this approach, the costs of the entrant are the relevant costs, not those of BT. This approach assesses whether firms that are reasonably efficient would be able to match BT's superfast broadband retail offers.

5.25 In the 2010 WLA Statement we stated that we were likely to initially consider whether the margin was sufficient to cover the costs of an REO.[198] In the 2013 FAMR Consultation, we considered that an adjusted EEO approach best described the basis on which we would assess the VULA margin in practice, although we noted that an REO approach could produce a similar outcome (depending on the adjustments to EEO that are made).[199]

Stakeholder responses

5.26 BT, Sky and Virgin favoured an EEO approach. One confidential respondent, [✂] suggested an REO or adjusted EEO approach. Another confidential respondent [✂] favoured an REO approach.

5.27 BT considered that the EEO approach would be appropriate under competition law and that if we "*depart from the analytical model for margin squeeze assessments under competition law, there should be a clear rationale for doing so*".[200]

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[196] Page 11, Vodafone response to the 2013 FAMR Consultation.
[197] [✂]
[198] Paragraph 8.132.
[199] Paragraph 11.423 of the 2013 FAMR Consultation.
[200] Paragraph 272(b)(i), page 63, BT response to the 2013 FAMR Consultation. As well as disagreeing with the use of an adjusted EEO approach, BT also raised concerns about the discussion

5.28 Sky considered that there was "*no compelling reason for departing from the normal, competition law based EEO standard*".[201] Sky considered that deviating from an EEO standard would require Ofcom to both develop a model of a hypothetical benchmark operator, and set out an explanation of its approach in *"meaningful"* guidance.[202] It considered that it would be preferable to allow BT and other CPs to rely on *"many years of competition law jurisprudence in relation to margin squeezes*".[203]

5.29 Virgin considered that an indication that "*wholesale pricing was being decreased by regulation may have a chilling effect on investor confidence in NGA advancement*" and therefore advocated "*the use of a 'pure' EEO test as adopted by the Commission in Recital 64 of the 2013 EC Recommendation*[204]".[205]

5.30 In its response to the 2012 FAMR Call for Inputs, one confidential respondent [✂] considered that we should use an REO approach. In its 2013 FAMR response, it stated that "*an adjusted EEO approach that reflected the commercial disadvantages that non-BT operators suffer in this market*" would also be appropriate.[206]

5.31 TalkTalk considered that the margin squeeze assessment should "*reflect the costs of an efficient scale competitor as accurately as possible*".[207] However, it considered that the assessment should be based on "*BT's data, plus an adjustment factor reflecting the extent of higher costs*".[208] TalkTalk also made a number of suggestions about how we should estimate revenues, retail costs, wholesale costs, and customer lifetime of an efficient entrant. We address these detailed points in Section 6.[209]

5.32 Confidential respondent [✂] favoured an REO approach. It considered that:

- "*The REO test allows an allegedly offended entity to test themselves whether or not they are being abused by a dominant provider*". In contrast, an adjusted EEO approach places the three named "*benchmark operators*" at a competitive advantage as they are able to undertake the analysis without a complaint being brought to the regulator;
- an EEO or adjusted EEO approach could allow BT and/or Ofcom to "*distort the analysis*";
- an adjusted EEO approach risks being "*mechanistic*"; and

of potential adjustments in the 2013 FAMR Consultation. Paragraph 275, BT response to the 2013 FAMR Consultation.

201 Paragraph 3.28, page 10, Sky response to the 2013 FAMR Consultation.
202 Paragraph 3.33, page 11, Sky response to the 2013 FAMR Consultation.
203 Paragraph 3.32, page 11, Sky response to the 2013 FAMR Consultation.
204 i.e. the Costing and Non-discrimination Recommendation.
205 Page 6, Virgin response to the 2013 FAMR Consultation.
206 [✂]
207 Paragraph 5.4, page 42, Annex 5, Part 1 of TalkTalk response to the 2013 FAMR Consultation.
208 Paragraph 5.5, page 42, Annex 5, Part 1 of TalkTalk response to the 2013 FAMR Consultation.
209 Paragraphs 5.21-5.63, pages 45-52, Annex 5, Part 1, TalkTalk response to the 2013 FAMR Consultation.

- our approach could fetter Ofcom's discretion in future Competition Act complaints.[210]

Ofcom's provisional position

Previous Ofcom positions in *ex ante* margin regulation

5.33 We have previously considered the *ex ante* regulation of margins in a number of different contexts. In the 2010 WLA Statement we indicated that an assessment of BT's VULA margin would initially be based on an REO standard.[211] We previously considered BT's margin between IPStream and ATM interconnection prices ('the WBA Margin')[212] and also the margin between Sky's wholesale and retail prices for Sky Sports 1 and Sky Sports 2.[213] In regulating the WBA Margin we used the concept of a "*similarly efficient operator*". This used the cost functions of the dominant firm but adjusted for scale and scope. We also took the approach of using the incumbent's costs and adjusting for scale in setting Sky's wholesale charges for Sky Sports 1 and Sky Sports 2.

5.34 We have also placed an *ex ante* obligation on Royal Mail in relation to the margin between its retail prices and the price it charges for access to its network. However that obligation was not seeking to promote competition in the same way that we are proposing in relation to superfast broadband. Rather it represented a "*glide path*" between the existing regime and our preferred long-term approach for preventing price squeeze based on *ex post* competition law powers.[214]

5.35 The appropriate cost standard depends on the purpose of the regulation, but it is noteworthy that we have previously applied either an adjusted EEO or REO cost standard when we are seeking to promote competition.

An EEO approach is not appropriate.

5.36 BT and Sky argued that we should adopt an EEO approach since this is the standard often used in competition law cases. As set out in detail in Section 3, we propose that the best way of achieving our overall aim is ensuring that BT does not set the VULA margin such that it prevents an operator with slightly higher costs than BT (or some other slight commercial drawback relative to BT) from being able to profitably match BT's retail superfast broadband offers. In our provisional view, an EEO approach is not appropriate for achieving this objective.

5.37 Virgin was concerned that failing to adopt an EEO approach would lead to lower wholesale VULA prices, and that this would harm confidence in NGA investment. An

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[210] [✂]

[211] Paragraph 8.132-8.136 of 2010 WLA Statement.

[212] Paragraph 2.5, Ofcom, *Direction Setting the Margin between IPStream and ATM Interconnection Prices*, August 2004, http://stakeholders.ofcom.org.uk/binaries/consultations/adsl_price/statement/statement.pdf.

[213] Paragraph 10.60, Ofcom, *Pay TV Statement*, March 2010, http://stakeholders.ofcom.org.uk/binaries/consultations/third_paytv/statement/paytv_statement.pdf.

[214] Paragraph 10.119, Ofcom, *Securing the Universal Postal Service*, 27 March 2012, http://stakeholders.ofcom.org.uk/binaries/consultations/review-of-regulatory-conditions/statement/statement.pdf.

adjusted EEO or REO approach will typically lead to a larger margin between the wholesale and retail prices than an EEO approach. We consider that Virgin's argument goes more to whether our objective is appropriate – which we have considered in Section 3.

5.38 We agree with BT and Sky that, if our guidance departs from an EEO standard, it is important to be clear what this entails. Accordingly our proposed SMP condition codifies those adjustments that we consider should be made to BT's costs when assessing the VULA margin.

A full REO approach is not appropriate

5.39 We do not agree with a confidential respondent's [✂] arguments in favour of an REO approach. It considered that, under an adjusted EEO approach, Virgin, Sky, and TalkTalk have a competitive advantage with respect to other operators. In contrast, it claimed that under an REO approach rivals could determine if they were being "*abused*". We disagree and it may be that the confidential respondent [✂] has a different understanding of what an REO approach entails. Each operator's costs are different and even under an REO approach we would not model each operator's costs individually. Instead, we would construct a reasonably efficient benchmark operator and derive costs for this operator e.g. taking into account data from BT and its rivals. It is entirely possible that, even if BT is complying with our proposed SMP condition, the VULA margin is nonetheless insufficient for a particular operator to recover its costs because that operator's costs are higher than those assumed under an REO approach. This could be because that particular operator does not have sufficient scale or has a degree of inefficiency. An REO approach does not guarantee that any particular operator will necessarily be able to recover its costs.

5.40 A confidential respondent [✂] also considered that an adjusted EEO approach (but not an REO approach) allows BT and Ofcom to "*distort*" the analysis. It is unclear what distortions the confidential respondent [✂] is referring to or how they differ in practice between an adjusted EEO and an REO approach. In particular, both an REO and an adjusted EEO approach involve a degree of regulatory judgment as to the appropriate levels of costs for rivals.

5.41 A confidential respondent [✂] considered that our proposed approach *"could be interpreted...as a mechanistic approach contrary to the Partial Private Circuits judgement from the Competition Appeal Tribunal and fettering Ofcom's discretion in future Competition Act 1998 complaints*".[215] However in setting out guidance we would not be fettering our discretion in any Competition Act cases. Our proposed guidance explains our likely approach when assessing BT's compliance with our proposed SMP condition. We propose that that condition pursues the particular objectives set out in this consultation relating to ensuring that retail competition in superfast broadband is not distorted. Our proposed *ex ante* approach would not bind our approach when investigating a Competition Act complaint.

5.42 We recognise that an REO approach could meet our overall objective. However, our provisional view is that such an approach is less attractive than an adjusted EEO approach:

[215] Competition Appeal Tribunal, *British Telecommunications PLC v Office of Communications [2011]* Case Number: 1146/3/3/0922, CAT 5 (the 'PPC Judgment'), http://www.catribunal.org.uk/237-5136/1146-3-3-09-British-Telecommunications-Plc-.html.

- Ofcom would need to define the scope of the REO's activities, business model and cost base in order to populate the model used to assess the VULA margin. This would be a complex and uncertain exercise with clear scope for error. Alternatively Ofcom might select an existing rival to BT and use that rival's costs to populate the model. That would also be a complex exercise, entail regulatory gaming, and given that BT's rivals are differentiated it would not be clear which rival to select.

- Adjusting the REO estimates over time would be problematic. One way of adopting an REO approach is to specify what an REO's costs currently are and how they will change over the period covered by this market review. This would need to be done in advance, so BT can understand what it needs to do to ensure compliance throughout the review period. This raises a significant risk of regulatory error (if Ofcom had to forecast costs over the next three years) or compliance difficulties for BT (if the REO's costs were based on industry averages or other third party data which is not be available to BT). Given the amount of forecasting that would be required we consider that an REO approach risks adding considerable extra complexity as well as uncertainty and risk.

- Alternatively, an REO approach could largely use BT's costs. Such an approach is better described as an adjusted EEO approach and we discuss this option in paragraphs 5.43-5.45.

<u>An adjusted EEO approach is most in line with our aims</u>

5.43 In line with our proposed aim of ensuring that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted, we propose that the approach put forward in the 2013 FAMR Consultation, namely the use of an adjusted EEO approach, remains appropriate. As explained in Section 3, we propose that the best way of achieving this overall aim is ensuring that an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) can profitably match BT's retail superfast broadband offers. An adjusted EEO approach that is based on BT's costs but with adjustments to reflect cost advantages that BT might have would be consistent with our objective.

5.44 We recognise that, in practice, an adjusted EEO approach can in some circumstances lead to a broadly similar result to an REO approach. However, since it is based on data about BT's costs (except where specific adjustments are made), an adjusted EEO approach would be simpler for BT and Ofcom to implement in practice.

5.45 Thus, in summary, our provisional view is that an adjusted EEO approach is appropriate when assessing the VULA margin on an *ex ante* basis.

Appropriate cost standard

5.46 In assessing whether the margin between the wholesale VULA price and downstream retail prices is appropriate we need to consider the appropriate cost standard to use.

5.47 In the 2010 WLA Statement we stated that we are initially likely to consider whether the margin was above "*the current long-run incremental cost … including an allowance for subscriber acquisition costs*".[216]

5.48 In the 2013 FAMR Consultation, we proposed that the appropriate cost standard was likely to be long-run incremental cost plus a contribution to fixed and common costs (i.e. a LRIC+ standard).[217]

Stakeholder responses

5.49 As stated earlier in paragraph 5.27, BT considered that we should not deviate from a competition law standard, unless there was a clear rationale for doing so.[218] BT considered that the use of LRIC+ was a "*departure from the competition law standard of using LRIC alone as the appropriate cost standard in margin squeeze cases*".[219]

5.50 BT considered that its main rivals (Sky, Virgin, and TalkTalk) enjoy comparable economies of scope since they offer as wide a range of services as BT. BT considered that it was not clear what the allocatively efficient level of contribution from superfast broadband to fixed and common costs was. Moreover BT considered that prices should take into account productive and dynamic efficiency, for example to allow CPs to manage the pace of migration from copper to fibre. BT also referred to the risk of "*false positives*" associated with using a LRIC+ standard without assessing the effects on competition.[220]

5.51 BT considered that it was arguable that LRIC was the appropriate cost standard. As a result, where there are costs that are common between the fibre and copper portfolios of products, BT would be free to allocate them between these two groups of products. In essence, as long as BT's fibre portfolio covers its LRIC, then BT should be able to recover its common costs elsewhere, for example, from its copper portfolio.[221]

5.52 TalkTalk, however, agreed with the consultation position that the cost standard should be LRIC+. It considered that:

> "*This accords with the principle of setting the minimum margin to be one which allows efficient entry, as a potential entrant to the SFBB market would expect to recover a reasonable proportion of common costs from SFBB products.*"[222]

Ofcom's considerations

5.53 In assessing the appropriate cost standard for assessing the VULA margin, we first discuss the relevance of the competition law position and then consider whether it is appropriate to use LRIC or LRIC+ as the cost standard.

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[216] Paragraph 8.132 of the 2010 WLA Statement.
[217] Paragraph 11.440-11.443 of the 2013 FAMR Consultation.
[218] Paragraph 275, page 63, BT response to the 2013 FAMR Consultation.
[219] Paragraph 305, page 68, BT response to the 2013 FAMR Consultation.
[220] Paragraphs 306-309, pages 68-69, BT response to the 2013 FAMR Consultation.
[221] Paragraph 309, page 69, BT response to the 2013 FAMR Consultation.
[222] Paragraph 5.55, page 15, TalkTalk response to the 2013 FAMR Consultation.

Relevance of competition law

5.54 As explained in paragraph 5.36, the approach for assessing the VULA margin under *ex ante* regulation does not necessarily involve the same approach as under *ex post* competition law. An *ex ante* assessment would be carried out in support of our specific proposed objective in this review of ensuring that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. Accordingly, our provisional view is that we do not need to adopt the same approach as might otherwise be adopted under competition law.

Use of LRIC or LRIC+ cost standard

5.55 We now set out our analysis of whether it is appropriate to use a LRIC or LRIC+ cost standard when assessing the VULA margin i.e. whether it is appropriate to require superfast broadband subscribers to make a contribution to common costs. The arguments are grouped into the following broad categories:

- relationship with our overall objective;
- consistency with our general regulatory practice;
- consequences of errors in estimating costs;
- the need to consider common cost recovery; and
- other points raised by stakeholders.

Relationship with our overall objective

5.56 We consider that a LRIC standard is unlikely to be appropriate when carrying out an *ex ante* VULA margin assessment, given our overall aim:

- A margin of LRIC alone may be insufficient to promote competition – if rivals only recover LRIC, then they have only a limited incentive to compete for fibre broadband customers.[223] The larger the margin that an operator can earn, the more likely it is to seek to acquire fibre broadband subscribers. Allowing a slightly higher margin increases the incentives on rivals to fully engage with the fibre part of the market and reduces the likelihood of BT building a strong market position over the course of the market review period. Given that we consider fibre is likely to be a particularly important part of the broadband market, we propose that it is likely to be appropriate to provide a higher margin.
- A margin of LRIC alone is unlikely to be consistent with the long term position – over the course of this market review and beyond, we expect significant numbers of copper broadband subscribers to migrate to fibre. As a result, in the long term we think it is likely that fibre broadband would need to make some contribution to the recovery of common costs – put simply, there is likely to come a point where there are so few copper broadband subscribers that it is necessary for fibre broadband subscribers to make a contribution in order to ensure that common

[223] Indeed, if the available margin precisely equals LRIC, firms are indifferent as to whether they participate in the market or not.

costs are recovered. As a matter of policy, we consider that it is reasonable for the VULA margin assessment to reflect this long run position i.e. for fibre broadband subscribers to make a contribution to common costs. Doing so is likely to support more stable prices over time by avoiding a situation where common cost recovery shifts sharply from one product to another.

Consistency with our general regulatory practice

5.57 We typically take common costs into account when setting charge controls. For example, we have used Fully Allocated Costs (FAC) as the cost measure in our proposed WLR/LLU charge controls[224], the provisional 2014 WBA charge controls[225], and leased lines charge controls[226]. LRIC+ and FAC are similar in that both take into account an allowance for common costs.[227]

5.58 In certain circumstances adopting a LRIC+ standard when identifying a suitable retail margin can produce the same outcome as adopting a LRIC+ approach when controlling wholesale charges.[228] This highlights that adopting a LRIC+ approach when assessing the VULA margin is consistent with our general approach of setting wholesale charge controls on a LRIC+ (or FAC) basis.

5.59 While we typically take common costs into account when setting charge controls, we accept that there are some exceptions. However these reflect the particular features of the products in question. For example, we set charge controls for mobile and fixed termination rates equal to LRIC as we considered that this was more likely to promote efficiency, sustainable competition and consumer benefits in those

[224] Paragraphs 3.14-3.20, Ofcom, *Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN 30. Volume 2, charge controls, Draft Statement,* 19 May 2014, http://stakeholders.ofcom.org.uk/telecoms/ga-scheme/specific-conditions-entitlement/market-power/fixed-access-market-reviews-2014/draftstatement/.

[225] Paragraphs 7.117-7.121, draft 2014 WBA Statement.

[226] Paragraphs 18.32-18.39, Ofcom, *Business Connectivity Market Review*, March 2013, http://stakeholders.ofcom.org.uk/consultations/business-connectivity-mr/final-statement/.

[227] At paragraph 8.16 of Ofcom, *Review of the fixed narrowband services markets – Statement on the proposed markets, market power determinations and remedies*, 26 September 2013 (the 2013 NBMR Statement), http://stakeholders.ofcom.org.uk/binaries/consultations/nmr-2013/statement/Final_Statement.pdf, we referred to FACs as "*a form of LRIC+"* and at paragraph 1.18 of Ofcom, *Review of BT network charge controls*, 19 March 2009, http://stakeholders.ofcom.org.uk/binaries/consultations/review_bt_ncc/summary/reviewbtncc.pdf*.* we stated that CCA FAC is the *"best available proxy for long run incremental costs plus an appropriate contribution to common costs (LRIC+)*".
http://stakeholders.ofcom.org.uk/binaries/consultations/review_bt_ncc/summary/reviewbtncc.pdf

[228] To illustrate, suppose that the retail price is equal to the sum of: (i) the retail LRIC; (ii) retail common costs; (iii) wholesale common costs; and (iv) the wholesale LRIC. This formulation assumes that there are no supernormal profits. Adopting a LRIC+ standard for the purposes of a cost based control on wholesale prices means that the maximum wholesale price would be (iii)+(iv). Adopting a LRIC+ standard when identifying a suitable retail margin means that the maximum wholesale price would be the retail price less (i)+(ii). This is also equal to (iii)+(iv) since the retail price is assumed to equal (i)+(ii)+(iii)+(iv).

contexts.[229] Similarly for our (provisional) charge control on GEA to GEA migration we use a LRIC standard since this was more likely to promote competition, in that context, for example by reducing switching costs.[230]

5.60 A LRIC+ approach would also be consistent with our approach in other *ex ante* cases where we have been considering the promotion of competition:[231]

- In the *ex ante* regulation of BT's margin between ATM interconnection and IP stream we used a FAC CCA (current cost accounting) approach.[232]

- In our pay TV investigation, we determined wholesale prices for Sky's premium sports channels on the basis of a margin that would allow recovery of incremental costs and a proportion of common costs. We developed a retail-minus methodology on a FAC basis, with fixed and common costs allocated across Sky's whole business. We noted that even though our definition of a hypothetical entrant assumed that it provided other products and services in addition to Sky's premium sport channels, we considered that it may not be viable for it to recover all of its common costs from those other services.[233]

Consequences of errors in estimating costs

5.61 In addition, in the light of our overall regulatory aim, the consequences of errors in estimating costs are likely to be more serious under a LRIC cost standard. In assessing the appropriate VULA margin, costs could be underestimated. If the adjusted EEO's LRIC was underestimated and if BT set a VULA margin only just equal to the (incorrectly estimated) LRIC then that margin is unlikely to be sufficient to promote competition. Indeed such an outcome could harm competition in the fibre segment, since an adjusted EEO may be worse off if it wins fibre customers (since if it matches BT's prices it fails to cover its incremental costs).[234]

The need to consider common cost recovery

5.62 Even under a pure LRIC standard, further consideration of common cost recovery would be required. If there are common costs as between fibre and other retail services then adopting a pure LRIC standard would not in itself ensure that common

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[229] Ofcom, *Wholesale mobile voice call termination Statement,* 15 March 2011, http://stakeholders.ofcom.org.uk/consultations/mtr/statement and the 2013 NBMR Statement.

[230] Paragraph 12.181, Volume 1, draft 2014 FAMR Statement.

[231] As explained in paragraph 5.34 above, the objective of our proposed SMP condition differs from our objective when regulating the margin between Royal Mail's access and retail prices. In relation to Royal Mail, our long term preference was setting prices by reference to LRIC since this would provide the correct signals for entry and investment. However, due in part to the absent of suitable data on LRIC, to establish a "*glide path*" from the existing regulatory regime, we considered that information based on FAC should be used. Paragraphs 10.117 and 10.121, Ofcom, *Securing the Universal Postal Service*, 27 March 2012.

[232] Paragraph 2.26-2.40, Ofcom, *Direction Setting the Margin between IP Stream and ATM interconnection prices*, August 2004.

[233] Paragraph 10.116-10.129, 2010 Pay TV Statement.

[234] We also recognise that there is a risk that the LRIC of an adjusted EEO could be overestimated, resulting in a larger VULA margin than necessary. However we consider that, under a LRIC cost standard, the consequences of over- and under-estimating the LRIC are asymmetric.

retail costs were appropriately recovered. Further assessments would be required in order to address this, and those assessments may prove to be complex and difficult to resolve. A LRIC+ standard, which allocated common retail costs across the services that those costs support, provides a practicable, if approximate, alternative to that exercise.

Other points raised by stakeholders

5.63 Stakeholder responses touched on a number of other issues:

- None of the arguments in paragraph 5.55 rely on BT enjoying unique economies of scope. In other words, none of these arguments are undermined by BT's observation that Sky and TalkTalk also operate copper broadband businesses (and thus have scope to recover common costs from copper subscribers).

- We recognise that using a higher cost standard than LRIC is likely to improve the competitive position of less efficient rivals. While this can result in reductions in productive efficiency (at least in the short term), as discussed in Section 3 this risk needs to be balanced with the potential dynamic efficiency benefits of enhanced competition in fibre broadband. Given our overall objective, we propose that it is appropriate to place greater weight on promoting competition.

- We agree with BT that it is unclear precisely what the most efficient level of prices would be. However, efficient recovery of common costs will normally entail prices being set at a mark-up above LRIC.

- We also recognise the possibility that a LRIC+ approach could prevent BT from migrating consumers from copper to fibre as fast as it would like (by limiting BT's ability to shift common cost recovery from fibre to copper and thereby supporting comparatively low fibre broadband prices in the short term). However BT would retain the ability to accelerate migration by lowering the wholesale VULA price.

- Departing from a LRIC approach and instead specifying a minimum contribution to common cost recovery that should be made by fibre subscribers reduces the flexibility that BT has in where it recovers its common costs. However, as discussed in paragraphs 5.89-5.114, this is partially offset by our proposal to assess BT's entire fibre portfolio (in aggregate). This provides BT with flexibility as to how it recovers common costs between different fibre bundles within that portfolio.[235]

5.64 In summary, our provisional view is that it is appropriate to use a LRIC+ standard when carrying out an *ex ante* assessment of the VULA margin. In reaching this view we place particular weight on our overall regulatory objective.

5.65 We provide further guidance on our likely approach to common costs in Section 6. As discussed in Section 6, we assess whether our proposed overall approach to assessing the VULA margin is likely to be consistent with our proposed overall objective by allowing operators with slightly higher costs to match BT's retail superfast broadband offers. Based on current data, using a LRIC+ approach based

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[235] We have also, in the case of BT Sport costs, chosen our proposed method of allocation between copper and fibre in part because it gives BT greater flexibility on where it recovers those costs. See Section 6 for further details.

on BT's accounts would tend to increase the margin by around [✂]/month compared to a LRIC approach. As discussed in Section 6, this, in combination with the other features of our proposed approach, appears in our provisional view more likely to achieve our overall objective in practice.

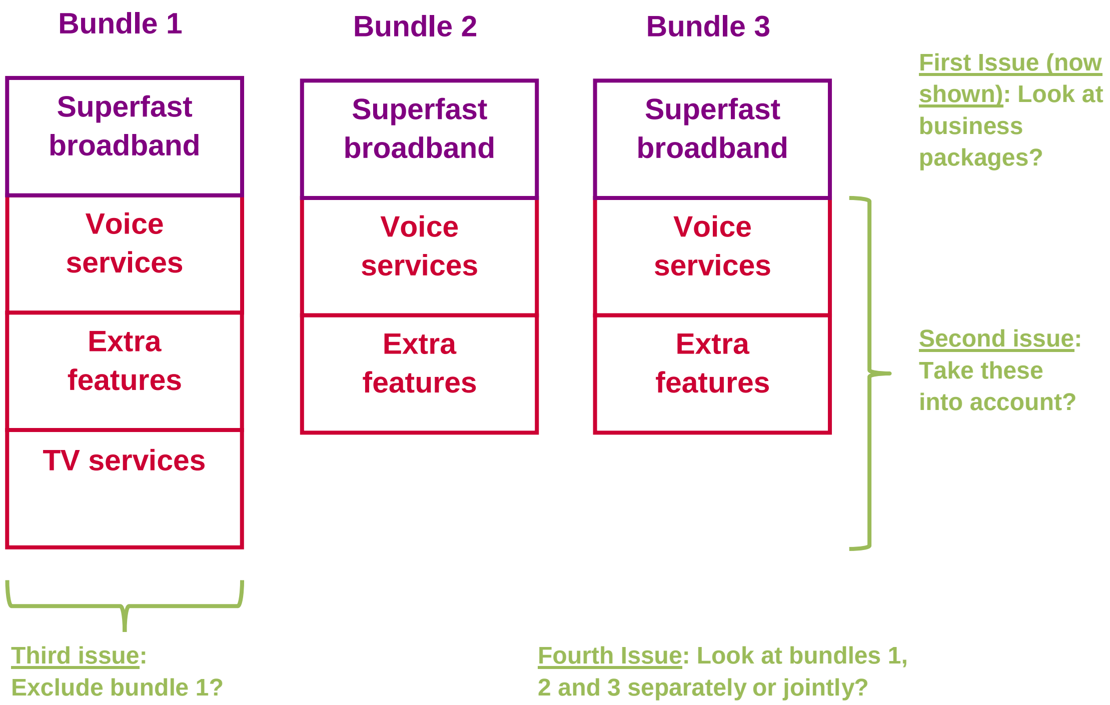
Scope of the VULA margin assessment

5.66 Given the wide range of retail services and packages available, we now consider the appropriate scope of the VULA margin assessment:

- Business packages – we consider whether retail products marketed at business (as opposed to residential) customers should be excluded from the VULA margin assessment.
- Treatment of bundled products – we consider whether it is appropriate to take bundled products (e.g. voice calls, additional non-broadband services, BT Sport, etc.) into account when assessing the VULA margin.
- Triple-play bundles – we consider whether it is appropriate to exclude or include triple-play bundles.
- The output increment – we consider whether the appropriate output increment for the VULA margin assessment is at the level of individual offers, individual products, the fibre portfolio, or the broadband portfolio.

5.67 Figure 5.2 below explains the distinction between the latter three points. This shows different bundles each made of superfast broadband, voice services, extra features and (in the case of bundle 1) TV services. In paragraphs 5.73-5.77 we consider whether those extra components should be taken into account (we provisionally conclude that they should). The next issue we consider is whether bundle 1 (the triple-play bundle) should be not be assessed (we provisionally conclude that it should). The final issue we consider is whether we should look at bundles 1-3 individually or jointly (we provisionally conclude they should be assessed jointly).

Figure 5.2 – Scope of VULA margin assessment – illustration



Treatment of business services

5.68 VULA can be used for a number of downstream services including residential and business asymmetric broadband, with BT Consumer supplying residential-type broadband services and BT Business supplying higher quality business-type broadband services. We consider it appropriate to include superfast broadband services marketed at residential consumers (i.e. those supplied by BT Consumer) in the VULA margin assessment. We have also considered whether superfast broadband services marketed at business consumers should be assessed (i.e. those supplied by BT Business).

5.69 Assessing business services would likely require some differences in approach relative to residential services. For example, while business asymmetric broadband and residential asymmetric broadband services are considered to be in the same downstream market[236], the competitive conditions of business superfast broadband retail services are slightly different to those of residential superfast broadband retail services. In particular, Sky does not offer business broadband[237] and there are also a number of smaller operators that are only active in the business segment of the market. As such, BT's relative position in the business segment may differ from the residential segment. Additionally, the two divisions (BT Consumer and BT Business) are distinct businesses within BT's reporting structure[238] and BT's business fibre

[236] Draft 2014 WBA Statement.
[237] Although O2, which was subsequently purchased by Sky, did offer business broadband services.
[238] BT, *BT to create new businesses to replace BT Retail*, 30 July 2013, http://www.btPlc.com/news/articles/showarticle.cfm?articleid=%7B68268030-3b15-4603-a6c8-7f2437114344%7D.

offers are also different from its residential offers (in particular BT Sport is not included with BT Business fibre bundles).

5.70 We note that, in the interests of proportionality, we have previously adopted a gradual approach to NGA-specific regulation, starting with a relatively light touch regime, but increasing specific regulation where market developments warrant it. For example, in the 2010 WLA Statement, we did not impose a cost-based charge control on NGA-services, and provided only brief guidance on assessing the VULA margin. In comparison, in the draft 2014 FAMR Statement, while we have continued not to impose a cost-based charge control on the wholesale price of VULA, we are imposing a cost-based charge control on the GEA to GEA migration charge given the specific concerns identified. Similarly, as set out in this document, we are now proposing an SMP condition and more detailed guidance on the VULA margin.

5.71 In this context, we have taken a provisional view that it is not appropriate or proportionate to extend the VULA margin assessment to include superfast broadband services supplied by BT Business. To date, we have received considerable representations from stakeholders setting out their views on the key competition concerns in relation to VULA-based retail residential services, both in response to the 2013 FAMR Consultation and prior to that in response to the 2012 FAMR Call for Inputs. Within these, responses from CPs who predominantly supply business services have not identified specific competition concerns in relation to the VULA margin for VULA-based business services (rather, a key focus of these respondents was on the suitability of the existing VULA product for providing business-specific services).[239] Further, our interpretation of the responses which did set out detailed consideration of the potential competition concerns in relation to the VULA margin is that residential services are of greater concern (not least given the majority of such responses came from CPs who are typically residential-focused).

5.72 However, the fair and reasonable terms, conditions and charges VULA obligation will continue to apply to BT Business services (as discussed in paragraph 4.108). As such, if we were to observe behaviour in relation to the margin on VULA-based business services which raised concerns, we could consider intervention on the basis of this condition to address this. In addition, we will also consider business services in future market reviews, including whether any business-specific regulation is necessary in relation to the VULA margin, and this will be informed by observed market behaviour during this review period.

Treatment of bundled products

<u>Stakeholder responses</u>

5.73 Sky considered that we should include all content and services that were bundled with BT's VULA based broadband services.[240] It considered that if we excluded this it would "*afford BT the ability to undermine the purpose of the introduction of [the VULA margin] test*".[241] TalkTalk also considered that the appropriate approach was to assess the overall costs and revenues of BT's bundles.[242]

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[239] As set out from paragraph 12.29, Volume 1 of the draft 2014 FAMR Statement.
[240] Paragraph 1.7, page 2, Sky submission on VULA margin test.
[241] Paragraph 1.11, page 3, Sky submission on VULA margin test.
[242] Paragraph 5.8, page 43, Annex 5, TalkTalk response to the 2013 FAMR Consultation.

5.74 [✂][243]

Ofcom's considerations

5.75 The VULA margin assessment will consider the margin between the wholesale VULA price and retail prices for services that use VULA as an input. Broadband may be sold as a standalone product but is typically sold bundled with other services such as line access services and TV services. [244] Broadband packages can also include services not related to telecommunications (e.g. Sainsbury's vouchers, 'free' virus-protection).

5.76 We provisionally consider that it is appropriate to include the costs and revenues of bundled elements when assessing the VULA margin. There are three reasons for this:

- First, the non-broadband elements (e.g. Sainsbury's vouchers, virus-protection) are included as 'add-ons' and do not always have a readily identifiable price. As such trying to determine the 'price' of the superfast broadband component only is difficult.[245]

- Second, competition between broadband packages occurs between different bundles. Both BT and other operators supply bundles of services. We thus consider that the more logical basis for an assessment is whether an adjusted EEO is capable of matching the price BT charges for its bundles. Such an assessment tests whether rival operators can effectively compete for relevant retail broadband subscribers, who will typically be buying those services as part of a bundle. Accordingly including bundled elements is appropriate given the purpose of the VULA margin assessment.

- Third, if the costs and revenues of bundled elements are not included, BT could circumvent the proposed SMP condition. By offering bundled elements at less than their cost, BT could effectively offer a 'discount' on its superfast broadband services. As a result, an adjusted EEO may be unable to match the price of BT's overall bundle even if BT's margin on the superfast element is notionally positive.[246]

[243] [✂]

[244] BT previously provided consumer superfast packages without voice telephony services, but no longer does this. On the Openreach network, currently only Plusnet provides consumer fibre broadband without voice telephony, although voice telephony must be purchased from an alternative provider.

[245] Even if some bundle components did have a separately identifiable price, if that price is only available if the component is purchased as part of the bundle, it may still be appropriate to consider the costs and revenues of the component when assessing the bundle as a whole. For example, some of the costs of that component may be recovered from the revenues associated with the other products it is bundled with.

[246] To illustrate, suppose BT charges a retail price of £30 for a bundle of superfast broadband and other services. Suppose it is possible to attribute £10 of this price to superfast broadband and £20 to other services. If the cost of supplying superfast broadband (including the wholesale VULA price) is £8 but the cost of supplying the other components is £24, a rival would be unable to profitably match

5.77 We therefore propose to include the costs and revenues of bundled elements when assessing the VULA margin.

Triple-play bundles

Stakeholder responses

5.78 BT considered that we should not assess the VULA margin on triple-play bundles. It considered that:

- "*Entry into the provision of such bundles is not solely contingent on BT's provision of VULA*"[247]; and
- "*specific competition/market entry concerns in relation to Pay TV/content markets mean BT's competitors have commercial advantages in relation to those additional services*."[248]

5.79 Further, BT stated that CPs' ability to provide pay TV alongside fibre broadband "*had not been considered within this market review framework, so that competition/market entry problems have not been identified at all, but that these triple play offerings could nevertheless be impacted by Ofcom's proposals.*"[249] It considered that we should not apply a "*margin squeeze test*" to its triple-play offerings without first establishing that SMP regulation is appropriate for those bundles.[250]

5.80 In its reply to BT's response to the 2013 FAMR Consultation, TalkTalk considered that we did not need to undertake a specific review of triple-play packages. It considered that:

- the primary role of BT Sport is to support BT's retail superfast broadband business;[251]
- Ofcom has a good understanding of the TV market and are well placed to make decisions that affect the triple-play market. Further, the dynamics of the dual-play and triple-play markets are similar;[252] and
- there is no need for BT to be dominant downstream in order for a margin squeeze to take place.[253]

5.81 The CRAI report prepared for Sky considered whether triple-play bundles should be included in the VULA margin assessment. CRAI considered that "*a margin squeeze test that applied only to stand-alone SFBB offers (as BT is essentially arguing for)*

BT's bundle price of £30 since the cost of the bundle is £32. This is despite the superfast element apparently being profitable (with a notional price of £10 and compared to a cost of £8).

[247] Paragraph 21, page 11, BT response to the 2013 FAMR Consultation.

[248] Paragraph 21, page 11, BT response to the 2013 FAMR Consultation.

[249] Paragraph 267, page 62, BT response to the 2013 FAMR Consultation.

[250] Paragraph 301, page 68, BT response to the 2013 FAMR Consultation.

[251] Paragraphs 2.64-2.66, page 13, TalkTalk reply to BT response to the 2013 FAMR Consultation.

[252] Paragraphs 2.69-2.70, page 14, TalkTalk reply to BT response to the 2013 FAMR Consultation.

[253] Paragraph 2.71, page 14, TalkTalk reply to BT response to the 2013 FAMR Consultation.

would render the test ineffective". CRAI considered that such a test would allow BT to create bundled offers that undermined the purpose of the regulation.[254]

Ofcom's considerations

5.82 As described in paragraphs 5.75-5.77, we propose that the costs and revenues of all elements of the bundles should be taken into account. As set out in Section 3, our concern stems from BT's SMP in the provision of WLA. The obligations we have proposed in relation to VULA are intended to address that market power. BT considers that entry into triple-play provision is not "*solely contingent on BT's provision of VULA*".[255] While triple-play provision does also require wholesale inputs other than VULA, in order to provide a superfast triple-play bundle operators such as TalkTalk and Sky are wholly reliant on the supply of VULA by BT. The same reasons for which we propose to regulate the VULA margin, to ensure that BT cannot use its SMP in the WLA market to set the margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted, therefore still apply. That other inputs are also necessary does not appear to us to change that analysis. We therefore provisionally disagree that BT's observation implies that triple-play bundles should be excluded from an assessment of the VULA margin.

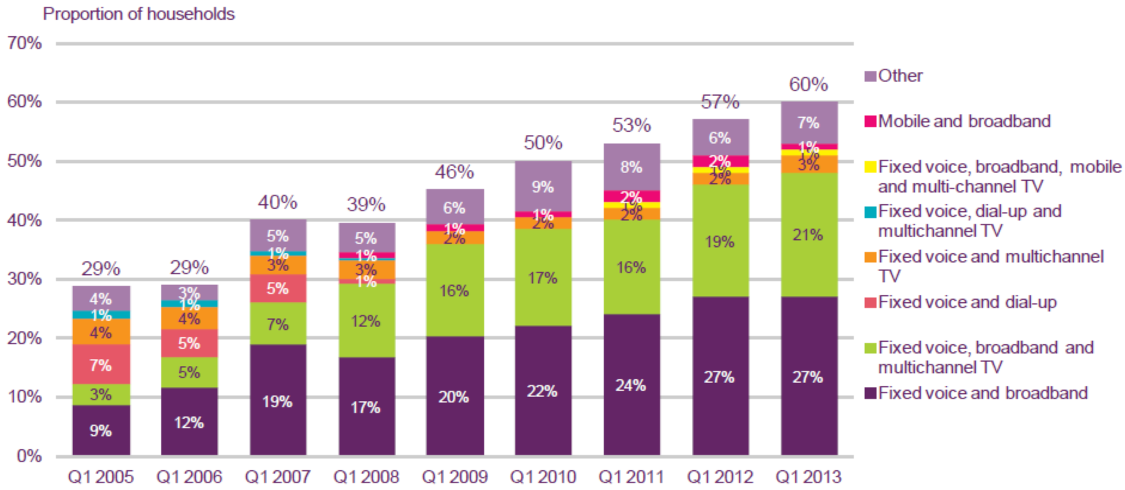
5.83 We are minded to agree with TalkTalk and Sky that excluding triple-play bundles could lead to BT being able to circumvent the aims of our proposed SMP condition. For example, if triple-play packages were excluded, BT could set a negative margin on its triple-play packages and a positive margin on its dual-play packages. If triple-play packages were not taken into account BT would appear to be setting an adequate margin, based solely on its dual-play packages. However, assessed on an aggregate basis (i.e. looking across both dual-play and triple-play in aggregate) the VULA margin could be negative. As a result, other operators would be unable to profitably match BT's offers overall – they would effectively be excluded from the triple-play segment.

5.84 Triple-play is becoming increasingly important in the communications sector. As shown in Figure 5.3 below, a fifth of homes reported having a triple-play bundle of fixed voice, broadband and multichannel TV in Q1 2013, up by two percentage points on the same period last year.[256] Because of the size of the fibre market we do not have accurate data on the take-up of triple-play in the superfast segment. However we note that fibre technology has advantages in supplying IPTV, and BT only supplies a limited range of content with its copper TV offering. Indeed BT stated in 2014 that "*Fibre ... underpins our TV plans*".[257]

[254] For example, if triple-play bundles were excluded, BT could offer them for a low retail price. Those triple-play bundles could be an attractive alternative to rivals' dual play bundles and, as a result, BT's competitors may struggle to attract dual play customers. Page 1, CRAI report prepared for Sky.
[255] Paragraph 21, page 11, BT response to the 2013 FAMR Consultation.
[256] Section 1.3.5 of the Communications Market Report 2013.
[257] Page 1, BT, *Results for the Third Quarter and Nine Months to 31 December 2013,* 31 January 2014, http://www.btPlc.com/News/ResultsPDF/q314-release.pdf.

Figure 5.3 – Reproduction of Figure 1.10 from the Communications Market Report 2013[258]

Figure 1.10 Take-up of bundled services



Source: Ofcom technology tracker
Base: All adults aged 16+ (2013 n=3750)
QG1. Do you receive more than one of these services as part of an overall deal or package from the same supplier?

5.85 We thus provisionally consider that excluding triple-play fibre packages would exclude an important, and growing, set of products from the assessment. This does not appear to us to be consistent with our regulatory objective.

5.86 BT stated that we need to consider competitive conditions in relation to triple-play packages. Our assessment of the importance of promoting retail competition in superfast broadband services and the different options for doing so is set out in Section 3. We agree with TalkTalk's point that it is not necessary for BT to currently have SMP downstream for it to set a retail margin that prevents operators with slightly higher costs matching its superfast broadband offers. We have not therefore undertaken a formal retail market definition exercise beyond that necessary to define the relevant WLA market. In any case, whether dual-play or triple-play bundles are in the same retail market or not, an inability to compete for one group of these customers would affect general competition for fibre customers across both types of bundle.

5.87 More generally, the launch of BT Sport both makes additional TV channels available to BT's triple-play customers and also makes BT's dual-play superfast broadband packages more attractive (these currently include access to BT Sport for no additional charge – see Section 6 for further details). As explained in Section 3, we consider that the promotion of competition in superfast broadband is important and accordingly do not consider that it is appropriate to exclude triple-play bundles when assessing the VULA margin. We recognise that the launch of BT Sport impacts on competition in the provision of premium sports channels. Insofar as there may be

[258] Page 30 of the Ofcom Communications Market Report 2013.

competition problems in the pay TV sector, we consider these are best considered through separate regulatory action.[259]

5.88 Accordingly, for the reasons in paragraphs 5.82-5.87, our provisional conclusion is that when assessing the VULA margin it is appropriate to take BT's triple-play packages into account.

Output increment

5.89 When assessing the VULA margin, the scope of the set of products being assessed is an important consideration. The output increment is the set of products that are looked at as an aggregate whole when assessing the VULA margin. For example, should each superfast broadband bundle be assessed individually or should BT's entire superfast portfolio be assessed as a whole?

5.90 Under our proposed LRIC+ standard the size of the output increment need not materially affect which costs are taken into account, as common costs are included anyway.[260] However, the output increment size does affect the degree of flexibility that BT has in recovering its common costs.[261]

Stakeholder responses

5.91 As discussed in paragraphs 5.78-5.79, BT considered that triple-play bundles should be excluded from any assessment of the VULA margin. BT considered that the VULA margin assessment should be carried out across BT's portfolio of dual-play fibre propositions, rather than on individual propositions and/or offers within that portfolio.[262]

5.92 TalkTalk considered that assessing each individual bundle is flawed since it would lead to a large number of products being tested, some of which could be purchased by very few customers. This would create a significant regulatory burden.

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[259] On 16 April 2014, we announced that we would review the wholesale must-offer obligation relating to certain Sky Sports channels, http://stakeholders.ofcom.org.uk/broadcasting/reviews-investigations/pay-tv/pay-tv-wholesale/. We are also separately investigating a competition law complaint by BT in relation to the wholesale supply of certain Sky Sports channels by Sky (Ofcom, *Complaint from British Telecommunications plc. ("BT") against British Sky Broadcasting Group plc. ("Sky")* CW/01106/05/13, alleging abuse of a dominant position regarding the wholesale supply of Sky Sports 1 and 2 ("SS1&2"), May 2013 (the 'CA98 BT/Sky Case'), http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01106/).

[260] In contrast, the LRIC will vary with the size of that increment because the larger the increment, the more common costs are included in the LRIC. For example, if the increment was only some of BT's fibre products (say 38Mbit/s and below), then the common costs of fibre provision would not be included in the LRIC estimate, as BT would still be supplying 76Mbit/s and above services.

[261] To illustrate, consider the case of two products (X and Y) each with an incremental cost of £5. One unit of each product is sold and there are common costs of £4. If each individual product is taken as the output increment, it is necessary to determine how to split the £4 of common costs. If this were done evenly (say) then the minimum retail price of both X and Y would be £7. In contrast, taking the portfolio of both products as the output increment allows for greater price flexibility. For example, the operator would be free to set a retail price of £6 for X and £8 for Y if it wished.

[262] Paragraph 313b, page 70, BT response to the 2013 FAMR Consultation.

5.93 TalkTalk considered that assessing all BT superfast broadband products together is also flawed, since BT could "*cross-subsidise*" between different bundles, allowing some to be priced "*well below cost*" in order to target competitors. TalkTalk also considered that there is likely to be little economic benefit from Ramsey pricing since market-level elasticises for different products are likely to be similar (although TalkTalk did not provide evidence to support this point).[263]

5.94 TalkTalk favoured an intermediate approach in which retail products are aggregated into a small number of "*core product groups*", each of which is assessed separately. TalkTalk suggested that the characteristics used to distinguish "*core products groups*" are speed, download allowance and whether TV is included (implying there are currently six "*core product groups*": Infinity 1, Infinity 1 Unlimited, and Infinity 2 Unlimited, each with and without TV).[264]

Ofcom's considerations

5.95 We discuss four possible output increments that could be used when assessing the VULA margin:

- Total broadband approach –assessing the aggregate position of bundles including either standard or superfast broadband.
- Total fibre portfolio approach –assessing the entire portfolio of bundles that use VULA as an input.
- Fibre product group approach –grouping of the individual superfast broadband bundles offered by BT into categories. There are a number of ways that these categories could be identified (see paragraph 5.106).
- Individual product approach – assessing the individual bundles that are provided to customers. These are differentiated by download speeds, usage limits and the other (non-broadband) services that are included.

5.96 As explained in paragraphs 5.89-5.90, using a broader set of products gives BT greater flexibility in how it recovers its common costs. This greater flexibility may also give BT a greater ability to target lower margin offers (as argued by TalkTalk). In contrast, using a narrower set of products under a LRIC+ approach requires us to specify how common costs should be recovered.

Previous Ofcom ex ante cases

5.97 In setting the WBA margin we considered carrying out the analysis at the business level. However, we concluded that a product group approach was appropriate since it would prevent BT targeting particular competitors and avoid new ISPs having to replicate BT's product mix. We recognised that "*It is likely that a number of entrants could well be multi-product suppliers in their own right and will choose to compete*

[263] [✂]
[264] Paragraph 5.39-5.48, pages 13-14, and paragraphs 5.9-5.20, pages 43-45 of Annex 5, TalkTalk response to the 2013 FAMR Consultation.

with BT across a similar product portfolio. However, as the market is still developing, Ofcom does not want to pre-judge this issue".[265]

5.98 In setting the terms of the wholesale must-offer in relation to some of Sky's Sports channels we stated that "*The aim is to ensure that the retailer can compete in the provision of pay TV bundles that include Core Premium Sports products, but is not forced to replicate the additional separate elements in Sky's wider packages.*" We effectively looked at each of Sky Sports 1, Sky Sports 2, and Dual Sports (where Sky Sports 1 and Sky Sports 2 are sold together) separately. However the different configurations of so-called basic channels that are purchased with each of these Sky Sports packages were considered in aggregate. In essence we carried out a 'product group' approach, where the product groups were: (i) retail bundles including Sky Sports 1; (ii) retail bundles including Sky Sports 2; and (iii) retail bundles including Dual Sports.[266]

5.99 In both the WBA margin and Pay TV examples, part of our reasoning was what products rivals should be expected to supply. In the case of superfast broadband, in practice other operators offer a portfolio of products. Sky, TalkTalk, and EE all offer both 38Mbit/s and 76Mbit/s broadband. They also offer a range of voice services (i.e. calls, access) and of BT's main rivals, only EE does not offer pay TV services. Therefore, BT's rivals are offering a spread of broadband speeds and services similar to BT. If BT applies different margins to different offers this may not matter as BT's rivals could also supply those offers and still be able to compete in the superfast segment. Accordingly, given the current competitors in the market, our provisional view is that a portfolio approach appears to be reasonable.

Total broadband approach

5.100 No stakeholder considered that an assessment should be made across all broadband products. Our competition concern relates to the ability of BT's rivals to compete for superfast broadband subscribers, rather than broadband subscribers as a whole.

5.101 Under the total broadband approach BT could potentially set a margin for superfast broadband subscribers that only just covered its incremental costs and recover its common costs through a higher margin from standard broadband subscribers. As explained in paragraphs 5.53-5.65, we propose that it is appropriate for the margin on superfast broadband subscribers to include a contribution to common costs (i.e. a LRIC+ standard). This could potentially be circumvented if we were to adopt a total broadband approach.

5.102 We recognise that a total broadband approach would provide BT with greater flexibility. In particular, greater flexibility over the relative price of standard and superfast broadband gives BT more control over the rate at which customers migrate to fibre. It would also avoid the need to determine how costs should be allocated between subscribers of copper and fibre broadband packages. However, our provisional view is that these advantages are outweighed by the drawbacks of the

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[265] Paragraphs 2.41-2.45, Ofcom, *Direction Setting the Margin between IP Stream and ATM interconnection prices,* August 2004.

[266] Paragraphs 10.77 and 10.92-10.102, 2010 Pay TV Statement. We also excluded the costs and revenues associated with other elements of the bundle e.g. Sky Movies content, broadband and telephony costs and revenues (see paragraphs 10.82 and 10.108-10.111 of the 2010 Pay TV Statement).

total product approach, particularly given our overall objective. We thus propose that a total broadband approach is inappropriate when assessing the VULA margin.

Total fibre portfolio approach

5.103 Assessing the VULA margin at the fibre portfolio level provides the most flexibility to BT over the relative margins it earns on different bundles (other than undertaking a total broadband approach, which we do not propose to adopt for the reasons in paragraphs 5.100-5.102). Flexibility is particularly desirable given two aspects of the VULA margin assessment. First, fibre services are still developing, with various technologies such as vectoring likely to increase speeds. Second, since we consider that a LRIC+ standard should be applied (see paragraphs 5.53-5.65), flexibility would allow BT to determine what contribution to common costs (i.e. the 'plus' in the LRIC+ calculation) is made by different products. Such flexibility would allow BT to experiment when setting the relative prices of different superfast broadband products and to respond to differences in consumer demand for different superfast broadband packages.

5.104 By undertaking the assessment at the portfolio level, it implicitly allows BT to offset a lower price for one group of fibre consumers against a higher price for another group of fibre customers. TalkTalk expressed concerns that this would allow BT to set prices "*well below costs*" in order to target competitors. Our provisional view is that this concern is unlikely to outweigh the flexibility advantages of adopting a fibre portfolio level approach. BT's competitors supply a comparable range of bundles to BT. Indeed, in the draft 2014 FAMR Statement we (provisionally) required BT to supply VULA on an equivalence of inputs basis, meaning that other operators are able to replicate the superfast component of BT's bundles. As a result, other operators are likely to be able to offset higher prices for one bundle against lower prices for another (in a similar fashion to BT). Similarly, other operators can make attractive offers to those BT customers that purchase its higher price bundles, thereby undermining BT's ability to support lower prices on other bundles.

5.105 TalkTalk also asserted that there are few benefits from providing BT with flexibility since the elasticities of demand for different bundles are likely to be similar. In the absence of evidence to support TalkTalk's claim it does not appear to us to be persuasive. In our provisional view, we consider it more plausible that consumers who buy different bundles (thereby revealing that they have different preferences) are not equally sensitive to price changes. In any case, the degree to which BT's pricing structures in a competitive context reflect pricing elasticities is not determinative for our decision.

Fibre product group approach

5.106 There are a number of ways of grouping BT's fibre based products. BT's fibre products could be grouped according to whether they are sold as single-play (i.e. without voice telephony), dual-play (fibre broadband and voice telephony), and triple-play (fibre broadband, voice telephony, and pay TV). Alternatively we could group according to the wholesale VULA inputs that BT uses. This would group all services using GEA 40/10 together and all services using GEA 80/20 together. TalkTalk suggested splitting BT's fibre portfolio into six categories (see paragraph 5.94 above).

5.107 As we are proposing using a LRIC+ methodology, any grouping of products would require the allocation of BT's common costs between these groups. This will tend to restrict BT's flexibility in how it allocates its common costs between its fibre services.

The pattern of relative prices for different product groups would be shaped by our regulatory decision about the approach for allocating common costs. In particular, this limits BT's ability to choose to earn different margins from different customer groups. For example, it would limit BT's ability to choose to earn lower margins on entry level products with the aim of upgrading customers at a later date, or to choose to encourage take-up of TV services in order to gain greater scale in the provision of triple-play offers.

5.108 Our provisional view is that focusing on a narrower set of products than BT's fibre portfolio would not be particularly beneficial to competition. BT's main rivals are also active in triple-play (EE is an exception, although it does have a mobile business), and all of BT's fibre rivals offer a range of services. Therefore, if BT passes an assessment on the total fibre portfolio, it is unlikely to be able to price in such a way that excludes rivals from the market.

5.109 We therefore propose that assessing the VULA margin by considering separate groups of fibre products is not appropriate.

Individual product approach

5.110 Once the additional components that can be included in a superfast broadband bundle are taken into account, BT Consumer supplies at least twelve distinct products (e.g. three distinct Infinity packages[267], with and without "Unlimited Anytime" calls, with and without TV services). Additionally, under the Plusnet brand, BT supplies at least eight different products (76Mbit/s or 38Mbit/s, with or without a phone line, and with and without "*Plusnet anytime calls*"). Applying the assessment to an individual product means that the VULA margin on each and every superfast bundle may need to be assessed.[268]

5.111 The individual product approach provides BT with the least flexibility in terms of how it structures its prices. As explained in paragraph 5.107, common costs would need to be allocated between individual fibre products. This would restrict BT's flexibility with the relative pricing of its different speed/download combinations, and also how it prices triple-play relative to dual-play packages.

5.112 Moreover, in the future, BT may offer additional differentiated products with different download/upload speeds. Restricting BT such that every product has to make a minimum contribution to common costs set by Ofcom creates a significant risk of regulatory error and, in particular, could restrict BT's flexibility in providing innovative new products.

5.113 We thus do not propose that the individual product approach would be appropriate when assessing the VULA margin.

Provisional conclusion

5.114 Our provisional conclusion is that the most appropriate output increment is BT's fibre portfolio. Such an approach would provide BT with additional flexibility (or put another way, avoids the need to specify how common costs should be allocated between

[267] There are also [some] [✂] subscribers to Infinity 3 and Infinity 4 (FTTP services).

[268] Although we recognise that the assessment could be limited to the most important bundles, for example by excluding bundles that have fewer subscribers than a given threshold.

particular fibre products or groups of fibre products). Allowing such flexibility is desirable, particularly when using a LRIC+ cost standard, for the reasons set out in paragraph 5.103. We recognise that, in certain circumstances such flexibility could be used to harm competition (for example by offsetting low margins on one category of fibre products against high margins on another). However, we consider that the benefits of allowing additional flexibility outweighs this risk, given that BT's main competitors supply a comparable range of superfast bundles.

Copper access technology

5.115 Broadband and voice services can be supplied over BT's network in a variety of ways and CPs use different technologies. The technology CPs use can affect the cost of serving fibre broadband customers. We have considered which copper access technology it is appropriate to assume that the adjusted EEO uses when assessing the VULA margin.

Description of the different copper access technologies

5.116 Superfast broadband services can be supplied over BT's network in two main ways:

- WLR and Generic Ethernet Access (GEA) – WLR is used to provide the voice service, while GEA (the name for Openreach's VULA product) is used to provide the broadband service.

- MPF and GEA – MPF is used to provide the voice service while GEA is used to provide the broadband service.

5.117 The technology an operator uses may be influenced by the technology that it uses to provide access to standard broadband services. Sky and TalkTalk primarily use MPF to provide both voice and standard broadband at BT exchanges covering around 90-95% of the UK population (excluding the Hull Area).[269] They use WLR and wholesale broadband access (WBA) purchased from BT outside of these areas. BT uses WLR and SMPF to provide voice and standard broadband. EE primarily uses WLR and WBA purchased from BT. Other operators use a range of technologies.

Consultation position and stakeholder responses

5.118 In the 2013 FAMR Consultation, we considered that it was reasonable to assess the VULA margin based on the costs of an operator that uses WLR technology (i.e. the same as BT).[270] We considered that this was appropriate because to assume otherwise risks adopting a benchmark that is more efficient than BT.

5.119 TalkTalk considered that the VULA margin assessment should consider the costs of an operator that uses MPF. It considered that:

[269] Table 4.1, page 95, of the draft 2014 WBA Statement. Sky and TalkTalk serve a minority of consumers in these exchanges using WLR to supply voice services and Shared Metallic Path Facility (SMPF) to supply broadband services.
[270] Paragraph 11.431 of 2013 FAMR Consultation.

- efficient scale entrants would use MPF to provide standard broadband as it is based on a modern technology that allows the use of converged MSANs[271] rather than DSLAMs[272] plus PSTN[273];[274] and

- given that voice and standard broadband would be provided by an efficient scale entrant using MPF, it is lower cost to upgrade an existing customer to MPF+GEA, rather than moving to WLR+GEA.

5.120 [✂][275]

Ofcom's considerations

5.121 As discussed in paragraphs 5.43-5.45, we consider it is appropriate to use an adjusted EEO standard. This involves starting from BT's costs (i.e. those of a WLR+GEA operator) and making adjustments where appropriate. In deciding whether an adjustment to reflect the costs associated with MPF is appropriate, we have considered whether there is evidence that BT's costs materially differ from those of other operators

5.122 TalkTalk did not submit any evidence that an operator that uses MPF would have materially higher costs than BT (a WLR+GEA operator). Nonetheless we have considered whether such a cost differential is likely to exist.

5.123 We have considered the case where a CP wins a new customer as an example. That CP will incur a cost in migrating that customer from their existing supplier. BT would supply that new customer using WLR+GEA. In contrast other operators can choose to supply that new customer using either WLR+GEA or MPF+GEA, depending on which option is incrementally more profitable. This suggests that for these customers other operators are unlikely to incur materially higher costs than BT (indeed other operators potentially enjoy an advantage relative to BT).

5.124 Where a CP upgrades an existing customer from standard to superfast broadband then it can continue to supply voice services using the same technology and thus need not incur any additional costs. As a result, an MPF operator could in principle supply upgrading customers using MPF+GEA rather than WLR+GEA, even if the latter had slightly lower ongoing costs, since converting that customer to WLR+GEA results in a migration charge of £30.65.[276] We consider this whether this is likely to be the case in practice in paragraphs 5.125-5.128.

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[271] Multi Service Access Node.
[272] Digital Subscriber Line Access Module.
[273] Public Switched Telephone Network.
[274] Paragraph 5.57, page 16, TalkTalk response to the 2013 FAMR Consultation.
[275] [✂]
[276] As of May 2013. See "*MPF Connection charge*" at http://www.openreach.co.uk/orpg/home/products/pricing/loadProductPriceDetails.do?data=totid5BwFmkf9vLcBITRyZF9loRxWIbIKK6V7YWmlYAlMnGHsqdC0vzO163bJmh34D91D7M0q8u%2F%0AIlSgtIFAKw%3D%3D. MPF Connection is in a charge control basket called "*MPF New Provides*" and this basket will be provisionally charge controlled at CPI-2.9%. See Table 1.1, page 2, Volume 2, draft 2014 FAMR Statement.

5.125 Rental charges make up a much larger proportion of the downstream cost stack than the migration charge, as they are incurred on an ongoing basis in every month during a customer's lifetime (as opposed to connection costs which are incurred once).[277] As a result, the differential in rental costs is the more relevant indicator of whether WLR or MPF is more expensive.

5.126 WLR Rental charges have historically been higher than those for MPF Rental. In 2014/15 the annual charge will (provisionally) be charge controlled at £91.04 for WLR and £86.10 for MPF as set out in the draft 2014 FAMR Statement.[278] However, by 2016/17, the charge for MPF is expected to be above that of WLR because WLR will be (provisionally) subject to a charge control of CPI-3% and MPF will be (provisionally) subject to a charge control of CPI+0.3%.[279]

5.127 In terms of other costs associated with the technology being used to provide copper access, we consider that the available evidence does not clearly indicate that the costs of using MPF are higher:

- In addition to these rental charges, MPF operators incur the cost of installing and maintaining LLU equipment in BT exchanges. These costs are shared between voice and standard broadband services and depend on factors such as the overall number of customers (both standard and superfast) served using that equipment. However our analysis indicates that such costs make up a relatively small amount of downstream costs (approximately [✂]% of the downstream costs of an MPF operator).[280]

- MPF operators typically operate a 'flatter' network architecture with fewer points of interconnection than BT. They are also likely to be using more modern equipment than BT. MPF operators may therefore face lower network costs, although this could be offset by lower volumes.

- If a CP uses MPF then they incur the costs of self-supplying call termination and origination. However an MPF CP retains the termination revenues they receive for terminating calls from other operators. In contrast, when a CP uses WLR they must pay BT for call origination and termination (at regulated prices).

5.128 This suggests that the current total costs of using WLR copper access are likely to be higher than those for MPF copper access, although this may change by 2016/17. We note that this is consistent with TalkTalk's response which suggests that MPF is lower cost (since it states an "*efficient scale entrant*" would use this technology).[281] By 2016/17 the relative total costs of MPF and WLR may be broadly similar as the difference in rental costs will have significantly reduced.

5.129 As a final point, we note that Sky and TalkTalk are not exclusively MPF operators. This suggests that, if we were assessing the costs actually incurred by these

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[277] Analysis for our indicative assessment of the VULA margin in Section 6 indicates that copper access rental costs make up about [✂]% of total monthly retail costs (including amortised upfront costs) whereas copper access connection costs account for about [✂]%.
[278] Table 1.1, Table 1.2 and Figure 1.1, Volume 2, draft 2014 FAMR Statement.
[279] Table 1.1, Volume 2, draft 2014 FAMR Statement.
[280] [✂]
[281] Paragraph 5.57, page 16, TalkTalk response to the 2013 FAMR Consultation.

operators, it would be necessary to consider a 'hybrid' operator that uses a mix of WLR+GEA and MPF+GEA.

5.130 We consider that it is appropriate to assume that the adjusted EEO uses WLR+GEA when assessing the VULA margin because:

- it is not clear that operators using MPF technology have materially higher costs than those, like BT, which use WLR. Rather it is possible that operators using MPF technology may have *lower* costs than BT, although this may change over the review period; and

- BT does not use MPF to supply its customers. Using a MPF+GEA benchmark is thus likely to complicate BT's assessment of whether it is complying with our proposed SMP condition, since it is likely to be less well informed about the costs incurred by such an operator.

Need for an effects based analysis

5.131 We now consider whether an analysis of the effects of BT's pricing on competition is needed as part of the VULA margin assessment.

Stakeholder responses

5.132 BT considered that "*margin tests*" should not solely be conducted "*on the numbers*". It considered that an approach that did not give any weight to effects or objective justifications "*runs significant risk of producing 'false positives' i.e. the margin tests may be used in ways that prohibit prices that – on a proper competition law assessment – would actually be seen as pro-competitive*".[282] It considered that *"Ofcom should signal that any margin tests will be applied with consideration of likely detrimental effects on competition and objective justifications*".[283]

5.133 BT was concerned that the VULA margin assessment would be undertaken:

- without considering the likely exclusionary effects in defined downstream markets; and

- without considering whether there is an "*objective justification*" for BT's conduct.[284]

5.134 In its reply to BT's response to the 2013 FAMR Consultation, TalkTalk argued that it was not necessary for Ofcom to undertake an effects based analysis if BT did not comply with the *ex ante* margin squeeze rule. TalkTalk considered that our proposals were based on a clear theory of harm. It considered that an "*effects based test*" was incompatible with promoting competition (particularly in the context of TalkTalk's proposals for assessing products prior to launch).[285]

[282] Paragraph 17, page 10, BT response to the 2013 FAMR Consultation.
[283] Paragraph 313(d), page 70, BT response to the 2013 FAMR Consultation.
[284] Paragraph 298, page 67, BT response to the 2013 FAMR Consultation.
[285] Paragraphs 2.36-2.48, pages 8-10, TalkTalk reply to BT's FAMR response.

Ofcom's considerations

5.135 We have considered whether it is appropriate for a VULA margin assessment to include an assessment of the effects of BT's pricing and/or consideration of whether that pricing is objectively justified. If so, this could imply that our proposed SMP condition should incorporate these features.

5.136 Our provisional view, for the reasons that follow, is that it is not necessary to revisit whether setting a low VULA margin is likely to have an "*exclusionary effect*" when assessing the VULA margin. We have undertaken an extensive review of the WLA market.[286] We have identified our proposed objective and, provisionally, what we consider is the best way of achieving it by reference to the impact on retail superfast broadband competition (see Section 3). In other words, we have done an analysis of what we propose to be the appropriate (and inappropriate) effects of BT's setting of the VULA margin. Having taken this into account in identifying the need for an SMP condition, it does not appear to us that it is appropriate to repeat that analysis within the SMP condition itself. This would amount to revisiting the rationale for imposing the condition and appears to us to be unnecessary.[287] Moreover in devising our proposed approach, we have assessed the overall impact of our proposals to consider whether they are likely to support our overall objective (see Section 6).

5.137 BT was concerned about "*false positives*", namely prohibiting prices that would be seen as pro-competitive under a competition law assessment. However, we propose that our overall aim should be to ensure that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. As set out in Section 4, we provisionally consider that *ex post* competition law is not appropriate to achieve that specific objective since it does not appear to us that such law alone would allow us to make all the adjustments to costs that we propose are necessary. The assessment we propose should be made, as part of *ex ante* regulation to achieve that objective, is expected to result in a higher margin than the minimum acceptable under *ex post* assessment. BT could thus fail to comply with the proposed SMP condition without necessarily infringing *ex post* competition law. Given our specific objective in this review, we do not consider this position to be inconsistent as between *ex post* and *ex ante* regulation nor to give rise to results that could properly be described as "*false positives*."

5.138 In our preliminary view, therefore, the parallels between *ex post* competition law and *ex ante* regulation that BT draw are not appropriate. In an *ex ante* context, we are concerned that BT's actions may distort competition, without them necessarily being abusive for the purposes of *ex post* assessment.

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[286] Our proposed SMP condition addresses BT's SMP in the WLA market. That market was (provisionally) defined in the draft 2014 FAMR Statement taking into account the direct constraints at the retail level (see Section 7 of Volume 1).

[287] Although under a different SMP condition, it is worth noting that in the PPC Judgment, the CAT considered that it was not necessary to find that BT had caused economic harm by breaching its cost orientation obligation. The condition prohibited certain conduct – BT raising prices beyond those cost orientated – because this would be likely to cause economic harm. This harm was established by the anterior finding of SMP made at the time the condition was imposed. Accordingly, it was not necessary to reconsider that issue when BT breached its SMP obligations. See paragraph 326 of the PPC Judgment.

5.139 We are also mindful that incorporating an assessment of effects and/or whether BT's pricing is objectively justified within the proposed SMP condition may result in less clarity and certainty about BT's obligations under that condition. This is because assessing these factors requires the exercise of additional judgement. Given that we have already considered the risks to competition that BT's actions could have, it appears to us that this would be detrimental to the effectiveness of the proposed SMP condition.

5.140 In summary, our provisional conclusion is that it is not appropriate for the VULA margin assessment to incorporate a further assessment of the effects of BT's prices on competition and/or consideration of whether BT's prices are objectively justified. Accordingly, we do not propose to incorporate either of these features into our proposed SMP condition and our current view is that we would be unlikely to consider it appropriate to exercise our discretion to look at whether there was any objective justification for BT's conduct as part of any *ex ante* VULA margin assessment. In the event that we considered BT's VULA margin to be insufficient, we would consider this to be a breach of the proposed SMP condition.

Provisional conclusions

5.141 For the reasons set out in this section, we propose that, in order to assess whether the VULA margin is sufficient it is appropriate:

- to use an adjusted EEO approach;
- to assess costs on a LRIC+ basis;
- to consider superfast broadband packages marketed at residential (rather than business) customers;
- to include the costs and revenues of all elements bundled with superfast packages;
- to include triple-play packages;
- to use the total fibre portfolio as an output increment;
- to consider the costs of an operator that uses WLR technology; and
- not to include a further analysis of the potential effects of BT's pricing.

5.142 The SMP condition in set out in Annex 5 codifies the approach set out in the above paragraph.

Consultation question(s)

Q5.1 Do you agree with our approach to the VULA margin assessment? In particular, do you agree that we should:

(a) adopt an adjusted EEO approach?
(b) assess costs on a LRIC+ basis?
(c) assess costs and revenues at the level of the entire portfolio of superfast broadband packages marketed at residential consumers and taking into account the components of these packages?

Please provide reasons in support of your view.

Section 6

Detailed discussion of treatment of costs and revenues

Introduction

Purpose of this section

6.1 In Section 5 we considered the approach to assessing the VULA margin that we propose to codify in the proposed SMP condition. We now consider in detail the treatment of BT's costs and revenues when assessing the VULA margin.

6.2 In particular, this section provides draft guidance on the approach that we propose we would likely adopt when assessing the VULA margin by reference to the requirement in our proposed SMP condition, including details of how we are likely to analyse data on BT's costs and revenues. This guidance is intended to provide further clarity on what is required under our proposed SMP condition. This guidance will also provide transparency to other CPs about our likely approach.

6.3 We recognise that in order to assess the VULA margin it is necessary to make assumptions about the treatment of costs and revenues. While a number of different assumptions may have merits, it is important that our draft guidance identifies the approach that is the most reasonable. In other words, if there are two reasonable ways of approaching an issue we have selected the one which – in our judgment – is the more reasonable. If our guidance were to set out a number of plausible assumptions without picking between them then this would fail to provide sufficient certainty to stakeholders about our likely approach.

6.4 While the guidance is intended to reflect our proposed current view of the approach we would likely adopt when assessing the VULA margin, we may depart from it if circumstances change. For example, if there was a sufficiently material change to the way BT sells or bundles its broadband packages, we may need to take this into account in any future assessment.

6.5 We do not consider that it is appropriate for the details of this draft guidance to form part of the proposed SMP condition. Much of the discussion in this section reflects the detail of how BT currently supplies superfast broadband and how it reflects this in its accounts. We are concerned that if these details change then it may be necessary to adapt our approach. As set out in Section 4, by setting out these details in guidance (e.g. rather than including them in the condition or in a model), we retain the flexibility to adapt to changing circumstances while still providing stakeholders with a significant insight into our likely approach.

6.6 There are two exceptions to this:

- we propose to specify in our proposed SMP condition the appropriate ACL that should be used in assessing the VULA margin; and

- we propose to specify in our proposed SMP condition a floor for each year of the market review for the unit bandwidth costs to be used in assessing the VULA margin.

6.7 These inputs appear to us to be sufficiently certain so as to make their inclusion in the SMP condition appropriate. Moreover, in the absence of including these, BT will not know what precise adjustments are required to its costs and revenues to comply with the proposed SMP condition.

6.8 In developing our proposals we have been mindful of our overall objective, namely to ensure that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. We consider that this is best achieved by allowing an operator with slightly higher costs than BT (or some other slight commercial drawback relative to BT) to profitably match BT's superfast broadband offers. Some aspects of our proposals involve the exercise of judgement (e.g. the calculation of BT Sport costs and the allocation of those costs between copper and fibre subscribers). Thus in this section we also consider in aggregate whether our proposals are consistent with our overall objective.

6.9 In summary, this section:

- proposes draft guidance on the approach that we would likely adopt when assessing the VULA margin; and

- explains our proposals for how BT's costs and revenues should be adjusted in order to reflect the position of an adjusted EEO. We propose to incorporate these adjustments into our proposed SMP condition – see Section 7.

6.10 For clarity, our guidance (as distinct from the accompanying reasoning) is set out in text boxes highlighted in ✂. A full version of our proposed guidance is set out in Annex 6.

Overview of approach

6.11 As discussed in Section 5, it is appropriate to consider the following factors when assessing the VULA margin:

- P = ongoing monthly revenue;

- W = ongoing monthly wholesale costs;[288]

- DC = ongoing monthly retail costs;

- UR = upfront customer acquisition revenues; and

- UC = upfront customer acquisition costs.

6.12 We consider that an appropriate way to conduct the VULA margin assessment is to consider whether the ongoing monthly margin is sufficient to cover the upfront net costs by estimating the NPV of a customer over their expected ACL. In other words, whether the discounted value of the ongoing margin (P – (W + DC)) is sufficient to cover the net upfront costs (UC – UR). If the ongoing margin is not sufficient to cover the net upfront costs then BT has failed to set the VULA charge so as to maintain a minimum VULA margin, contrary to the proposed SMP condition.

[288] The ongoing monthly wholesale costs reflect the wholesale price that BT charges for VULA.

6.13 We firstly set out our proposed approach in relation to the following overarching issues:

- data sources and approach to weighting the superfast broadband portfolio;
- adjustments to BT's costs and revenues;
- simplification of the analysis and our approach to FTTP and Plusnet services;
- focus on new consumers; and
- cost of capital.

6.14 We then go on to provide a detailed discussion of revenues, costs and expected ACL:

- ongoing monthly revenues;
- ongoing monthly wholesale costs;
- ongoing monthly retail costs;
- upfront costs;
- upfront revenues; and
- ACL.

6.15 Finally we set out an estimate of the cumulative effects of our proposals, including whether our proposals are consistent with our overall objective

Data sources and approach to weighting the superfast broadband portfolio

6.16 When assessing BT's compliance with SMP condition 14 during a particular time period, we would seek to use the best available data. Where possible, we would likely use historical, audited data covering the assessment period. If data for the period in question is not yet available, we would likely use the most recent data that is available. Three of the main sources we are likely to rely on are:

- Publicly available data – this includes Openreach price lists, pricing reports and published Ofcom documents.
- Annual BT management accounts – [✂][289] We would likely make the assumption that, on average, a superfast broadband customer generates the same amount of costs and revenues as a standard broadband customer. As a result, when we calculate a particular cost or revenue item using the management accounts, we would be likely to divide total costs/revenues by the total broadband customer base.

[289] [✂]

- Internal BT data – for some revenue/cost items, we would likely use more granular data from BT's internal management information systems [✂][290]).

6.17 In the following subsections, we set out the data sources we consider would likely be most appropriate for calculating each cost and revenue item and detail the methodology we are likely to apply to build the cost and revenue stacks for the superfast broadband portfolio.

6.18 If there is short-term volatility in revenues or costs, for example, if it were the case that BT makes payments to a supplier intermittently rather than on an ongoing basis, we would likely consider whether estimates based on the assessment period are consistent with averages based on a longer time period.

6.19 As discussed in Section 5, we consider that it is appropriate to assess the VULA margin earned on BT's entire portfolio of superfast broadband bundles, which includes dual-play and triple-play BT Consumer Infinity products and Plusnet Fibre products. Accordingly, we are likely to calculate weighted average revenues and costs across individual products within BT's superfast broadband portfolio (e.g. BT Infinity 1, Unlimited BT Infinity 2 with BT TV, Plusnet Fibre etc.).The weights used in the calculation would likely reflect the volumes of subscribers acquired on each product during the assessment period. If these volume weights appeared to be subject to unusual volatility, we would likely consider volume weights calculated over a longer time period as part of a sense check.

Draft guidance

When assessing BT's compliance with SMP condition 14 during a particular time period, we would seek to use the best available data. Where possible, we would likely use historical, audited data covering the assessment period. If data for the period in question is not yet available, we would likely use the most recent data that is available.

In order to assess BT's portfolio of superfast broadband products, we are likely to calculate weighted average revenues and costs across individual bundles within BT's superfast broadband portfolio. The weights used in the calculation would likely be the volumes of subscribers acquired on each product during the assessment period.

Adjustments to BT's costs and revenues

6.20 As discussed in Section 5, we consider that an adjusted EEO approach is appropriate. It is therefore, necessary to consider what adjustments should be made under this approach.

Stakeholder responses

6.21 BT considered that the guidance in the 2013 FAMR Consultation was "*vague*" about when and how adjustments would be made.[291] BT considered that it would be "*inconsistent*" only to adjust costs upwards. It considered that doing so creates the

[290] [✂]

[291] Paragraph 302, page 68, BT response to the 2013 FAMR Consultation.

risk that BT could be required to set a VULA margin that exceeds the amount needed for its retail competitors to earn a reasonable return.[292]

6.22 TalkTalk suggested a number of adjustments to BT's costs.[293] The adjustments it proposed and where in this section we consider them are listed below:

- call termination costs (see paragraphs 6.48-6.49);
- core networks costs (including backhaul) (see paragraph 6.67);
- voice costs (see paragraph 6.56); and
- commercial and overhead costs (see paragraphs 6.108-6.112).

6.23 TalkTalk also considered that we should "*aim up*" when assessing the VULA margin i.e. where there is uncertainty, err towards setting a larger margin. TalkTalk advocated this approach for two reasons. First, to offset the consequences of the "*existing margin squeeze*". Second, the harm from a VULA margin that is "*too low*" is greater than the harm from a VULA margin that is "*too high*". For example, in the former case all rival operators are disadvantaged whereas in the latter case only BT is disadvantaged. Moreover a margin that is too low may not "*permit entry*".[294]

Ofcom's considerations

6.24 In deciding what adjustments to BT's costs or revenues to make, we have taken into account the following considerations.

6.25 First, BT was concerned that only adjusting costs upwards could result in an unduly large VULA margin. We recognise the risk of 'cherry picking' the adjustments that we make. In practice, different operators have different commercial strengths and weaknesses. To illustrate, a rival operator might have five disadvantages relative to BT, each of which requires a £1/month increase in the VULA margin to offset. However that rival advantage may also enjoy three advantages relative to BT, each of which is equivalent to an extra £1/month of VULA margin. Thus overall, an adjustment of £2/month is sufficient for that operator to match BT's retail superfast broadband offers. In contrast, if we were to adjust for all the disadvantages that this particular rival experiences (i.e. £5/month), without taking its advantages into account, it would result in a minimum VULA margin that is larger than necessary.

6.26 Second, we note that individual cost or revenue items may not be independent of what services are delivered and how the firms choose to deliver them. For example, if one firm spends less on marketing than its rivals but more on offering supermarket vouchers in order to attract subscribers, it would not be right to conclude that the firm has any competitive advantage in respect of its marketing costs on the grounds that the firm spends less on marketing. The apparently low spend in this example would simply reflect a different mix of strategies for subscriber acquisition. This is a further reason to be wary of selectively picking out individual cost items where BT might appear to be lower cost than its rivals.

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[292] Paragraphs 302-303, page 68, BT response to the 2013 FAMR Consultation.
[293] Annex 5, TalkTalk response to the 2013 FAMR Consultation.
[294] Paragraph 4.42, page 25 of Annex 4 and paragraph 5.60, page 16, TalkTalk response to the 2013 FAMR Consultation.

6.27 In light of these points, we have applied a framework to identify which costs and revenues should be adjusted. We consider that it is appropriate to use the following two considerations in order to identify whether a particular item should be adjusted:

- First Consideration – is there evidence that BT's costs/revenues materially differ from those of other operators, and if so, is it likely to be possible for other operators to match BT's costs/revenues?

- Second Consideration – would the adjustment meet our objective by allowing an operator with slightly higher costs than BT (or some other slight commercial drawback relative to BT) to profitably match BT's superfast broadband retail offers?

6.28 The First Consideration means that where cost/revenue differences are either immaterial to the VULA margin assessment or relatively simple to address through a change in commercial strategy, we consider that it is not appropriate to take them into account. We have proposed to make adjustments to BT's ACL and its unit bandwidth costs (see paragraphs 6.71-6.88 and 6.222-6.239). In the case of the former, we have gathered data which shows that all the other major operators using VULA to provide superfast broadband services have shorter ACLs than BT. As explained in paragraph 6.236, we consider that the pattern indicated by the data suggests that it is difficult for other operators to close the gap in ACLs by making changes to their respective commercial strategies. In the case of the latter, we have gathered data from BT, Sky and TalkTalk which has allowed us to forecast other operators' unit bandwidth costs. We have proposed to use the forecast of other operators' unit bandwidth costs should BT's unit bandwidth costs be lower during the market review period. As explained in paragraph 6.72, we consider that it is possible that BT could have advantages with respect to unit bandwidth costs that would be difficult for other operators to replicate due to BT's larger scale in the supply of non-broadband bandwidth dependent services.

6.29 We then look at the likely aggregate impact of all the candidate adjustments. We do so as part of our assessment of the Second Consideration set out above. We have estimated the likely change in the margin as a result of the proposed adjustments to BT's costs and revenues. This allows us to test whether our draft guidance is consistent with our overall objective – see paragraphs 6.250-6.264.

6.30 When assessing the VULA margin it is unlikely that we would "*aim up*" in the way that TalkTalk proposed (see paragraph 6.23). In terms of TalkTalk's first argument, we do not consider that such an approach is necessary to offset an "*existing margin squeeze*". Rather, in relation to the Superfast Broadband Competition Act Investigation, our provisional conclusion is that there are no grounds for further action. In terms of TalkTalk's second argument, while there are some asymmetries in the effects if the VULA margin is above or below LRIC, we address these by adopting a LRIC+ approach (see Section 5). We therefore do not consider a further adjustment is appropriate. In terms of each of TalkTalk's suggested adjustments to individual cost items, we deal with these later in this section.

Simplification and our approach to FTTP and Plusnet services

6.31 When carrying out an assessment of the VULA margin, we are likely to simplify our modelling in order to focus on the most material factors.

6.32 For instance, we would likely focus our analysis on BT Consumer's Infinity FTTC products. BT Consumer's FTTP services (with speeds up to 200Mbit/s and

300Mbit/s) are currently only purchased by a relatively small number of subscribers.[295] Given that our output increment consists of all BT's fibre bundles, in principle bundles provided using FTTP VULA should be taken into account. However in practice such bundles are likely to have an [relatively small] [✂] impact. Accordingly we are unlikely to specifically take these into account when carrying out modelling to assess the VULA margin.[296]

6.33 We are also likely to treat Plusnet in a simplified way. Plusnet products currently make up a relatively modest proportion of BT's superfast broadband portfolio with about [✂] subscribers acquired in the first three quarters of 2013/14 representing about [✂] of BT's superfast acquisitions during this period.[297] However, BT operates Plusnet as a separate business unit and as a result there [✂]. We would likely include Plusnet in our assessment by taking the following pragmatic approach:

- where specific costs and revenues can be sourced using publicly available information (e.g. Openreach prices and retail subscription prices) or by using the Plusnet management accounts (e.g. [✂]), we would likely use these as the basis of our analysis; and

- for other costs and revenues, we would likely apply our estimate for Infinity products supplied by the rest of BT Consumer to the relevant Plusnet products.

6.34 Adopting the simplifications discussed above, the remainder of this section sets out the likely approach we would take when assessing the VULA margin to calculating the costs and revenues of BT Consumer Infinity FTTC products only.

Draft guidance

When carrying out an assessment of the VULA margin, we are likely to simplify our modelling in order to focus on the most material factors. In particular we are:

- unlikely to specifically take FTTP bundles into account when carrying out modelling; and
- likely to analyse Plusnet subscribers by using data on the costs and revenues for superfast broadband products supplied by the rest of BT Consumer, except where data on Plusnet's specific costs and revenues can be easily sourced using publicly available information or Plusnet's management accounts.

Focus on new customers

6.35 BT sets different prices for residential superfast broadband subscribers depending on when they took out their subscription.[298] We have considered whether, when assessing the VULA margin, we would likely consider:

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[295] As of 14 February 2014, BT had [✂] subscribers on Infinity 3 and Infinity 4 packages representing [✂] of BT's superfast broadband subscribers. BT response to Q4 of the 9th s26 Notice of 14 February 2014.

[296] However we might revisit this approach in the event that the number of subscribers to bundles using FTTP VULA as an input was to increase and account for a more substantial share of BT's overall fibre subscribers.

[297] [✂]

[298] In January 2014, BT increased the price charged to Infinity subscribers [✂].

- the prices paid by all BT superfast broadband subscribers regardless of when they took out their subscription; or
- just the prices BT charges to new superfast broadband subscribers.

6.36 We would likely assess the VULA margin by reference to the prices charged to new superfast broadband subscribers. This is because such an approach is likely to support our overall objective to ensure that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted.

6.37 The prices BT offers to new subscribers are the most relevant prices when considering a rival operator's ability to acquire new subscribers and to compete effectively against BT. For example, if an existing BT subscriber paying a higher price was considering switching to a rival operator, BT could attempt to retain that subscriber by offering them a comparable price to that available to new BT subscribers.

6.38 Using the prices paid by BT superfast broadband subscribers regardless of when they took out their subscription potentially allows BT to support a low margin on new subscribers by setting a high margin to its existing subscribers. However other operators may find it difficult to replicate such a pattern of prices and may thus find it difficult to compete for new superfast broadband subscribers. This is because BT currently has a larger existing base of superfast broadband subscribers than other operators using VULA on its network.[299]

6.39 In the event that BT were to cut its margin on existing subscribers, to the extent that we considered that prices to existing subscribers might fail to cover the relevant costs, we may assess the VULA margin in relation to existing customers (as well as for new customers). Should that be required much of the guidance presented here in respect of the relevant costs and revenues would apply to the assessment.

Draft guidance
When assessing the VULA margin we would likely consider the prices that BT charges to new superfast broadband subscribers.

Cost of Capital

6.40 Our analysis of the payback period requires an assumption on the cost of capital, which is used to discount future margins. We would likely apply the prevailing pre-tax nominal weighted average cost of capital (WACC) for the 'rest of BT'.[300] The most recent estimate of the rest of BT's pre-tax nominal WACC was 10.8 per cent and was published in the draft 2014 WBA Statement.[301]

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[299] For example, in Q1 2014, BT had around 2.1m retail fibre subscribers out of a total of 2.7m fibre connections on Openreach's network. Page 5, BT, *Results for the fourth quarter and year to 31 March 2014,* 8 May 2014, http://www.btPlc.com/News/ResultsPDF/q414-release.pdf.

[300] There are three separate estimates of WACC for BT: one for Openreach, one for BT Group and one for the rest of BT.

[301] Paragraph 7.09.

Draft guidance
We would likely use the prevailing pre-tax nominal WACC for the 'rest of BT' as the relevant discount rate used to project forward BT's ongoing costs and revenues.

Ongoing monthly revenues

6.41 Ongoing revenues cover the payments BT collects from superfast broadband subscribers each month. These payments are monthly subscription, line rental, out of package call revenues, call termination revenues and out of package data usage. Below, we propose guidance on how we are likely to calculate each of these items.

Monthly subscription revenues

6.42 Monthly subscription revenues are the payments subscribers make each month to BT for the supply of a broadband service.

Draft guidance
Headline monthly subscription prices for the product tiers in the superfast broadband portfolio would be the prices applicable during the assessment period. We would likely make an adjustment to the headline monthly subscription prices to take into account loyalty / retention discounts which BT offers to certain customers. The level of the adjustments would likely be estimated by calculating the average percentage discount given on each product tier over the assessment period.

Line rental revenues

6.43 As explained in paragraphs 5.121-5.130, when fibre broadband services are supplied using VULA we are likely to assume that the voice service is supplied using WLR. It is common practice for consumers to pay a charge for line rental. Currently BT customers can pay for line rental either on a monthly basis or as a lump sum for the forthcoming year by taking the annual line rental saver (LRS) option.[302]

Draft guidance
Line rental prices would be the line rental prices applicable during the assessment period. To take into account the different prices of standard line rental and LRS, the average line rental price would likely be estimated on the basis of the volumes of BT superfast broadband customers using each option over the assessment period.

Call revenues

6.44 BT sells all its superfast broadband services in bundles that include voice services. Call revenues consist of both 'package' fees and 'out of package' (OOP) call revenues. Package fees are earned when customers pay extra for a particular call package (e.g. unlimited calls to certain telephone numbers at all times of the week) or certain call bolt-ons (e.g. paying a monthly fee to reduce the cost of international or mobile calls). OOP revenues are earned when customers make fixed landline calls

[302] As at February 2014, the standard monthly line rental price (excluding VAT) was £13.33, working out at £159.96 over a year, while LRS was priced at £117.50 (excluding VAT) for the year, which is equivalent to £9.79/month.

outside of those included in their call package. BT's superfast broadband offers in February 2014 all included calls to landlines at weekends at no additional charge. OOP revenues are earned on calls made at other times of the week and other call types, e.g. mobiles, international numbers and premium-rate numbers.

Draft guidance
The call revenues earned from a superfast broadband customer would likely be sourced from BT's database[303] and would be based on the average revenues earned from superfast broadband customers over the assessment period. This would include revenues earned from package fees and OOP calls.

Out of package data usage revenues

6.45 Revenues from OOP data usage are earned when consumers take a superfast broadband product with a monthly data usage cap (e.g. 20GB for Infinity 1 in March 2014) and exceed their cap. In March 2014, BT charged £5.30 per incremental 5GB of data which had been used in excess of the limit.

Draft guidance
The OOP data usage revenues earned from a superfast broadband customer would likely be sourced from BT's system[304] and would use the average OOP data usage earned from superfast broadband customers over assessment period.

Payment Processing Fees revenues

6.46 BT currently charges a Payment Processing Fee (PPF) of £2/month to Infinity customers who do not pay their bills by direct debit or a monthly payment plan.[305]

Draft guidance
We would likely calculate the PPF revenues earned from a superfast broadband customer using the following two-step method:

- The average PPF payment would likely be calculated by taking the total monthly PPF revenues earned from superfast broadband customers for the assessment period and dividing by the number of superfast broadband customers who paid these charges during this period.
- The average PPF payment per superfast broadband subscriber (i.e. the average across subscribers who paid these charges and those that did not) would likely be calculated by multiplying the average PPF payment by the average proportion of superfast broadband subscribers that paid these charges during the assessment period.

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[303] BT currently holds a database, known as [✄], which collects the calling records of each of its customers' accounts and includes information on the pence per minute call charges and costs applicable in a given month (by call type, time of day and package). BT response to Q23 of the 5th s26 Notice of 20 August 2013.
[304] Currently known as [✄].
[305] BT, *Terms and Conditions,* 23 January 2014, http://www.productsandservices.bt.com/consumerProducts/dynamicmodules/pagecontentfooter/pageContentFooterPopup.jsp?pagecontentfooter_popupid=13408&s_cid=con_FURL_broadbandterms

Advertising revenues

6.47 Advertising revenue is generated by [a variety of means (e.g. selling inventory on the portals used by customers and premium search engine results).] [✂][306]

Draft guidance
We would likely estimate the amount of advertising revenue earned from a superfast broadband customer by taking the amount recorded in the most recent annual Broadband management accounts and dividing by the average broadband customer base over the period the accounts cover and converting to a monthly figure.

Call termination revenues

6.48 Call termination revenues are earned by operators when a customer from another network calls a customer on the operator's network.

6.49 TalkTalk stated that call termination revenue should be included in the margin assessment and that it should be adjusted (upwards) to reflect that "*an efficient competitor would receive proportionally more calls from other networks than BT does*".[307] However as set out in Section 5, we consider that it is appropriate to assess the VULA margin from the perspective of an operator that uses WLR to provide voice services, rather than MPF. Operators using WLR do not receive call termination payments. We therefore do not propose to include call termination revenues in the revenue stack. On this approach, TalkTalk's proposed adjustment to call termination revenues is not relevant.

Draft guidance
We are unlikely to take call termination revenues into account.

TV revenues

6.50 As discussed in Section 5, we consider that it is appropriate to take triple-play bundles into account when assessing the VULA margin. It is thus appropriate to include BT TV in our overall assessment by considering the revenues earned in addition to those earned for dual-play Infinity packages (fibre broadband and voice).

<u>Subscription revenues</u>

6.51 TV subscription revenues are the additional monthly fees triple-play BT subscribers pay to receive BT TV.

Draft guidance
The headline monthly subscription prices for BT TV would likely be the prices applicable during the assessment period.

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[306] [✂]
[307] Paragraph 5.26, page 46, Annex 5, TalkTalk response to the 2013 FAMR Consultation.

On-demand revenues

6.52 On-demand revenues are earned when BT TV customers purchase an on-demand TV programme or film.

Draft guidance
We would likely estimate on-demand revenues by taking the total on-demand revenues reported in the most recent annual BT TV management accounts and dividing by the average number of TV subscriptions in the period covered by the accounts and converting to a monthly figure.

6.53 As explained in paragraphs 6.222-6.239, we propose assuming an ACL of 5 years. During this period, some triple-play superfast broadband customers are likely to cease taking BT TV (i.e. revert to dual-play). We would likely adjust ongoing TV revenues to take this into account. In its internal governance modelling [✂].[308]

Draft guidance
We would likely adjust ongoing TV revenues downwards to account for those triple-play superfast broadband customers who cease taking BT TV before the 5 year superfast broadband ACL has concluded. We would likely reduce ongoing TV revenues by [✂]% after the first [✂] months of the ACL (i.e. assume that [✂]% of triple-play customers continue to receive BT TV for the remaining [✂] months of the ACL). We would likely revisit this figure in the event that more accurate evidence was available.

Ongoing monthly wholesale costs

Wholesale GEA and WLR charges

6.54 BT Consumer incurs two wholesale charges, payable to Openreach, when providing a customer with a superfast broadband product: GEA and WLR. Openreach offers various GEA products which differ by download and upload speeds available.[309]

Draft guidance
When assessing the VULA margin we would likely take the wholesale charges applicable during the assessment period published on the Openreach website.

Ongoing monthly retail costs

Voice costs

6.55 As set out in paragraph 6.44, customers can make calls which are either included in-package or are out of package.[310] Voice costs cover the costs BT incurs as a result

[308] BT response to Q3 of the 6th s26 Notice 26 of 1 October 2013.
[309] As at February 2014, for FTTC, Openreach offered: GEA Up to 40Mbit/s downstream and up to 2Mbit/s upstream; GEA Up to 40Mbit/s downstream and up to 10Mbit/s upstream; and GEA Up to 80Mbit/s downstream and up to 10Mbit/s upstream.
[310] As set out in paragraph 6.44, this includes both the call packages that are bundled with superfast broadband offers (e.g. weekend calls) and the additional call packages customers can purchase.

of customers making these calls, over and above the WLR charge (which is discussed in paragraph 6.54). These costs include:

- Product Unit Costs (PUCs) – these are charges associated with the conveyance of calls across the BT network ([✂]).
- Payments to Other Licensed Operators (POLOs) – these are call termination payments to other licensed operators.
- ‘Uncostable Revenue’ – these refer to call types that are not costed within BT’s database[311] (such as 0844/0871, premium rate and directory enquiries calls). BT has previously assumed that the costs of these call types equal revenues when calculating call costs for superfast broadband subscribers.[312]

6.56 TalkTalk’s response also proposed including costs incurred by an operator using MPF access to provide the functionality needed to offer voice services, such as an MSAN, ports, tie cable, a test head, space/power and voice servers.[313] We consider that these costs would not be relevant to our assessment since we consider it is appropriate to consider the position of an operator that uses WLR rather than MPF (as set out in Section 5).

Draft guidance
The call costs of serving a superfast broadband customer would likely be sourced from BT’s database[314] and would be based on the average calls made by superfast broadband customers over the assessment period. This would cover both in-package and OOP calls and would include PUC costs and POLOs, while the call costs will be based on the revenues for call types for which costs are not available in BT’s database.

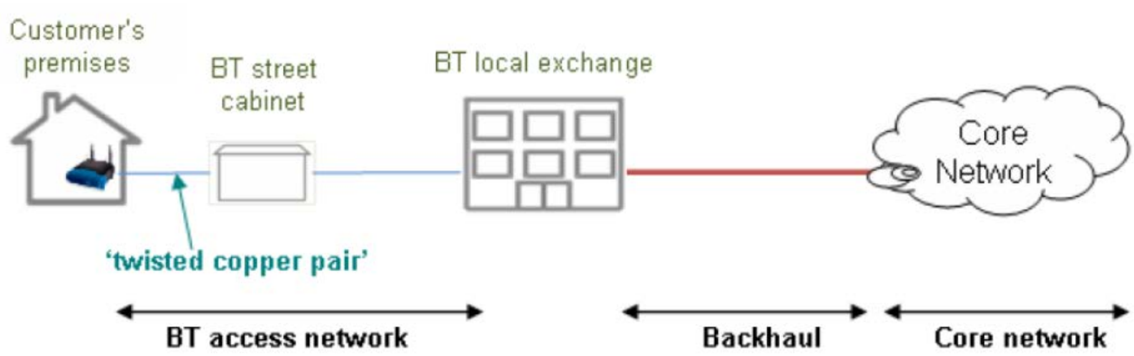
Network costs

6.57 Network costs are the cost of providing the necessary bandwidth to a superfast broadband customer.

6.58 Figure 6.1 below shows the part of the network that these costs cover. The access network connects the customer’s premises to the BT local exchange. This access is covered by the wholesale costs discussed in paragraph 6.54 (i.e. WLR and GEA). The network costs discussed in this subsection refer to the backhaul and core network. These represent the connection between the local exchange and the Internet.

[311] See footnote 303.
[312] BT response to Q6 of the 2nd s26 Notice of 3 June 2013.
[313] Paragraph 5.41, page 54, Annex 5, TalkTalk response to the 2013 FAMR Consultation.
[314] See footnote 303.

Figure 6.1 – Illustration of network



Draft guidance
We would likely estimate network costs using the following approach:

Network costs = Unit bandwidth cost * Average capacity available to each user

Unit bandwidth cost

6.59 The discussion of unit bandwidth costs is structured as follows:

- BT's unit bandwidth costs;
- whether an adjustment to BT's unit bandwidth costs is currently appropriate;
- whether a floor, specified in the proposed SMP condition, for unit bandwidth is appropriate;
- indicative figures (for consultation) on the level of that floor; and
- our provisional conclusions and draft guidance.

BT's unit bandwidth costs

6.60 The unit bandwidth cost is the cost of supplying 1Mbit/s of bandwidth to a customer. Broadly speaking, bandwidth costs can be separated out into backhaul and core, as shown in Figure 6.1. The former will include the cost of backhaul links (leased lines) between local exchanges and from local exchanges to other aggregation points in BT's network. The latter will include all costs that relate to the core network, including the cost of routing and switching at Metro and Core nodes, the Broadband Remote Access Server (BRAS) which provides management of the end-user's internet sessions, and links between Core nodes and the Internet. In addition, Ethernet-based Multiple Services Interconnect Links (MSILs) are required to serve as transmission bearers between aggregation points and BT's core network.

6.61 BT Consumer uses Wholesale Broadband Connect (WBC) products supplied by BT Wholesale to carry out the core network activities necessary to connect its superfast broadband products to the Internet. In accordance with its SMP obligations, BT reported unit FACs for WBC Bandwidth in Market 1 and Market 2[315] in the 2012/13 Regulatory Financial Statements (RFS).[316] In addition, for internal purposes BT currently maintains data within its regulatory financial reporting system[317] (the cost system used to prepare the RFS) which allows unit FACs to be calculated for WBC Bandwidth in Market 3. In the draft 2014 WBA Statement we provisionally decided to change the market designations from Markets 1-3 to Markets A and B.[318]

6.62 In terms of the cost standard, we consider that the use of FAC is suitable, as the inclusion of an allowance for fixed and common costs is consistent with our view that a LRIC+ approach is appropriate (see Section 5). We consider that BT's regulatory financial reporting system is likely to be a suitable data source as it has been prepared according to well understood and documented principles[319] and has been audited. Since we typically use the RFS when setting charge controls on BT, using data from BT's regulatory financial reporting system when assessing the VULA margin also helps ensure that common costs are allocated in a manner that is consistent with those charge controls.

6.63 We have also considered whether the geographic WBA markets that BT's regulatory financial reporting system provides information on are likely to be appropriate for estimating WBC unit costs relevant for the supply of retail superfast broadband services.

6.64 For core costs (including MSIL), we consider that the data from BT's regulatory financial reporting system is likely to be suitable. Our understanding of BT's network design is that different types of data traffic are typically consolidated at aggregation points and subsequently transited together over core infrastructure. It is reasonable to assume that, irrespective of the type of service used (e.g. standard broadband, superfast broadband etc.) or the geographic location where data originates, it will follow the same route through the core network and incur the same amount of costs. As the majority of fibre-enabled exchanges are in Market 3 (under the old designations) and Market B (under the provisional new designations), we consider

[315] Market 1 consists of exchanges where only BT is present or forecast to be present. Market 2 consists of (i) exchanges where two principal operators (POs) are present or forecast; and (ii) exchanges where three POs are present or forecast but where BT's share is greater than or equal to 50%. Market 3 consists of (i) exchanges where four or more POs are present or forecast; and (ii) exchanges where three POs are present or forecast but where BT's share is less than 50%. POs are an operator capable of providing a material constraint in the market. Paragraph 1.19, Ofcom, *Review of the wholesale broadband access markets*, 3 December 2010, http://stakeholders.ofcom.org.uk/binaries/consultations/wba/statement/wbastatement.pdf.

[316] Pages 112 and 116, BT *Regulatory Financial Statements 2013*, http://www.btPlc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2013/CurrentCostFinancialStatements2013.pdf

[317] Currently known as ASPIRE, to be replaced by REFINE.

[318] In Market A, there are no more than two POs present or forecast to be present. In Market B, there are three or more POs present or forecast to be present (see paragraph 1.23).

[319] For example, see BT, *Detailed Attribution Methods (DAM) 2013,* 31 July 2013, http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2013/DAM2013.pdf

that the use of the Market 3 or Market B unit core WBC bandwidth cost is likely to be appropriate as it will include a suitable allocation of fixed and common costs.[320]

6.65 With respect to backhaul, we have considered whether unit costs are likely to vary by geography to the extent that Market 3/Market B costs are unlikely to be representative of unit costs for fibre-enabled exchanges (which tend to be a subset of Market 3/Market B exchanges). We have looked at the unit backhaul costs attributed to WBC Bandwidth for 2012/13 and have considered whether there is much variation between Markets 1, 2 and 3 (see Table 6.1 below) – if we were to observe material cost differences between the WBA markets, this might be an indication that fibre-enabled exchanges have materially different unit costs to the overall figure for exchanges in Market 3.[321]

Table 6.1 – 2012/13 unit backhaul costs

	Market 1	Market 2	Market 3
Annual backhaul costs (£m)	3.0	5.0	[✂]
Annual bandwidth volumes (Mbit/s)	497,579	918,417	[✂]
Unit backhaul costs	£6.03	£5.45	[✂]

Note: Market 1 and 2 costs are available in BT's published accounts, Market 3 costs are from BT's current regulatory financial reporting system, ASPIRE.

6.66 Table 6.1 indicates that there is not a great deal of variation in unit backhaul costs with respect to geography. Although Market 1 exchanges are mostly located areas with low population density, unit backhaul costs are only about [✂]% higher than for exchanges located in the rest of the country. [✂] This suggests that the unit backhaul cost for fibre-enabled exchanges are unlikely to be materially different to those for Market 3 exchanges taken as a whole (i.e. which will include both fibre-enabled and non-fibre-enabled exchanges). When assessing the VULA margin, we would likely calculate the backhaul element of unit bandwidth costs using data from BT's regulatory financial reporting system[322] for Market 3/Market B. We note that backhaul is provided using Openreach products which are subject to EOI obligations. As this requires BT to purchase these products at the same price paid by other operators, we would expect the data from BT's regulatory financial reporting system for Market 3/Market B backhaul costs to be calculated by multiplying the prices of the products by their respective volumes.

Adjustment to BT's current bandwidth costs

6.67 In its response, TalkTalk argued that BT has cost advantages in relation to bandwidth and that the VULA margin assessment should not use BT's own bandwidth costs. It proposed that bandwidth costs should be based on the costs of an entrant:

[320] Our analysis of the cost data BT used to prepare the 2012/13 RFS indicates that the proportions of fixed and common costs BT allocates across the Markets can vary. [✂]

[321] Possible drivers of geographic variation in unit costs might include larger, urban-based exchanges being able to consolidate backhaul traffic over high capacity links or exchanges located near Metro and Core nodes requiring shorter link lengths.

[322] See footnote 317.

> "*Total network costs should be derived from the costs of an entrant, particularly since it is difficult to reliably identify BT's network costs, as the costs are shared with other non-broadband products. In contrast the costs of an entrant are much more easily identified since they purchase and operate dedicated networks. An efficient entrant may face higher bandwidth costs than BT if there are economies of scale in operating.*"[323]

6.68 As explained in Section 5, our view is that it is appropriate to adopt an adjusted EEO approach. As set out in paragraph 6.27, the First Consideration we use to decide whether to make an adjustment is whether there is evidence that BT's costs materially differ from those of other operators and, if so, is it likely to be possible for other operators to match BT's costs.

6.69 In order to understand whether material differences in bandwidth costs are likely to exist between BT and other operators, we gathered FAC bandwidth cost data and volume data from Sky and TalkTalk to compare with our estimate of BT's unit costs based on the methodology set out above in paragraphs 6.64-6.66.[324] Table 6.2 below sets out our estimates of unit bandwidth costs based on this information.

Table 6.2 – Comparison of unit bandwidth costs (per Mbit/s, per month)

	2011/12	2012/13
BT	[✂]	[✂]
Sky	[✂]	[✂]
TalkTalk	[✂]	[✂]

6.70 Table 6.2 indicates that BT had higher bandwidth costs than both Sky and TalkTalk in 2011/12 and 2012/13.[325] Given that BT currently has higher bandwidth costs than Sky or TalkTalk, we propose that an adjustment to BT's unit bandwidth costs is currently not appropriate.

Placing a floor on unit bandwidth costs

6.71 Based on the current data for BT's unit bandwidth costs, we do not consider that an adjustment to those costs is appropriate. However, BT has the ability to review the allocation of common costs to WBC and we consider it is likely to do so. [✂].[326] BT presented data which indicated that unit bandwidth costs were [✂] in 2011/12 and [✂] in 2012/13.[327] These estimates were derived from a bottom up calculation (which we refer to as 'BT's 21C Forecast Model') and we understand that they reflect a

[323] Paragraph 5.39, page 48, Annex 5, TalkTalk response to the 2013 FAMR Consultation.
[324] BT response to Q3 of the 2nd s26 Notice of 3 June 2013; Sky response to Q2 of the 4th s135 Notice of 17 December 2013; TalkTalk response to Q1.1-1.3 of the 1st s26 Notice of 24 July 2013.
[325] As with any benchmarking exercise, we note the difficulties in comparing the costs of different operators, among them ensuring costs covering the same network components are being compared and similar approaches to the allocation of overhead costs have been taken.
[326] [✂]
[327] [✂]

different allocation of common costs (rather than an allocation that is consistent with BT's RFS). We are unlikely to apply the methodology used to derive these estimates when assessing BT's unit bandwidth costs.[328] Nonetheless they highlight the possibility that BT could reallocate common costs in a way that produces a very different unit cost figure in the future.

6.72 Indeed, one might expect BT to be able to achieve larger economies of scale and scope than other operators with respect to bandwidth costs because of the higher volumes of non-broadband bandwidth dependent traffic it carries compared to other operators. For example, BT provides Ethernet leased lines services to large businesses, including backhaul connectivity to mobile network operators,[329] and voice telephony services to residential consumers and businesses.[330] If BT does have cost advantages, we consider that such a level of unit bandwidth costs would be difficult for other operators to replicate as they do not have the same scale in the supply of non-broadband bandwidth dependent services.

6.73 In addition, we note that bandwidth costs make up a material proportion of downstream costs. Our analysis of BT's costs of supplying its superfast broadband portfolio indicates that bandwidth costs make up approximately [✂] [25-45%] of ongoing monthly retail costs in 2012/13, which is equivalent to approximately [✂] [5-25%] of total ongoing monthly downstream costs (ongoing monthly wholesale costs + ongoing monthly retail costs). As a result, if BT alters its cost allocations in its regulatory financial reporting system such that unit bandwidth costs are materially lower, this could materially reduce the minimum VULA margin.

6.74 Therefore, given the particular circumstances associated with unit bandwidth costs, we have considered whether it is appropriate to specify a minimum figure for unit bandwidth costs that should be used when assessing the VULA margin. This minimum would reflect the costs of other operators and would act as a floor for unit bandwidth costs when assessing the VULA margin. Should the estimate of the WBC Bandwidth unit cost in BT's regulatory financial reporting system be below the minimum, the floor comes into effect. This would effectively adjust BT's unit bandwidth costs upwards to reflect the costs incurred by other operators. It could thus support the objective set out in Section 3 by allowing operators with slightly higher costs to match BT's retail superfast broadband offers.

6.75 We provisionally consider that specifying such a floor is appropriate. In terms of the two considerations set out in paragraph 6.27:

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[328] Our preferred approach to estimating costs is to use data that feeds into audited financial statements wherever possible (as discussed in paragraphs 6.16 and 6.62) as it ensures common costs are allocated in a manner that is consistent with the allocations used to set charge controls on BT for other products and services. In addition, it is extremely difficult to verify whether all relevant costs have been included in an alternative bottom-up cost model.

[329] BT Wholesale is the largest purchaser of Ethernet services: 59% of Openreach's AISBO (up to and including 1Gbit/s) revenues were generated from sales to BT Wholesale in 2012/13. P.69, BT, *Regulatory Financial Statements 2013*, http://www.btPlc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2013/CurrentCostFinancialStatements2013.pdf

[330] BT's share of call volumes in 2012 is reported as 38%. Virgin was the next largest operator with a share of 12.4%. Page 337, Ofcom Communications Market Report 2013.

- First Consideration – in terms of whether there is evidence that BT's costs/revenues materially differ from those of other operators, we are proposing that the floor shall only 'bite' if BT's unit bandwidth cost, according to BT's regulatory financial reporting system, is lower than our forecast of the unit bandwidth costs of other operators. We set out in paragraphs 6.79-6.85 below how we have forecast other operators' unit bandwidth costs for the purposes of this consultation. As set out in paragraph 6.72, we consider that it is possible that BT could have advantages with respect to unit bandwidth costs that would be difficult for other operators to replicate due to BT's larger scale in the supply of non-broadband bandwidth dependent services.

- Second Consideration – as noted in paragraph 6.74, the reason for and purpose of such a floor is to support our objective by allowing an operator with slightly higher costs than BT (or some other slight commercial drawback relative to BT) to profitably match BT's superfast broadband retail offers.

6.76 In terms of practicality, provided we specify that floor in advance, it is likely to be straightforward for BT to take it into account when assessing compliance with the proposed SMP condition.

6.77 A drawback of specifying a floor is the uncertainty associated with estimating the unit bandwidth costs of other operators, particularly as these are likely to change over the course of the market review (see below). That uncertainty gives rise to the risk of regulatory failure, specifically setting the floor at too high a level.[331] If this were to occur then it would tend to result in an unduly large VULA margin, since the bandwidth costs that other operators need to recover are overestimated.

6.78 That risk notwithstanding, we propose that it is appropriate to specify in the proposed SMP condition a floor for unit bandwidth costs. Such a floor would only bite where BT enjoys lower unit bandwidth costs than other operators. Specifying such a safeguard thus supports our objective by allowing operators with slightly higher costs to match BT's retail superfast broadband offers. We recognise that there is a risk that the floor is set at too high a level. However we consider that this risk is low given the large difference between the current estimate of BT's unit bandwidth costs ([✂] per Mbit/s in 2012/13) and the likely level of the floor (see below).

The indicative level of the proposed floor for unit bandwidth costs

6.79 We now set out, for consultation, some figures on the level of the proposed floor for unit bandwidth costs. As we explain above, there are considerable uncertainties about how these costs will change over the course of the period covered by this market review. They therefore reflect a provisional view as to the appropriate exercise of our regulatory judgment. We would welcome further comments and data from stakeholders, in order to help us refine these figures in our final statement.

6.80 As set out in paragraph 6.74, we are proposing to base the floor on the unit bandwidth costs of other operators. In specifying the level of the proposed floor, we have taken into account the likelihood that all operators' unit bandwidth costs will fall during the period covered by this market review. As shown in Table 6.2, both Sky

[331] There is also the possibility that we set the floor at too low a level. However we do not consider that this possibility justifies not introducing a floor. A floor that is too low is still more effective than not setting a floor at all.

and TalkTalk's unit costs fell between 2011/12 and 2012/13 (by around [✂]% and [✂]% respectively). Similarly, BT's 21C Forecast Model indicated that unit costs fell by [✂]% between 2011/12 and 2012/13 and predicted that they would fall by a further [✂]% by 2013/14 and a further [✂]% by 2014/15 (see Table 6.3 below).

Table 6.3 – BT 21C Forecast Model estimates of unit bandwidth costs

	2011/12	2012/13	2013/14	2014/15
Unit bandwidth cost	[✂]	[✂]	[✂]	[✂]
Annual change		[✂]	[✂]	[✂]

Source: 21C forecast model – BT response to Q26 of the 5th s26 Notice of 20 August 2013.

6.81 As a consequence, below we propose a declining profile for minimum unit bandwidth costs for the entire market review period. In assessing this profile, we first selected a starting point based on data for 2012/13 and then estimated how these costs may change for each year up to and including 2016/17.

6.82 As a starting point, we used [✂] Sky and TalkTalk's unit bandwidth costs in 2012/13. This gives an estimated unit bandwidth cost of £12.40 per Mbit/s as a base year estimate. In order to forecast unit bandwidth costs for the period to 2016/17, we have projected the base year estimate forward by applying an annual percentage change, which is based on the limited data we have from Sky, TalkTalk and BT on their bandwidth costs.

6.83 In relation to Sky and TalkTalk, we have taken into account their decreases in unit costs between 2011/12 and 2012/13. We note that this represents only one data point for each of these operators. However conceptually the floor should reflect the unit bandwidth costs of a representative non-BT operator (to be consistent with our objective as set out in paragraph 6.74). It is therefore reasonable to give some weight to the changes in the Sky and TalkTalk's unit bandwidth costs from 2011/12 to 2012/13. This implies that [✂]% and [✂]% are relevant data points.

6.84 In terms of the BT data, we have taken into account the annual changes in unit costs predicted in its 21C Forecast Model from 2012/13 to 2013/14 and from 2013/14 to 2014/15. While we are proposing not to use this model to estimate the absolute figure for unit bandwidth costs, we consider that the assumptions it uses with respect to volume forecasts for 2013/14 and 2014/15 and cost-volume relationship for 21C network components are likely to provide useful information on future changes in unit bandwidth costs. We consider that the unit cost change set out in BT's 21C Forecast Model for 2011/12 to 2012/13 is less likely to be relevant to the time period we are forecasting given that it is significantly different to the change in subsequent years ([✂]% as compared to [✂]% and [✂]%). We have therefore not taken it into account in our estimation of the proposed floor. We have thus used [✂]% and [✂]% as relevant data points.

6.85 On this basis, the proposed range for the annual change in unit bandwidth costs is 12-40% with a preferred figure of 20%.[332] Applying this annual change to the base year estimate results in the following unit bandwidth cost floor:

- in 2014/15, a floor between £4.46 and £9.60 per Mbit/s (preferred figure: £7.95);
- in 2015/16, a floor of between £2.68 and £8.45 per Mbit/s (preferred figure: £6.36); and
- in 2016/17, a floor of between £1.61 and £7.44 per Mbit/s (preferred figure: £5.09).

6.86 One purpose of this consultation is to invite stakeholders' comments on where in these ranges we should determine the final figures.

Provisional conclusions and draft guidance

6.87 We have provided draft guidance on how we would likely calculate BT's unit bandwidth costs when assessing the VULA margin. This explains that we would likely use data sourced from BT's regulatory financial reporting system.

6.88 In terms of adjustments to BT's unit bandwidth costs:

- Based on the current data available to us, we provisionally do not consider that it is necessary to adjust BT's current costs to reflect the position of other operators.
- However since BT has the ability to review the allocation of common costs to WBC and we consider it is likely to do so, we propose to safeguard against the possibility that subsequently BT's estimated unit bandwidth costs are materially lower than those of other operators. Accordingly we consider, provisionally, that it is reasonable to specify a floor for these costs in the proposed SMP condition and to predetermine the level of that floor for the whole of the market review period. From a practical point of view, BT will not have data on other operators' bandwidth costs. As a result, it would not be straightforward for BT to gauge how large an adjustment it should make without input from Ofcom. Including the proposed floor to unit bandwidth costs in the proposed SMP condition would provide certainty to BT.
- We recognise that there is a large difference between BT's current estimate of its unit bandwidth costs and the proposed level of our floor. BT thus has considerable scope to revisit how it allocates these costs without that floor 'biting'. In light of this, we would welcome stakeholders' views on whether our approach to unit bandwidth costs is appropriate.

Draft guidance
To estimate unit bandwidth costs, provided the resulting cost estimate is above the minimum specified in the SMP condition (where the minimum would otherwise apply), we would likely use the unit FAC of Market 3 or Market B WBC Bandwidth calculated using the same data source used to prepare the most recent BT RFS for Markets 1 and 2 or Market A at the time of the assessment.

[332] 20% has been calculated by [✄].

Average capacity available to each user

6.89 As set out paragraph 6.58, in order to calculate the costs of providing the bandwidth necessary to supply superfast broadband customers, we would likely multiply the relevant unit bandwidth cost by the average capacity available to each user.[333]

6.90 Average capacity available to each user represents the total capacity available divided by the number of users that share it. For example, if the total capacity was 1,000Mbit/s and this was shared by 2,000 users then the average capacity available to each user would be 0.5Mbit/s. The level of capacity reflects usage, in particular peak demand.[334] It is therefore reflective of the amount of bandwidth, and consequent cost, for which an operator will need to provision.

Draft guidance
We would likely use the average capacity available to each user for each product tier in the superfast broadband portfolio during the same time period to which the data used to calculate unit bandwidth costs relates.

Network rental overheads

6.91 These are the Sales, General and Administration (SG&A) and product line costs of providing wholesale level network services that support the provision of retail services to end users. Although we generally estimate SG&A costs using the methodology set out in paragraphs 6.103-6.112, this is not applicable to network rental overheads as it is a cost incurred by BT Wholesale.

Draft guidance
To estimate the network rental overheads of serving a superfast broadband customer, we would request data from BT Wholesale for the assessment period. We would expect network rental overheads to include the cost items set out in Draft Guidance Table 1 below.

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[333] The amount of bandwidth each consumer uses is rising (see for example paragraph 3.42 of Ofcom *Infrastructure Report 2013,* 6 December 2013, http://stakeholders.ofcom.org.uk/binaries/research/telecoms-research/infrastructure-report/IRU_2013.pdf). As a result, operators are likely to increase the average capacity available to each user over time. This is linked to the trend of falling unit bandwidth costs discussed in paragraphs 6.83-6.84 and will, at least in part, offset the impact of that trend.

[334] [✂]

Draft Guidance Table 1 – Breakdown of network rental costs

Cost item	Description
Cablelinks	[✂]
WBC product managers	[✂]
Service creation and operations	[✂]
Network operations	[✂]
Development – capital costs	[✂]

Source: BT response Q5 of the 2nd s26 Notice of 3 June 2013.

Platforms and portal fees

6.92 Platform costs cover the costs of [✂] peering and transiting and [✂] to manage broadband platforms. Portal fees cover the [✂] online portal and value added services.[335] [✂] We are thus likely to assume that these costs are the same for both types of broadband consumer.

> **Draft guidance**
> We would likely estimate the platform and portal fees costs of serving a superfast broadband customer by taking the amount recorded in the most recent annual Broadband management accounts and dividing by the average broadband customer base over the period the accounts cover and converting to a monthly figure.

Product Feature costs

6.93 BT Consumer's Infinity superfast broadband offers include a number of additional services, including NetProtect Plus, Wi-Fi, BT Cloud storage and BT SmartTalk.

NetProtect Plus

6.94 BT Consumer's Infinity packages include NetProtect Plus anti-virus software which customers can opt to take-up at no extra charge.

> **Draft guidance**
> To calculate the cost of providing NetProtect Plus to superfast broadband customers, we would likely multiply the licence charge [✂] by the proportion of new superfast broadband customers who take up this product feature during the assessment period.

[335] BT response to Q4 of the 4th s26 Notice of 5 July 2013.

BT Cloud

6.95 BT Consumer's Infinity packages include BT Cloud storage which allows customers to save or back up files and folders remotely as online storage at no extra charge.

Draft guidance
To calculate the cost of providing BT Cloud to superfast broadband customers, we would likely multiply the monthly licence fee by the proportion of superfast broadband customers who take up this product feature. The proportion of superfast broadband customers who take up BT Cloud would be based on volumes during the assessment period.

Wi-Fi

6.96 BT Consumer Infinity packages are provided with access to BT's public Wi-Fi network at no extra charge.

6.97 [✂][336]

Draft guidance
We would likely not include a cost for providing Wi-Fi to superfast broadband customers.

SmartTalk

6.98 BT Consumer's Infinity packages include SmartTalk which is an application that uses a Wi-Fi or mobile data connection to make calls that are charged to the registered BT account holder (i.e. any calls made using the application will cost the same as calls from the customer's home phone rather than using mobile rates or minutes).

6.99 Our understanding is that BT treats calls made using the SmartTalk app function as if they were made from the customer's home calling plan.[337] As a result, calls made via SmartTalk will be included in the voice costs as recorded in BT's database[338] as discussed in paragraphs 6.55-6.56.

Draft guidance
We would likely not include a separate item for SmartTalk costs.

Fibre development

6.100 BT has incurred a cost as result of taking its suite of consumer fibre products from development to final consumer readiness ([✂]). [✂][339]. Development spend post launch is discussed as part of SG&A costs below.

[336] [✂]
[337] BT response to Q7 of the 5th s26 Notice of 20 August 2013.
[338] See footnote 303.
[339] [✂]

Draft guidance
To estimate the fibre development cost of acquiring a superfast broadband customer, we would likely take the development spend incurred before the launch of BT's superfast broadband products and divide by either (i) the latest forecast of the superfast broadband customer base at the end of the 2014/15 financial year (i.e. 5 years post launch), or (ii) the actual number of BT superfast broadband customers at the time of the assessment, depending on when the assessment is carried out (i.e. either before or after the end of the 2014/15 financial year).

Ongoing selling, general and administration expenses (SG&A costs)

6.101 BT Consumer incurs some SG&A costs in the supply of its broadband, voice and TV services. [These costs are not allocated to individual products.] [✂] Accordingly we would need to consider what proportion of these costs to allocate to BT's superfast broadband portfolio. In addition, BT incurs certain costs which are fixed and common across the entirety of BT Group. [✂] For the reasons set out in Section 5, LRIC+ is the appropriate cost standard when assessing the VULA margin. Consequently, we would likely allocate a proportion of these costs to the superfast broadband portfolio stack.

6.102 We first provide guidance on the cost items we would likely include in our LRIC+ assessment, followed by an explanation of our likely methodology for allocating them from BT's SG&A management accounts to the superfast broadband portfolio stack. We set out our approach to upfront acquisition SG&A costs in paragraph 6.214 below.

<u>SG&A costs</u>

6.103 There are a number of ongoing costs in the SG&A accounts that BT incurs as a direct result of supplying the services within its superfast broadband packages. Other SG&A costs ([✂]) are shared across all products that BT Consumer supplies and could be thought of as overheads [✂]. Draft Guidance Table 2 lists the SG&A costs that we would likely take into account when assessing the VULA margin.

Draft guidance
We would likely take each of the SG&A costs in Draft Guidance Table 2 into account when assessing the VULA margin.

Draft Guidance Table 2 – Ongoing SG&A costs

Cost item	Description
Marketing – retention	[✂]
Customer services – ongoing	[✂]
Billing & bad debt	[✂]
Total Labour Cost – retention	[✂]
Total Labour Cost – management	[✂]
Development	[✂]
Marketing – non-campaign	[✂]
Customer services – overheads	[✂]
Accommodation	[✂]
Other internal/external spend/recoveries	[✂]
People related costs	[✂]
IT spend	[✂]
Marketing platform spend	[✂]
TSO – direct, indirect and fixed	See explanation in paragraph 6.105.
Miscellaneous costs	

Source: BT responses to the 3rd s26 Notice of 21 June 2013, 5th s26 Notice of 20 August 2013 and 6th s26 Notice of 1 October 2013.

<u>TSO costs</u>

6.104 TSO can be thought of as the 'back office of BT' which provides support and services to all the 'market facing units' (MFUs) i.e. Openreach, BT Wholesale, BT Global Services and BT Consumer. Due to the fact that TSO does not trade with customers outside of BT Group, its costs are recharged to the MFUs and BT Group to reflect the services it provides to them. Costs include total labour costs, IT and network maintenance, accommodation and energy (including charges relating to operational estate such as exchanges and data centres) and other external costs (e.g. consultancy, fleet and conferencing).[340]

6.105 There are three broad categories of TSO costs:

- direct – these include volume-based trades-specific contracts between TSO and the MFU ([✂)];

- indirect – these are set at the start of the year and costs are recovered from MFUs based on best known cost drivers ([✂]). [✂]; and

- fixed – these are costs that cannot be directly or indirectly attributed to a MFU and are mainly related to BT wide activities or in support of TSO activities. They include accommodation and energy and TSO overheads. [✂][341]

6.106 In the following subsection we set out our likely methodology for calculating the amount of SG&A costs to allocate to a superfast broadband customers.

Methodology for allocating SG&A costs

6.107 As the SG&A costs in the management accounts cover all the products BT Consumer supplies (voice, fibre broadband, copper broadband, TV), we would need a method to allocate these costs to the superfast broadband portfolio.

6.108 In its response, TalkTalk expressed the view that the most appropriate allocation method for commercial and overhead costs is to allocate these costs on a per customer basis, equally across all broadband customers served by BT (i.e. regardless of whether they take standard or superfast broadband). It also said that this cost element may exhibit some economies of scale:

> *"…while commercial costs will increase with the scale of the company, the increase is likely to be less per customer for larger operators than for smaller ones. As such, there may need to be an uplift applied to BT's commercial and overhead costs per customer to reflect the scale of an efficient entrant."*[342]

6.109 We would likely use these different approaches depending on whether an ongoing cost is principally driven by the number of customers being served or the number of products being sold.[343] There is inevitably an element of judgement in this but this approach would likely be well-suited given the available data.

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[340] BT response to Q1-7 of the 7th s26 Notice of 27 November 2013.

[341] BT response to Q18 of the 9th s26 Notice of 14 February 2014

[342] Paragraph 5.45, page 14, Annex 5, TalkTalk response to the 2013 FAMR Consultation.

[343] The following illustrative example shows the difference between the 'customer' and 'product' approaches discussed in our draft guidance below. Assume BT has around 10m customers in total, 1m of which have superfast broadband (i.e. 10%). BT sells around 16m products, 2m of which are purchased by superfast broadband customers (i.e. 12.5%). Suppose an SG&A cost item is £10m per year. Under the 'customer' approach, we would allocate £1m to the superfast broadband portfolio (i.e. £10m * 10%) – or £1 per superfast broadband customer. Under the 'product' approach, we would allocate £1.25m to the superfast broadband portfolio (i.e. £10m * 12.5%) – or £1.25 per superfast broadband customer.

Draft guidance

For ongoing SG&A costs, we are likely to decide how to allocate based on a two-step allocation approach:

First, we would likely consider the internal operational systems which specifically deal with certain cost categories maintained by BT.[344] Where we consider that this information provides a reasonable basis for allocating to the superfast broadband portfolio, we would likely allocate on this basis. We refer to these categories as 'BT Breakdown' in Draft Guidance Table 3 below.

Second, for all ongoing SG&A cost items for which BT does not hold a reasonable breakdown to individual product lines, we would likely allocate to the superfast broadband portfolio on a pro-rata basis using one of the following approaches:

<u>Customer</u> – certain types of ongoing costs will have economies of scope in that their magnitude varies with the number of customers being served but not the number of products each customer subscribes to. We would likely allocate such costs on the basis of the number of superfast broadband customers as a percentage of the BT Consumer customer base. For example, if a quarter of the BT Consumer customer base is made up of superfast broadband customers, we would likely allocate a quarter of the total costs to the superfast broadband portfolio cost stack.

<u>Product</u> – other ongoing costs are more likely to vary in direct proportion to the number of products being sold. We would likely allocate such costs on the basis of the number of products (i.e. voice, broadband and TV) superfast broadband customers subscribe to as a percentage of the total number of products sold by BT Consumer. For example, if a quarter of the total number of products being supplied by BT Consumer is to superfast broadband customers, we would likely allocate a quarter of the total costs to the superfast broadband portfolio cost stack. This method assumes that a dual-play customer bears twice the cost of a voice-only customer and that a triple-play customer bears three times that of a voice-only customer.

We would likely use these different approaches depending on whether an ongoing cost is principally driven by the number of customers being served or the number of products being sold. For some SG&A costs (i.e. BT Consumer overheads) and TSO fixed costs (i.e. BT Group overheads), we would likely use the 'product' method to allocate long-run variable SG&A costs to the superfast broadband portfolio. If further evidence comes to light that indicates that an alternative allocation method is more appropriate, we would consider adopting that alternative approach.

Once we have calculated the appropriate allocation, we would then calculate the ongoing monthly SG&A cost per superfast broadband customer by dividing the amount allocated by the average base of superfast broadband customers over the assessment period and convert this to a monthly figure.

Draft Guidance Table 3 sets out the allocation approach we would likely apply to each ongoing SG&A cost item to allocate to the superfast broadband portfolio stack.

[344] For example, for certain customer service costs, [✂]. [✂].

Draft Guidance Table 3: Allocation approaches applied to SG&A costs

SG&A cost category	Allocation method
Marketing – retention	Customer
Customer services - ongoing	BT breakdown
Billing & bad debt	Customer
Total Labour Cost – retention	Customer
Total Labour Cost - management	Product
Development	BT breakdown
Marketing – non-campaign	Product
Customer services - overheads	Product
Accommodation	Product
Other internal/external spend/recoveries	Product
People related costs	Product
IT spend	Product
Marketing platform spend	Product
Miscellaneous costs	Product
TSO – direct and indirect	Product
TSO Fixed	Product

6.110 In relation to TalkTalk's views on a suitable method for allocating commercial costs and overheads, we consider that the approach we are proposing is similar in that it allocates SG&A costs on a per customer basis, equally across all broadband customers served by BT irrespective of whether a customer is taking a standard or superfast broadband product. We consider that this assumption is reasonable as the amount of SG&A costs incurred is likely to be related to the number of customers or products being served rather than the particular mix of products being supplied.

6.111 We have evaluated TalkTalk's suggestion that an uplift could be applied to BT's commercial and overhead costs. In terms of the First Consideration set out in paragraph 6.27, TalkTalk has provided no evidence to support its position. While we have not investigated this issue in detail, it is not obvious to us that there is likely to be a material difference between BT's commercial and overhead costs and those of other operators such as Sky and TalkTalk.

6.112 Accordingly, we do not think it is appropriate to apply an uplift to commercial costs and overheads (as proposed by TalkTalk).

Ongoing TV costs

6.113 As discussed in Section 5, we consider that it is appropriate to take triple-play bundles into account when assessing the VULA margin. Ongoing TV costs include the following: content; bandwidth/network; licences; customer premise equipment (CPE); and fixed costs.

Content and bandwidth

6.114 Content includes the cost of providing TV content to BT TV subscribers, [✂]. Bandwidth covers the network costs of providing IPTV [✂].[345]

Draft guidance
We would likely estimate content and bandwidth costs of serving a triple-play superfast broadband customer by taking the amounts reported in the most recent BT TV management accounts for each BT TV package (Essentials package, Essentials Extra package) and dividing by the number of subscribers on each TV package during the period covered by the accounts. Average content and bandwidth costs per superfast broadband customer would be calculated by weighting on the basis of the number of customers acquired on each TV package in the assessment period.

Licences, CPE and fixed costs

6.115 Licences include the cost of licences for boxes and platforms. CPE is the ongoing cost associated with set-top boxes ([✂]). Fixed costs include licences, production, platforms ([✂]), DTT ([✂]) and certain YouView costs ([✂]).[346] Unlike content and bandwidth, licences, CPE and fixed costs do not vary depending on the TV package that customers choose.

Draft guidance
We would likely estimate licences, CPE and fixed costs by taking the amounts reported in the most recent annual BT TV management accounts and dividing by the total TV subscribers during the period covered by the accounts.

6.116 Similar to our treatment of revenues as explained in paragraph 6.53, we would likely adjust ongoing TV costs to take into account those subscribers that cease taking BT TV but continue to take broadband from BT.

Draft guidance
We would likely adjust ongoing TV costs downwards to account for those triple-play superfast broadband customers who cease taking BT TV before the 5 year superfast broadband ACL has concluded. We would likely reduce ongoing TV costs by [✂]% after the first [✂] months of the ACL (i.e. assume that [✂]% of triple-play customers continue to receive BT TV for the remaining [✂] months of the ACL). We would likely revisit this figure in the event that more accurate evidence was available.

Treatment of BT Sport

Introduction

6.117 BT currently bundles access to its suite of BT Sport channels[347] with its superfast and standard broadband packages. As explained in Section 5 we consider that the costs

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[345] BT response Q3 of the 6th s26 Notice of 1 October 2013.
[346] BT response Q3 of the 6th s26 Notice of 1 October 2013.
[347] BT Sport 1, BT Sport 2 and ESPN. These channels are available in both standard definition (SD) and high definition (HD).

and revenues associated with these channels should be taken into account when assessing the VULA margin. In this subsection we provide guidance on how we would likely treat BT Sport when carrying out such an assessment. This guidance reflects the way in which BT Sport is currently distributed. Accordingly we first provide a brief factual description of BT Sport.

6.118 BT has acquired the rights to broadcast a number of sporting events including 38 FA Premier League (FAPL) matches, FA Cup matches, Aviva Premiership rugby, WTA women's tennis, NBA basketball, MotoGP and UFC World Championships. The sports broadcast by BT (and the associated costs and revenues) are likely to change over the period covered by this market review. In particular, BT has acquired the rights to live Champions League and Europa League matches for three seasons from 2015/16 for just under £900m (the 'UEFA Rights').

6.119 BT Sport is distributed as follows:

- Satellite distribution – BT Sport on the Sky TV platform in SD is available for free to any BT Consumer standard and superfast broadband subscriber. BT Consumer broadband customers wishing to obtain the channels on Sky TV in HD currently pay BT £3/month. BT Sport is available to Plusnet standard and superfast broadband subscribers for £5.99/month in SD or £7.49/month in HD. Sky TV subscribers that do not purchase broadband from either BT or Plusnet pay £12/month in SD or £15/month in HD for access to the BT Sport channels. Note that BT retails BT Sport directly to customers on the Sky TV platform, not Sky.

- Cable distribution – BT wholesales BT Sport content to Virgin, which in turn re-sells the channels as part of its highest-tier TV XL package or as a premium standalone pay TV product for £15/month for those on lower-tier TV services.

- BT TV – new BT TV customers that take superfast broadband obtain BT Sport in SD for no additional charge. BT Sport in HD costs an additional £3/month. Prior to February 2014 some BT Sport channels were available via DTT to some BT TV subscribers using older set-top boxes without requiring a superfast broadband subscription.[348] This offer has since been withdrawn to new customers.[349]

- Distribution online or via an app – BT Consumer broadband customers (both standard and superfast) can access BT Sport online or via the BT Sport app. Customers who pay for BT Sport on the Sky TV satellite platform can also access BT Sport online and via the app, although Plusnet subscribers and Virgin subscribers cannot.[350]

6.120 In order to obtain BT Sport for 'free' on the Sky TV platform or on BT TV, BT Consumer broadband customers are required to re-contract with BT for a further 12

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[348] Namely BT Sport 1 and BT Sport 2 in SD.
[349] BT, *How to get BT Sport with BT,* http://bt.custhelp.com/app/answers/detail/a_id/43272/related/1/session/L2F2LzEvdGltZS8xMzkyMTM4NTgxL3NpZC8xZmttcUdNbA%3D%3D.
[350] BT, *How can I watch BT Sport?*, http://www.plus.net/tv/btsport/.

months.[351] However, access online or via the app does not require customers to re-contract with BT.[352]

Stakeholder responses

6.121 In the 2013 FAMR Consultation we stated that we would develop our thinking on audio-visual services (BT Sport had not launched at this point).[353]

6.122 As discussed in Section 5, BT considered that triple-play bundles should be excluded.

6.123 Sky considered that the cost of BT Sport should be included when assessing the VULA margin.[354] Sky considered that BT should be assumed to pay the same wholesale charges for BT Sport channels as those paid by other operators. However given the absence of observable wholesale prices for these channels when supplied on an à la carte basis, Sky suggested two benchmarks. First, the per subscriber rates offered to parties such as Sky and TalkTalk. Second, the implicit wholesale price in relation to the standalone provision of these channels on the Sky TV platform. This could be calculated by deducting a reasonable attribution of retail costs from the retail price.[355]

6.124 TalkTalk considered that the "*net*" cost of BT Sport (net of any direct revenues such as advertising, subscriptions and wholesale revenues from Virgin) should be recovered across BT's standard and superfast broadband packages. It considered that a higher proportion of these net costs should be allocated to customers who can access BT Sport via their TV (as compared to those that can only access the service online or via an app) since consumers attach greater value to viewing sports through a TV.[356]

Ofcom consideration of stakeholder responses

6.125 We discuss Sky and TalkTalk's proposals in turn.

6.126 Sky suggested inferring wholesale prices for BT Sport from BT's offers to other retailers and from the price on Sky's satellite platform. If BT Sport were available to other broadband providers for a readily identifiable wholesale price then using that price could be an attractive option. By purchasing BT Sport at that wholesale price, another operator would be able to supply similar retail packages to those offered by BT. Accordingly this approach would help align the VULA margin assessment with our objective, since it tests whether other operators that (like BT) offer BT Sport are able to profitably match BT's superfast broadband retail offers.

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[351] For BT TV and subscribers on the Sky TV platform, BT Sport is only available at the discounted rate of £0/month inside the minimum broadband contract term.
[352] See BT Sport terms and conditions, paragraphs 51 and 52.
[353] Paragraph 11.433, 2013 FAMR Consultation.
[354] Paragraph 1.7, page 2, Sky submission on VULA margin test.
[355] Paragraphs 3.39-3.43, page 12, Sky response to the 2013 FAMR Consultation.
[356] Pages 5-6, TalkTalk, *Letter from Simon Pilsbury to Neil Buckley on the appropriate treatment of BT Sports costs in the CA98 complaint*, 10 September 2013. This letter was provided in Annex 10 of TalkTalk response to the 2013 FAMR Consultation.

6.127 However in the light of the current way in which BT Sport is distributed, we are unlikely to adopt Sky's proposal when assessing the VULA margin. In particular, there is currently no clear and comparable wholesale price for the supply of BT Sport to broadband providers. Sky proposed two ways of inferring a wholesale price but they both have significant drawbacks:

- Inferring from BT's offers to other retailers – [✂]. BT currently retails BT Sport itself on the Sky TV satellite platform, rather than supplying it on a wholesale basis to Sky. [✂].[357] In the case of Virgin, there is a degree of similarity in that Virgin includes BT Sport for no additional charge with its largest XL TV package. However, [✂] Virgin does not include BT Sport for no additional charge with all its broadband packages as BT does.[358] Therefore we would be unlikely to consider that any of these agreements offer a sufficiently comparable benchmark for us to implement the approach proposed by Sky.

- Inferring from price on Sky TV satellite platform – customers that are willing to pay £12/month (or more) for BT Sport on the Sky TV platform may have different preferences to those that receive BT Sport for 'free' with BT broadband. We thus consider that the wholesale contribution made by each BT Sport subscriber on satellite is unlikely to be an accurate reflection of the contribution that BT broadband subscribers should make.

6.128 Note that if the way in which BT Sport is distributed were to change during the period covered by this market review then there may be circumstances where it is appropriate to place more reliance on BT's wholesale charges. For example, if BT entered into new wholesale agreements then it may be possible to identify a wholesale price for the supply of BT Sport on terms that would allow other broadband retailers to offer comparable packages to those offered by BT.

6.129 TalkTalk proposed calculating the "*net cost*" of BT Sport and then allocating that cost between copper and fibre broadband subscribers. We consider TalkTalk's net cost approach below. TalkTalk proposed allocating more of the net costs to customers who can get BT Sport via their TV, arguing that this reflects "*Ramsey pricing principles*" since these subscribers are likely to obtain more value from BT Sport than subscribers who watch via the app.[359] We consider the ratio proposed by TalkTalk to lack evidential support. Accordingly, on practicality grounds, we are unlikely to apply this approach when assessing the VULA margin. However, following TalkTalk's line of thought, we have considered allocating the net costs of BT Sport between BT's copper and fibre customers on the basis of the number of those customers who take the channel and therefore are likely to be the customers that value it.[360]

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[357] [✂]

[358] [✂]

[359] In a submission as part of the Superfast Broadband Competition Act Investigation, TalkTalk allocated four-times as many costs to customers that are able to watch BT Sport via their TV set. TalkTalk applied this uplift to BT Sport subscribers on the Sky TV platform and to BT TV subscribers that take superfast broadband. It did not apply this uplift to BT TV subscribers that take standard broadband. Note that, as described above, some BT TV subscribers on using standard broadband can access some BT Sport channels. Paragraphs 70-72, TalkTalk, *Supplementary submission regarding BT's pricing,* 21 May 2013.

[360] Although we do not propose to actually use this approach. See the discussion of the Take-Up Method below at paragraphs 6.177-6.204.

Overview

6.130 We discuss our proposed guidance on how we would likely take BT Sport into account. This draft guidance is structured as follows:

- first, we explain why we would likely adopt a net costs approach when calculating the costs of BT Sport (paragraphs 6.132-6.148);
- second, we explain the methodology we would likely use to allocate the net costs of BT Sport between copper and fibre broadband subscribers (paragraphs 6.149-6.176);
- third, we set out detailed guidance on how we would likely calculate the net costs of BT Sport (paragraphs 6.177-6.204); and
- fourth, we set our detailed guidance on how we would likely allocate those net costs between copper and fibre broadband subscribers (paragraphs 6.205-6.211).

6.131 As a preliminary point, it is important to recognise that we have identified our likely approach to incorporating BT Sports by making an overall assessment in the round. We have been required to make balanced judgements on the most suitable approach to adopt in respect of both the calculation of the net cost of BT Sport and our approach to allocating those net costs between BT's copper and fibre subscribers. We consider that our likely approach on both these issues should be taken together. We return to this issue in our provisional conclusions in paragraph 6.175.

Use of a net costs approach

Introduction

6.132 We would likely assess the costs of BT Sport, based on the 'net costs' of BT Sport. By 'net costs' we mean the total costs of BT Sport (e.g. content and production costs) having subtracted direct revenues from BT Sport (e.g. wholesale deals with Virgin and Setanta in Ireland, sales to pubs and clubs, sales to residential customers on the Sky TV platform, channel advertising revenues). The net costs reflect the amount that needs to be recovered from subscriptions to broadband packages if BT is to cover the total costs of BT Sport.

6.133 When assessing the VULA margin we would likely attribute a proportion of the net costs of BT Sport to fibre broadband subscribers.[361]

6.134 We consider that a net costs approach is likely to be reasonable. It implicitly tests whether the margins earned across the different forms of distribution of BT Sport in aggregate cover the costs of BT Sport. The amount of costs to be recovered from the broadband business is equal to the total costs of BT Sport less the margins earned from other sources i.e. the 'net costs'. It thus tests whether an EEO could profitably match this aspect of BT's offer.

[361] We discuss the method for allocating the net costs of BT Sport between fibre and copper broadband subscribers in paragraphs 6.177-6.204.

6.135 An alternative would be to adopt a combinatorial approach to assessing the costs of BT Sport. A combinatorial approach has two aspects. First, whether the prices of individual services are sufficient to cover long-run incremental costs associated with each service. Second, whether the combined prices of services in groups that share common costs are sufficient to cover both the long-run incremental and the common costs of supplying those services.[362]

6.136 We are unlikely to adopt a combinatorial approach to the costs of BT Sport when assessing the VULA margin. This is consistent with the rest of our draft guidance (as set out elsewhere in this section), which does not propose a combinatorial approach to other cost categories. It would complicate the margin assessment going forward, given the need to extend the analysis to cover other services which could potentially contribute to the recovery of any common costs. Our view in Section 5 that it is appropriate to use a LRIC+ standard i.e. for superfast broadband products to make a contribution to BT's common costs, and that is the approach we propose to adopt for any common costs associated with BT Sport.

6.137 We discuss in paragraphs 6.149-6.176 below how we would likely split the net costs of BT Sport between copper and fibre subscribers. However we first discuss two high level aspects of the net costs calculation:

- the timing of the recovery of sports rights costs (including the UEFA Rights); and
- the treatment of sunk costs.

The timing of the recovery of sports rights costs

6.138 When calculating the net costs, it is necessary to consider the period over which sports rights costs are recovered. For example, BT paid just under £750m for the rights to FA Premier League matches in the 2013/14 to 2015/16 seasons. When calculating the net cost of BT Sport, it is necessary to consider:

- whether these costs should just be spread across the duration of that rights agreement or across a longer period; and
- whether these costs should be evenly spread across the duration of that rights agreement or whether the profile of cost recovery should be tilted (recovering fewer costs in the early months and more in the later months).[363]

[362] We considered combinatorial approaches in Ofcom, *Complaint from Thus Plc. and Gamma Telecom Limited against BT about alleged margin squeeze in wholesale call pricing*, CW/00988/06/08.

[363] Note that rather than tilting the profile of cost recovery, the VULA margin assessment could instead look at the overall position over a longer time period e.g. the entire duration of the rights agreement. This could be done by using forecasts of the expected future revenue earned over the remainder of the rights agreement, as well as actual data on BT's costs and revenues to date. Under such an approach, if future revenues were expected to be high then the net cost of BT Sport would be lower today. It thus has similar effects to tilting the profile of cost recovery. However, in the context of providing guidance on how we would likely assess BT's compliance with our proposed SMP condition, we consider that it is more natural to position this issue in terms of the rights costs that need to be

6.139 We would likely spread the costs of sports rights evenly over the years covered by the rights agreement. We consider that such an approach is likely to be pragmatic and practical to apply. Attempting to specify a more complex profile of cost recovery is likely to be difficult and prone to errors:

- spreading the rights across a longer duration would require a convincing explanation as to why some of the value associated with perishable rights arises after the rights agreement has expired.[364] Moreover, reliably estimating the magnitude of any future value (and thus the amount that need not be recovered during the lifetime of the current rights agreement) is likely to be difficult.

- similarly reliably estimating the extent to which the profile of cost recovery should be tilted is likely to be difficult. For example, the profile of cost recovery might be tilted in this way to reflect forecast growth in revenue and subscribers. However those forecasts are likely to be subject to considerable uncertainty, meaning that the appropriate extent of any tilting is also uncertain.

6.140 Both forms of adjustment would result in increased reliance on forecasts of uncertain reliability and that are potentially subject to gaming.[365] Moreover, actual performance is likely to differ from forecasts and, for both forms of adjustment, we would need to explain how we would likely re-adjust the attribution over time on an ongoing basis in light of developments.[366] Assessing the best approach in these circumstances is likely to be complex and create uncertainty. It is unlikely to be clear to BT how it should factor these considerations into its assessment of what it needs to do in order to comply with the proposed SMP condition. These difficulties are avoided by spreading the cost of rights equally across the duration of the rights agreement.

6.141 BT's purchase of the UEFA Rights represents a major addition to the costs of BT Sport.[367] The next auction for the rights to live FAPL matches has yet to occur. Any rights obtained by BT in that auction would relate to the final year (2016/17) of this market review period. We would likely treat these costs in the same way as BT's current portfolio of sports rights and spread recovery of the rights costs equally over their duration for the reasons given in paragraphs 6.139-6.140. However, in the event that the addition of these rights is associated with a significant shift in the way in

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recovered during the period for which compliance being assessed. We have thus considered this issue in the context of tilting the profile of cost recovery.

[364] For example, one possibility is that there is some form of incumbency advantage when bidding for rights i.e. acquiring the rights today reduces the price that needs to be paid to renew the rights agreement in the future.

[365] It is unlikely to be straightforward for us to assess whether BT's forecasts for future growth in BT Sport are reliable. Tilting the profile of BT Sport costs to reflect future growth creates the risk that BT errs upwards in its forecasts, resulting in a lower figure for net costs in the short term and thus a lower VULA margin. This creates the potential for BT to undermine the effectiveness of our proposed SMP condition.

[366] If the cost of sports rights were recovered over a longer period than the rights agreement, on the grounds that some of the value of those rights is generated after that agreement has expired, we would need to specify what happens if that future value ultimately does not emerge. Similarly if the profile of cost recovery is tilted on the grounds that BT will grow in the future, we would need to specify what happens if that growth ultimately does not emerge.

[367] As explained in paragraph 6.118, these rights relate to the 2015/16-2017/18 tournaments and cost BT just under £900m.

which BT Sport is distributed such that the approach proposed here is clearly no longer the best means of taking BT Sport into account in the VULA margin assessment, we may reconsider elements of our approach.[368]

6.142 We do recognise that in its first year, BT Sport costs are projected to be higher than in subsequent years, as BT faces one-off costs in launching the business.[369] We do not consider that it is reasonable to assume that these one-off costs are recovered immediately. Accordingly, as set out in our draft guidance in the box below paragraph 6.200, we would likely spread these one-off costs over three years.

Treatment of sunk costs

6.143 Once BT has purchased a set of rights, the amount to be paid to the rights holder is usually fixed and does not adjust in light of BT's subsequent use of the rights. In that sense the amount agreed to be paid is 'sunk'.

6.144 The value that BT would be able to realise from non-broadband sources is subject to uncertainty. The use of net costs means that, in the event that the actual amount of direct revenue that BT earns (e.g. from Sky TV subscribers) is lower than originally forecast, BT would need to recover more than originally forecast from broadband subscribers. Similarly, in the event that BT's direct revenues are higher than it forecast when bidding for the rights then it would need to recover less from broadband subscribers.

6.145 We would likely use the price paid for sports rights when calculating the net cost of BT Sport, absent strong evidence that the value of those sports rights has substantially changed. Using rights prices in this way is practical and is generally likely to be a reasonable estimate of the value of those rights as of the time that the VULA margin assessment is being carried out. In contrast, departing from the price and instead carrying out some form of reassessment exercise is likely to be extremely difficult. Revisiting the value of rights in this way is unlikely to improve the accuracy of the VULA margin assessment. Moreover, if we were to reassess the value of sports rights it is important to do so symmetrically i.e. to reassess those rights where the value of sports rights may have increased as well as those where the value may have decreased. Doing this would further increase the complexity of the exercise.

6.146 Accordingly it is unlikely that we would make any adjustments to the net cost calculations to reflect the possibility that BT may not fully recover any sunk costs of sports rights.

Provisional conclusion on the use of a net costs approach

6.147 In summary, when assessing the VULA margin we would likely attribute a proportion of the net costs of BT Sport to fibre broadband subscribers. We would likely spread the costs of sports rights evenly over the years covered by the rights agreement,

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[368] See paragraphs 6.117 and 6.128 above.

[369] BT forecast the costs and revenues associated with BT Sport in early 2013 (BT responses to Q30 of the 5th s26 Notice of 20 August and Q21, Q22, Q24 and Q25 of the 6th s26 Notice of 1 October 2013) (which we refer to as the Launch Forecasts) and after the launch of BT Sport (BT response to Q11, Q11A and Q13 of the 7th s26 Notice of 27 November 2013) (which we refer to as the Updated Forecasts).

rather than spreading cost recovery over a longer period or tilting the profile of cost recovery. When assessing BT's compliance with the proposed SMP condition during a particular time period, where possible we would likely use historical, audited data covering that period, rather than determining direct revenues based on forecasts from when BT was bidding for sports rights.

6.148 Our guidance assumes that BT continues to supply these channels in a similar fashion to the way it does at present. If BT were to make a material change to the way it distributes its channels we may need to reconsider our approach – see for example the discussion in paragraph 6.128.

Draft guidance
When assessing the ongoing cost associated with BT Sport we would likely calculate the net cost of BT Sport for the assessment period. The net cost of BT Sport is the total costs of BT Sport minus the direct revenues from BT Sport. In this calculation, we would likely spread the costs of sports rights evenly over the years covered by the rights agreement.

Allocating net costs between copper and fibre

Candidate methodologies

6.149 Having calculated the net cost of BT Sport our next step when assessing the VULA margin would likely be to allocate a portion of that cost to fibre subscribers. We have considered two alternative methods for allocating the net costs of BT Sport.

6.150 Take-Up Method – this involves the following steps:

- Calculate what proportion of BT's residential broadband subscribers that take BT Sport do so via fibre (as opposed to copper).[370]

- That proportion of the net cost of BT Sport is then allocated to BT's residential fibre broadband subscribers.

- That amount is then divided by the total number of residential BT fibre broadband subscribers. This gives the contribution that the average residential fibre broadband subscriber makes to the recovery of the cost of BT Sport.

6.151 All Broadband Method – this involves dividing the net cost of BT Sport by the total number of BT's residential broadband subscribers.[371] This gives the contribution that the average residential fibre broadband subscriber makes to the recovery of the cost of BT Sport.

6.152 To illustrate, assume that BT has a total of 1,000 residential broadband subscribers. Of these, 250 take BT Sport. The split of these subscribers between copper and fibre

[370] We discuss in paragraph 6.167 the potential consequences of the precise definition chosen for "*taking BT Sport*".
[371] Some BT broadband subscribers are unlikely to have a fast enough connection to allow them to watch BT Sport. We would likely exclude these subscribers when applying the All Broadband Method. We provide further guidance on the details of how we would likely apply the All Broadband Approach in paragraphs 6.205-6.211.

is shown in Table 6.4 below. This example assumes that a relatively large number of the broadband subscribers that take BT Sport are on fibre (or, equivalently, that fibre subscribers are more likely to take BT Sport).

Table 6.4 – Allocation of BT Sport costs – illustrative example

	Copper	Fibre	Total
BT residential broadband subscribers that take BT Sport	150	100	250
Total BT residential broadband subscribers	800	200	1,000

6.153 To complete the illustrative example, assume that the net cost of BT Sport is £500/month.

- Take-Up Method – 40% of the BT broadband subscribers that take BT Sport are on fibre (i.e. 100 divided by 250). Accordingly £200/month of the costs of BT Sport need to be recovered from fibre broadband subscribers (i.e. 40% of £500). This implies that each fibre subscriber needs to make a contribution of £1/month (i.e. £200 divided by the total number of fibre subscribers, namely 200).

- All Broadband Method – each fibre broadband subscriber makes a contribution of £0.50/month (i.e. £500 divided by the total number of subscribers, namely 1,000). In this case 20% of BT Sport costs are allocated to fibre i.e. the same proportion of the entire BT broadband base that is accounted for by fibre broadband subscribers.

6.154 During the period covered by this market review, the contribution that the average fibre broadband subscriber makes to the recovery of the net cost of BT Sport is likely to differ between the Take-Up Method and the All Broadband Method.[372] BT residential fibre broadband subscribers are currently more likely to subscribe to BT Sport than its copper broadband subscribers.[373] In other words, a relatively large number of the residential BT broadband subscribers that take BT Sport are on fibre. As shown in the illustrative example in paragraph 6.154, this means that the Take-Up Method generates a larger contribution to BT Sport (and thus a higher VULA margin) than the All Broadband Method.

[372] As BT's subscriber base migrates from copper to fibre, the difference between the two methods is likely to diminish. In the very long run, if all BT subscribers migrate to fibre, both methods will produce the same outcome. To illustrate, consider the case where instead of the subscriber numbers set out in Table 6.4 being used we assumed that all 250 subscribers who take BT Sport and all 1,000 BT broadband subscribers are on fibre. In these circumstances both the Take-Up Method and the All Broadband Method imply that fibre subscribers need to make a contribution of £0.50/month to BT Sport.

[373] Ofcom analysis of BT Sport subscriber figures. See BT responses to Q20 of the 6th s26 Notice of 1 October 2013 (Received 4 October 2013, 15 October 2013 (in response to an amended Q20) and 21 October), Q10 of the 7th s26 Notice of 27 November 2013, Q1 of the 8th s26 Notice of 6 January 2014 and Q19 of the 9th s26 Notice of 14 February 2014.

6.155 Note that both methods implicitly identify the contribution to the net cost of BT Sport that needs to be covered from fibre subscribers in aggregate. In line with our view that the most appropriate output increment is BT's fibre portfolio as a whole (see Section 5), BT has flexibility over how it recovers that sum from different fibre subscribers.[374]

Key features of the Take-Up Method and the All Broadband Method

6.156 We consider the following features of the Take-Up Method and the All Broadband Method:

- relationship with consumer preferences and commercial strategy;
- impact on BT's migration incentives; and
- predictability.

Relationship with consumer preferences and commercial strategy

6.157 The Take-Up Method reflects the preferences of BT's current residential fibre broadband subscribers and BT's commercial and marketing strategy for BT Sport in the following sense:

- If BT's fibre broadband customers have a greater interest in BT Sport, then a relatively large number of those that watch BT Sport are likely to be on fibre. As a result, under the Take-Up Method a greater amount would be recovered from fibre subscribers.
- If BT particularly focuses on using BT Sport to drive fibre uptake then this is likely to result in higher take-up of BT Sport amongst fibre subscribers. Again, under the Take-Up Method a greater amount would be recovered from fibre subscribers.

6.158 In assessing the importance we should attach to these features of the Take-Up Method we have paid careful attention to our objective of ensuring that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. In practice BT's competitors cannot exactly replicate BT's broadband packages – BT currently does not wholesale BT Sport to other broadband suppliers apart from Virgin ([✂]). However those competitors would be able to offer their fibre broadband subscribers other inducements such as a price cut that matched the contribution that BT Sport makes to the BT offer.

6.159 The Take-Up Method reflects the take-up of BT Sport by BT's *existing* fibre base. The greater the proportion of BT's existing fibre base that subscribes to BT Sport, the larger the aggregate contribution that those subscribers are assumed to make to BT

[374] In our illustrative example, fibre subscribers (in aggregate) make a contribution of £200 under the Take-Up Method and £100 under the All Broadband Method. While on average this equates to £1 per fibre subscriber under the Take-Up Method and £0.50 per fibre subscriber under the All Broadband Method, in practice some fibre subscribers could contribute more than this average and some could contribute less. This is because we propose to allow BT the flexibility to have different margins on different fibre services.

Sport and thus the greater the price reduction that other operators could offer their own fibre broadband subscribers (compared to BT's price). If BT Sport becomes relatively more important to BT's fibre base, the Take-Up Method reflects this. The Take-Up Method is thus better suited to testing whether rivals can effectively compete for BT's existing fibre subscriber base (i.e. whether BT can retain its existing fibre subscribers).

6.160 However, when BT's rivals are seeking to win new fibre customers they are unlikely to just focus on competing for BT's existing fibre base. They will also consider upgrading their own copper broadband subscribers, upgrading copper broadband subscribers served by other operators and acquiring fibre customers from operators other than BT. In other words, while the Take-Up Method reflects the interest of BT's existing fibre subscribers in 'free' sports content, this may not be the group of consumers that rival operators are particularly seeking to acquire.

6.161 Customer preferences for sport are likely to be highly heterogeneous. Some will place considerable value on the ability to obtain BT Sport for 'free', others will not place any value upon it at all. The variation in the preferences for BT Sport complicates the assessment of the impact of different allocation methods on the competitive position of BT's rivals.[375]

6.162 In summary, the Take-Up Method may reflect the interest of BT's existing fibre broadband customers in 'free' sports content and BT's commercial and marketing strategy for BT Sport. However in practice consumer preferences are heterogeneous and the extent to which that reflects the preferences of those subscribers that rival operators are likely to seek to acquire is unclear.

Impact on BT's migration incentives

6.163 As discussed in Section 3, over the period covered by this review significant numbers of consumers are expected to migrate from copper to fibre. The total number of VULA subscriptions is expected to increase from 2.7m in Q1 2014 to over [✂m] in 2016/17.[376] This migration has different impacts under the two methods.

- Under the Take-Up Method, if residential BT copper subscribers that take BT Sport migrate to fibre then a greater proportion of the net cost of BT Sport is allocated to BT's fibre broadband subscribers. As a result, the contribution that the average residential fibre broadband subscriber makes towards the costs of BT Sport rises. All other things being equal, this means that a higher VULA margin is needed.

- Conversely, under the Take-Up Method if residential BT copper customers that do not take BT Sport migrate to fibre then the proportion of the net cost of BT Sport allocated to BT's fibre broadband subscribers is unchanged. However the total number of fibre broadband subscribers is higher, so the contribution that the average residential fibre broadband subscriber makes towards the costs of BT

[375] We discuss this further in paragraphs 6.252-6.264 when considering whether our proposals are likely to achieve our overall aim.
[376] See paragraphs 3.44-3.45.

Sport falls. All other things being equal, this means that a lower VULA margin is needed.[377]

- Under the All Broadband Method, copper to fibre migration will not affect the VULA margin (all other things being equal). This is because the contribution that the average fibre broadband subscriber makes to the recovery of BT Sport is only affected by the total size of BT's residential broadband base, not how that base is split between fibre and copper.

6.164 Under the Take-Up Method there is the risk that BT's incentives to migrate different customer groups is distorted. This is because the contribution to BT Sport by BT's fibre broadband subscribers, and thus the VULA margin that BT is required to set, depends on whether broadband subscribers that take BT Sport are on fibre or copper.

6.165 BT can affect the rate at which its subscribers migrate from copper to fibre broadband by changing the relative price of these services and by changing its marketing strategy (e.g. to strongly promote fibre). Absent regulation, BT's incentives to migrate subscribers from copper would depend on the relative costs and revenues of these two services (which, in turn, are affected by consumer preferences). That rate of migration would take into account the trade off associated with offering a lower fibre price – it makes fibre more attractive for consumers (compared to copper) and thus encourages faster migration, while at the same time lowering the attractiveness of fibre customers for BT (by reducing the revenue they generate).

6.166 However, under the Take-Up Method, there is an extra consideration that BT may take into account, namely the impact on the VULA margin that it needs to set. As explained in paragraphs 6.163-6.165, there is an additional incentive to migrate those copper customers that do not take BT Sport but not those that do. This incentive is absent under the All Broadband Method.

6.167 In addition, as explained in paragraph 6.150, the allocation of the net costs of BT Sport under the Take-Up Method depends on which subscribers 'take' BT Sport. This raises the question of precisely what counts as 'taking' BT Sport and whether our chosen definition distorts BT's incentives. For example, if a household is treated as 'taking' BT Sport if they have downloaded the BT Sport app then the Take-Up Method could be manipulated if BT were to automatically provide that app to its copper broadband subscribers. In contrast, the All Broadband Method, which depends on overall BT broadband subscriber numbers, appears less open to such manipulation.

Predictability

6.168 Under both methods Ofcom would be looking at whether BT's behaviour in a particular time period complied with its SMP obligations and thus actual data relating to the time period in question would likely be used.

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[377] If a residential BT copper broadband customer that does not take BT Sport migrates to fibre and also starts taking BT Sport then there are two competing effects. On the one hand, there is a larger pool of fibre subscribers in total, which tends to lower the BT Sport cost per fibre subscriber. On the other hand, a greater proportion of the net costs of BT Sport are allocated to fibre subscribers. The net effect is that the contribution that the average residential BT fibre broadband subscriber makes towards the cost of BT Sport can either rise or fall.

6.169 We anticipate that in order to comply with its SMP obligations, BT will need to make some forward looking estimates of costs and revenues. For example, as part of its internal governance procedures for approving a price change, BT is likely to consider whether those prices will (in the months ahead) result in an unduly low VULA margin. The cost per fibre subscriber may be somewhat easier to predict under the All Broadband Method than under the Take-Up Method.[378] This will assist BT in complying with the proposed SMP condition. The lower variation in the proportion of BT Sport net costs allocated to fibre also removes one source of uncertainty for BT's rivals.

6.170 Under the All Broadband Method, BT needs only to predict the total number of residential BT broadband subscribers in a given period. Under the Take-Up Method, BT needs to not only estimate the total number of residential BT fibre broadband subscribers, but also how BT broadband subscribers that take BT Sport are split between copper and fibre.

6.171 That said, to date the [✂].[379] Given that [✂][380] BT broadband subscribers currently take BT Sport, [✂].

Provisional conclusion on allocating net costs between copper and fibre

6.172 We have considered whether we would be likely to adopt the Take-Up Method or the All Broadband Method when assessing the VULA margin. We have done so by reference to our objective of ensuring that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted.

6.173 We consider this choice to be finely balanced. The Take-Up Method is likely to better reflect the interest of BT's current fibre broadband subscriber base in 'free' sports content and BT's commercial and marketing strategy for BT Sport. However, it is questionable whether BT's current fibre broadband base is the primary target of rivals. Moreover consumer preferences for sports content are heterogeneous.

6.174 The All Broadband Method is less likely to create incentives for BT to 'game' the process of migration. This is an attractive feature of this method, given the likely importance of this market review period to the take-up of superfast broadband. The All Broadband Method may also offer a slightly more predictable basis for allocation over time.

6.175 As discussed in paragraph 6.131, we consider that the approach for splitting net costs between copper and fibre and the method for calculating the net costs of BT Sport should be considered together. We are mindful that BT's expansion into premium sports channels is a new venture that is subject to significant short run and long run uncertainty and that our likely approach for calculating net costs adopts a number of simplifying assumptions that give rise to the possibility of error. In this context, adopting the All Broadband Method lowers the sensitivity to any errors in the net costs figure of the contribution each fibre broadband subscriber makes towards

[378] Note that both the Take-Up Method and the All Broadband Method are affected by uncertainty when forecasting the net cost of BT Sport.
[379] [✂].
[380] [✂].

BT Sport.[381] The All Broadband Method gives BT more flexibility on where the BT Sport costs are recovered. This provides us with additional comfort that using the All Broadband Method is likely to be reasonable, particularly since the choice between the Take-Up Method and the All Broadband Method is finely balanced. Moreover, in paragraphs 6.250-6.264 below we have confirmed that our treatment of BT Sport is reasonable when viewed in conjunction with the other features of our proposed approach for assessing the VULA margin. Specifically, in those paragraphs we assess whether our proposals (as a whole) are likely to support our overall objective.

6.176 Thus, on balance, our provisional guidance is that we would be likely to adopt the All Broadband Method when assessing the VULA margin.

Draft guidance
When assessing the VULA margin, in order to calculate the cost of BT Sport per superfast broadband customer we would first calculate the net BT Sport cost per customer with free access to BT Sport by dividing the net cost of BT Sport by the total number of BT residential broadband subscribers that receive BT Sport for free.

Detailed discussion of estimation of net costs

6.177 In this subsection we provide a detailed discussion of how we would be likely to assess the net costs of BT Sport. As explained in paragraph 6.132 the net cost of BT Sport is the total costs of BT Sport minus the direct revenues from BT Sport. We discuss how we would likely calculate the total costs of BT Sport (see paragraphs 6.185-6.200) and then we discuss how we would calculate the direct revenues (see paragraphs 6.201-6.204). However we first discuss the general treatment of the one-off costs associated with the launch of BT Sport.

One-off launch costs

6.178 As explained in paragraph 6.16, when assessing BT's compliance with the proposed SMP condition during a particular time period, where possible we would likely use historical, audited data covering that period to calculate the relevant revenues and costs.

6.179 BT Sport was only launched recently (it began broadcasting on 1 August 2013). We recognise that there are likely to be one-off costs associated with the launch of BT Sport and consider that it is reasonable to assume that these start-up costs are recovered over a number of years (rather than all being recovered in the period shortly after launch). Accordingly we would likely uplift the net costs of BT Sport during the period covered by this market review to reflect the start-up costs incurred in 2013/14.

6.180 [✂].[382] We consider it is reasonable to assume that the relatively higher costs in the first year are due to BT's efforts to launch a new business.

6.181 We would likely assume that the one-off launch costs associated with BT Sport are spread over the three-year period from 2013/14 and 2015/16. A three-year period

[381] Given current patterns of BT Sport take-up, the Take-Up Method is likely to allocate a higher proportion of costs to fibre broadband subscribers than the All Broadband Method ([✂]). [✂]
[382] [✂]

would likely be reasonable since it aligns with the three year duration of BT's current agreement to broadcast live FAPL matches. These matches were by far the most valuable content that BT Sport broadcast when it launched (as reflected by the large amount BT paid for these rights, as publicly reported). Given that there was (and remains) considerable uncertainty related to what FAPL rights BT may obtain after the current agreement expires, it seems reasonable to assume that the one-off launch costs of BT Sport are recovered over the lifetime of that contract.

6.182 In paragraphs 6.185-6.200 (and in particular Table 6.7) we set out an estimate of the level of the one-off launch costs that we would likely use. In calculating this figure we assumed that any costs incurred in 2012/13 should be treated as one-off (since these were incurred prior to the channel being made available). We also assumed that any costs in 2013/14 that are additional to those incurred in the long run could be considered to be one-off costs associated with the launch of BT Sport. For BT Sport programming and SG&A costs we have calculated these by comparing BT's estimate of the difference in costs between 2013/14 and 2015/16 and assumed that any difference is related to one-off launch costs.[383] BT has identified one-off costs in relation to [✂].[384]

6.183 We would likely spread one-off costs by converting them into an equivalent ongoing monthly cost over three years with a NPV equal to our estimate of the one-off cost incurred.[385] We would likely assume that:

- the discount rate is equal to the monthly 'rest of BT' WACC;[386] and
- [✂].[387] [✂] all one-off costs are incurred at the beginning of 2013/14 and that they are spread over 36 months to the end of 2015/16.

6.184 The UEFA Rights represent a major investment by BT. It is possible that, around the time that BT begins broadcasting live Champions League and Europa League matches (the 'UEFA matches') in July 2015, it will incur significant one-off costs (e.g. marketing) akin to those incurred when it originally launched the BT Sport business.[388] However, it may be more difficult to arrive at a reliable estimate of the amount of one-off costs entailed since in 2015 BT Sport will be an ongoing business not a start-up. It also seems unlikely that any one-off costs when BT begins to broadcast the UEFA matches would be of the same scale as its one-off launch costs (which we estimate to be around [✂] – see Table 6.7 below). Accordingly we would likely not amortise any one-off costs associated with BT beginning broadcasting the UEFA matches. However we may reconsider this position in the event that there was

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[383] i.e. if 2013/14 costs were £1m/month and the estimate of 2015/16 costs were £0.7m/month then we consider that £0.3m/month are one-off launch costs.
[384] Ofcom analysis of Launch Forecasts and Updated Forecasts.
[385] [✂]
[386] As explained in paragraph 6.40 this is the most recent estimate of the rest of BT's pre-tax nominal WACC. As at May 2014, we estimated that this was 10.8%. The annual WACC of 10.8% is converted to a monthly WACC using the following formula. Monthly WACC = (1+annual WACC)^(1/12)-1. This equals 0.86%. Paragraph 7.09, draft 2014 WBA Statement. In the event that a more up to date estimate of the WACC is available, the estimates of one-off costs would also need to be updated.
[387] [✂]
[388] This is distinct from the issue of whether the recovery of the costs of the UEFA Rights themselves should be tilted over time.

evidence that these costs are substantial and a reasonably reliable estimate of their magnitude could be established.[389]

BT Sport costs

6.185 In order to calculate the net costs of BT Sport, we must first estimate the total costs of BT Sport. As discussed in paragraph 6.149 we would likely allocate the net costs of BT Sport between BT's copper and fibre subscribers. Accordingly we would likely exclude any costs of BT Sport that are incremental to copper only subscribers.

6.186 The costs of BT Sport can be broadly broken down into four categories[390]:

- Sports rights – [✄]
- Programming costs – [✄]
- Transmission and distribution – [✄] We would likely not include the costs of DTT as this cost is only associated with BT's copper broadband subscribers.
- SG&A Costs – [✄]

6.187 We discuss each of these cost categories in turn. For each category we provide guidance on the likely treatment of ongoing costs. For programming costs, transmission and distribution and SG&A costs we also provide an estimate of the figure we would likely use for the one-off launch costs.

Sports rights costs

6.188 [✄][391] Rather than use the costs for sports rights as they fall due (which would lead to a volatile net costs), we would likely convert these costs into a monthly payment.

6.189 For some sporting events there are gaps between successive seasons. For example the 2015/16 FAPL season ends in May 2016 but the subsequent season does not begin until August 2016. We would likely amortise these rights over a longer period as if the events were continuous. In the case of the BT's current rights agreement for live FAPL matches we would likely amortise the rights over the period August 2013 to July 2016.

6.190 For each sports rights agreement we would likely calculate the NPV of the cost of the contract (as at the start date) based on when BT incurs the payments for the sports rights. We would likely then calculate what would be the constant monthly payment that would equal that NPV if considered over the duration of the contract.[392] We would likely undertake this calculation for each of BT's committed sports contracts.

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[389] In the event that we did, we would likely amortise any one-off costs associated with BT beginning broadcasting the UEFA matches over the 2015/16 to 2017/18 duration of the current agreement for the UEFA Rights.

[390] Ofcom analysis of Launch Forecasts and Updated Forecasts.

[391] [✄]

[392] As an example, with a WACC of 10%, if BT incurred quarterly costs of £100m (paid at the end of the first month of each quarter), the NPV over a year would be £382.3m. This is equivalent to a monthly payment of £33.61m (which provides the same NPV over a year).

6.191 This calculation provides an estimate of the smoothed monthly costs of sports rights. This monthly estimate will vary as BT gains or loses sports rights.[393] To estimate a representative cost over any given period we would likely take an average across that period. For example, should a given sporting event only occur for two months whereas we are assessing compliance over a six month period (say) then on average over the six month period the cost of rights to that event will be reduced by 66%. This effectively allows smoothing within that six month period.

Draft guidance
We would likely calculate BT's monthly costs for each sport right by converting its actual expenditure on each sports right into a constant monthly payment. We would likely do this by calculating the NPV of each sports rights contract over the entire contract duration up until the next contract is available (based on each contract's start date) and convert this into an equivalent ongoing monthly cost equal to that NPV. We would likely use the 'rest of BT' WACC relevant to the assessment period when carrying out this calculation.

When assessing compliance over any given period, we would likely average the costs of sports rights across that period.

Programming costs

6.192 We would include ongoing programming costs.

6.193 As explained in paragraph 6.182, we have estimated the level of one-off launch costs that we would likely take into account. We have estimated the one-off programming costs as the difference between BT's forecasts for 2013/14 of [✂]/month[394], and its estimate for 2015/16 of [✂]/month[395] leading to one-off costs of [✂]. In addition to this we have included [✂][396] of programming costs that were incurred in 2012/13, prior to the launch of BT Sport. Accordingly we would likely use a total figure of [✂] for one-off programming costs.

Transmission and distribution costs

6.194 Based on BT's current strategy, BT Sport is distributed over four different platforms – satellite, BT IPTV Multicast, DTT, and 'over the top' (OTT) via the BT Sport app and online. We would likely not include the costs of transmission and distribution over DTT as these are entirely related to copper subscribers and therefore should not be included in the net costs that are subsequently allocated to fibre subscribers.

6.195 We would likely take into account a number of different cost categories, relating to provision of channels over satellite and IPTV platforms, specifically[397]:

- [✂]

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[393] For example if contract A starts in January (at an average of £5m/month) and contract B starts in April (at an average of £10m/month) then the costs will be £5m/month January to March and £15m/month from April to June. This leads to an average over the six month period of £10m/month.
[394] [✂]
[395] [✂]
[396] [✂]
[397] [✂]

- [✂]
- [✂]
- [✂]
- [✂]

6.196 Should there be any additional costs related to BT Sport that are not listed above, we would likely take these into account.

6.197 As explained in paragraph 6.182, we have estimated the level of one-off launch costs that we would likely take into account. Our estimates of one-off transmission and distribution costs are summarised in Table 6.5.

Table 6.5 – Calculation of one-off costs associated with BT Sport [CONFIDENTIAL TABLE][398,399,400,401,402,403]

SG&A costs

6.198 BT incurs a number of SG&A costs in relation to BT Sport.

6.199 As explained in paragraph 6.182, we have estimated the level of one-off launch costs that we would likely take into account. Our estimates of the one-off SG&A costs associated with BT Sport are summarised in Table 6.6.

[398] [✂]
[399] [✂]
[400] [✂]
[401] [✂]
[402] [✂]
[403] [✂]

Table 6.6 – BT Sport SG&A costs, one-off figures

	Notes	12/13	13/14	Total
Marketing & research	[✂][404] [✂][405]	[✂]	[✂]	[✂]
Customer service & sales	[✂][406] [✂][407]	[✂]	[✂]	[✂]
Channel team	[✂[408]	[✂]	[✂]	[✂]
Studio[409]	[✂][410]	[✂]	[✂]	[✂]
Development	[✂][411]	[✂]	[✂]	[✂]
Other	[✂][412] [✂][413]	[✂]	[✂]	[✂]
Total one-off		[✂]	[✂]	[✂]

Source: s26 Notices to BT

Summary of one-off launch costs

6.200 Table 6.7 sets out the summary of our estimates of the one-off launch costs associated with BT Sport. This table also sets out our estimate of the equivalent ongoing monthly cost that, over a three year period, has an NPV that is equal to our estimate of the one-off launch costs.[414]

[404] [✂]
[405] [✂]
[406] [✂]
[407] [✂]
[408] [✂]
[409] [✂]
[410] [✂]
[411] [✂]
[412] [✂]
[413] [✂]
[414] As explored in footnote 386, this has been calculated assuming an annual WACC of 10.8%.

Table 6.7 – Summary of BT's one-off costs associated with BT Sport

	Upfront costs
Sports rights	[✂]
Programming	[✂]
Transmission and distribution	[✂]
SG&A	[✂]
Total	[✂]
Converted to a monthly equivalent	[✂]

Source: s26 Notices to BT

Draft guidance

We would likely use BT's actually incurred costs as set out in its accounts for ongoing costs.

We would likely include an additional [✂]/month until March 2016 to reflect the one-off launch costs of BT Sport. In the event that a more up to date estimate of the WACC is available, we would consider whether to update this figure.

Direct revenues

6.201 In order to calculate the net cost of BT Sport, we would deduct the direct revenues BT earns from sources other than BT broadband subscribers during the period under consideration. We would likely take into account the following revenue sources:

- Monthly subscription revenues from residential customers – revenue comes from residential Sky TV subscribers who take BT Sport (both in SD and in HD) but do not have BT broadband. While BT Sport in SD is free for those customers that take BT broadband, BT also receives revenues from BT broadband customers on the Sky TV and on the BT TV platforms that wish to receive BT Sport in HD.[415]
- Monthly sublicensing to Virgin
- Monthly sublicensing to Setanta in the Republic of Ireland
- Monthly subscription revenues from commercial premises – [✂][416]
- Advertising – [✂].[417]

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[415] See paragraph 6.119.

[416] [✂]

[417] [✂]

6.202 Should BT generate any new revenue sources, such as additional wholesale deals or further sub-licensing, we would likely include these revenues when assessing the VULA margin.

6.203 There are also provisioning revenues, which refer to one-off charges to new BT Sport subscribers. For example, there is currently an activation fee of £15 incl. VAT (£12.50 excl. VAT) for those taking BT Sport over the Sky TV platform[418] and that are not re-contracting to BT broadband [✂]. We would likely also take provisioning revenues into account when assessing the VULA margin.

6.204 We consider that it would likely be reasonable to spread provisioning revenues over several years, rather than just the month in which they were received. We recognise that the most appropriate period over which to spread these provisioning revenues is a matter of judgement. In absent of better evidence, we would likely adopt a three year period on the grounds that this is the same duration over which we spread one-off launch costs (see paragraph 6.181). This would mean that, for example, any provisioning revenues that occurred in August 2014 would be amortised over a three year period from August 2014 to September 2017, acquisitions in July 2015 would be amortised over the three year period from July 2015 to June 2018 and so forth.

Draft guidance

In assessing the direct revenues associated with BT Sport we would likely take into account BT's monthly subscription revenues from residential subscribers and commercial premises as well as BT's monthly sublicensing revenues, advertising revenues and provisioning revenues.

We would seek to use the best available data when assessing compliance with the proposed SMP condition. Where possible, we would therefore seek to use historical, audited data covering the assessment period. The exception is provisioning revenues which (in the absence of better information) we would likely amortise over a period of three years using the 'rest of BT' WACC.

Detailed discussion of the application of the All Broadband Method

6.205 In paragraphs 6.206-6.211 we set out our guidance of how we would calculate the number of subscribers when calculating the per subscriber net cost of BT Sport.

6.206 Under the All Broadband Method we would first likely divide the net cost of BT Sport by the number of BT broadband subscribers that are capable of receiving BT Sport to calculate the net BT Sport cost per customer with free access to BT Sport. Where a broadband subscriber is not capable of receiving BT Sport, we do not consider that it is reasonable to allocate the costs of that service to them.

6.207 Accordingly, we would likely exclude subscribers to any BT Business broadband service and subscribers to any Plusnet broadband service when applying the All Broadband Method (since these broadband packages currently do not include access to BT Sport).

6.208 We would also likely exclude customers with a broadband connection that is too slow to receive BT Sport at a reasonable quality. To do so, we would likely identify a

[418] BT website.

speed below which customers are assumed to fall into this category and then estimate the overall number of copper broadband connections that are likely to be below this speed.

6.209 Although BT's website reports that a minimum speed of 400kbit/s is needed to use the BT Sport app, we would likely exclude BT broadband connections with speeds lower than 500kbit/s. We would likely use a lower-bound of 500kbit/s to take into account losses in speed as a result of:

- Average modem sync speeds – for broadband delivered over telephone lines using Digital Subscriber Line (DSL) technologies, the modem sync speed is the downstream data rate at which an operator's equipment in the local exchange or cabinet sends data to the customer's broadband modem. In practice, the speeds achieved by the end user will always be lower than the modem sync speed because some of the capacity of the connection is required for information to help send the user's data across the internet. Speeds may also reduce further when there is network congestion or when web servers are heavily loaded.[419]

- Wireless overheads – a broadband service delivered using a wireless connection will by its very nature provide devices with lower speeds than one delivered using wired technology such as an Ethernet cable. As Wi-Fi uses radio signals, maximum performance will degrade the farther away a device is from the Wi-Fi router. In addition, slower speeds over Wi-Fi will often result from the greater amount of encryption required to mitigate the risk of data being intercepted while it is travelling through the air. Lastly, Wi-Fi connections will provide slower speeds if there is any interference from other devices sharing the radio spectrum being used (e.g. other Wi-Fi networks in the area, microwave ovens, baby monitors). We would expect that the majority of consumers accessing BT Sport via the app would use a device which is connected to broadband using Wi-Fi.[420]

6.210 Using confidential data collected for the Ofcom Infrastructure Report 2013, we estimate that currently [✄]% of BT's copper broadband subscribers cannot receive a speed greater than 500kbit/s.[421] We would likely use similar data when calculating how many BT copper broadband connections to exclude when applying the All Broadband Method.

6.211 Second, we would need to take into account that the increment we are proposing to use to assess the VULA margin, the superfast broadband portfolio, includes both customers who have free access to BT Sport (BT Consumer Infinity customers) and customers who do not have free access (Plusnet Fibre customers). In order to calculate the net BT Sport cost per superfast broadband customer, we would likely multiply the net BT Sport cost per customer with free access to BT Sport by the proportion of customers in the superfast broadband portfolio with free access to BT Sport.

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[419] Paragraphs A1.2-A1.3 of the Ofcom Infrastructure Report 2013.

[420] The Ofcom Communications Market Report 2013 found that 89% of households with a fixed broadband connection had a wireless router in Q1 2013 (page 272).

[421] The dataset used was each BT Retail DSL connection in June 2013, as collected for the Ofcom Infrastructure Report 2013.

Draft guidance

When calculating the net BT Sport cost per customer with 'free' access to BT Sport we would likely include any subscriber to a BT broadband package that is capable of receiving BT Sport at a reasonable quality for 'free'.

Accordingly we would likely include:

- any copper broadband subscription where the speed was greater than 500kbit/s; and
- any fibre broadband subscription.

Accordingly we would likely exclude:

- BT Business broadband subscriptions; and
- Plusnet broadband subscriptions.

Second, the net BT Sport cost per superfast broadband customer would be calculated by multiplying the net BT Sport cost per customer with free access to BT Sport by the proportion of superfast broadband customers with free access to BT Sport. The proportion of superfast broadband customers with free access to BT Sport would likely be calculated by dividing the number of BT residential superfast broadband customers that have free access to BT Sport (i.e. BT Consumer Infinity customers) acquired during the assessment period by the total number of BT residential superfast broadband customers (i.e. the sum of BT Consumer Infinity and Plusnet Fibre customers) acquired during the assessment period.

Upfront costs

6.212 In this section, we set out the method we would likely use to assess the upfront costs of acquiring superfast broadband customers.

Connection costs

6.213 As set out above in Section 5, we would likely assess the costs of an operator that supplies superfast broadband using GEA+WLR. We have grouped the costs that are incurred when connecting a customer to GEA and WLR into the following categories:

- GEA Connection – this is the charge paid to Openreach for all superfast broadband connections.

- GEA Managed Install – this is a charge paid to Openreach for all GEA connections. It covers the cost of the connection of a base module, CP router and a PC to the network.

- WLR Connection – these are the charges paid to Openreach to connect customers who are either switching from other operators using WLR/MPF access or being provided with a new line (e.g. customers who previously did not have a broadband or voice service or are switching from a cable-based broadband service). The amount of the charge depends on which of these two categories a customer belongs to. Where customers upgrade from a standard broadband service using WLR to a WLR+GEA service from the same operator, no WLR connection charge is payable.

- Retail-level connection activities – this covers costs incurred by the retail business (over and above the charges paid to Openreach) when connecting a new superfast broadband subscriber with a new WLR line [✂][422].

Draft guidance
We would likely take into account the costs of GEA Connection, GEA Managed Install, WLR Connection (or any future equivalents) and retail-level connection activities.

- GEA Connection charges and GEA Managed Install charges would be the charges applicable during the assessment period.
- To estimate the WLR Connection cost, we would firstly calculate the proportion of connections that incur Openreach charges based on the volumes of superfast broadband customers that were acquired from other operators in the assessment period. We would then calculate the average charge paid for these connections applicable during the assessment period on the basis of the split of acquired customers that required a new line and those that needed an existing line to be migrated using the most recent data available from BT's management information system[423].
- Retail-level activity costs would likely be estimated using the most recent data available from BT's regulatory financial reporting system[424].

SG&A costs – upfront acquisition

6.214 We consider that a customer-based allocation approach is likely to be appropriate for upfront acquisition costs as most of these costs (for example, TV campaigns, online and outdoor advertising, dealing with orders, direct mail-outs) are unlikely to vary significantly with the number of products a customer takes. This approach assumes that the cost of acquiring a voice-only customer is the same as the cost of acquiring a dual- or triple-play customer.

Draft guidance
Draft Guidance Table 4 below sets out the upfront acquisition SG&A costs that we would likely take into account.

For upfront acquisition SG&A costs, we would likely allocate on the basis of the number of superfast broadband customers acquired as a percentage of the total number of customers acquired by BT Consumer during the assessment period. For example, if a third of all BT Consumer customer acquisitions are for superfast broadband products, we would allocate a third of the total SG&A upfront acquisition costs to the superfast broadband portfolio cost stack. To calculate acquisition SG&A costs per superfast broadband customer, we would then divide this figure by the number of superfast broadband customers acquired during the assessment period.

[422] [✂]
[423] Currently known as [✂].
[424] Currently known as ASPIRE, to be replaced by REFINE.

Draft Guidance Table 4 – Short-run SG&A upfront acquisition costs

Cost item	Description
Marketing – acquisition	[✂]
Affiliates / pay per click	[✂]
Customer services - upfront	[✂]

Source: BT responses to the 4th s26 Notice of 5 July 2013, 5th s26 Notice of 20 August 2013 and 6th s26 Notice of 1 October 2013 (various questions).

Sales

6.215 Sales costs cover the cost of processing sales and commissions to sales agents. [✂][425]

> **Draft guidance**
> We would likely source sales costs from BT's most recent system[426] which provides a breakdown of the various activities [✂]. The sales costs to be allocated to the superfast broadband portfolio would likely be estimated by multiplying the proportion of staff time used to acquire superfast broadband customers by the total labour cost of such staff time. To calculate sales costs per superfast broadband customer acquired, we would then divide this figure by the number of superfast broadband customers acquired during the assessment period.

Voucher costs

6.216 BT provides Sainsbury's vouchers to new Infinity subscribers acquired via BT.com. [✂][427]

> **Draft guidance**
> To calculate the cost of vouchers used for the purposes of acquiring a superfast broadband customer, we would likely take BT's spend on vouchers during the assessment period and divide this by the number of superfast broadband customers BT acquired during this period.

Discount costs

6.217 BT typically offers a discount to the monthly subscription prices of its superfast broadband offers for a number of months to newly acquired subscribers.[428]

[425] [✂]
[426] Currently known as [✂].
[427] [✂]
[428] [✂]

Draft guidance
We would likely treat several months' discount to the monthly subscription prices for newly acquired superfast broadband customers as an upfront cost by multiplying the amount of the discount by the number of months during which it applies. In order to estimate the discount to the average superfast broadband customer, we would likely estimate the proportion of superfast broadband customer acquisitions that were eligible for the discount during the assessment period.

Router costs

6.218 BT provides a router to new subscribers to its superfast broadband packages. As at March 2014, all BT Consumer Infinity packages came with Home Hub 5, while Plusnet fibre packages came with a 4-port wireless-n technology router.

Draft guidance
We would likely source the router cost related to the acquisition of a superfast broadband customer from the unit price as set out in the contract BT has agreed with its supplier. We would likely not include the cost of delivery of the router, as this would be covered by an equivalent postage and packaging charge received from new customers.

Event charges

6.219 Event charges cover engineering services carried out by Openreach, typically when new subscribers are connected to a superfast broadband service.

Draft guidance
We would likely include the following event charges in the upfront acquisition cost stack:

<u>BT Expedites</u> – a charge payable to Openreach to carry out the customer installation more quickly than is standard. We would likely calculate the BT Expedite cost of acquiring a superfast broadband customer by taking the spend on expedites for superfast broadband products over the assessment period and dividing this by the number of superfast broadband customers acquired during this period.

<u>BT Abortive Visits</u> – a charge payable to Openreach when an engineer visit is unsuccessful due to not being able to access the customer's property. We would likely calculate the BT Abortive Visits cost of acquiring a superfast broadband customer by multiplying the abortive visits charge by the percentage of superfast broadband customers acquired who had an abortive visit over the assessment period.

<u>Modify upstream order charges</u> – a charge payable to Openreach to cancel, amend or modify a customer order. We would likely calculate the Modify upstream order charge cost of acquiring a superfast broadband customer by multiplying the modify order charge by the percentage of superfast broadband customers acquired who had an order cancelled or amended over the assessment period.

Upfront TV costs

6.220 We would include BT TV in our assessment by considering the costs incurred over and above those for superfast broadband. There are likely to be two types of upfront costs we would include for TV: the YouView box and other connection costs.

Draft guidance
We would likely take the following upfront TV costs into account when assessing the VULA margin:

<u>YouView box</u> – superfast broadband customers who sign-up to BT TV are provided with a YouView set-top box at no extra charge. We would likely source the YouView box cost to be included in the superfast broadband portfolio cost stack from the contract BT has agreed with its supplier.

<u>Other connection costs</u> – there are a number of connection costs BT incurs when connecting customers with its TV service, including [✂][429]. We would likely estimate the other connection costs to include in the superfast broadband portfolio cost stack by taking the amount recorded in the most recent annual BT TV management accounts and dividing by the number of TV additions during the period covered by the accounts.

Upfront revenues

6.221 In February 2014, a connection charge of £30 (including VAT) was payable by new subscribers to Infinity 1 and Unlimited Infinity 1. In addition, for customers taking up BT TV, a TV activation fee of £19 (including VAT) was payable.

Draft guidance
We would likely use the connection revenues applicable during the assessment period.

Average customer lifetime

6.222 As set out in paragraph 6.12, it is appropriate to assess whether the ongoing monthly margin, which equals ongoing monthly revenues minus ongoing monthly downstream costs (both wholesale costs and retail costs), recovers net upfront acquisition costs within the ACL. The expected customer lifetime over which to make this assessment is therefore an important input in the calculation. We now set out the assumptions we would make for ACL.

6.223 In the 2013 FAMR Consultation we stated that we may need to consider whether our benchmark operator experiences a shorter ACL than BT.[430]

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[429] BT response to Q3 of the 6th s26 Notice of 1 October 2013.
[430] Paragraphs 11.434-11.439.

Stakeholder responses

6.224 A confidential respondent [✂] considered that we should use a customer lifetime that is shorter than that experienced by BT, in order to reflect the commercial disadvantages suffered by non-BT operators in the market (e.g. it stated that Ofcom's analysis suggests that BT's ACL lies somewhere between 5 and 6 years,[431] but the confidential respondent [✂] has estimated its ACL for customers taking a broadband and line rental service as [✂]). The confidential respondent [✂] argued that BT's position as the legacy incumbent telephony operator results in BT experiencing longer ACLs than other operators in the market. This is likely due to a number of factors, including, for example, the fact that BT's customer base tends to comprise of a higher number of older customers than the rest of the market, and this segment of customers is less likely to churn.[432]

6.225 TalkTalk considered that BT's superfast broadband churn should not be used since it will be distorted if BT is engaging in a "*margin squeeze*" and since BT may have a higher level of brand recognition. TalkTalk suggested that churn for standard broadband products could be used instead.[433]

Ofcom's analysis

6.226 We have considered whether BT's ACL should be adjusted by reference to the two considerations set out in paragraph 6.27.

<u>First Consideration – is there evidence that BT's costs/revenues materially differ from those of other operators, and if so, is it likely to be possible for other operators to match BT's costs/revenues?</u>

6.227 We have gathered evidence to assess whether there is a material difference in ACL between BT and other operators. We asked BT, TalkTalk, EE, Sky and Virgin to provide us with quarterly churn figures (BT's figures separated out Plusnet).

6.228 We obtained data on churn for both standard and superfast broadband. However, we do not consider that the superfast broadband churn figures are a good estimator of the future ACL for superfast broadband subscribers. In particular, the churn data for superfast broadband is:

- volatile because of a small sample base and since early adopters may have atypical preferences; and
- likely to be biased downwards (implying a longer customer lifetime) since superfast broadband only became available recently. As a result, many superfast broadband customers will still be within the minimum contract period, during which they are penalised if they switch to another operator.

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[431] The confidential respondent [✂] referred to paragraphs 11.436 and 11.437 of the 2013 FAMR Consultation.
[432] [✂].
[433] Paragraphs 5.78-5.80, page 19, and paragraphs 5.60-5.62, pages 51-52, Annex 5, TalkTalk response to the 2013 FAMR Consultation.

6.229 We have therefore assessed the ACL of superfast broadband subscribers using churn data on standard broadband. We consider that this is reasonable. The essential difference between standard and superfast broadband is speed – the other characteristics of these services are thus broadly comparable. It seems unlikely to us that this difference should result in large changes to the ACL.

6.230 We have converted quarterly churn data to estimate the ACL.[434] Figure 6.2 below shows BT's ACL on standard broadband over the period since Q2 2009. [✂].

Figure 6.2 – BT's average customer lifetimes [CONFIDENTIAL CHART]

6.231 The data on ACL of selected CPs that provide standard broadband services is provided in Table 6.8 below.[435]

Table 6.8 – Average customer lifetime of selected CPs

	Q1 2011	Q2 2011	Q3 2011	Q4 2011	Q1 2012	Q2 2012	Q3 2012	*Q4 2012*	Q1 2013	Q2 2013	Mean
BT	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Virgin	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Sky[436]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
TalkTalk	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
EE[437]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Plusnet	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CP responses to the respective s135 Notices of 23 October 2013 and BT response to the 1st s26 to BT of 10 May 2013.

6.232 In assessing whether there is a material difference in ACL between BT and other operators we have particularly focused on the experience of Sky and TalkTalk. This is because, of the non-BT CPs using the Openreach network, they are by far the largest retail rivals to BT. Between Q1 2011 and Q2 2013, on average the ACLs of Sky and TalkTalk were around [✂] and [✂] years respectively.[438] In contrast, BT's ACL (excluding Plusnet) over that period was around [✂] years.[439] We thus consider

[434] ACL (in years) = -0.25 * LN (1 – quarterly churn rate).
[435] The mean for each operator is an unweighted average across the periods for which we have data.
[436] [✂]
[437] [✂]. [✂].
[438] Based on an average weighted by market share. Market share estimates for 2011 and 2012 are from Figure 5.34 of the Ofcom Communications Market Report 2013. If EE is included in the calculation, the average is [✂] years based on a weighted average.
[439] If Plusnet is included in the calculation then BT's ACL then becomes around [✂] years based on a weighted average of market shares.

that there is evidence of a material difference between BT's ACL and that of other operators.

6.233 We recognise that this comparison does not take into account Virgin. [✂]. Although we consider Virgin to be part of the same retail broadband market as other CPs, we believe that Virgin's ACL is unlikely to be a good guide to the ACL of operators that purchase VULA from BT. This provisional view was reached in light of the following factors:

- Virgin is a vertically integrated operator with its own cable network, which makes it structurally different from non-BT CPs operating on the Openreach network;
- unlike non-BT CPs using the Openreach network, Virgin's vertical integration means that it is easier to tailor its network to support its retail proposition. For example, Virgin has upgraded its network to boost broadband speeds which allows it to market itself to retail consumers as the fastest operator in the UK. In contrast, operators such as Sky and TalkTalk have less influence over the GEA input that they purchase. Virgin's vertical integration is a differentiating feature between Virgin and Sky and TalkTalk; and
- switching between Virgin and a CP operating on the Openreach network may involve more inconvenience for consumers than switching between broadband providers using the Openreach network. For example, it may result in extra inconvenience and costs for a customer since a BT engineer would be required to either install a new line or reconnect an existing line which was disconnected when the customer started using services from Virgin.

6.234 We also note that there is no evidence that BT's ACL reflects consistently higher consumer satisfaction with BT compared to other operators. Data obtained in the Ofcom Switching Tracker Survey suggested that BT's customer satisfaction with broadband was not appreciably higher than other firms. In 2013, 79% of BT's customers were satisfied. This was higher than TalkTalk (77%) but lower than Sky (85%) and Virgin (87%).[440] These figures suggest that the quality of customer service offered by BT does not offer a reasonable explanation for BT's lower customer churn and resulting longer ACL.[441]

6.235 BT's longer ACL could be a consequence of its position as the legacy incumbent. Customers that are reluctant to switch may be more likely to remain with BT (as the incumbent telecoms network operator) whereas customers of other CPs are likely to have switched at least once (to move away from BT). Similarly there may be synergies between offering a broadband service and operating a network (e.g. branding). [✂]

6.236 We thus consider that the first consideration is met. There is evidence that other operators are likely to have a materially shorter ACL than BT. Given the persistent nature of the difference between BT and [✂], this suggests that it is difficult for other

[440] Satisfaction with fixed broadband provider, slide 4, Ofcom, *Switching Tracker 2013*, 15 July to August 2013.

[441] If there was evidence that BT's longer ACL reflected superior customer service compared to other operators then it is more debatable whether an adjustment should be made to the ACL used when assessing the VULA margin. This is because other operators may be able to replicate BT's ACL by improving the quality of the service that they offer to consumers.

operators to close the gap in ACLs by making changes to their respective commercial strategies. We also consider that it would be practical to adjust BT's ACL to reflect the differences we observe. We have data from which to estimate a suitable ACL for the purposes of the VULA margin assessment. Provided we specify that ACL in advance it is likely to be straightforward for BT to take it into account when assessing compliance with the proposed SMP condition.

Second Consideration – would the adjustment meet our objective by allowing an operator with slightly higher costs than BT (or some other slight commercial drawback relative to BT) to profitably match BT's superfast broadband retail offers?

6.237 We consider that the use of an ACL that is shorter than BT's for the supply of standard broadband services, hence reflecting the ACLs of other operators, would seem to be consistent with our overall objective by allowing an operator with slightly higher costs than BT (or some other slight commercial drawback relative to BT) to profitably match BT's superfast broadband retail offers. However, the impact of this adjustment also needs to be considered in conjunction with our overall proposals. This assessment is set out in paragraphs 6.250-6.264 below.

Proposed treatment of ACLs

6.238 In the light of the analysis set out in paragraphs 6.226-6.237, we consider that it is appropriate to assume that the ACL is 5 years when conducting the VULA margin assessment. This 5 year figure reflects the experience of other major operators that purchase VULA from BT. [✂]. Using this 5 year ACL would adjust for the material difference in ACLs that we observe between BT and other operators using its network.

6.239 We propose that this adjustment should form part of the proposed SMP condition. We recognise that there is some variability in the ACLs implied by the churn data set out in Table 6.8 above – [✂]. However we consider that this drawback is outweighed by the importance of providing BT with a clear indication of its obligations under our proposed SMP condition. In particular, BT will not have data on other operators' ACLs. As a result, it would not be straightforward for BT to gauge how large an adjustment it should make without input from Ofcom. Specifying the proposed adjustment to ACLs in the proposed SMP condition provides certainty to BT. It also provides clarity to other operators.

Estimated effects of our proposals

6.240 As a final step, we have considered whether our proposed approach for assessing the VULA margin is likely to support our objective of ensuring that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. As explained in Section 3, we consider that our aim is best achieved by allowing an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) to profitably match BT's retail superfast broadband offers.

6.241 We have undertaken an indicative assessment of the VULA margin. This provides an indication of the aggregate impact of our proposals, including the proposed adjustment to the ACL. We emphasise that this is an indicative assessment. It is important to note that it is based on BT's current costs and revenues and our consultation proposals. Accordingly, we note that BT's costs and revenues may have changed by the time our proposed SMP condition comes into effect and that we may revise our proposals in the light of consultation responses.[442]

6.242 In the light of the results of the indicative assessment, we then consider whether our proposals are likely to achieve our overall aim. This forms part of our assessment of our proposed adjustments to BT's costs and revenues – see the Second Consideration set out in paragraph 6.27.

Indicative assessment of the VULA margin

6.243 In summary our indicative assessment shows that BT would be close to the proposed VULA margin boundary. That is, either slightly falling short or slightly exceeding it.

6.244 Our indicative assessment of the VULA margin is set out in Table 6.9 below. We have used BT's costs as the starting point and have applied the approach described in Sections 5 and 6. In particular we have used a LRIC+ cost standard. Costs have been estimated primarily on the basis of 2012/13 data derived from BT's management accounts and its internal systems. Our assessment reflects the retail prices that BT offered to new subscribers in January 2014. The relevant output increment is BT's entire portfolio of residential superfast broadband bundles, including BT Consumer and Plusnet offers as well as the costs and revenues associated with calls, BT TV and BT Sport. In carrying out the assessment, we have looked at BT's prices to new superfast broadband subscribers. We have discounted costs and revenues over the payback period using a WACC of 10.8%.[443] We have departed from the use of BT's costs and revenues by assuming that the ACL is 5 years.

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[442] Given that our indicative assessment is based on our proposed VULA margin condition, this indicative assessment does not therefore assess whether BT is complying with its current SMP obligations.

[443] This is the estimate of the pre-tax nominal WACC for the 'rest of BT' that has been used in the provisional 2014 WBA charge control and represents our most recent view of the cost of capital going forward. See paragraph 7.09, draft 2014 WBA Statement.

Table 6.9 – Indicative estimate of impact of proposed approach

	£ per subscriber per month
Starting headroom (using LRIC, before adjustments and including BT Sport costs)[444]	[✂]
Impact of LRIC+ and ACL adjustment	
Application of LRIC+ standard	[✂]
Reduction in ACL from [✂] years to 5 years	[✂]
Total impact of LRIC+ and ACL adjustment[445]	[✂] [£2.50-£3.50]
Indicative headroom under our proposed approach	**[✂]**

6.245 The 'starting headroom' of £[✂]/month in the first row of the table represents the monthly profitability of BT's average superfast broadband subscriber over a payback period of [✂] years (BT's ACL over 2009-2013). This takes into account upfront customer acquisition costs and ongoing revenues and costs, including the wholesale charges paid to Openreach for the supply of GEA and WLR. Costs have been assessed on a LRIC basis. BT Sport costs have been assessed using the All Broadband Method. For the purpose of this calculation, we have assumed that BT Sport costs form part of the LRIC.

6.246 The following rows show the impact of our proposals for carrying out an *ex ante* assessment of the VULA margin, relative to the 'starting headroom' in the first row. The aggregate impact of these proposals is £[✂] [£2.50-£3.50]/month.[446]

6.247 The final row indicates the difference between BT's actual monthly margin and the minimum VULA margin required by the proposed SMP condition. It shows that were the proposals contained in this consultation to come into effect unchanged and BT's

[444] This comparator reflects a minimalistic view of the costs that BT should recover from the VULA margin. Assuming an EEO approach and a LRIC cost standard essentially shows whether BT's superfast broadband portfolio is incrementally profitable given the wholesale prices charged by Openreach. Assuming that BT Sport costs are assessed using the All Broadband Method (i.e. the same method as in our proposed approach) strips out the effect of the BT Sport allocation method from the comparison set out in this table.

[445] Note the cumulative impact of the proposals (£[✂] [£2.50-£3.50]) is less than the sum of the individual proposals because the impact of the application of a LRIC+ standard is dependent on the length of the ACL used. With a shorter 5 year ACL lifetime, the application of a LRIC+ reduces headroom by £[✂].

[446] On the basis of all other things being equal.

costs and revenues remained unchanged, then on the basis of our indicative assessment, BT would be close to the proposed VULA margin boundary. [✂]

6.248 However, as set out in paragraph 6.71-6.73, BT may decrease some of its cost allocations in relation to bandwidth costs and this could have a significant impact on the VULA margin assessment. Further, other costs and revenues used in the assessment may also change, which could also have a significant impact on the VULA margin assessment. For example, our proposed approach to assessing the costs of BT Sport means that these costs could increase following the commencement of the UEFA Rights agreement and this also could have a significant impact on the VULA margin assessment. Given how close BT is to the proposed VULA margin boundary, either one of the factors above could change the assessment one way or the other. Specifically:

- [✂]
- [✂][447]

6.249 In summary, our indicative assessment shows that the impact of LRIC+ and our proposed ACL adjustment is in the region of a few pounds per superfast broadband subscriber per month.[448] In addition, it shows that BT would be close to the proposed VULA margin boundary. That is, either slightly falling short or slightly exceeding it.

Consistency with our objective

6.250 In the light of the results of the indicative assessment of the VULA margin under our proposed approach, we have considered whether our proposals are likely to achieve our overall aim of ensuring that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted, by allowing an operator with slightly higher costs than BT (or some other slight commercial drawback relative to BT) to profitably match BT's retail superfast broadband offers. In the event that our proposals are unlikely to support that objective then we would need to revisit our likely approach to assessing the VULA margin.

Inferences from our indicative assessment

6.251 Table 6.9 suggests that our proposals may require BT to set a VULA margin that is approximately £[✂] [£2.50-£3.50] higher than the margin required under an EEO approach using a LRIC cost standard. As an initial observation, we estimate that BT's total monthly costs for supplying its superfast broadband portfolio, which cover all ongoing costs (including BT Sport) and amortised upfront customer acquisition costs, equals £[✂]. Our proposed adjustments of around £[✂] [£2.50-£3.50] would thus result in an increase in total monthly costs to £[✂], representing an increase of about [✂]%.[449] While this figure is intended to be indicative, we consider that an uplift to BT's long-run incremental costs in the region of [✂]% is consistent with allowing an operator with "*slightly higher*" costs than BT to profitably match BT's superfast broadband retail offers.

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447 [✂]

448 As indicated by the figure of £[✂] [£2.50-£3.50] in Table 6.9.

449 [✂]

Comparison of current offers in the fibre broadband sector

6.252 As explained in paragraph 6.249, the difference between our proposed approach and an EEO approach using a LRIC standard is likely to be in the region of a few pounds per superfast broadband subscriber per month. To help assess the likely impact of a difference of this magnitude on competition we have considered the relative price of bundles including superfast broadband from BT and other operators. For example, if the impact of our proposals is to increase the margin by £1/subscriber (say) then this may increase the retail price differential between BT and its competitors by £1.[450]

6.253 We recognise that there are limitations to comparing relative prices in this way. For example, the more BT's current margin is above the amount needed to cover its costs under a LRIC standard then the less it needs to change its retail prices under our proposed SMP condition. Similarly if other operators' current prices are significantly above their costs then they have scope to widen the price differential between themselves and BT regardless of the impact of our proposals. Accordingly the assessment below is intended to be indicative of the impact on competition between BT and its competitors.

6.254 Table 6.10 sets out retail prices of residential dual-play bundles for fibre broadband as of April 2014. This reflects the headline price, line rental as well as any upfront discounts (e.g. if new subscribers pay a reduced price for the first six months) or upfront activation charges.

Table 6.10 – Residential dual-play retail prices (including VAT)[451]

	38Mbit/s (with download limit)	38-50Mbit/s (Unlimited download)	76-100Mbit/s (Unlimited download)
BT	£30.99	£39.14	£42.19
Plusnet	£30.49	-	£34.49
EE[452]	-	£36.40	£46.40
Sky	-	£34.15	£45.40
TalkTalk	-	£29.45	£34.45
Virgin	-	£30.69	£35.69

Source: Company websites as of 11 April 2014

6.255 Note that different retailers' offers are not identical. For example, the voice telephony component may differ (e.g. offering inclusive ('free') calls at different times). In particular, only BT's bundles provide 'free' access to BT Sport.

[450] In this illustrative example, BT could increase its margin by either increasing its retail prices by £1 or by decreasing the wholesale price of VULA by £1 (which potentially allows other operators to reduce their retail prices by this amount).

[451] Monthly costs include line rental, fibre broadband costs and any activation charges. Any upfront discounts are also included. Price is an average over a five year period assuming no price increases.

[452] Discounts of £10/month are available for EE mobile customers.

6.256 Below we consider the impact of our proposals on TalkTalk and Sky's residential businesses. We recognise that other firms that provide superfast broadband will be affected by our proposals. However TalkTalk and Sky are the largest broadband operators that rely on BT's network (Virgin largely uses its own network when supplying broadband). If our proposals do not allow these two firms to effectively compete against BT then they are unlikely to allow an operator with slightly higher costs (or some other slight commercial disadvantage relative to BT) to profitably match BT's retail superfast broadband offers.

TalkTalk

6.257 TalkTalk appears to be already significantly undercutting BT's prices for both 38Mbit/s and 76Mbit/s bundles. An increase in the margin (relative to that needed by BT under a LRIC standard) of a few pounds per superfast broadband subscriber per month should allow TalkTalk to continue to maintain its price advantage.

6.258 TalkTalk's superfast broadband packages do not include access to BT Sport. However, as a result of its lower prices, TalkTalk is likely to be well placed to compete for consumers that are uninterested in additional sports content. TalkTalk has publically stated that its customer base is not particularly interested in Sky Sports, partly because of its position as a low price operator.[453] These public statements are consistent with the products purchased by its subscribers. TalkTalk currently has over 1m TV customers[454] and it reported in July 2013 that at the time, only 10,000 of these subscribed to a Sky Sports package[455].

6.259 In summary, we consider that the protection provided by our proposals is likely to be sufficient to allow TalkTalk to effectively compete for those fibre consumers that, like TalkTalk's current subscribers, have limited interest in pay TV sport.

Sky

6.260 Sky's large pay TV business affects both its strategic position and the composition of its broadband subscriber base. Sky's pay TV position may impact on its strategic incentives and ability to compete for fibre broadband customers, but its broadband subscriber base may be currently more focussed on subscribers who place a relatively high value on BT's offer of 'free' BT Sport with BT broadband. While this complicates the assessment, we consider it likely that the protection provided by our proposals allows Sky to effectively compete against BT in the provision of packages including superfast broadband. This is for the following reasons.

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[453] "*Everybody thinks we should care about football but we really, genuinely don't. Our average customer doesn't need it [a monthly Sky Sports subscription] and can't afford it*." The Telegraph, *TalkTalk and BSkyB strike deal for pay-as-you-go sport,* 4 February 2014, http://www.telegraph.co.uk/finance/newsbysector/mediatechnologyandtelecoms/telecoms/10617959/TalkTalk-and-BSkyB-strike-deal-for-pay-as-you-go-sport.html.

[454] Slide 20, TalkTalk, *Preliminary results Q1 2014*, 15 May 2014, http://www.talktalkgroup.com/~/media/Files/T/TalkTalk-Group/pdfs/presentations/2014/full-year-preliminary-results-presentation-13-14.pdf.

[455] Slide 9, TalkTalk, *Interim results 2013/14 – Presentation*, 12 November 2013, http://www.talktalkgroup.com/~/media/Files/T/TalkTalk-Group/pdfs/presentations/2013/interim-results-presentation-2013-14-v2.pdf.

6.261 First, the fact that TalkTalk appears to find it cost effective to offer lower prices indicates that there may be scope for Sky to further reduce its retail prices (though we recognise that there may be cost differences and potentially differences in service offerings). As shown in Table 6.10, Sky's retail price for a 38Mbit/s dual-play package appears to undercut BT's 38Mbit/s dual-play unlimited downloads package by around £5, whereas TalkTalk's undercuts by almost £10. Sky's retail price for a 76Mbit/s dual-play package is over £3 higher than BT's 76Mbit/s dual-play package. In contrast, TalkTalk's 38Mbit/s package is almost £8 cheaper than that of BT. Combined with an increase in the margin (relative to that needed by BT under a LRIC standard) of a few pounds per superfast broadband subscriber per month, Sky is likely to have the ability to maintain a significant price advantage relative to BT.

6.262 Second, we recognise that, for a consumer that is interested in sport, the offer of 'free' BT Sport with BT broadband is likely to be attractive. Although a significant proportion of Sky's broadband subscribers are interested in sports on TV, not all of them are. In relation to Sky's ability to retain its existing broadband subscribers, there are around [✂] Sky TV subscribers that also take broadband services from Sky, and around [✂] of these take Sky Sports (i.e. [✂]). In relation to Sky's ability to sell broadband to other pay TV subscribers, there are around [✂] Sky TV subscribers that do not take broadband services from Sky, and around [✂] of these take Sky Sports (i.e. [✂]).[456] Given Sky's opportunity to undercut BT's superfast broadband prices, it is likely to be well placed to compete for the significant number of subscribers with a relatively low valuation of sports.

6.263 Third, while BT is likely to be well placed when competing for subscribers that are interested in sport content, Sky could tailor its broadband packages by price discriminating towards subscribers that take Sky Sports. For example, in June 2014 Sky announced that subscribers to its Sky Sports channel could purchase superfast broadband from Sky at a reduced monthly price (£10 lower) for two years.[457]

6.264 In summary, we consider that the protection provided by our proposals is likely to be sufficient to allow Sky to effectively compete against BT in the provision of bundles containing superfast broadband.

Consultation question(s)

Q6.1 Do you agree with the details of how we propose to treat costs and revenues? In particular, do you agree:

(a) with our draft guidance, particularly the proposed guidance in relation to BT Sport?
(b) with the adjustment to average customer lifetimes in the proposed SMP condition?
(c) with the floor on unit bandwidth costs in the proposed SMP condition?
(d) that overall our proposals are likely to meet our objective?

Please provide reasons in support of your view.

[456] [✂]
[457] Sky, *Sky Sports launches new channel dedicated to European football, 10 June 2014,* http://corporate.sky.com/media/press_releases/2014/sky_sports_launches_new_channel_dedicated_to_european_football.

Section 7

Conclusion, legal tests and consistency with European requirements

Conclusion

7.1 We set out in Sections 3-6 our proposals on regulating the VULA margin. In summary, our provisional view is that:

- our overall regulatory aim should be ensuring that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. We consider that this aim is best achieved in this review period by ensuring that BT does not set the VULA margin such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) from being able to profitably match BT's retail superfast broadband offers;

- the most appropriate and proportionate option for achieving this aim is to impose an SMP condition requiring BT to set the VULA charge so as to maintain a minimum VULA margin, with a requirement on BT to provide the data necessary to monitor compliance every six months, supplemented by guidance on our detailed approach to assessing compliance with the condition;

- this requirement should:

    - use an adjusted EEO approach (specifically the ACL and, in certain circumstances, unit bandwidth costs should be adjusted);

    - assess the adjusted EEO's costs on a LRIC+ basis;

    - consider superfast broadband packages marketed at residential (rather than business) customers;

    - use the total fibre portfolio as an output increment (including all products, services or bundles of products or services, including, but not limited to, telephony and television services (including content));

    - to consider the costs of an operator that uses WLR technology;

    - not include any analysis of the potential effects of BT's pricing; and

    - adopt the approach to assessing the VULA margin, including analysing data on BT’s costs and revenues on the basis of our proposed guidance, unless circumstances at the time of the assessment mean that this would no longer be appropriate.

7.2 Our proposed SMP condition implementing our proposed approach is set out in Annex 5. For the reasons set out in the preceding sections, we have sought to include the main elements of our proposals in the SMP condition to provide legal certainty to BT. We do this by setting out in our proposed SMP condition those requirements proposed in Section 5. We also codify in the SMP condition the proposed ACL adjustment and the proposed floor on unit bandwidth costs that we describe in Section 6 given that these reflect data from other operators, meaning it is difficult for BT to quantify in the absence of us specifying them in the condition.

Legal tests

Policy proposals

7.3 We explain below why we consider that our proposed obligation requiring BT to set the VULA charge so as to maintain a minimum VULA margin is appropriate and satisfies the legal tests set out in the CA03.

7.4 Section 87(9) of the CA03 authorises Ofcom to set SMP services conditions imposing on the dominant provider: (a) such price controls as Ofcom may direct in relation to matters connected with the provision of network access to the relevant network, or with the availability of relevant facilities; and (b) such rules as Ofcom may make in relation to those matters about the recovery of costs and cost orientation. Conditions authorised by section 87(9) include conditions requiring the application of presumptions in the fixing and determination of costs and charges for the purposes of the price controls, rules and obligations imposed by virtue of that section (87(10)).

7.5 We are also required to ensure that the proposed condition satisfies the tests set out in section 88 of the CA03 as the VULA margin requirement equates to a condition about network access pricing.

7.6 Section 88(1)(a) of the CA03 requires that Ofcom must not impose pricing conditions unless it appears from the market analysis carried out for the purpose of setting that condition that there is a relevant risk of adverse effects arising from price distortion. In Section 3 we identify that there is a relevant risk of adverse effects arising from price distortion in that BT might impose a price squeeze.[458]

7.7 Section 88(1)(b) of the CA03 requires that the pricing condition should be appropriate for the purposes of promoting efficiency, promoting sustainable competition and conferring the greatest possible benefits on the end users of public electronic communications services. We consider that our proposed SMP condition is consistent with this requirement since it would achieve our overall aim of ensuring that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. This is met by ensuring that BT does not set the VULA margin such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) from being able to profitably match BT's retail superfast broadband offers

7.8 We are also required, under Section 88(2) of the CA03, to take account of the extent of the investment, in matters to which the proposed SMP condition relates, by BT. In taking this into account we consider that ensuring that BT does not set the VULA margin such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) being able to profitably match

[458] See from paragraph 3.47.

BT's retail superfast broadband offers, is unlikely to have a significant negative impact on investment incentives in this review period.[459]

7.9 We have considered our duties under section 3 and the Community requirements set out in section 4 of the CA03.

7.10 We consider that our proposed VULA margin requirement will further the interests of citizens in relation to communications matters and further the interests of consumers in relevant markets, where appropriate by promoting competition. By imposing a requirement ensuring that BT does not set the VULA margin such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) from being able to profitably match BT's retail superfast broadband offers, we consider that retail competition will be promoted to the direct benefit of end users. Further, our approach will provide incentives for CPs to provide retail services based on VULA which should help secure the availability throughout the United Kingdom of a wide range of electronic communications services. In formulating our proposals, we have also had particular regard to the desirability of encouraging investment and innovation in relevant markets and encouraging the availability and use of high speed data transfer services throughout the UK.

7.11 We also consider that the proposed SMP condition is consistent, in particular, with the Community requirement to promote competition in relation to the provision of electronic communication networks and services, including associated services and facilities, and to encourage network access and service interoperability for the purpose of securing efficiency and sustainable competition, efficient investment and innovation and the maximum benefit for the persons who are customers of communication providers and of persons who make associated facilities available.

7.12 The proposed condition also satisfies the criteria set out in section 47(2) of the CA03 because it is:

- objectively justifiable, in that, for the reasons set out in Section 3, it is required to ensure that retail competition is not distorted by BT using its SMP in the WLA market to set the VULA margin over the period of the market review such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) from being able to profitably match BT's retail superfast broadband offers;
- not unduly discriminatory, in that the condition only applies to BT which is the only undertaking that provides VULA;
- proportionate, in that, for the reasons set out in Section 4, the requirement is necessary, but no greater than necessary, to address our regulatory aim; and
- transparent, as the requirement set out in the proposed SMP condition is clear and is supplemented by detailed guidance.

7.13 For the reasons set out above, we consider that the proposed condition is appropriate to address the competition concerns identified, in line with section 87(1) of the CA03.

[459] See paragraphs 3.91-3.94.

Consistency with European Commission recommendations and the BEREC Common Position

7.14 We are required to take the utmost account of Recommendations issued under Article 19(1) of the Framework Directive, including the NGA Recommendation and the Costing and Non-discrimination Recommendation.[460] We are similarly obliged to take utmost account of any opinion, recommendation, guidelines, advice or regulatory best practice adopted by BEREC, including the BEREC Common Position on best practice in remedies in the WLA market. If an NRA chooses to depart from a Recommendation it must inform the European Commission, giving the reasons for its position.

7.15 We explain below how our proposed remedies are consistent with taking utmost account of the NGA Recommendation and the Costing and Non-discrimination Recommendation, and to the extent that our proposals may differ from these, we set out our reasoning.

The NGA Recommendation

7.16 The NGA Recommendation[461] aims to foster the development of the single market by enhancing legal certainty and promoting investment, competition and innovation in the market for broadband services, in particular the transition to NGA. It does so by setting out a common approach for promoting the consistent implementation of remedies with regard to such networks. The NGA Recommendation sets out specific provisions regarding the "*margin squeeze*" tests it recommends the NRA should put in place in relation to NGA. We consider that our proposals are consistent with the NGA Recommendation.

7.17 Article 27 states:

> *"…NRAs should ensure that a sufficient margin remains between wholesale and retail prices to allow for market entry by an efficient competitor. NRAs should thus verify the SMP operator's pricing behaviour by applying a properly specified margin-squeeze test over an appropriate timeframe. NRAs should specify in advance the methodology they will follow for identifying the imputation test, the parameters for the margin-squeeze test and the remedial mechanisms in case of established margin-squeeze."*

7.18 We consider that the proposals contained in this consultation are consistent with the recommendation to ensure a sufficient margin by applying a properly specified margin test. These particularly include our proposal to put in place an SMP condition on BT requiring it to set the VULA charge so as to maintain a minimum VULA margin, as set out in Section 4. We also set out the proposed approach we would follow in Section 5 and in Section 6 the detail of the proposed treatment of BT's costs and revenues we are likely to make when assessing the VULA margin, including the ACL and floor on unit bandwidth costs we would use in the assessment.

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[460] Consistent with this, section 4A of the CA03 requires Ofcom to take due account of all such Recommendations of the European Commission when carrying out its functions.

[461] EC, *Commission recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA) (2010/572/EU)*, OJ L251/35, 20 September 2010, http://www.eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:251:0035:0048:EN:PDF.

7.19 Section 5 also details the appropriate conceptual approach for assessing costs (i.e. imputation test)[462], namely an adjusted EEO approach. We note that Recital 26 states that an "*equally efficient competitor test*" or "*reasonably efficient test*" can be used with the latter normally being more appropriate:

> *"[i]n the specific context of ex ante price controls aiming to maintain effective competition between operators not benefiting from the same economies of scale and scope and having different unit network costs*."

7.20 We set out in Section 5 the reasoning for our proposal to adopt an adjusted EEO approach rather than an EEO or REO approach.[463]

7.21 Finally, we note that the remedies (i.e. remedial mechanisms) available to Ofcom are already clearly set out in the CA03 and we discuss the application of these further in in Section 4.[464]

The Costing and Non-discrimination Recommendation

7.22 The Costing and Non-discrimination Recommendation[465] concerns the application of non-discrimination, price control, cost accounting obligations and sets out a common approach for NRAs for promoting their consistent and effective implementation. It provides further guidance on the regulatory principles established by the NGA Recommendation, in particular the conditions under which regulation of wholesale access prices should or should not be applied.[466]

7.23 We consider that overall our proposals are consistent with the Costing and Non-discrimination Recommendation for the reasons set out below. To the extent that our proposals may differ from that recommendation, we set out our reasoning.

7.24 Article[467] 49 provides:

> *"The NRA should decide not to impose or maintain regulated wholesale access prices on passive NGA wholesale inputs or non-physical or virtual wholesale inputs offering equivalent functionalities, pursuant to Article 13 of Directive 2002/19/EC, where - in the same measure - the NRA imposes on*

[462] See paragraphs 5.24-5.45.

[463] We note that Recital 26 did not refer to adjustments to reflect differences in customer lifetimes. However, adjusting customer lifetimes where differences are a consequence of BT's historic position appears consistent with the approach to economies of scale and scope in these documents, i.e. that such adjustments can be appropriate in order to support competition.

[464] See paragraph 4.39.

[465] EC, *Commission recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment*, C(2013) 5761, 11 September 2013, http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=2735.

[466] We note that we provisionally decided not to apply cost orientation or cost-based price controls on VULA in Volume 2 of the draft 2014 FAMR Statement and that we will publish our final conclusions in the 2014 FAMR Statement in June 2014. We undertake the following assessment without prejudice to the conclusions we will set out in that statement.

[467] Although these are referred to as "*Points*" in the Costing and Non-discrimination Recommendation, we use the term "*Article*" in this document.

the SMP operator non-discrimination obligations concerning passive NGA wholesale inputs or non-physical or virtual wholesale inputs offering equivalent functionalities, pursuant to Article 10 of Directive 2002/19/EC, that are consistent with:

(a) EoI, following the procedure in point 51;

(b) obligations relating to technical replicability under the conditions set out in points 11 to 18 when EoI is not yet fully implemented; and

(c) obligations relating to the economic replicability test as recommended in point 56

under the condition that:

(d) the NRA can show that a legacy access network product offered by the SMP operator subject to a cost-oriented price control obligation in accordance with the costing methodology specified in points 30 to 37 or 40 constitutes a copper anchor and thus exercises a demonstrable retail price constraint; or

(e) the NRA can show that operators providing retail services over one or more alternative infrastructures that are not controlled by the SMP operator can exercise a demonstrable retail price constraint. For the purposes of this condition, 'control' should be interpreted in accordance with competition law principles."

7.25 We are proposing not to regulate wholesale NGA access prices and our provisional decision on this, EOI, technical replicability and retail price constraints (including the application of a price control to the legacy access network product, LLU), is set out in Sections 12 and 13 of Volume 1 of the draft 2014 FAMR Statement.

7.26 On economic replicability, Article 56 sets out the basic requirement for the test:

"An NRA is deemed to impose the economic replicability obligations … when it includes the elements listed in points (a), (b) and (c), which have been subject to a consultation under Article 7 of Directive 2002/21/EC, in the same final measure in which it decides not to impose or maintain regulated wholesale access prices on NGA wholesale inputs."

7.27 We will publish our 2014 FAMR Statement in June 2014. This will contain our decision with respect to how we regulate wholesale VULA prices. As we are conducting a further consultation on our approach to the VULA margin, launched in light of significant stakeholder feedback on the issue, it will not be possible to conclude on this at the same time as we publish our 2014 FAMR Statement. We do not consider it justified to further delay the 2014 FAMR Statement to align with our VULA margin conclusion as that would prevent the entry into force of our other FAMR remedies, including LLU WLR charge controls and Quality of Service measures. We will aim to reach a decision on the proposals set out in this consultation as soon as is practicable after the 2014 FAMR Statement.

Details of the test

7.28 The first specific requirement identified in Article 56(a) relates to the details of the *ex ante* economic replicability test that should specify as a minimum:

> *"(a) The details of the ex ante economic replicability test that the NRA will apply, which should specify, at least the following parameters in accordance with the guidance provided in Annex II below:*
>
> > *(i) the relevant downstream costs taken into account;*
> >
> > *(ii) the relevant cost standard;*
> >
> > *(iii) the relevant regulated wholesale inputs concerned and the relevant reference prices;*
> >
> > *(iv) the relevant retail products; and*
> >
> > *(v) the relevant time period for running the test."*

7.29 We deal with each of these in turn, noting further detail on each is provided in Annex II of the Recommendation:

(i) the relevant downstream costs taken into account

7.30 In Section 3, we set out that our overall regulatory aim should be ensuring that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. We state that we consider that this aim is best achieved in this review period by ensuring that BT does not set the VULA margin such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) from being able to profitably match BT's retail superfast broadband offers. In Section 5, we explain that an adjusted EEO approach that is based on BT's costs but with adjustments to reflect advantages that BT might have, would be consistent with our objective.

7.31 Our guidance sets out that the VULA margin assessment should be based on BT's audited accounts, however there are two adjustments we propose to make under our adjusted EEO approach. The first is an adjustment to BT's customer lifetimes, in line with "*(v) the relevant time period for conducting the test*", as discussed from paragraph 7.37. The second ensures that the unit bandwidth costs included within the margin assessment should not fall below the unit bandwidth costs of other relevant operators, which reflects the potential scale and scope of BT's network, as discussed from paragraph 6.59.

7.32 Accordingly, our approach is consistent with an adjusted EEO test as required under (i), i.e. to estimate downstream costs on the basis of the costs of the SMP operator's downstream business along with adjustments for scale to ensure that economic replicability is a realistic prospect.

(ii) the relevant cost standard

7.33 Section 5[468] and the proposed SMP condition in Annex 5 set out that we would use a LRIC+ cost standard, which we note is consistent with Annex II of the Recommendation.

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[468] See from paragraph 5.46.

(iii) the relevant regulated wholesale inputs concerned and the relevant reference prices

7.34 Sections 5[469] and the proposed SMP condition in Annex 5 set out the wholesale input (i.e. VULA and WLR) that should be used in the test. The test takes into account the cost BT incurs in consuming VULA and WLR, the prices for which are published on its website (and charge controlled in the case of WLR) and offered to other CPs on an EOI basis.[470]

7.35 We note that Annex II of the Recommendation states that *"NRAs should give due weight to the presence of volume discounts and/or long-term access pricing agreements"*. To our knowledge, BT is not currently providing volume discounts or similar to any CP (including itself). If it were to, then we would consider the impact of these when determining how to treat regulated wholesale inputs as part of our assessment of the VULA margin.

(iv) the relevant retail products

7.36 We note that Annex II of the Recommendation states *"NRAs should assess the most relevant retail products including broadband services ('flagship products') offered by the SMP operator"*. We explain in Section 5[471] why we have proposed that it is appropriate in the context of the WLA market in the UK excluding the Hull Area to assess compliance on the entire fibre portfolio, rather than on the basis of "*fibre product groups*" or "*individual products*" (i.e. "*flagship products*").

(v) the relevant time period for running the test

7.37 Annex II of the Recommendation states that profitability should be assessed "*on the basis of a multi-period analysis, such as the discounted cash flow (DCF) approach*". We consider that our proposed approach in Section 6 is consistent with this, in that it would assess whether the discounted value of the ongoing margin is sufficient to cover the net upfront costs.[472] It also states that the relevant period for the assessment "*should be set in accordance with the estimated average customer lifetime*" and that in estimating this, due account should be taken of "*the different characteristics and competitive conditions of the provision of services over NGA networks compared to the legacy copper network*".

7.38 We propose in Section 6 that the ACL is the relevant time period over which we would conduct our assessment. However, Section 6 explains that we do not consider that current data on superfast churn rates is likely to be an appropriate estimator for future superfast ACL and therefore we have chosen to use standard broadband churn instead.[473] In doing so we have considered whether there are differences such as product characteristics between copper and fibre broadband. Section 6 also sets out why we consider it appropriate to adjust BT's ACL by reducing it to account for

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[469] See paragraph 5.3-5.10 and 5.115-5.130.
[470] Thereby fulfilling the provision in Annex II of the Recommendation that *"[t]hese wholesale access prices should be equivalent to the prices that the SMP operator charges to its own retail arm"*.
[471] See paragraphs 5.89-5.114.
[472] See paragraph 6.12.
[473] See paragraphs 6.228-6.229.

the material difference in ACLs that we observe between BT and other CPs using its network.[474]

Procedure for the test

7.39 *Part (b) of Article 56 states:*

> *"(b) The procedure that the NRA will follow to conduct an ex ante economic replicability test, specifying that the NRA can start the procedure on its own initiative or at the request of third parties, at any time but no later than three months after the launch of the relevant retail product, and will conclude it as soon as possible and in any case within four months from starting the procedure. The procedure should make clear that the ex ante economic replicability test … is different from and without prejudice to margin squeeze tests that may be conducted ex post pursuant to competition law."*

7.40 In Section 4, under our proposed Option (i), we set out that we would conduct a high level check of BT's compliance every six months and why we consider this to be the most appropriate approach.[475] As we propose to undertake the assessment on BT's entire superfast portfolio this enables the review of all BT's products on a regular basis, rather than being contingent on individual product launches. This high level check is complemented by the ability to undertake detailed assessments of the margin at any time. Such investigations can be conducted at our own initiative or in responses to disputes brought by third parties where we are required to resolve disputes within four months (except in exceptional circumstances).

Enforcement

7.41 Part (c) of Article 56 states:

> *"(c) The remedy it will adopt when the test is not passed using the enforcement tools provided under the Regulatory Framework to ensure compliance, including where appropriate a request for the SMP operator to address the economic replicability issue in accordance with the NRA's guidance and on the basis of the results of the ex ante economic replicability test performed. Where the NRA considers that a retail offer which is not economically replicable would significantly harm competition, it should make use of its powers under Article 10 of Directive 2002/20/EC to request the SMP operator to cease or delay the provision of the relevant retail offer pending compliance with the requirement for economic replicability."*

7.42 Article 57 states:

> *"Once the measure has been adopted, the NRA should make public on its website the roadmap and the details of the ex ante economic replicability test as part of the final measure. The NRA should consider using all the enforcement tools provided under the Regulatory Framework to ensure compliance with all aspects of the imposed measures."*

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[474] See paragraphs 6.232-6.239.
[475] See from paragraph 4.78.

7.43 In order for the economic replicability test to be effective going forward, we consider that it is necessary to be able to assess the VULA margin on an *ex ante* basis at any point over the next three years. As set out in Section 4, and specific to the conditions of the WLA market in the UK, we do not consider that *ex post* competition law would address our aim of ensuring that BT does not set the VULA margin such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) from being able to profitably match BT's retail superfast broadband offers.[476]

7.44 Therefore, in order to ensure that operators are able to replicate BT's offers, as we have determined on an *ex ante* basis, both at product launch and at any other time during the three year period, we consider that it is necessary to include within an SMP condition a requirement on BT to set the VULA charge so as to maintain a minimum VULA margin at all times during the market review period. Were the requirement to only apply on product launch, there could be no *ex ante* restriction on BT from subsequently setting the VULA charge so that the VULA margin fell below the minimum requirement despite this requirement being met at product launch. We consider that this is consistent with the overall aims of an economic replicability test and ensuring that it remains effective over the period of the review. We note that failure to comply with SMP conditions can result in substantial penalties, which we discuss further in Section 4.[477]

<u>Impact on investment</u>

7.45 Finally, we note that Annex II states *"When setting the parameters of the ex ante economic replicability test, NRAs should ensure that the SMP operator is not put at a disadvantage vis-à-vis access seekers regarding the sharing of the investment risk".* We set out in Section 3 that we consider that Option 2[478] (on which our parameters are based) is unlikely to have a significant negative impact on investment incentives in this review period.[479]

The BEREC Common Position

7.46 The BEREC Common Position[480] on remedies in the market for wholesale (physical) network infrastructure access (including shared or fully unbundled access) sets out

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[476] See paragraph 4.40-4.42.
[477] See paragraph 4.39.
[478] i.e. ensuring that BT does not set the VULA margin such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) being able to profitably match BT's retail superfast broadband offers.
[479] See paragraphs 3.91-3.94.
[480] BoR (12) 127, BEREC, *BEREC common position on best practice in remedies on the market for wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location imposed as a consequence of a position of significant market power in the relevant market*, 8 December 2012, http://www.berec.europa.eu/files/document_register_store/2012/12/20121208163628_BoR_(12)_127__BEREC__COMMON_POSITION_ON_BEST_PRACTICE_IN_REMEDIES_ON_THE_MARKET_FOR_WHOLESALE.pdf.

"*Best Practices*" that NRAs should follow in regulating this market.[481] BP49 (and the similar BP21) relates to obligations NRAs should put in place to prevent SMP operators from engaging in a "*margin squeeze*". We consider that our proposals are consistent with the BEREC Common Position as it relates to the margin. Below we set out how we are consistent with each aspect of the BEREC Common Position that relates to the margin.

7.47 BP49a states that:

> *"In considering the minimum acceptable margin, NRAs need to strike a balance between short term efficiency, derived from the economies of scale and scope realisable by an SMP player, and the longer term benefits (assessed on a realistic basis) of a more competitive downstream market, brought about by new entrants which should, in due course and to a reasonable extent, be able to match those economies."*

7.48 In Section 3[482], consistent with BP49a, we assess the trade-off between effectiveness and costs (including on efficiency) of our preferred method[483] for achieving our overall regulatory aim.[484]

7.49 BP49b sets out two possible imputation tests (EEO and REO) and BP49c states that NRAs should evaluate which is better suited to attain the regulatory objectives pursued, which may include a combination of both EEO and REO. Consistent with these, Section 5 sets out the reasoning for our proposal to adopt an adjusted EEO test.

7.50 In setting out our overall objective in Section 3 and our approach to the VULA margin assessment in Sections 5 and 6 respectively, our proposals fulfil BP49d (and the similar BP21a) which states that the chosen principle and methodology for the assessment of a margin squeeze should be made known in advance. BP21b sets out that SMP operators should amend the existing wholesale product where "*economic replicability*" cannot be achieved (i.e. where the margin is unduly low). We have addressed our approach to enforcement in the case of non-compliance in paragraph 7.44 above.

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[481] Note that recommendation BP49 in the BEREC Common Position (which relates to "*obligations preventing SMP operators from engaging in margin squeeze*") is identical to recommendation BP42 in the BEREC Common Position in relation to WBA (BoR (12) 128 BEREC, *BEREC common position on best practice in remedies on the market for wholesale broadband access (including bitstream access) imposed as a consequence of a position of significant market power in the relevant market*, 8 December 2012, http://www.berec.europa.eu/files/document_register_store/2012/12/BoR_(12)_128_CP_WBA.pdf). Consistency with BP49 of the former document thus implies consistency with BP42 of the latter.

[482] See paragraph 3.95-3.101.

[483] Namely ensuring that BT does not set the VULA margin such that it prevents an operator that has slightly higher costs than BT (or some other slight commercial drawback relative to BT) being able to profitably match BT's retail superfast broadband offers (Option 2). See paragraph 3.102.

[484] Namely ensuring that BT cannot use its SMP in the WLA market to set the VULA margin over the period of the market review such that it causes retail competition in superfast broadband to be distorted. See paragraph 3.38.

7.51 BP49e and BP49f refer to the ability for cost-based access to help, but not remove, concerns about margin squeeze. We do not consider this issue in this consultation, however we note that we provisionally decided not to set a cost-based charge control or require cost orientation for VULA in the draft 2014 FAMR Statement.

Annex 1

Responding to this consultation

How to respond

A1.1 Ofcom invites written views and comments on the issues raised in this document, to be made **by 5pm on 28 August 2014**.

A1.2 Ofcom strongly prefers to receive responses using the online web form at http://stakeholders.ofcom.org.uk/consultations/VULA-margin/howtorespond/form, as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response cover sheet (see Annex 3), to indicate whether or not there are confidentiality issues. This response coversheet is incorporated into the online web form questionnaire.

A1.3 For larger consultation responses - particularly those with supporting charts, tables or other data - please email vulamargin@ofcom.org.uk attaching your response in Microsoft Word format, together with a consultation response coversheet.

A1.4 Responses may alternatively be posted or faxed to the address below, marked with the title of the consultation.

Mr David du Parc Braham
Floor 4
Riverside House
2A Southwark Bridge Road
London SE1 9HA

Fax: 020 7981 3417

A1.5 Note that we do not need a hard copy in addition to an electronic version. Ofcom will acknowledge receipt of responses if they are submitted using the online web form but not otherwise.

A1.6 It would be helpful if your response could include direct answers to the questions asked in this document, which are listed together at Annex 4. It would also help if you can explain why you hold your views and how Ofcom's proposals would impact on you.

Further information

A1.7 If you want to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact David du Parc Braham on 020 7981 3856.

Confidentiality

A1.8 We believe it is important for everyone interested in an issue to see the views expressed by consultation respondents. We will therefore usually publish all responses on our website, www.ofcom.org.uk, ideally on receipt. If your response contains confidential information then please provide two versions: a non-confidential version suitable for publication that marks confidential information that has been redacted as “[✂]” and a confidential version with confidential information marked as “[confidential information]”.

A1.9 If someone asks us to keep part or all of a response confidential, we will treat this request seriously and will try to respect this. But sometimes we will need to publish all responses, including those that are marked as confidential, in order to meet legal obligations.

A1.10 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use. Ofcom’s approach on intellectual property rights is explained further on its website at http://www.ofcom.org.uk/about/accoun/disclaimer/

Next steps

A1.11 Ofcom intends to publish its final statement on the Fixed Access Market Reviews in June 2014. Ofcom then intends to publish the 2014 VULA Margin Statement (the conclusion of the matters considered in this consultation) in Q4 2014.

A1.12 Please note that you can register to receive free mail Updates alerting you to the publications of relevant Ofcom documents. For more details please see: http://www.ofcom.org.uk/static/subscribe/select_list.htm

Ofcom's consultation processes

A1.13 Ofcom seeks to ensure that responding to a consultation is easy as possible. For more information please see our consultation principles in Annex 2.

A1.14 If you have any comments or suggestions on how Ofcom conducts its consultations, please call our consultation helpdesk on 020 7981 3003 or e-mail us at consult@ofcom.org.uk . We would particularly welcome thoughts on how Ofcom could more effectively seek the views of those groups or individuals, such as small businesses or particular types of residential consumers, who are less likely to give their opinions through a formal consultation.

A1.15 If you would like to discuss these issues or Ofcom's consultation processes more generally you can alternatively contact Graham Howell, Secretary to the Corporation, who is Ofcom’s consultation champion:

Graham Howell
Ofcom
Riverside House
2a Southwark Bridge Road
London SE1 9HA

Tel: 020 7981 3601

Email Graham.Howell@ofcom.org.uk

Annex 2

Ofcom’s consultation principles

A2.1 Ofcom has published the following seven principles that it will follow for each public written consultation:

Before the consultation

A2.2 Where possible, we will hold informal talks with people and organisations before announcing a big consultation to find out whether we are thinking in the right direction. If we do not have enough time to do this, we will hold an open meeting to explain our proposals shortly after announcing the consultation.

During the consultation

A2.3 We will be clear about who we are consulting, why, on what questions and for how long.

A2.4 We will make the consultation document as short and simple as possible with a summary of no more than two pages. We will try to make it as easy as possible to give us a written response. If the consultation is complicated, we may provide a shortened Plain English Guide for smaller organisations or individuals who would otherwise not be able to spare the time to share their views.

A2.5 We will consult for up to 10 weeks depending on the potential impact of our proposals.

A2.6 A person within Ofcom will be in charge of making sure we follow our own guidelines and reach out to the largest number of people and organisations interested in the outcome of our decisions. Ofcom’s ‘Consultation Champion’ will also be the main person to contact with views on the way we run our consultations.

A2.7 If we are not able to follow one of these principles, we will explain why.

After the consultation

A2.8 We think it is important for everyone interested in an issue to see the views of others during a consultation. We would usually publish all the responses we have received on our website. In our statement, we will give reasons for our decisions and will give an account of how the views of those concerned helped shape those decisions.

Annex 3

Consultation response cover sheet

A3.1 In the interests of transparency and good regulatory practice, we will publish all consultation responses in full on our website, www.ofcom.org.uk.

A3.2 We have produced a coversheet for responses (see below) and would be very grateful if you could send one with your response (this is incorporated into the online web form if you respond in this way). This will speed up our processing of responses, and help to maintain confidentiality where appropriate.

A3.3 The quality of consultation can be enhanced by publishing responses before the consultation period closes. In particular, this can help those individuals and organisations with limited resources or familiarity with the issues to respond in a more informed way. Therefore Ofcom would encourage respondents to complete their coversheet in a way that allows Ofcom to publish their responses upon receipt, rather than waiting until the consultation period has ended.

A3.4 We strongly prefer to receive responses via the online web form which incorporates the coversheet. If you are responding via email, post or fax you can download an electronic copy of this coversheet in Word or RTF format from the ‘Consultations’ section of our website at www.ofcom.org.uk/consult/.

A3.5 Please put any parts of your response you consider should be kept confidential in a separate annex to your response and include your reasons why this part of your response should not be published. This can include information such as your personal background and experience. If you want your name, address, other contact details, or job title to remain confidential, please provide them in your cover sheet only, so that we don’t have to edit your response.

Cover sheet for response to an Ofcom consultation

BASIC DETAILS

Consultation title:

To (Ofcom contact):

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

CONFIDENTIALITY

Please tick below what part of your response you consider is confidential, giving your reasons why

Nothing	☐	Name/contact details/job title	☐
Whole response	☐	Organisation	☐
Part of the response	☐	If there is no separate annex, which parts?	

If you want part of your response, your name or your organisation not to be published, can Ofcom still publish a reference to the contents of your response (including, for any confidential parts, a general summary that does not disclose the specific information or enable you to be identified)?

DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response that Ofcom can publish. However, in supplying this response, I understand that Ofcom may need to publish all responses, including those which are marked as confidential, in order to meet legal obligations. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

Ofcom seeks to publish responses on receipt. If your response is non-confidential (in whole or in part), and you would prefer us to publish your response only once the consultation has ended, please tick here. ☐

Name | Signed (if hard copy)

Annex 4

Consultation questions

Provisional no material change assessment

Q2.1 Do you consider that there has been a material change in circumstances in the WLA market since the 2014 FAMR Statement? Please provide supporting evidence as necessary.

Overall regulatory objective

Q3.1 Do you agree with our proposed regulatory objective for the VULA margin? Please provide reasons in support of your view.

Form of the VULA margin requirement and compliance monitoring

Q4.1 Do you agree with the proposed form of the VULA margin requirement and associated compliance monitoring? Please provide reasons in support of your views.

Approach to VULA margin assessment

Q5.1 Do you agree with our approach to the VULA margin assessment? In particular, do you agree that we should:

(a) adopt an adjusted EEO approach?
(b) assess costs on a LRIC+ basis?
(c) assess costs and revenues at the level of the entire portfolio of superfast broadband packages marketed at residential consumers and taking into account the components of these packages?

Please provide reasons in support of your view.

Detailed discussion of treatment of costs and revenues

Q6.1 Do you agree with the details of how we propose to treat costs and revenues? In particular, do you agree:

(a) with our draft guidance, particularly the proposed guidance in relation to BT Sport?
(b) with the adjustment to average customer lifetimes in the proposed SMP condition?
(c) with the floor on unit bandwidth costs in the proposed SMP condition?
(d) that overall our proposals are likely to meet our objective?

Please provide reasons in support of your view.

Annex 5

Draft Legal Instrument

NOTIFICATION OF PROPOSALS UNDER SECTION 48A OF THE COMMUNICATIONS ACT 2003

Proposals for the setting of SMP services conditions in relation to BT under section 45 of the Communications Act 2003

Background

1. On 3 July 2013, OFCOM published a consultation document entitled "*Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30 – Consultation on the proposed markets, market power determinations and market remedies*" (the "**FAMR Consultation**"). Part I of Annex 11 to the FAMR Consultation set out the notification under sections 48A and 80A of the Act in which OFCOM proposed to:

    - identify certain markets;
    - make market power determinations; and
    - set SMP services conditions,

    (the "**FAMR Notification**").

2. In relation to BT, OFCOM proposed in the FAMR Notification that BT has significant market power in, among others, the market for the supply of copper-loop based, cable-based and fibre-based wholesale local access at a fixed location in the United Kingdom excluding the Hull Area over the period of the review undertaken in the FAMR Consultation.

3. As a result of the proposed market power determination in the market listed above, OFCOM proposed in the FAMR Notification to set a number of SMP services conditions and directions on BT in that market, including an obligation to supply network access in the specific form of Virtual Unbundled Local Access.

4. In order to address the risk of adverse effects arising from price distortion through BT imposing a price squeeze in relation to network access in the specific form of Virtual

Unbundled Local Access, OFCOM also proposed the imposition of an SMP services condition requiring BT to offer such access on fair and reasonable terms, conditions and charges. OFCOM proposed that this SMP services condition should be supported by guidance on how OFCOM would interpret this requirement in relation to the appropriate Virtual Unbundled Local Access margin.

5. The period within which representations could be made to OFCOM about its proposals in the FAMR Consultation ended on 25 September 2013.

6. On 16 January 2014, and following consideration of other responses to the FAMR Consultation, OFCOM published a further consultation document entitled "*Fixed access market reviews: Further consultation on notification periods, compliance with requirements on the VULA margin, and approach to pricing for TRCs and SFIs*" (the "**January 2014 Consultation**"). Annex 7 of the January 2014 Consultation set out the notification under section 48A of the Act in which OFCOM set out for domestic consultation further revised proposals including a requirement on BT to provide information necessary to monitor its compliance with this obligation in respect of the Virtual Unbundled Local Access margin.

7. OFCOM invited responses to the January 2014 Consultation by 17 February 2014.

8. OFCOM received representations from several respondents to the proposals set out in each of the FAMR Consultation and the January 2014 Consultation. In light of OFCOM's consideration of those representations, in this notification OFCOM sets out its further proposals in relation to the SMP conditions proposed to be set in respect of BT in the market referred to at paragraph 2 above.

Summary of additional proposals in this notification

9. OFCOM proposes to be set for BT:

   a. a new SMP services condition 14 (*Virtual Unbundled Local Access margin control*); and

   b. certain amendments to the SMP services condition 1 (*Network access on reasonable request*) proposed in the FAMR Notification.

Proposed SMP services condition 14 (*Virtual Unbundled Local Access margin control*)

10. OFCOM hereby gives notice of its proposals, in accordance with section 48A of the Act, in relation to the market for the supply of copper-loop based, cable-based and

fibre-based wholesale local access at a fixed location in the United Kingdom excluding the Hull Area to set on BT the proposed SMP services condition 14, which is set out in Schedule 1 to this notification, pursuant to their powers under section 87(9) of the Act.

11. It is proposed that this condition will take effect from the end of the month following the date of any notification under section 48(1) of the Act adopting the proposals set out in this notification.

12. The effect of, and the reasons for making, the proposal set out above at paragraph 10 above are set out in the consultation document accompanying this notification.

Proposed amendments to proposed SMP services condition 1 (*Network access on reasonable request*)

13. OFCOM hereby gives notice of its proposal to amend proposed SMP services condition 1.3 set out in the FAMR Notification by replacing the words “Where any of conditions 6 or 7 apply” with the words “Where any of conditions 6, 7 or 14 apply”. Consequently, the FAMR Notification should be read accordingly.

14. The effect of, and the reasons for making, the amended proposal set out above at paragraph 13 are set out in the consultation document accompanying this notification.

Ofcom’s duties and legal tests

15. OFCOM considers that the proposals set out in this notification comply with all applicable legal tests, including the requirements of sections 45 to 47, 87 and 88 of the Act as appropriate and relevant to them.

16. In making the proposals referred to in this notification, OFCOM has:

    a. considered and acted in accordance with its general duties set out in section 3 of the Act and the six Community requirements in section 4 of the Act;

    b. taken due account of all applicable recommendations issued by the European Commission in accordance with section 4A of the Act; and

    c. taken utmost account of any relevant opinion, recommendation, guidance advice or regulatory practice adopted by BEREC in accordance with Article 3(3) of Regulation (EC) No 1211/2009.

Making representations

17. Representations may be made to OFCOM about any of the proposals set out in this notification and the accompanying consultation by no later than 28 August 2014.

18. A copy of this notification and the accompanying consultation document have been sent to the Secretary of State in accordance with sections 48C(1) of the Act.

Interpretation

19. For the purposes of interpreting this notification:

   a. except insofar as the context otherwise requires, words or expressions shall have the meaning assigned to them below in paragraph 20 or in the schedule to this notification, and otherwise any word or expression shall have the same meaning as it has in the Act;

   b. headings and titles shall be disregarded;

   c. expressions cognate with those referred to in this notification shall be construed accordingly; and

   d. the Interpretation Act 1978 (c. 30) shall apply as if this notification were an Act of Parliament.

20. In this notification:

   a. “**Act**” means the Communications Act 2003 (c.21), as amended;

   b. “**BT**” means British Telecommunications plc, whose registered company number is 1800000 and any British Telecommunications plc subsidiary or holding company, or any subsidiary of that holding company, all as defined in section 1159 of the Companies Act 2006;

   c. “**FAMR Consultation**” means the consultation described in paragraph 1 above;

   d. “**FAMR Notification**” means the notification described in paragraph 1 above;

   e. "**Hull Area**" means the area defined as the 'Licensed Area' in the licence granted on 30 November 1987 by the Secretary of State under section 7 of the Telecommunications Act 1984 to Kingston upon Hull City Council and Kingston Communications (Hull) plc;

f. “**January 2014 Consultation**” means the consultation described in paragraph 6 above;

g. “**Local Serving Exchange**” means the site of an operational building of BT, where interconnection is made available by BT to a Third Party for Network Termination Points served by that site for the provision of Virtual Unbundled Local Access;

h. “**Network Termination Point**” means the physical point at which a Relevant Subscriber is provided with access to a public electronic communications network;

i. "**OFCOM**" means the Office of Communications as established pursuant to section 1(1) of the Office of Communications Act 2002 (c. 11);

j. “**Point of Connection**” means a point at which BT’s electronic communications network and a Third Party’s electronic communications network are connected;

k. “**Relevant Subscriber**” means any person who is party to a contract with a provider of public electronic communications services for the supply of such services;

l. “**Third Party**” means a person providing a public electronic communications service or a person providing a public electronic communications network;

m. "**United Kingdom**" has the meaning given to it in the Interpretation Act 1978 (c. 30); and

n. “**Virtual Unbundled Local Access**” means network access comprising of a virtual circuit between a Point of Connection at the Local Serving Exchange and a Network Termination Point, which circuit provides such specified capacity as is agreed between BT and the Third Party for the Third Party’s exclusive use.

21. Schedule 1 forms part of this notification.

Signed

D. Clarkson.

David Clarkson

Competition Policy Director

A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2002

19 June 2014

Schedule 1: SMP services condition 14 - Virtual Unbundled Local Access margin control

Condition 14 – Virtual Unbundled Local Access margin control

14.1 This condition applies to Virtual Unbundled Local Access provided by the Retail Divisions. Unless OFCOM otherwise consents in writing, the Dominant Provider must set the charge for Virtual Unbundled Local Access provided by the Retail Divisions in accordance with conditions 1 and 2 so that a Minimum Margin is maintained.

14.2 For the purposes of this condition 14, a Minimum Margin is maintained if, during any Assessment Period:

$$P - (W + DC) \geq UC - UR$$

Where:

P is the total revenue generated by the Retail Divisions where such revenue is associated with the supply of VULA-Based Broadband Packages relevant to the Assessment Period (excluding revenue referred to in UR) (the "**Base Revenue**"), as Projected Forward;

W is the total wholesale charges levied by Openreach for both Virtual Unbundled Local Access and Wholesale Analogue Line Rental for the purpose of the supply of VULA-Based Broadband Packages by the Retail Divisions relevant to the Assessment Period (the "**Base Charges**"), as Projected Forward;

DC is the total long-run incremental costs (including the Relevant Bandwidth Costs for the Relevant Year) incurred by the Dominant Provider where such costs are associated with the supply of VULA-Based Broadband Packages by the Retail Divisions relevant to the Assessment Period (excluding those costs and charges referred to in W and UC) plus an appropriate mark up for the recovery of common costs including an appropriate return on capital employed (the "**Base Costs**"), as Projected Forward;

UR is the total revenue generated by the Retail Divisions where such revenue is associated with the acquisition of subscribers to VULA-Based Broadband Packages relevant to the Assessment Period; and

UC is the total long-run incremental costs incurred by the Retail Divisions where such costs are associated with the acquisition of subscribers to VULA-Based Broadband Packages relevant to the Assessment Period plus an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

For the purposes of this condition 14.2, any costs, charges or revenue referred to as being Projected Forward shall be calculated by:

(i) dividing the Base Revenue, Base Charges or Base Costs (as applicable) by the number of calendar days in the relevant Assessment Period (resulting in the "**Daily Average**");

(ii) multiplying the Daily Average by 30.4375 (resulting in the "**Monthly Average**"); and

(iii) then applying the following formula:

$$\sum_{t=0}^{N} \frac{M_t}{(1+i)^t}$$

Where:

t is a number from 0 to N for each of the N months;

i is the appropriate cost of capital (expressed as a monthly figure), as determined by OFCOM from time to time;

N is 60; and

M_t means the Monthly Average.

14.3 The Dominant Provider must record, maintain and supply to OFCOM in an electronic format (including in any such presentational form or arrangement (including as to the level of disaggregation) as OFCOM may direct from time to time), no later than one month after the end of each Relevant Period, the data necessary for OFCOM to monitor compliance of the Dominant Provider with condition 14.1 above in respect of Virtual Unbundled Local Access. This data must include:

(a) P;

(b) W;

(c) DC;

(d) UR;

(e) UC; and

(f) such other data as OFCOM may direct from time to time,

in respect of the preceding Relevant Period and/or such other period as OFCOM may direct from time to time.

14.4 In this condition 14:

(a) “**Assessment Period**” means any period over which OFCOM makes an assessment under this condition 14;

(b) “**Dominant Provider**” means BT;

(c) “**enterprise**” shall have the meaning given to it in the Enterprise Act 2002 (c.40);

(d) “**Exchange Line**” means apparatus comprised in the Dominant Provider’s electronic communications network and installed for the purpose of connecting a telephone exchange run by the Dominant Provider to a Network Termination Point comprised in Network Termination and Testing Apparatus installed by the Dominant Provider for the purpose of providing electronic communications services at the premises at which the Network Termination and Testing Apparatus is located;

(e) “**First Relevant Year**” means the period beginning on [*Insert Date*] 2014 and ending on 31 March 2015;

(f) “**Minimum Margin**” has the meaning given to it in condition 14.2;

(g) “**Network Termination and Testing Apparatus**” means an item of apparatus comprised in an electronic communications network installed in a fixed position on served premises which enables:

(i) approved apparatus to be readily connected to, and disconnected from, the network;

(ii) the conveyance of signals between such approved apparatus and the network;

(iii) the due functioning of the network to be tested, but the only other functions of which, if any, are:

1. to supply energy between such approved apparatus and the network;
2. to protect safety or security of the operation of the network; or
3. to enable other operations exclusively related to the running of the network to be performed or the due functioning of any system to which the network is or is to be connected to be tested (separately or together with the network);

(h) “**New Subscribers**” means those end-users that do not subscribe to any VULA-Based Broadband Package as at the commencement of the relevant Assessment Period;

(i) “**Openreach**” means the access services division of the Dominant Provider established under section 5 of the undertakings given by the Dominant Provider to OFCOM in accordance with section 154 of the Enterprise Act 2002, accepted by OFCOM on 22 September 2005;

(j) “**Ordinary Maintenance**” means maintenance which is part of the service provided by the Dominant Provider in consideration of the charge for an Exchange Line and includes normal fault repair, as defined in the Dominant Provider’s standard terms and conditions;

(k) “**Plusnet**” means Plusnet Plc, whose registered company number is 03279013;

(l) “**Projected Forward**” has the meaning given to it in condition 14.2;

(m) “**Relevant Bandwidth Costs**” means whichever is the higher of either:

(i) in relation to the First Relevant Year, the Dominant Providers’ Unit Bandwidth Costs for that Relevant Year or £[£7.95] per Mbit/s;

(ii) in relation to the Second Relevant Year, the Dominant Providers’ Unit Bandwidth Costs for that Relevant Year or £[6.36] per Mbit/s; and

(iii) in relation to the Third Relevant Year, the Dominant Providers’ Unit Bandwidth Costs for that Relevant Year or £[5.09] per Mbit/s;

(n) “**Relevant Period**” means:

(i) the period between [*date of entry into force*] 2014 and [*one month following date of entry into force*] 2014 (inclusive);

(ii) the period between [*day after the month following date of entry into force*] 2014 and 31 March 2015 (inclusive);

(iii) after the period referred to in (ii) above, the following periods of six months beginning either (as applicable) on:

a. 1 April and ending on 30 September; or

b. 1 October and ending on 31 March;

(o) “**Relevant Year**” means each of the following three periods:

(i) the First Relevant Year;

(ii) the Second Relevant Year; and

(iii) the Third Relevant Year;

(p) “**Retail Divisions**” means the enterprise of the Dominant Provider known as ‘BT Consumer’ (and which includes Plusnet) as at the date of the entry into force of this condition or such other enterprise or enterprises that may replace or succeed BT Consumer from time to time;

(q) “**Second Relevant Year**” means the period of 12 months beginning on 1 April

2015 and ending on 31 March 2016;

(r) “**Third Relevant Year**” means the period of 12 months beginning on 1 April 2016 and ending on 31 March 2017;

(s) “**Unit Bandwidth Costs**” means the average cost of providing 1Mbit/s of capacity between the Local Serving Exchange and the internet relevant to the Assessment Period;

(t) “**VULA-Based Broadband Packages**” means all products, services or bundles of products or services (including, but not limited to, telephony and television services (including content)) offered by the Dominant Provider during the relevant Assessment Period through its Retail Divisions to New Subscribers which include the provision of a broadband connection, where the Dominant Provider uses Virtual Unbundled Local Access in order to provide that broadband connection; and

(u) “**Wholesale Analogue Line Rental**” means network access in the specific form of an electronic communications service provided by the Dominant Provider to a Third Party for the use and Ordinary Maintenance of an analogue Exchange Line.

Annex 6

Draft guidance on assessment of the VULA margin

Introduction

A6.1 This Annex sets out Ofcom's draft guidance on the approach that we would likely adopt when assessing whether BT is complying with proposed SMP condition 14. While the guidance is intended to reflect our proposed current view of the approach we would likely adopt when assessing the VULA margin by reference to the requirement in our proposed SMP condition, we may depart from it if circumstances change.

A6.2 This draft guidance should be read alongside proposed SMP condition 14.

Structure of this guidance

A6.3 Proposed SMP condition 14 distinguishes between the following five categories of costs/revenues:

- ongoing revenues;
- ongoing wholesale costs;
- ongoing retail costs;
- upfront costs; and
- upfront revenues.

A6.4 Each of these cost and revenue categories are discussed in turn in this guidance at paragraphs A6.13-A6.24 (ongoing revenue), A6.25-A6.26 (ongoing wholesale costs), A6.27-A6.59 (ongoing retail costs), A6.60-A6.69 (upfront costs) and A6.70-A6.71 (upfront revenues).

A6.5 We first discuss at paragraphs A6.6-A6.12 our general approach to assessing compliance with proposed SMP condition 14.

Overview of approach

A6.6 When assessing BT's compliance with SMP condition 14 during a particular time period, we would seek to use the best available data. Where possible, we would likely use historical, audited data covering the assessment period. If data for the period in question is not yet available, we would likely use the most recent data that is available.

A6.7 If there is short-term volatility in revenues or costs, for example, if it were the case that BT makes payments to a supplier intermittently rather than on an ongoing basis, we would likely consider whether estimates based on the assessment period are consistent with averages based on a longer time period.

A6.8 We consider that it is appropriate to assess the VULA margin earned on BT's entire portfolio of superfast broadband bundles, which includes dual-play and triple-play BT Consumer Infinity products and Plusnet Fibre products. Accordingly, in order to assess BT's portfolio of superfast broadband products (the 'superfast broadband portfolio'), we are likely to calculate weighted average revenues and costs across individual products within BT's superfast broadband portfolio (e.g. BT Infinity 1, Unlimited BT Infinity 2 with BT TV, Plusnet Fibre etc.).The weights used in the calculation would likely reflect the volumes of subscribers acquired on each product during the assessment period. If these volume weights appeared to be subject to unusual volatility, we would likely consider volume weights calculated over a longer time period as part of a sense check.

A6.9 In order to assess BT's portfolio of superfast broadband products, we are likely to calculate weighted average revenues and costs across individual bundles within BT's superfast broadband portfolio. The weights used in the calculation would likely be the volumes of subscribers acquired on each product during the assessment period.

A6.10 When carrying out an assessment of the VULA margin, we are likely to simplify our modelling in order to focus on the most material factors. In particular we are:

- unlikely to take fibre to the premise (FTTP) bundles into account when carrying out modelling; and
- likely to analyse Plusnet subscribers by using data on the costs and revenues for superfast broadband products (the 'superfast broadband products') supplied by the rest of BT Consumer, except where data on Plusnet's specific costs and revenues can be easily sourced using publicly available information or Plusnet's management accounts.

A6.11 When assessing the VULA margin we would likely consider the prices that BT charges to new superfast broadband customers ('superfast broadband customers').

A6.12 We would likely use the prevailing pre-tax nominal weighted average cost of capital (WACC) for the 'rest of BT' as the relevant discount rate used to project forward BT's ongoing costs and revenues.

Ongoing monthly revenues

A6.13 Our guidance on how we are likely to calculate the parameter "P" in SMP condition 14.2 is set out in the following subsection.

Monthly subscription revenues

A6.14 Headline monthly subscription prices for the product tiers in the superfast broadband portfolio would be the prices applicable during the assessment period.

A6.15 We would likely make an adjustment to the headline monthly subscription prices to take into account loyalty / retention discounts which BT offers to certain customers. The level of the adjustments would likely be estimated by calculating the average percentage discount given on each product tier over the assessment period.

Line rental revenues

A6.16 Line rental prices would be the line rental prices applicable during the assessment period. To take into account the different prices of standard line rental and annual line rental saver, the average line rental price would likely be estimated on the basis of the volumes of BT superfast broadband customers using each option over the assessment period.

Call revenues

A6.17 The call revenues earned from a superfast broadband customer would likely be sourced from BT's database[485] and would be based on the average revenues earned from superfast broadband customers over the assessment period. This would include revenues earned from package fees and out of package calls.

Out of package (OOP) data usage revenues

A6.18 The OOP data usage revenues earned from a superfast broadband customer would likely be sourced from BT's system[486] and would use the average OOP data usage earned from superfast broadband customers over the assessment period.

Payment processing fee (PPF) revenues

A6.19 We would likely estimate the PPF revenues earned from a superfast broadband customer using the following two-step method:

- The average PPF payment would likely be calculated by taking the total monthly PPF revenues earned from superfast broadband customers for the assessment period and dividing by the number of superfast broadband customers who paid these charges during this period.

- The average PPF payment per superfast broadband subscriber (i.e. the average across subscribers who paid these charges and those that did not) would likely be calculated by multiplying the average PPF payment by the average proportion of superfast broadband customers that paid these charges during the assessment period.

Advertising revenues

A6.20 We would likely estimate the amount of advertising revenue earned from a superfast broadband customer by taking the amount recorded in the most recent annual Broadband management accounts and dividing by the average broadband customer base over the period the accounts cover and converting to a monthly figure.

Call termination revenues

A6.21 We are unlikely to take call termination revenues into account.

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[485] BT currently holds a database, known as [✂], which collects the calling records of each of its customers' accounts and includes information on the pence per minute call charges and costs applicable in a given month (by call type, time of day and package).

[486] Currently known as [✂].

TV revenues

A6.22 The headline monthly subscription prices for BT TV would likely be the prices applicable during the assessment period.

A6.23 We would likely estimate on-demand revenues by taking the total on-demand revenues reported in the most recent BT TV management accounts and dividing by the average number of TV subscriptions in the period covered by the accounts and converting to a monthly figure.

A6.24 We would likely adjust ongoing TV revenues downwards to account for those triple-play superfast broadband customers who cease taking BT TV before the 5 year superfast broadband average customer lifetime has concluded. We would likely reduce TV revenues by [✄]% after the first [✄] months of the average customer lifetime (i.e. assume that [✄]% of triple-play customers continue to receive BT TV for the remaining [✄] months of the average customer lifetime). We would likely revisit this figure in the event that more accurate evidence was available.

Ongoing monthly wholesale costs

A6.25 Our guidance on how we are likely to calculate the parameter “W” in SMP condition 14.2 is set out in the following subsection.

A6.26 When assessing the VULA margin we would likely take the wholesale charges applicable during the assessment period published on the Openreach website.

Ongoing monthly retail costs

A6.27 Our guidance on how we are likely to calculate the parameter “DC” in SMP condition 14.2 is set out in the following subsection.

Voice costs

A6.28 The call costs of serving a superfast broadband customer would likely be sourced from BT’s database[487] and would be based on the average calls made by superfast broadband customers over the assessment period. This would cover both in-package and OOP calls and would include product unit costs, payments to other licensed operators and the call costs will be based on the revenues for call types for which costs are not available in the BT’s database.

Network costs

A6.29 We would likely estimate network costs using the following approach:

Network costs = Unit bandwidth cost * Average capacity available to each user

[487] See footnote BT currently holds a database, known as [✄], which collects the calling records of each of its customers’ accounts and includes information on the pence per minute call charges and costs applicable in a given month (by call type, time of day and package).

A6.30 To estimate unit bandwidth costs, provided the resulting unit cost estimate is above the minimum specified in the SMP condition (where the minimum would otherwise apply), we would likely use the unit FAC of Market 3 or Market B WBC Bandwidth calculated using the same data source used to prepare the most recent BT Regulatory Financial Statement for Markets 1 and 2 or Market A at the time of the assessment.

A6.31 We would likely use the average capacity available to each user for each product tier in the superfast broadband portfolio during the same time period to which the data used to calculate unit bandwidth costs relates.

Network rental overheads

A6.32 To estimate the network rental overheads of serving a superfast broadband customer, we would request data from BT Wholesale for the assessment period. We would expect network rental overheads to include the cost items set out in Draft Guidance Table 1.

Draft Guidance Table 1 – Breakdown of network rental costs

Cost item	Description
Cablelinks	[✄]
WBC product managers	[✄]
Service creation and operations	[✄]
Network operations	[✄]
Development – capital costs	[✄]

Platform and portal fees

A6.33 We would likely estimate the platform and portal fees costs of serving a superfast broadband customer by taking the amount recorded in the most recent annual Broadband management accounts and dividing by the average broadband customer base over the period the accounts cover and converting to a monthly figure.

Product feature costs

A6.34 To calculate the cost of providing NetProtect Plus to superfast broadband customers, we would likely multiply licence charge [✄] by the proportion of new superfast broadband customers who take up this product feature during the assessment period.

A6.35 To calculate the cost of providing BT Cloud to superfast broadband customers, we would likely multiply the monthly licence fee by the proportion of superfast broadband customers who take up this product feature. The proportion of superfast broadband customers who take up BT Cloud would be based on volumes during the assessment period.

A6.36 We would likely not include a cost for providing Wi-Fi to superfast broadband customers.

A6.37 We would likely not include a separate item for SmartTalk costs.

Fibre development costs

A6.38 To estimate the fibre development cost of acquiring a superfast broadband customer, we would likely take the development spend incurred before the launch of BT's superfast broadband products and divide by either (i) the latest forecast of the superfast broadband customer base at the end of the 2014/15 financial year (i.e. 5 years post launch), or (ii) the actual number of BT superfast broadband customers at the time of the assessment, depending on when the assessment is carried out (i.e. either before or after the end of the 2014/15 financial year).

Ongoing selling, general and administration expenses ('SG&A costs')

A6.39 We would likely take each of the SG&A costs in Draft Guidance Table 2 into account when assessing the VULA margin.

Draft Guidance Table 2 – Ongoing SG&A costs

Cost item	Description
Marketing – retention	[✄]
Customer services – ongoing	[✄]
Billing & bad debt	[✄]
Total Labour Cost – retention	[✄]
Total Labour Cost – management	[✄]
Development	[✄]
Marketing – non-campaign	[✄]
Customer services – overheads	[✄]
Accommodation	[✄]
Other internal/external spend/recoveries	[✄]
People related costs	[✄]
IT spend	[✄]
Marketing platform spend	[✄]
TSO – direct, indirect and fixed	• direct – these include volume-based trades-specific contracts between TSO and the MFU; • indirect – these are set at the start of the year and costs are recovered from MFUs based on best known cost drivers; and • fixed – these are costs that cannot be directly or indirectly attributed to a MFU and are mainly related to BT wide activities or in support of TSO activities. They include accommodation and energy and TSO overheads.
Miscellaneous costs	

A6.40 For ongoing SG&A costs, we are likely to decide how to allocate based on a two-step allocation approach.

A6.41 First, we would likely consider the internal operational systems which specifically deal with certain cost categories maintained by BT.[488] Where we consider that this information provides a reasonable basis for allocating to the superfast broadband portfolio, we would likely allocate on this basis. We refer to these categories as 'BT Breakdown' in Draft Guidance Table 3.

A6.42 Second, for all ongoing SG&A cost items for which BT does not hold a reasonable breakdown to individual product lines, we would likely allocate to the superfast broadband portfolio on a pro-rata basis using one of the following approaches:

- Customer – certain types of ongoing costs will have economies of scope in that their magnitude varies with the number of customers being served but not the number of products each customer subscribes to. We would likely allocate such costs on the basis of the number of superfast broadband customers as a percentage of the BT Consumer customer base. For example, if a quarter of the BT Consumer customer base is made up of superfast broadband customers, we would likely allocate a quarter of the total costs to the superfast broadband portfolio cost stack.

- Product – other ongoing costs are more likely to vary in direct proportion to the number of products being sold. We would likely allocate such costs on the basis of the number of products (i.e. voice, broadband and TV) superfast broadband customers subscribe to as a percentage of the total number of products sold by BT Consumer. For example, if a quarter of the total number of products being supplied by BT Consumer is to superfast broadband customers, we would likely allocate a quarter of the total costs to the superfast broadband portfolio cost stack. This method assumes that a dual-play customer bears twice the cost of a voice-only customer and that a triple-play customer bears three times that of a voice-only customer.

A6.43 We would likely use these different approaches depending on whether an ongoing cost is principally driven by the number of customers being served or the number of products being sold. For some SG&A costs (i.e. BT Consumer overheads) and TSO fixed costs (i.e. BT Group overheads), we would likely use the 'product' method to allocate long-run variable SG&A costs to the superfast broadband portfolio. If further evidence comes to light that indicates that an alternative allocation method is more appropriate, we would consider adopting that alternative approach.

A6.44 Once we have calculated the appropriate allocation, we would then calculate the ongoing monthly SG&A cost per superfast broadband customer by dividing the amount allocated by the average base of superfast broadband customers over the assessment period and convert this to a monthly figure.

A6.45 Draft Guidance Table 3 sets out the allocation approach we would likely apply to each ongoing SG&A cost item to allocate to the superfast broadband portfolio stack.

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[488] For example, for certain customer service costs, [✂].

Draft Guidance Table 3 – Allocation approaches for ongoing SG&A costs

SG&A cost category	Allocation method
Marketing – retention	Customer
Customer services - ongoing	BT breakdown
Billing & bad debt	Customer
Total Labour Cost – retention	Customer
Total Labour Cost - management	Product
Development	BT breakdown
Marketing – non-campaign	Product
Customer services - overheads	Product
Accommodation	Product
Other internal/external spend/recoveries	Product
People related costs	Product
IT spend	Product
Marketing platform spend	Product
Miscellaneous costs	Product
TSO – direct and indirect	Product
TSO Fixed	Product

Ongoing TV costs

A6.46 We would likely estimate content and bandwidth costs of serving a triple-play superfast broadband customer by taking the amounts reported in the most recent BT TV management accounts for each BT TV package (Essentials package, Essentials Extra package) and dividing by the number of subscribers on each TV package during the period covered by the accounts. Average content and bandwidth costs per superfast broadband customer would be calculated by weighting on the basis of the number of customers acquired on each TV package in the assessment period.

A6.47 We would likely estimate licences, customer premise equipment and fixed costs by taking the amounts reported in the most recent annual BT TV management accounts and dividing by the total TV subscribers during the period covered by the accounts.

A6.48 We would likely adjust ongoing TV costs downwards to account for those triple-play superfast broadband customers who cease taking BT TV before the 5 year superfast broadband average customer lifetime has concluded. We would likely reduce ongoing TV costs by [✂]% after the first [✂] months of the average customer lifetime (i.e. assume that [✂]% of triple-play customers continue to receive BT TV for the remaining [✂] months of the average customer lifetime). We would likely revisit this figure in the event that more accurate evidence was available.

Treatment of BT Sport costs

<u>Calculation of the net costs of BT Sport</u>

A6.49 When assessing the ongoing cost associated with BT Sport we would likely calculate the net cost of BT Sport for the assessment period. The net cost of BT Sport is the total costs of BT Sport minus the direct revenues from BT Sport. In this calculation, we would likely spread the costs of sports rights evenly over the years covered by the rights agreement.

A6.50 We would likely calculate BT's monthly costs for each sport right by converting its actual expenditure on each sports right into a constant monthly payment. We would likely do this by calculating the net present value (NPV) of each sports rights contract over the entire contract duration up until the next contract is available (based on each contract's start date) and convert this into an equivalent ongoing monthly cost equal to that NPV. We would likely use the 'rest of BT' WACC relevant to the assessment period when carrying out this calculation.

A6.51 When assessing compliance over any given period, we would likely average the costs of sports rights across that period.

A6.52 We would likely use BT's actually incurred costs as set out in its accounts for ongoing costs. We would likely include an additional [✂]/month until March 2016 to reflect the one-off launch costs of BT Sport. In the event that a more up to date estimate of the WACC is available, we would consider whether to update this figure.

A6.53 In assessing the direct revenues associated with BT Sport, we would likely take into account BT's monthly subscription revenues from residential subscribers and commercial premises as well as BT's monthly sublicensing revenues, advertising revenues and provisioning revenues.

A6.54 We would seek to use the best available data when assessing compliance with the proposed SMP condition. Where possible, we would therefore seek to use historical, audited data covering the assessment period. The exception is provisioning revenues which (in the absence of better information) we would likely amortise over a period of three years using the 'rest of BT' WACC.

Allocating the net costs of BT Sport between copper and fibre

A6.55 When assessing the VULA margin, in order to calculate the cost of BT Sport per superfast broadband customer we would first calculate the net BT Sport cost per customer with 'free' access to BT Sport by dividing the net cost of BT Sport by the total number of BT residential broadband subscribers that receive BT Sport for free.

A6.56 When calculating the net BT Sport cost per customer with free access to BT Sport we would likely include any subscriber to a BT broadband package that is capable of receiving BT Sport at a reasonable quality for free.

A6.57 Accordingly we would likely include:

- any copper broadband subscription where the speed was greater than 500kbit/s; and
- any fibre broadband subscription.

A6.58 Accordingly we would likely exclude:

- BT Business broadband subscriptions; and
- Plusnet broadband subscriptions.

A6.59 Second, the net BT Sport cost per superfast broadband customer would be calculated by multiplying the net BT Sport cost per customer with free access to BT Sport by the proportion of superfast broadband customers with free access to BT Sport. The proportion of superfast broadband customers with free access to BT Sport would likely be calculated by dividing the number of BT residential superfast broadband customers that have free access to BT Sport (i.e. BT Consumer Infinity customers) acquired during the assessment period by the total number of BT residential superfast broadband customers (i.e. the sum of BT Consumer Infinity and Plusnet Fibre customers) acquired during the assessment period.

Upfront costs

A6.60 Our guidance on how we are likely to calculate the parameter "UC" in SMP condition 14.2 is set out in the following subsection.

Connection costs

A6.61 We would likely take into account the costs of GEA Connection, GEA Managed Install, WLR Connection (or any future equivalents) and retail-level connection activities.

- GEA Connection charges and GEA Managed Install charges would be the charges applicable during the assessment period.
- To estimate the WLR Connection cost, we would firstly calculate the proportion of connections that incur Openreach charges based on the volumes of superfast broadband customers that were acquired from other operators in the assessment period. We would then calculate the average charge paid for these connections applicable during the assessment period on the basis of the split of acquired customers that required a new line and those that needed an existing line to be migrated using the most recent data available from BT's management information system[489].
- Retail-level activity costs would likely be estimated using the most recent data available from BT's regulatory financial reporting system[490].

SG&A costs (upfront acquisition)

A6.62 Draft Guidance Table 4 sets out the upfront acquisition SG&A costs that we would likely take into account.

A6.63 For upfront acquisition SG&A costs, we would likely allocate on the basis of the number of superfast broadband customers acquired as a percentage of the total number of customers acquired by BT Consumer during the assessment period. For example, if a third of all BT Consumer customer acquisitions are for superfast broadband products, we would allocate a third of the total SG&A upfront acquisition costs to the superfast broadband portfolio cost stack. To calculate acquisition SG&A costs per superfast broadband customer, we would then divide this figure by the number of superfast broadband customers acquired during the assessment period.

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[489] Currently known as [✂].
[490] Currently known as ASPIRE, to be replaced by REFINE.

Draft Guidance Table 4 – Short-run SG&A upfront acquisition costs

Cost item	Description
Marketing – acquisition	[✂]
Affiliates / pay per click	[✂]
Customer services - upfront	[✂]

Sales costs

A6.64 We would likely source sales costs from BT's most recent system[491] which provides a breakdown of the various activities [✂]. The sales costs to be allocated to the superfast broadband portfolio would likely be estimated by multiplying the proportion of staff time used to acquire superfast broadband customers by the total labour cost of such staff time. To calculate sales costs per superfast broadband customer acquired, we would then divide this figure by the number of superfast broadband customers acquired during the assessment period.

Voucher costs

A6.65 To calculate the cost of vouchers used for the purposes of acquiring a superfast broadband customer, we would likely take BT's spend on vouchers during the assessment period and divide this by the number of superfast broadband customers BT acquired during this period.

Discount costs

A6.66 We would likely treat several months' discount to the monthly subscription prices for newly acquired superfast broadband customers as an upfront cost by multiplying the amount of the discount by the number of months during which it applies. In order to estimate the discount to the average superfast broadband customer, we would likely estimate the proportion of superfast broadband customer acquisitions that were eligible for the discount during the assessment period.

Router costs

A6.67 We would likely source the router cost related to the acquisition of a superfast broadband customer from the unit price as set out in the contract BT has agreed with its supplier. We would likely not include the cost of delivery of the router, as this would be covered by an equivalent postage and packaging charge received from new customers.

Event charges

A6.68 We would likely include the following event charges in the upfront acquisition cost stack:

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[491] Currently known as [✂].

- BT Expedites – a charge payable to Openreach to carry out the customer installation more quickly than is standard. We would likely calculate the BT Expedite cost of acquiring a superfast broadband customer by taking the spend on expedites for superfast broadband products over the assessment period and divide this by the number of superfast broadband customers acquired during this period.

- BT Abortive Visits – a charge payable to Openreach when an engineer visit is unsuccessful due to not being able to access the customer's property. We would likely calculate the BT Abortive Visits cost of acquiring a superfast broadband customer by multiplying the abortive visits charge by the percentage of superfast broadband customers acquired who had an abortive visit over the assessment period.

- Modify upstream order charges – a charge payable to Openreach to cancel, amend or modify a customer order. We would likely calculate the Modify upstream order charge cost of acquiring a superfast broadband customer by multiplying the modify order charge by the percentage of superfast broadband customers acquired who had an order cancelled or amended over the assessment period.

Upfront TV costs

A6.69 We would likely take the following upfront TV costs into account when assessing the VULA margin:

- YouView box – superfast broadband customers who sign-up to BT TV are provided with a YouView set-top box at no extra charge. We would likely source the YouView box cost to be included in the superfast broadband portfolio cost stack from the contract BT has agreed with its supplier.

- Other connection costs – there are a number of connection costs BT incurs when connecting customers with its TV service, including [✄]. We would likely estimate the other connection costs to include in the superfast broadband portfolio cost stack by taking the amount recorded in the most recent annual BT TV management accounts and dividing by the number of TV additions during the period covered by the accounts.

Upfront revenues

A6.70 Our guidance on how we are likely to calculate the parameter 'UR' in SMP condition 14.2 is set out in the following subsection.

A6.71 We would likely use the connection revenues applicable during the assessment period.

Annex 7

Sources of evidence

Introduction

A7.1 We have noted throughout the 2014 VULA Margin Consultation the evidence we have relied upon in relation to our findings and how we have relied upon that evidence. This Annex lists the main sources of evidence used. We also list all respondents to our consultations and to our various section 26 and 135 requests.

A7.2 Whilst the Annex lists the main evidence we have relied upon, the list is for convenience only and is not intended to be exhaustive.

List of respondents to the call for inputs

A7.3 We published a Call for Inputs (CFI) on 9 November 2012 setting out our proposed approach to the 2014 Fixed Access Market Reviews and seeking stakeholder input. This can be found at the following link:

Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30 – Call for Inputs, 9 November 2012, http://stakeholders.ofcom.org.uk/binaries/consultations/fixed-access-markets/summary/condoc.pdf.

A7.4 Of the 21 stakeholders that provided written responses to the CFI, the following provided significant comments on the VULA margin:

- British Telecommunications plc
- Cable and Wireless Worldwide plc/Vodafone
- TalkTalk Telecom Group plc
- Tesco Broadband
- Virgin Media Limited
- [✂]

A7.5 We have published the non-confidential versions of all the responses from stakeholders. These can be found on our website: http://www.stakeholders.ofcom.org.uk/consultations/fixed-access-markets/?showResponses=true.

List of respondents to the 2013 FAMR Consultation

A7.6 Of the 14 stakeholders that provided written responses to the consultation document, the following commented specifically on the VULA Margin:

- British Sky Broadcasting Group plc
- British Telecommunications plc

- Cable and Wireless Worldwide plc/ Vodafone
- TalkTalk Telecom Group plc
- Virgin Media Limited
- [✄]
- [✄]

A7.7 We have published the non-confidential versions of the responses from all the stakeholders listed above. These can be found on our website: http://stakeholders.ofcom.org.uk/consultations/fixed-access-market-reviews/?showResponses=true&pageNum=1#responses

List of respondents to the 2014 FAMR Consultation

A7.8 Of the eight stakeholders that provided written responses to the consultation document, the following commented specifically on the VULA Margin:

- British Sky Broadcasting plc
- British Telecommunications plc
- TalkTalk Telecom Group plc
- Verizon UK limited
- Virgin Media limited
- Vodafone
- [✄]

A7.9 We have published the non-confidential versions of the responses from all the stakeholders listed above. These can be found on our website: http://stakeholders.ofcom.org.uk/consultations/famr-2014/?showResponses=true.

Information-gathering using statutory powers (s135)

A7.10 During this market review, we have issued a series of notices under section 135 of the CA03 requiring various CPs to provide specified information as set out in the notice. These information requests are listed below:

- Information request of 26 November 2012 regarding forecasts for use of MPF; capital investment in NGA networks; standard and superfast broadband customer numbers; upgrade and switching information; GEA migration costs; superfast broadband strategy; superfast broadband demand forecasts; competitor analyses for superfast broadband; marketing spend on superfast services; usage information for SLU, PIA and FVA; plans for vectoring; ISDN30 customer details; and ISDN30, ISDN2 and IP-based telephony volume data. Request sent to and response received from: BT.

- Information request of 22 April 2013 regarding confirmation of information provided at meetings; clarification of revenue forecasts; clarification of customer take-up forecasts for superfast broadband; clarification of superfast broadband and standard broadband profitability forecasts; and retail and wholesale fibre strategies. (Revised response provided on 15 May 2013). Request sent to and response received from: BT.

- Information request of 7 June 2013 requesting the provision of information on customer churn previously provided by BT in response to the information request dated 10 May 2013 issued by Ofcom under section 26 of the Competition Act 1998. Request sent to and response received from: BT.

- Information request of 21 October 2013 regarding churn data and superfast broadband subscribers. Request sent and response received by EE.

- Information request of 23 October 2013 regarding churn data and superfast broadband subscribers. Request sent and response received from BT.

- Information request of 23 October 2013 regarding average customer lifetimes. Request sent and response received from Virgin, Sky, TalkTalk and EE.

- Information request of 17 December 2013 regarding peak throughput per end-user and unit bandwidth costs. Request sent and response received from Sky.

- Information request of 12 February 2014 regarding Virgin's market share. Request sent to and response received by Virgin.

- Information request of 12 February 2014 regarding BT's latest forecasts. Request sent to and response received by BT.

- Information request of 21 February 2014 regarding an update on information provided in the 1st s135 notice and superfast subscribers and demand forecasts for the period 2014-2017. Request sent and response received by Sky.

Information-gathering using statutory powers (s26)

A7.11 We sought CPs' consent to use, for the purposes of this consultation, extracts from a series of notices under section 26 of the CA03 in relation to the Superfast Broadband Competition Act Investigation[492] requiring various CPs to provide specified information as set out in the notice. These information requests are listed below:

- Information request of 10 May 2013 as part of the Superfast Broadband Competition Act Investigation regarding BT's customer lifetimes. Request sent to and response received from BT.

[492] Ofcom, *Complaint from TalkTalk Telecom Group Plc. against BT Group Plc. about alleged margin squeeze in superfast broadband pricing*, *CW/01103/03/13,* http://www.stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01103/.

- Information request of 3 June 2013 as part of the Superfast Broadband Competition Act Investigation regarding BT's downstream costs. Request sent to and response received from BT.

- Information request of 21 June 2013 as part of the Superfast Broadband Competition Act Investigation regarding BT's costs. Request sent to and response received from BT.

- Information request of 5 July 2013 as part of the Superfast Broadband Competition Act Investigation regarding BT's costs. Request sent to and response received from BT.

- Information request of 24 July 2013 as part of the Superfast Broadband Competition Act Investigation regarding TalkTalk's bandwidth costs. Request sent to and response received from TalkTalk.

- Information request of 28 August 2013 as part of the Superfast Broadband Competition Act Investigation regarding costs, subscriber numbers, retail prices and wholesale prices. Request sent to and response received from Sky.

- Information request of 1 October 2013 as part of the Superfast Broadband Competition Act Investigation regarding BT's superfast broadband offers. Request sent to and response received from BT.

- Information request of 27 November 2013 as part of the Superfast Broadband Competition Act Investigation regarding BT's TSO. Request sent to and response received from BT.

- Information request of 6 January 2014 as part of the Superfast Broadband Competition Act Investigation regarding BT's subscriber numbers. Request sent to and response received from BT.

- Information request of 14 February 2014 as part of the Superfast Broadband Competition Act Investigation regarding BT's broadband products and BT Sport. Request sent to and response received from BT.

- Information request of 17 April 2014 as part of the Superfast Broadband Competition Act Investigation regarding BT's bandwidth costs. Request sent to and response received from BT.

UK Legislation

A7.12 The Competition Act 1998, http://www.legislation.gov.uk/ukpga/1998/41/contents.

A7.13 The Enterprise Act 2002, http://www.legislation.gov.uk/ukpga/2002/40/contents.

A7.14 The Communications Act 2003, as amended, http://www.legislation.gov.uk/ukpga/2003/21/contents.

Ofcom documents

A7.15 Direction Setting the Margin between IPStream and ATM interconnection Prices, 26 August 2004,

http://www.stakeholders.ofcom.org.uk/binaries/consultations/adsl_price/statement/statement.pdf.

A7.16 Better policy making: Ofcom's approach to impact assessment, 21 July 2005, http://www.stakeholders.ofcom.org.uk/binaries/consultations/ia_guidelines/summary/condoc.pdf.

A7.17 Review of BT network charge controls, 19 March 2009, http://stakeholders.ofcom.org.uk/binaries/consultations/review_bt_ncc/summary/reviewbtncc.pdf.

A7.18 Pay TV statement, March 2010, http://stakeholders.ofcom.org.uk/binaries/consultations/third_paytv/statement/paytv_statement.pdf.

A7.19 Review of the wholesale local access market, 7 October 2010, http://www.stakeholders.ofcom.org.uk/binaries/consultations/wla/statement/WLA_statement.pdf.

A7.20 Review of the wholesale broadband access markets, 3 December 2010, http://stakeholders.ofcom.org.uk/binaries/consultations/wba/statement/wbastatement.pdf.

A7.21 Wholesale mobile voice call termination statement, March 2011, http://stakeholders.ofcom.org.uk/consultations/mtr/statement.

A7.22 Penalty guidelines, June 2011, http://www.ofcom.org.uk/about/policies-and-guidelines/penalty-guidelines/.

A7.23 WBA Charge Control: Charge Control framework for WBA Market 1 Services, Statement, 20 July 2011, http://www.stakeholders.ofcom.org.uk/binaries/consultations/823069/statement/statement.pdf.

A7.24 Securing the Universal Postal Service, 27 March 2012, http://stakeholders.ofcom.org.uk/binaries/consultations/review-of-regulatory-conditions/statement/statement.pdf.

A7.25 Charge Control Review for LLU and WLR services, March 2012. http://stakeholders.ofcom.org.uk/consultations/wlr-cc-2011/statement-march2012/.

A7.26 CW/01103/03/13: Complaint from TalkTalk Telecom Group plc against BT Group plc about alleged margin squeeze in superfast broadband pricing, http://www.stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01103/.

A7.27 Annual Plan 2013/14, 28 March 2013, http://www.ofcom.org.uk/files/2013/03/annplan1314.pdf.

A7.28 Business Connectivity Market Review Statement, 28 March 2013, http://www.stakeholders.ofcom.org.uk/consultations/business-connectivity-mr/.

A7.29 CW/01106/05/13: Complaint from British Telecommunications plc ("BT") against British Sky Broadcasting Group plc ("Sky") alleging abuse of a dominant position regarding the wholesale supply of Sky Sports 1 and 2 ("SS1&2").

http://stakeholders.ofcom.org.uk/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01106/.

A7.30 CW/988/06/08: Complaint from THUS plc and Gamma Telecom Limited against BT about alleged margin squeeze in Wholesale Calls pricing, 20 June 2013, http://www.stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/closed-cases/all-closed-cases/cw_988/final.pdf.

A7.31 Review of the wholesale broadband access markets – consultation on market definition, market power determinations and remedies, 11 July 2013, http://stakeholders.ofcom.org.uk/binaries/consultations/review-wba-markets/summary/WBA_July_2013.pdf.

A7.32 Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30 July 2013, http://stakeholders.ofcom.org.uk/binaries/consultations/fixed-access-market-reviews/summary/fixed-access-markets.pdf.

A7.33 Fixed access market reviews: Approach to setting LLU and WLR Charge Controls, July 2013, http://stakeholders.ofcom.org.uk/consultations/llu-wlr-cc-13/.

A7.34 Ofcom quarterly data tables, Q1 2005 to Q2 2013, http://stakeholders.ofcom.org.uk/market-data-research/market-data/communications-market-reports/tables/.

A7.35 2013 Narrowband Market Review Statement, September 2013, http://stakeholders.ofcom.org.uk/binaries/consultations/nmr-2013/statement/Final_Statement.pdf.

A7.36 BT letter to Ofcom 9 April 2014 in response to TalkTalk's complaint that alleged margin squeeze in the superfast broadband market. CW/01103/03/13.

A7.37 Ofcom Infrastructure Report 2013, 24 October 2013, http://stakeholders.ofcom.org.uk/binaries/research/telecoms-research/infrastructure-report/IRU_2013.pdf.

A7.38 Ofcom Communications Report 2013, 1 August 2013, http://stakeholders.ofcom.org.uk/binaries/research/cmr/cmr13/2013_UK_CMR.pdf.

A7.39 Switching Tracker, 15 July to 13 August 2013, http://www.ofcom.org.uk/static/stats/OfcomSwitchingTracker2013.pdf.

A7.40 Fixed access market reviews: Approach to setting LLU and WLR Charge Controls – Consultation, 20 August 2013, http://stakeholders.ofcom.org.uk/binaries/consultations/llu-wlr-cc-13/summary/LLU_WLR_CC_2014.pdf.

A7.41 Ofcom, Fixed access market reviews: Openreach quality of service and approach to setting LLU and WLR Charge Controls – Consultation, 19 December 2013, http://stakeholders.ofcom.org.uk/binaries/consultations/fixed-access-market-llu-wlr-charge-controls/summary/famr-2013.pdf.

A7.42 Regulatory Financial Reporting – A review, 20 December 2013, http://stakeholders.ofcom.org.uk/binaries/consultations/bt-transparency/summary/BTRFS.pdf.

A7.43 Fixed access market reviews – further consultation on notification periods, compliance with requirements on the VULA margin, and approach to pricing for TRCs and SFIs, 16 January 2014, . http://stakeholders.ofcom.org.uk/binaries/consultations/famr-2014/summary/famr-2014.pdf.

A7.44 Annual Plan 2014/15, 31 March 2014, http://www.ofcom.org.uk/files/2014/03/Annual-Plan-1415.pdf.

A7.45 Review of Pay TV wholesale must-offer, 16 April 2014, http://stakeholders.ofcom.org.uk/broadcasting/reviews-investigations/pay-tv/pay-tv-wholesale/.

A7.46 Review of the wholesale broadband access markets – draft statement on market definition, market power determinations and remedies, 19 May 2014, http://stakeholders.ofcom.org.uk/binaries/consultations/review-wba-markets/statement/WBA-draft-statement.pdf.

A7.47 Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30 Volume 1: Draft statement on the markets, market power determinations and remedies, 19 May 2014, http://stakeholders.ofcom.org.uk/telecoms/ga-scheme/specific-conditions-entitlement/market-power/fixed-access-market-reviews-2014/draftstatement/.

A7.48 Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN 30. Volume 2, charge controls, Draft Statement 19 May 2014, http://stakeholders.ofcom.org.uk/telecoms/ga-scheme/specific-conditions-entitlement/market-power/fixed-access-market-reviews-2014/draftstatement/.

A7.49 The Consumer Experience of 2013, January 2014, http://stakeholders.ofcom.org.uk/binaries/research/consumer-experience/tce-13/TCE_Research_final.pdf.

EC documents

A7.50 Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03), 11 July 2002, http://www.eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2002:165:0006:0031:EN:PDF.

A7.51 Communication from the Commission – Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty (now Article 102 of the Treaty on the Functioning of the European Union) to abusive exclusionary conduct by dominant undertakings (2009/C 45/02), 24 February 2009, http://www.eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:045:0007:0020:EN:PDF.

A7.52 Commission recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA) OJ L251/35, 20 September 2010, http://www.eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:251:0035:0048:EN:PDF.

A7.53 Digital Agenda for Europe, http://www.ec.europa.eu/digital-agenda/about-our-goals.

A7.54 Commission recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment - C(2013) 5761, 11 September 2013, http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=2735.

A7.55 Article 102(a); Case C-280/08 *Deutsche Telekom AG v Commission* [2010] 5 CMLR 27.

A7.56 Case C-52/09 *Konkurrensverket v TeliaSonera Sverige AB* [2011] 4 CMLR 982

Other documents

BEREC

A7.57 BoR (12) 127, *BEREC common position on best practice in remedies on the market for wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location imposed as a consequence of a position of significant market power in the relevant market*, 8 December 2012, http://www.berec.europa.eu/files/document_register_store/2012/12/20121208163628_BoR_(12)_127__BEREC__COMMON_POSITION_ON_BEST_PRACTICE_IN_REMEDIES_ON_THE_MARKET_FOR_WHOLESALE.pdf.

A7.58 BoR (12) 128, *BEREC common position on best practice in remedies on the market for wholesale broadband access (including bitstream access) imposed as a consequence of a position of significant market power in the relevant market*, 8 December 2012, http://www.berec.europa.eu/files/document_register_store/2012/12/BoR_(12)_128_CP_WBA.pdf.

BT

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Annex 8

Glossary

ACL – Average Customer Lifetime.

The Act – the Competition Act 1998.

Asynchronous Transfer Mode (ATM) – a network technology that uses asynchronous time division multiplexing techniques and which supports data transmissions at up to 622Mbit/s.

Aviva Premiership Rugby – a professional league competition for rugby union football clubs in the top division of the English rugby union system. The competition is currently known as Aviva Premiership Rugby because of the league's sponsorship by Aviva.

BEREC – Body of European Regulators of Electronic Communications.

Broadband – a service or connection which is capable of supporting always-on services which provide the end user with high data transfer speeds.

BT – BT Group plc and any subsidiary or holding company thereof including, for the sake of doubt, British Telecommunications plc and BT Wholesale.

BT Business – retail division of BT providing retail services, including broadband, to business and corporate customers.

BT Consumer – retail division of BT providing retail services, including broadband, to residential customers.

BT Sport – A package of premium sport channels offered by BT, including BT Sport 1, BT Sport 2, ESPN, BT Sport 1 HD, BT Sport 2 HD and ESPN HD.

BT TV – A subscription IPTV service offered by BT. BT TV is available over the DTT platform using a BT Vision set top box. It is also available over a combination of DTT and Multicast services, using the YouView platform.

BT Wholesale – the wholesale division of BT that runs BT's network services and sells interconnection products to CPs.

CA03 – Communications Act 2003.

Chapter II prohibition – a prohibition, under section 18 of the Act, on conduct on the part of one or more undertakings that amounts to the abuse of a dominant position in a market and that may affect trade within the UK or any part of the UK.

Common costs – costs which are shared by a number of services supplied by a firm.

Common Regulatory Framework – 2002 EU legislation, subsequently amended, comprising Directives commonly known as the Framework Directive, the Authorisation Directive, the Access Directive, the Universal Service Directive and the Privacy Directive.

Communications Act 2003 – the Act that sets out functions and powers of Ofcom and its responsibility with regard to the communications sector.

Communications provider (CP) – a person who provides an electronic communications network or an electronic communications service.

Customer Premises Equipment (CPE) – any terminal and associated equipment that is connected to an electronic communications service at customers' premises. Equipment is often provided and connected by consumers and includes for example, telephones, answering machines, and modems.

CRAI – Charles River Associates – consultants.

Current Generation Access (CGA) – access over the copper based network which supports only lower download speeds, typically up to 24Mbit/s.

Digital Subscriber Line (DSL) – a family of technologies generically referred to as Digital Subscriber Line (xDSL), capable of transforming ordinary local loops into high-speed digital lines, capable of supporting advanced services such as fast Internet access and video-on-demand. ADSL (Asymmetric Digital Subscriber Line), HDSL (High bit rate Digital Subscriber Line) and VDSL (Very high data rate Digital Subscriber Line) are all variants of xDSL.

Digital Subscriber Loop Access Multiplexer (DSLAM) – apparatus used to terminate DSL enabled local loops, which comprises a bank of DSL modems and a multiplexer which combines many local loops into one data path.

DTT – Digital Terrestrial Television.

Dual-play – describes retail bundles that include voice telephony and broadband.

EEO – Equally Efficient Operator.

EC – European Commission.

EIA – Equality Impact Assessment.

EOI – Equivalence of Inputs.

ESPN (UK) – originally an abbreviation for Entertainment and Sports Programming Network. ESPN Inc. is a US-based global cable and satellite television channel. ESPN (UK) is a sports television channel in the UK and Ireland owned by BT Group under licence from American sports broadcaster ESPN Inc. The channel was operated by ESPN from 3 August 2009 to 31 July 2013, when it was sold to BT and became part of its BT Sport package focusing on international sporting events, especially American sports. Programming is available in standard definition and high definition formats.

EU – European Union.

Condition FAA11.2 – The condition requiring BT to provide VULA and ancillary services on fair and reasonable terms.

FA – The Football Association. The FA is the governing body of football in England, and the Crown dependencies of Jersey, Guernsey and the Isle of Man. All of England's professional football teams are members of the FA.

FA Cup – Football Association Cup. The FA runs numerous competitions, the most famous of which is the FA Cup.

FA Premier League – The Premier League is an English professional league for men's association football clubs.

Fibre-to-the-cabinet (FTTC) – an access network structure in which the optical fibre extends from the exchange to a flexibility point in the BT access network known as a cabinet. The street cabinet is usually located only a few hundred metres from the subscriber's premises. The remaining part of the access network from the cabinet to the customer is usually copper wire but could use another technology, such as wireless.

Fibre-to-the-premises (FTTP) – an access network structure in which the optical fibre network runs from the local exchange to the end user's house or business premise. The optical fibre may be point-to-point – there is one dedicated fibre connection for each home – or may use a shared infrastructure such as a GPON. Sometimes also referred to as Fibre-To-The-Home (FTTH).

Fixed Access Market Reviews (FAMR) – Ofcom's review of the following markets (as defined in those reviews): wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30.

Fully Allocated Costs (FAC) – an accounting approach under which all the costs of the company are distributed between its various products and services. The fully allocated cost of a product or service may therefore include some common costs that are not directly attributable to the service.

GB – Gigabyte. A measure of volume of data.

Generic Ethernet Access (GEA) – BT's wholesale non-physical product providing CPs with access to higher speed broadband products. BT provides this to fulfil the requirement to provide VULA.

Greenfield approach – the approach when we conduct our analysis to define the relevant retail and wholesale markets, where we assume that there is no SMP regulation in place in the market under consideration or in downstream markets.

HMRC – Her Majesty's Revenue and Customs.

IP – Internet Protocol.

IPTV – Internet Protocol television. A system through which television services are delivered using the Internet Protocol suite over a packet-switched network such as a local area network or the internet, instead of being delivered through traditional terrestrial, satellite signal, and cable television formats.

Infinity – brand name for BT's range of superfast broadband products.

ISP – Internet Service Provider.

KCOM – KCOM Group PLC.

Local loop – generic term applied to the traditional copper twisted pair access network providing connections between customers' telephones and the local telephone exchange.

Local loop unbundling (LLU) – a process by which a dominant provider‘s local loops are physically disconnected, or partially disconnected, from its network and connected to a competing provider‘s networks. This enables operators other than the incumbent to use the local loop to provide services directly to customers.

LRIC – Long Run Incremental Cost. This is the cost of producing a specified additional product, service or increment of output in the long run.

LRIC+ – a measure of LRIC which includes an element for the recovery of non-attributable common costs.

MB – Megabyte. A measure of digital data size. A multiple of the unit byte for digital information. A megabyte is a million bytes. A byte is 8 bits.

Mbit/s – Megabits per second (1 Megabit = 1 million bits). A measure of download speed or bandwidth in a digital system. There are eight bits in one byte.

Moto GP – the premier class of the Road Racing World Championship Grand Prix, a championship of road motorcycle racing.

MSANs – Multi Service Access Node.

MSIL – Multiple Services Interconnect Link.

NBA – National Basketball Association. The pre-eminent men's professional basketball league in North America.

Net Present Value (NPV) – the present value of cash inflows and the present value of cash outflows.

Next Generation Access (NGA) – new or upgraded access networks that allow substantial improvements in broadband speeds and quality of service. Most often used to refer to networks using fibre optic technology.

NRA – National Regulatory Authority.

Ofcom – The Office of Communications.

Out Of Package (OOP) – used in relation to call and data revenues. OOP revenues are earned when customers make calls outside of those included in their call package, or use data that exceeds their monthly data allowance.

Openreach – BT's infrastructure division, established in 2006 pursuant to undertakings offered by BT and accepted by Ofcom, pursuant to the Enterprise Act 2002, to ensure that rival telecom operators have equivalence of access to BT's local network.

Pay TV – subscription-based television services.

PIA – a remedy requiring BT to provide CPs with access to its passive access network infrastructure (i.e. ducts and poles).

Plusnet – Plusnet plc, a BT subsidiary company, providing retail voice and broadband services, and marketed by BT Consumer as a value brand.

POLOs – call termination Payments to Other Licensed Operators.

PSTN – Public Switched Telephony Network.

Public Accounts Committee – the Public Accounts Committee is a select committee responsible for overseeing Government expenditure.

PUCs – Product Unit Costs. Charges associated with the conveyance of calls across the BT network.

Royal Mail – Royal Mail Group Limited.

REO – Reasonably Efficient Operator.

Sainsbury's – one of the UK's largest chains of supermarkets.

Setanta – Setanta Sports. A premium sports broadcaster, broadcasting in Ireland since August 2004.

Superfast broadband – a broadband connection that can support a maximum download speed of 30Mbps or greater.

SG&A – Sales General and Administration.

Sky – British Sky Broadcasting Group plc, a satellite broadcasting, broadband and telephone services company headquartered in London, with operations in the UK and Ireland.

Sky Sports – dedicated sports channels run by Sky.

SLU – like LLU, except that communications providers interconnect at a point between the exchange and the end user, usually at the cabinet.

SMP – Significant Market Power, the test for which is set out in European Directives. It is used by National Regulatory Authorities, such as Ofcom, to identify those CPs which must meet additional obligations under the relevant Directives.

TalkTalk – TalkTalk Telecom Group plc.

Tesco – Tesco plc.

TFEU – Treaty on the Functioning of the European Union.

Triple-play – Describes retail bundles that include voice telephony, broadband and TV.

UEFA Champions League – An annual continental club football competition organised by the Union of European Football Associations (UEFA) since 1992.

UEFA Europa League – the UEFA Europa League is an annual men's association football club competition organized by UEFA since 1971 for eligible European football clubs. Clubs qualify for the competition based on their performance in their national leagues and cup competitions.

UFC World Championship – Ultimate Fighting Championship (UFC) world championship.

VULA –Virtual Unbundled Local Access. An access remedy first imposed by Ofcom in the 2010 WLA that requires BT to provide access to its NGA network in a way that is similar to LLU. It provides a connection from the nearest 'local' aggregation point to the customer premises.

Weighted Average Cost of Capital (WACC) – the rate that a company is expected to pay on average to all its security holders to finance its assets.

WBA – Wholesale broadband access.

WLA – Wholesale local access.

WLR – Wholesale line rental. The regulated wholesale exchange line service provided by BT both to its own downstream businesses and to competing CPs.

WTA Women's Tennis – the Women's Tennis Association is the principal organising body for women's professional tennis.

YouView – an Internet TV service in the UK, formed as a joint venture between three telecommunications companies (BT, TalkTalk and Arqiva) and four broadcasters (BBC, ITV, Channel 4 and Channel 5). YouView provides access to free-to-air DTT channels and to TV on demand services via a 'hybrid' set-top box, connected with both a broadband internet connection and a television aerial. Catch-up and on-demand content is delivered over the internet.

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