LLU/WLR Charge Control Consultation

TalkTalk comments on BT's response

Non-confidential version

December 2013

1 Introduction

1.1 This document sets out TalkTalk Group's (TTG) comments on BT's response[1] to Ofcom's consultation on the Charge Control for LLU/WLR services.[2] LLU (and particularly MPF) is the bedrock of competition in the telecoms sector and the consumer benefits that result from it. The conclusion that Ofcom reaches on LLU and WLR prices (and particularly MPF prices) will have a profound effect on both UK consumers (particularly the retail prices they pay) and on TalkTalk's business.

1.2 Our key points are as follows.

1.3 BT argues that higher wholesale prices won't be that problematic since higher wholesale prices won't necessarily lead to higher retail prices. BT is either naïve or incompetent if it genuinely thinks that higher wholesale prices will not result in higher retail prices since the competitive nature of the retail market means that cost increases are passed through (all else being equal). Rising retail prices will put more pressure on the cost of living. [✂] BT also suggest that wholesale price rises are acceptable since prices have fallen historically and UK wholesale prices are (they claim) lower than EC average. Whether Openreach's wholesale prices are efficient and fair does not depend on historic trends or EC prices but on whether the prices are above BT's efficient cost level.

1.4 BT arguing to effectively include some pension deficit repair (PDR) costs in charges by re-valuing existing assets which they say under-estimate the historic capitalised labour. Including PDR costs in charges (irrespective of mechanism) was previously rejected by Ofcom and the Competition Commission as being economically inefficient and against consumers' interests. In our view, this new backdoor mechanism does not address the fundamental inefficiency that would result from including any PDR. Further, such retrospection would violate Ofcom's overall approach of providing regulatory certainty, by reversing Ofcom's previous, clearly stated, position that was confirmed by the Competition Commission. Further, if Ofcom re-opened the question of asset valuation in this way other factors such as productivity improvements (which would drive down asset values) would also need to be taken account of.

1.5 BT has presented a range of arguments as to why the efficiency assumption should be in the 3% to 4% range (Ofcom proposed 5%). BT are distancing themselves from their claim in their May 2013 results presentation that there is at least £1bn of saving (after price inflation) possible to reach top quartile of EC incumbent benchmarks. However, starting with the £1bn figure if adjustments are made for (a) Openreach having higher potential efficiency savings than BT Retail/BT Global Services (b) that

[1] Confusingly BT response is contained in two documents. First, a submission from BT Group that covers FAMR also addresses RFS, inflation, WACC and directory costs. Second, a document from Openreach addresses the other charge control issues.

[2] Fixed access market reviews: Approach to setting LLU and WLR Charge Controls Consultation Updated 20 August 2013

firms in the top quartile are themselves still improving their efficiency and (c) that EC incumbents are not representative of efficient best practice, then the £1bn figure implies that the potential Openreach efficiency gain could be in the range of 7% to 9%. This is consistent with Openreach's PVEO data suitably controlled. The 5% figure is and remains a conservative figure and BT could likely achieve more.

1.6 On volumes, BT is arguing that 4G/LTE will result in mobile only homes increasing by at least 3% points (this proportion has been flat at 15% for 3 years) resulting in reduced MPF/WLR volumes. These claims from BT's regulatory department fly in the face of Openreach's CEO who was only a few months ago emphasising that the fixed line 'renaissance' that she was enjoying and that mobile was 'complementary to fixed and not substitutional'. In any case, BT's analysis is in our view unreliable: it is based on research of the stated preferences (which are never reliable indicators of what respondents would do in practice) of consumers who responded on the basis that 4G provides similar service (i.e. speed, capacity) at a similar price as fixed – this proposition is unrealistic and implausible since 4G mobile services are significantly more expensive than fixed.

1.7 BT is arguing for higher forecast pay inflation based on previous CWU wage settlements (Ofcom has based its forecast on the CWU settlement). We believe it is unsound to use an historic wage agreement as the basis for forecasting future pay inflation (since it reduces BT's already weak incentives to negotiate hard with unions) and also since the settlements with the CWU have run ahead of average national settlements and earnings. In any case, we believe that BT's labour rates are excessive and Ofcom should conduct benchmarking to similar roles in competitive companies.

1.8 BT is arguing that Openreach's WACC should be higher on the basis that the BT Group asset beta (by one measure, although not by Ofcom's preferred measure) has risen in the last 6 months. The two plausible reasons for the BT Group beta increase are an increase in the weight of Rest of BT within BT Group reflecting the recent share price increase driven by BT's Sport and fibre investment and an increase in the beta of RoBT (due to increased fibre roll-out and BT Sports investment). The one factor that is highly unlikely to have increased is the beta of Openreach-copper and BT is rather silly to suggest it. If Ofcom allows the increase in BT Group beta to result in a rise in the Openreach-copper beta then effectively consumers using LLU/ WLR based products will be paying for BT's fibre investment and expensive foray into premium sports. It would be entirely inappropriate for there to be increases in the cost of living for British consumers to fund BT's investments in Premier League and Champions League rights.

1.9 BT is arguing that SFIs and TRCs should not be price regulated since they are contestable (that is, operators can obtain supply from competitors such as Qube). Whilst this may be possible for some services (e.g. campus wiring) for TalkTalk the only SFIs/TRCs we purchase from BT are the ones where we cannot use Qube [✂]. Thus the key SFIs and TRCs that TalkTalk uses are not contestable and so must be firmly price regulated.

1.10 Document laid out as follows:

- Section 2. Base year costs: revised RFS; anchor pricing; LRIC estimates; co-mingling costs; pension costs.
- Section 3. Cost forecasts: volumes; AVE/CVEs; inflation; efficiency;
- Section 4. Cost of capital
- Section 5. Ancillary services
- Section 6. Other points

1.11 Our comments reflect input from Frontier Economics on those areas where they have commented previously.

2 Base year costs

2.0 Use of revised RFS data

2.1 BT substantially revised their 2012/13 RFS resulting in substantially higher costs for LLU (and other) products. BT insists that Ofcom must use this new cost data in assessing LLU/WLR charges and if it proposes not to then it must consult and provide a line-by-line justification of its reasoning. We provided on 10 December a separate response to Ofcom covering whether these cost changes should be included when Ofcom assesses LLU/WLR charges. We are pleased that in their consultation of 19 December Ofcom has proposed to reject BT's changes.

2.2 TalkTalk reiterates that the changes to the RFS are unmerited, unjustified and self-serving attempts to inflate the costs of regulated products. The detail underlying this conclusion is set out in our earlier paper.

2.1 Anchor pricing approach and NGA costs

2.1.0 Anchor pricing approach

2.3 Ofcom's anchor pricing approach to setting prices is set out in §A8.43 "*In this consultation, our cost model is based on a hypothetical ongoing copper network. Therefore, we have forecast the number of copper lines as if there were no deployment and take up of NGA. For forecast calculation purposes this approach means that we allocate a copper equivalent line for every FTTx connection. In particular, we allocate FTTx purchased by BT Wholesale to WLR and SMPF volumes, and FTTx purchased by CPs which use MPF to MPF volumes. This most closely reflects how in the base year FTTx customers would be served if they remained with the CP in question*."

2.4 BT has argued (§192 bullet 1) that this anchor pricing approach (which set prices based on a hypothetical all-copper network without any NGA) requires that the

number of copper lines reflect that only standard broadband services i.e. ADSL would be offered to customer and that if no NGA were offered then demand for MPF/WLR would be less and so volumes lower (with consumers instead substituting to cable and mobile broadband).

2.5 BT's argument is based on a very literal (and ultimately inappropriate) interpretation of the anchor pricing approach. The fundamental objective of an anchor pricing approach is to ensure that customers of existing services do not subsidise migration to new networks. In light of this Ofcom's approach is wholly appropriate, i.e. it is reasonable to forecast an all copper network as if the market share in terms of lines was unchanged, but the mix of services would differ. BT have not shown that Ofcom's approach would lead to BT under-recovering cost or any distortion between CGA and NGA services. In contrast setting prices based on a hypothetical forecast volume of copper lines which is less than the expected number of lines would risk BT over-recovering the cost of the (copper) local access network.

2.6 For similar reasons to those given above we do not think it is necessary to include the cost of copper-extension technologies in place of NGA. Such hypothetical investments would presumably benefit copper customers, in terms of an improved QoS. As these investments have not been made, there is no improvement in quality of service and it would be unreasonable to charge customers for something they do not receive.

2.1.1 Excluding NGA costs

2.7 BT appears to argue (Openreach response §197) that NGA has been allocated certain common costs that should properly be allocated to MPF/WLR. We do not understand BT's concerns – they are vague and unevidenced. In fact, as we highlighted in our October submission the allocations in BT's RFS appear to be designed to maximise the allocation of costs to MPF/WLR to such a great extent that costs which are incremental to NGA are allocated to MPF/WLR. BT have not presented any evidence of costs which are genuinely common costs being allocated to NGA (despite them having full access to the data to provide such evidence). We suspect that rather than NGA services recovering common costs, there are costs which are incremental to NGA roll out and operations that have been misallocated to MPF/WLR thereby overstating their cost.

2.8 BT says (Openreach response §69) that the all-copper cost is based on assuming that NGA lines are replaced by SMPF with the cost being based on the unit FAC cost. This appears incorrect since the additional cost of the extra SMPF lines will be the volume times the unit LRIC cost since additional SMPF lines would not result in added fixed and common costs but rather only result in added incremental costs.

2.2 LRIC estimates for MPF and WLR

2.9 BT complain that Ofcom rejected using the 2011/12 RFS LRIC/FAC data as the basis for deriving the LRIC costs for MPF and WLR.

2.10 The estimates of FAC and LRIC are based on analysis of data provided by BT. Ofcom has estimated the LRIC percentage (i.e. LRIC as a percentage of FAC) over the period 2009/10 to 2011/12. However, Ofcom was correct to note that there were anomalies in the data for 2011/12 which may mean that it is a poor proxy for the ratio in 2016/17. Given uncertainty in the estimate of the LRIC percentage, it is reasonable for Ofcom to place more weight on 2009/10 and 2010/11.

2.11 We note that in its consultation of 19 December Ofcom provided a more granular estimation of LRIC differences – we support this approach.

2.3 Co-mingling costs

2.12 The issue that BT identifies regarding co-mingling capex (§20 bullets 2 and 3), results from the fact that the wrong cost driver is used to estimate future costs of Room Build. However there is a more fundamental issue regarding the forecasting of room build costs

- Room Build is a service that is paid for by operators on a up front basis as if it were operating expense. However, it is capitalised and depreciated in the RFS. This results in a mismatch between charges and the recognition of costs and could result in customers paying twice for the same cost (an so BT double recovering).
- Given that the cost is capitalised the appropriate cost driver based on Ofcom's forecast methodology should be total rooms in service, not volumes of new rooms.
- As the current cost driver is the volume of new rooms, then a reduction in number of new rooms leads to the negative CAPEX anomaly.

2.13 Simply changing the CAPEX assumptions as BT suggest could lead to over-recovery of costs with investments that have been already fully recovered through initial Room Build charges being recovered again through capital charges (i.e. depreciation and ROCE).

2.14 We do not know *a priori* whether this issue is a material issue. It is possible that investigation might reveal that BT has over recovered costs (as costs are recovered as though the cost was an operating cost, but are capitalised in the RFS). We consider that the sensible approach would be for the RFS to reflect BT charging approach i.e. that the cost of room build is expensed in the year.

2.15 BT also argue that the driver for MPF hostel rental costs should be the number of LLU (MPF/external SMPF) lines rather than the number of PoPs (Openreach response §112). However while the number of LLU lines may be a secondary driver of these costs, the primary driver is likely to be the number of PoPs as there is a relatively high fixed cost per PoP. In any case, revenues as well as costs should be linked to any increased volume.

2.4 Pension costs

2.16 BT argues (s5.6) for a retrospective correction to the historic level of capex due to a (with hindsight) underestimation of the pension cost associated with capitalised labour.

2.17 We see this as retrospection by the back door which, for all the well-rehearsed reasons, is not in consumers' interests. However, in respect of BT's new method of achieving the same end we make the following comments:

- Ofcom's methodology for duct valuation is based on an indexation approach which inflates past capital expenditure by a price index in order to estimate Gross Replacement Cost. The price index used by Ofcom is the RPI.
- BT is now arguing that this approach is wrong as the Capex recognised at the time may be understated in some years due to the capitalised labour costs within the Capex not including the full cost of the future pension obligations associated with these labour inputs. We do not believe making such an adjustment to the results of the indexation calculation will produce a better estimate of the current gross replacement costs of the network, as the lack of application of an ongoing efficiency adjustment (reflecting productivity improvements) in the cost index used means that the indexed valuation approach will significantly overstate the replacement cost of the associated assets.
- The use of the RPI was determined by Ofcom in the last charge control by comparison with price indices of building input costs (the GBCI) with a range of discounts to reflect the "national discount" if BT was to build a national network from scratch[3]. Neither the GBCI (as a measure of the input costs of buildings) nor the RPI include any implicit allowance for efficiency/productivity improvements. Ofcom did not take account of potential efficiency gains over time in the indexation arguing that "*We consider that it may be reasonable to assume that BT benefits from economies of scale in its purchases, but it is not clear that these economies of scale will progressively increase year on year as would be implied by an efficiency factor applied to a national index which will already include national efficiency gains*"[4]. However this confuses a national discount to reflect hypothetical economies of scale with observable ongoing productivity improvements in CAPEX . It is notable that BT is now arguing the CAPEX has had a higher efficiency rate than OPEX[5], which Ofcom has proposed is in the range 4-6%.
- If Ofcom were to revisit its decision on the opening valuation of the assets for the charge control than Ofcom should consider all potential new information that could influence the valuation including:
  - Information on the rate at which BT made efficiency gains in capital expenditure in the past; and

[3] 2012 Charge control review for LLU and WLR services statement Annexes A1.170
[4] 2012 Charge control review for LLU and WLR services statement Annexes A1.165
[5] Openreach response to Ofcom's LLU and WLR charge control consultation paragraph 96

- The degree to which the RPI itself will have over-estimated general inflation due to methodological issues, thus overstating changes in input costs.

3 Cost forecasts

3.0 Volumes

3.1 BT claims (Annex A §19) that 7% of homes are likely to take up 4G/LTE for in home use if it provided similar speed at the same price and 3% if it were £5 more expensive. We have not been able to identify what data from the research actually supports these figures. BT then argues (Openreach response §398) that on the basis of its research that Ofcom should assume that 4G will increase mobile only homes by at least 3% (after being flat at 15% for 3 years) – a change they describe as "clearly warranted". This is unrealistic in our view for a number of reasons:

3.2 Firstly the BT's authors claims are the opposite of Openreach's CEO's own view who said in May[6]:

> *Another trend is around the fact that we see the world of mobile as complimentary, and not [substitutional[7]]. I can recall the last one of these events that we did three years ago, and it was one of the biggest discussions of the day, with 3G coming, with 4G down the line after that, you know, we've got to be there in time to make sure that it changing the market a little bit, in terms of what people think is good speed. And I think we are seeing that anything that happens on mobile is absolutely complimentary, not [substitutional].*
>
> *And the third trend that we've seen during the course of the last while, is due to the fact that data is popular, due to the fact that we almost see broadband now as a utility, then if that's the case, we absolutely need the fixed line and, I guess, the renaissance of the fixed line is probably the biggest joy for me, because doing my job, that's something we can continue to see as being something of a trend looking forward. We believe that the top graph has got a chance of staying positive in the short term, certainly when we look at the trends, that continue to come that way.*
>
> *What we'll probably find is that there'll be a bit more volume, in terms of copper net adds than assumed a couple of years ago*
>
> *Slide 78: "Fixed line renaissance - driven by broadband"*

3.3 Given what BT has said publicly, BT's claims in its submission are bordering on audacity. They are thinking one thing but telling the regulator something totally different.

3.4 Second BT's analysis is unsound

[6] BT Group plc Q4 2012/13 Results Presentation Transcript Part 2 10 May 2013. http://www.btplc.com/Sharesandperformance/Quarterlyresults/PDFdownloads/q413_transcript2.pdf

[7] In the transcript it says 'substantial'. Obviously that is not correct since it would not make sense to say 'mobile is complimentary not substantial'. The obvious correct word is substitutional

- it is based on research of the stated preferences of consumers who responded on the basis that 4G provides similar service (i.e. speed, capacity) at a similar price as fixed. This proposition is implausible since it does not reflect the reality of 4G propositions. The current average fixed broadband use is about 30GB per month[8] and growing at about 30% a year. None of the 4G packages[9] offer anywhere close to this capacity; the largest is 12GB
  - O2 £31 for 8GB
  - EE £36 for 5GB
  - Vodafone £36 for 12GB
- Further, as can be seen from the prices of the 4G/LTE packages they are substantially more expensive for much less data – fixed broadband (including line rental) costs from £18[10]. Thus the propositions put to interviewees (that 4G will provide a similar service at same price or £5 more are simply unrealistic
- In addition it is not clear that 4G network, due to their use of a shared resource (spectrum) will have sufficient capacity to offer comparable quality and speeds to ADSL/VDSL networks as usage of their network grows
- In any case, stated preference is generally considered unreliable. In particular, Annex B as presented by Ofcom is so far short of the accepted standards for submitting economic survey evidence that Ofcom should attribute no weight to it.[11]
- No reliable research has been published which could lead to this conclusion to be drawn
- we cannot track between the stated conclusions (3% switch to fixed) and the data from Sweeney Pinedo. Indeed, at slide 14, Sweeney Pinedo presents (inadequate) evidence that would be consistent with to a *reduction* in the number of households solely using mobile phones to access the internet. While 4% of individuals state that they 'may cancel' fixed line internet in the next year, 5% (that is, a higher proportion) state that they 'may adopt' fixed line internet in the next year.

[8] Ofcom Infrastructure Report 2013 Update Publication date: 24 October 2013 page 16. http://stakeholders.ofcom.org.uk/binaries/research/telecoms-research/infrastructure-report/IRU_2013.pdf

[9] SIM only monthly contract from http://www.carphonewarehouse.com/sims/pay-monthly/4g-paym#deals

[10] TalkTalk Simply Broadband is £17.90

[11] TalkTalk considers that a reasonable reference for these standards is the joint OFT/ CC paper *Good practice in the design and presentation of consumer survey evidence in merger inquiries*. Openreach's Annex B comes nowhere near meeting the standard set in this paper. In particular, Sweeney Pinedo's paper fails to meet the criteria set out by the CC at §2.2 (failure to determine hypotheses in advance), §2.4 (transparency, as the precise questions asked are not detailed in Annex B), §2.5 (Sweeney Pinedo's research is likely to exhibit sample bias due to the mix of internet and telephone interviews), §2.10 (as no questionnaire is presented, no evidence that questions are not leading or provided sufficient context), §2.11 (no evidence that a pilot study was undertaken), and §2.13 (no presentation of Sweeney Pinedo terms of reference). This amounts to a comprehensive failure of appropriate research techniques, such that the work essentially carries no evidential value.

3.5 We would also note that BT's own volume projections that it has provided to Ofcom (and Ofcom has relied on) have in the past under-estimated the actual out-turn (like BT's efficiency claims too). Thus Ofcom should be sceptical of BT's volume claims.

3.1 AVEs/CVEs

3.6 BT argues that the AVE for land and buildings should be adjusted (Openreach response §362). It is not clear why the AVE for Accommodation Plant should be so much lower than that for Land and Buildings.

3.7 There is a risk that BT is cherry picking when updating the CVRs/AVEs. Given the limited use made of LRIC results it is suspicious that BT chose to update this AVE in 2012/13. Before taking on this new AVE, Ofcom should check that:

- the AVE is clearly better than the previous AVE
- all other AVEs have been reviewed to a similar level of scrutiny

3.8 The decline in room build costs that BT identifies relates to the volume driver for capitalised room build costs (not the AVE specifically). The volume driver for room build is number of new rooms rather than the total volume of rooms. This means as the volume of new room builds has declined the capitalised costs have declined. (The issue is therefore related to the comment to §111)

3.9 That the AVE is relatively high (at 0.73) is not wrong *per se*. The fact that an inappropriate volume driver is used for these capitalised costs, is not a justification for adjusting the AVE.

3.10 BT argue for asymmetric AVEs (Openreach response §64) so that as volumes increase the costs increase but as volumes fall the costs do not fall (as quickly). Such an approach appears inconsistent with the concept of setting prices on the basis of forward looking efficient costs where all costs (including sunk costs) are considered as variable in the long run.

3.2 Inflation

3.2.0 Inflation index

3.11 Ofcom has proposed using CPI for indexation. BT argues that RPI should be preferred. BT's position and reasoning is, in our view, wrong.

3.12 BT rightly recognise that the forecasting of nominal costs and the setting of an index are separate exercises and could use a different inflation index[12].

[12] Having said that if, say, CPI were a better index to use to forecasting nominal costs it is also likely to be the appropriate index for setting the charge control.

3.13 The key factor that determines whether CPI or RPI should be used for the index is whether BT's input costs are better correlated with CPI or RPI (Ofcom refers to this as 'cost causality'). For example, if CPI rises, RPI stays flat and BT's input costs rise then it would imply that CPI is a better index to use. The reason for this is that the purpose of the index is to insulate BT's profits from unexpected movements in inflation above or below the forecast level of inflation. The index which moves more in line with the actual input costs should therefore be preferred so that, for instance, if there is an unforecast increase in costs there will also be an increase in the inflation index and so an increase in the prices that can be charged.

3.14 BT is wrong when it suggests that for CPI to be preferred there needs to be a *direct* link between the CPI and actual costs (BT Response Table 1) or that RPI is to be preferred since the level of RPI is *close* to the actual inflation in costs (BT Response §473, Openreach response §372). Just because the actual cost change is close to the RPI does not mean that the cost is well correlated with RPI. For example, an inflation measure which is *consistently* 1% above cost increases should be preferred to an alternative inflation measure which on *average* is exactly equal to cost increases, but has significant random fluctuations of up to 2% per year.

3.15 BT argue (Openreach response §115) that Ofcom should use the same inflation approach for each of modelling nominal costs (which reflects the CPI, RPI and other factors to forecast nominal costs), asset price inflation (which uses RPI) and setting the control (which uses CPI). We see no need for this provided (as there is) there are good reasons for each one.

3.2.1 Inflation projections

3.16 BT make a number of comments regarding the forecasts of inflation used to forecast nominal costs (§§366-381). We comment briefly on some of these below.

3.2.1.1 Wages

3.17 Regarding wage levels it is worth noting that BT's pay settlements (see BT Response Table 3) have been about 1% above the average increase in wages and salaries and increase in earnings over the last 5 years[13]. BT argue that this justifies high wage settlements into the future. We believe that the above benchmark settlement are a sign of managerial inefficiency and Ofcom's pay inflation assumption for the charge control period should reflect the fact that existing average pay for BT has risen faster relative to its peers in the work force, and that an efficient operator would be able to have a period of pay restraint and below average settlements. This recent rise in wages above the benchmark further strengthens the case for a reduction in wage rates to reflect the costs of an efficient operator.

[13] BT's settlements have averaged about 3% (BT response Table 3) whereas wages and salaries inflation has averaged about 2% (from 2009 to 2013: -0.1%, 1.5%, 1.8%, 2.7%, 2.8%) and average earnings about 2% (from 2009 to 2013: 1.8%, 1.7%, 2.0%, 2.3%, 2.1%). These last two datasets come from the OBR Economic and Fiscal outlook December 2013 and March 2011

3.18 BT argues that since the average cost per employee has risen at 0.3% more than the wage settlement and that this amount should be added to the future wage forecast. This is unfounded. The reason average pay outpaces wage increases is probably because BT has allowed grade inflation to occur. This is another form of inefficiency that should be removed from BT's forecast costs[14]. Further, BT is claiming to delayer its organisation by taking out managers (this should reduce the average salary level since managers tend to have higher than average pay levels).

3.19 More generally we consider that BT's labour rates are excessive since for example they have low staff churn rates, have operated a no compulsory redundancy policy, are mostly immune from competitive pressures. We consider that Ofcom should benchmark BT's labour rates against (exogenous) comparators.

3.2.1.2 Electricity

3.20 BT's forecasts of electricity unit prices are based on data from DECC from October 2012. More recent DECC data shows a much lower increase in electricity costs[15]

3.21 In any case, electricity forms a small proportion of MPF rental charges not least since the service is passive – much of the power consumed is included in WBA, GEA and co-mingling charges.

3.2.1.3 Other costs

3.22 BT argue that different inflation rates should be applied to different non-pay cost categories. There is a danger that using such an approach could lead to 'cherry picking' of cost inflation measures which are favourable to BT.

3.23 Openreach state that Cumulo rates are subject to RPI. This is a misleading simplification as the cumulo rates are indexed to RPI but the rateable value (RV) used to derive the cumulo rates is subject to annual review based on updated valuation methodologies and input assumptions and the RV has changed substantially (downwards).

3.24 Where cost inflation is uncertain (unlike Telereal costs inflation which is known), then Ofcom should use a measure of general inflation (i.e. CPI) to estimate costs, unless there are exceptional reasons for choosing an alternative measure. This is a

[14] In the 2009 LLU Charge Control appeal the CC rejected BT's and Ofcom's arguments that grade inflation should be allowed for. For example, at §2.803. "*Second, Ofcom sought to justify its application of 1 per cent wage inflation for 2009/10 on the basis that this was reasonable given grade inflation. We are not satisfied that Ofcom has provided any persuasive evidence to support its case that this assumption can be justified by grade inflation. In particular, Ofcom has not provided any evidence to show that the magnitude of grade inflation, to the extent that it would exist, would have as large an effect on salary costs as +1 per cent*"

[15] For example, see Annex F of https://www.gov.uk/government/publications/updated-energy-and-emissions-projections-2013 (data from Sept 2013). Since this document there have been various Government announcements to reduce electricity charges

pragmatic and proportionate approach given the uncertainty and risk of gaming by BT.

3.2.2 Asset price inflation

3.25 BT proposes (Openreach response §382) "*that Ofcom maintain the approach from the current charge control and uses an average rate of RPI for the calculation of holding gains throughout the forecast period, which would reduce the final year asset price inflation from 3.45% to 3.2%*".

3.26 RPI forecasts are volatile and under Ofcom's approach BT will sometimes gain and sometimes lose compared to BT's proposed approach. In this case BT would gain from moving to their suggested approach but it is not evident that it is clearly preferable. Therefore we think Ofcom should maintain its approach.

3.3 Efficiency

3.27 Below we discuss a number of BT's comments regarding efficiency. One factor that might colour Ofcom's approach to BT's claims is that in the past BT has consistently under-estimated its future efficiency gains which has contributed to BT earning excess profits for its regulated products over the past few years which Frontier/ Vodafone estimated at £5bn over the last 7 years.

3.3.1 Role of the efficiency assumption

3.28 BT has argued that the 5% efficiency assumption used to set LLU/WLR charges is too high. We comment below on their arguments.

3.29 BT's argument seems to focus on the concept that the assumption used should be lower than the expected level of efficiency or lower than BT itself targets. The points they make are diverse and confused:

- The assumption should be set low enough so that it could be reasonably easily achieved and passed: "*… the target should be challenging, but the target should not be such that "yet further savings" cannot be identified and realised. That is, the target ought to be one which BT can reasonably be expected to exceed through very effective management and forensic attention to cost control*" (Openreach response §423)
- "*Incentive regulation of this type should provide Openreach with a fair prospect of out-performing what are reasonable targets for cost minimisation, and thus - by meeting its own more exacting targets - earning for its shareholders a rate of return above its cost of capital*" (Openreach response §178)
- A too high a target will limit funds for investment: "*Setting a target which is unobtainable over the timescale of the control also has serious detriments. By not permitting the recovery of efficiently-incurred costs, the funds available for*

the future investment needed to maintain and improve the network will be squeezed." (Openreach response §77)

- because of data uncertainty it is appropriate to set an efficiency assumption lower than expected (Openreach response §421)

3.30 BT's points are false and/or predicated on false presumptions. In particular:

- The efficiency assumption is not a 'target' – the efficiency assumption is (or should be) an estimate of the likely efficiency that BT could achieve. This is then used to set wholesale prices. What efficiency targets BT/Openreach decide to set for themselves is a wholly different matter.
- The efficiency assumption should be a central estimate of what BT is likely to be able to achieve. It is not about what BT can currently identify it can achieve or even what it at present thinks it can achieve.
- The assumption that Ofcom has set is not 'unobtainable' and BT has offered no evidence to support its claims that it could be so. Setting a central estimate means that there will likely be "*scope for yet further savings*"[16].
- BT suggest that the efficiency incentive only kicks in once the 'target' has been met. This is plainly incorrect, the incentive to minimise cost will be as strong whether BT are operating above the forecast efficiency level or below it. That is, the profit incentives provided by the prospect of making £1m of cost savings is the same whether BT's costs are below the price set or above the price set. Incentives are symmetric.
- The efficiency assumption does not restrict the funds available for investment. Whether BT makes investments depend on the return on investment which reflect the costs and revenue of doing so. BT seem to suggest that Openreach is a ring-fenced entity whose funding must be ensured. This is not the case, as Ofcom has no financeability duty. If it did have such a duty, TalkTalk would expect BT's charges to reflect the lower cost of capital facing firms in sectors where regulators have specific financeability duties.
- BT is wrong to suggest that Ofcom should intentionally set a lower than expected level of efficiency gains due to data uncertainty. The only reason for doing this would be if there was an asymmetry of harm i.e. more harm resulting from prices too low than from prices too high. We think that there is no such asymmetry and BT has presented no such evidence.

3.31 Ofcom should not as BT suggest set a low and easily surpassble assumption – its assumption should reflect the expected/average outturn with as much 'upside risk' as 'downside risk'.

[16] BT highlighted at §423 that the CC concluded that the efficiency assumption should provide 'scope for further savings'

3.3.2 Impact of efficiency assumption on incentives

3.32 BT also disagree with Ofcom's point that the efficiency assumption does not affect incentives to minimise cost (§447*ff*). BT confuse two points:

- The cost minimisation incentive derives from the fact that prices are fixed for 3 years[17] (irrespective of outturn costs) and therefore cost reductions result in higher profits to BT;
- The cost minimisation incentive is not affected by the level of prices (or the efficiency assumption used) since marginal reductions in costs will result in marginal increases in profits irrespective of the efficiency assumption used.

3.33 The only valid (though over-played) point in BT's argument is that there is a risk that if Ofcom sets the efficiency assumption in charge controls solely on the basis of historic efficiency improvements then this would reduce (but not eliminate) cost minimisation incentives. Thus BT is right when it says that regulators should use exogenous information regarding efficiency and cost (Openreach response §454).

3.34 We agree with BT's position regarding use of exogenous evidence though find it somewhat hypocritical that elsewhere in its submission BT insists that Ofcom should use BT's own forecasts/plans (e.g. for pay inflation Ofcom should use recent/historic settlements with CWU, efficiency assumption should be based on Openreach's own plans) which are obviously not exogenous. As we explain elsewhere, Ofcom should give no or little weight to BT's arguments that its own wage settlements and business plans should be used for setting assumptions for efficiency levels or wage inflation.

3.35 Anyway, Ofcom has effectively dealt with BT's argument, since Ofcom has used a variety of data including exogenous data (such as the benchmarking versus European incumbents presented to analysts). We do though consider that Ofcom could make more use of exogenous data and in particular should benchmark BT's labour rates against relevant external best practice companies. BT should publish the relevant data (e.g. average pay levels for different types of staff) so that this can be benchmarked by stakeholders.

3.3.3 Comments to analysts

3.36 In its 2013 Q4 results presentation BT discussed extensively the potential for further efficiency and cost savings. For instance their CFO said:

> *Slide 4: Why do I feel that [BT have plenty of cost reduction opportunity]? Well, if you have a look at our cost base, £14.9 billion capital cost and current cost, effectively one third of that is labour-related cost and I know our processes are disjointed. I know we've got opportunities re-engineer and I know it's across all the lines of business, differing levels, but across all the lines of business. You then look at your cost of sales and what we pay our other licenced operators for network-type charges, I know that our services aren't*

[17] The last year price also acts as the starting point for the glidepath of prices in the next change control period so the profits from a cost reduction persist beyond the period of this charge control

managed in the best way possible. We have got opportunities. Opportunities in terms of procurement, opportunities in term of re-engineering our networks, but it is and there are opportunities. I could work down the cost base, area by area, and you'll see I'll give specific examples of what we have available to us, but the key is the journey hasn't stopped. The key is there are plenty more opportunities for us to do this in a forensic fashion, over the course of the next three years.

Slide 5: More substantiation for that. 2008/9 we did some benchmarking with Mercer and we were viewed as fourth quartile. We've worked well across the cost transformation journey and in 2010/11 when the exercise was done, we were in the second quartile. We've taken further costs out, based on my assessment for us to get into the top of the first quartile and to look at opportunities that we've got in each area. So, for example, it might be viewed as we are best practice in customer care and sales, but we are well away, in terms of our marketing costs, our network operations. To get to best practice, to get to quartile 1, there's probably, in each area, there's probably another £1bn. But, and this is the but, even in areas where we are viewed as green [first quartile], sales and customer care, I know that there are plenty of opportunities because being champions and number 1 in our sector, or number 2 in our sector in the top quartile, is not a great benchmark because the industry is not efficient in some of these areas. We have opportunity, real opportunity, in those areas. And so I believe that in the course of the next few years we can get to best practice industry wide, and there is plenty of opportunity.

3.37 BT in its response to Ofcom's consultation has tried to distance itself from these remarks and argue that they do not support the 5% efficiency assumption Ofcom has used (§82). BT's argument is wrong and misleading.

3.38 BT say that the projections to the analysts and consensus projections support only a 3% improvement with the 3% being made up as follows:

- No change in Openreach nominal costs based on consensus analyst projections[18]
- 3% price inflation
- which implies a 3% efficiency improvement

3.39 BT's analysis is flawed. A more sound figure for Openreach efficiency improvement consistent with the £1bn figure would be 7% to 9%.

- BT projects across the group a £1bn cost saving in 2-3 years based on catching up to efficient incumbent operators (though BT is likely to strategically under-estimate to analysts what it can do, in order to be able to exceed expectations). This equates to 7% of BT's cost base or 2% per year over the upcoming regulatory period;
- Assuming price inflation of 3% per year the genuine efficiency improvement (excluding price effects) is therefore 5% per year;

[18] We note that it is rather odd that the flat nominal costs assumption that Openreach rely on is what external analysts think rather than what BT itself predicts (particularly since the presentation was BT's). In fact the analyst view is that there will be a £350m reduction in costs whereas BT itself says there will be at least £1bn to move BT into top quartile

- The efficiency of the most efficient companies improves along what is referred to as the 'efficiency frontier'. This is typically about 2% per year[19] suggesting that if BT were to catch up with efficient incumbent operators in 3 years they would improve at 7% per year. As BT said in its response (§484) "*… savings need not stop [at £1bn] since the sector itself has room for further gains*";
- There are two further adjustments that should be made that would result in an Openreach efficiency saving materially above 7% (although these are more difficult to reliably quantify):
  - The benchmarking is based on other monopoly incumbents who are (like Openreach) not operating in a fully competitive market. Thus the improvement that Openreach could achieve to meet the efficient level will be greater than 7%
  - BT itself says there is greatest opportunity for cost savings in BT Group are within Openreach since based on the benchmarking Openreach is the furthest behind[20]. Liv Garfield said: "*Openreach is considerably behind the Retail division on its cost transformation journey*". Thus we can reasonably assume that Openreach can achieve more per year than BT Group.

3.40 This suggests that based on the £1bn cost saving figure provided to analysts, BT could achieve efficiency gains of 7% to 9% a year.

3.3.4 PVEO analysis

3.41 Ofcom and BT place high weight on the results of the PVEO analysis. While the PVEO analysis should provide a reasonable estimate of the past efficiency where the business is in a steady state it could be distorted by changes in the business. When accounting for these changes the PVEO analysis suggests that a reasonable forward looking estimate of potential efficiency gains is at the upper end of the range suggested by Ofcom.

3.42 There are three changes over time that Ofcom should take into account when assessing the results of PVEO analysis:

- The apparent under-investment in the MPF/WLR network in the recent past and resulting increase in fault rates;
- Changes in the allocation of costs which could distort measures reliant on cost allocation; and
- The impact of rapid changes in demand, in particular for NGA services.

[19] For instance, in 2009 LLU Charge Control KPMG estimated the efficiency frontier movement at 2.1% to 2.3%

[20] Slide 5 shows that whilst BT overall is in 2nd quartile network operations (which is the majority of Openreach activity) is in the 4th quartile

3.43 As noted in our October response, there has been a significant increase in the fault rate in recent years which appears to be due to underinvestment in the copper access network:

- In Openreach's internal PVEO analysis it appears that the fault rate is treated as an exogenous variable and thus increases in cost due to an increased fault rate are included in the V component of the PVEO decomposition;
- In Oxera's analysis based on the RFS, the fault rate is treated as an exogenous variable and cost increases due to an increased fault rate are included in the E component, depressing the measured efficiency rate.

3.44 The analysis based on the RFS is the correct approach for estimating past efficiency gains, including the inefficiency resulting from Openreach allowing the fault rate to increase above an efficient level. However in forward looking terms the higher management estimate provides a more realistic estimate of the ability of Openreach to reduce costs, under the assumption that future fault rates are maintained at an efficient level, i.e. where Openreach is operating at the efficiency frontier. Given that the high level of faults suggests that Openreach is not operating at the efficiency frontier there is scope for greater future efficiency gains from BT's current, inefficient level of costs.

3.45 Estimates based on the RFS, such as those presented in the Oxera report, may be distorted due to changes in allocation methods introduced by BT which have allocated relatively more costs to LLU and WLR services in recent years, depressing the measured efficiency gains. This is clearly seen in Table A1.4 of the Oxera report which shows negative WFAEL+WLA efficiency in the final two years. The data at the Openreach level shows less distortion, presumably due to the more limited scope for altering the allocation of costs between divisions, although even at the Openreach level there is scope for changes in cost driven by changes to the allocation methodology, which should be included in the O component.

3.46 It is notable that BT have only raised the point that an efficiency gain may result from a change in cost allocation in the context of the LLU/WLR charge control. If it were true that changes in allocation resulted in an *over*-estimate of WLA/WFAEL efficiency then it must also be true that it would have resulted in an *under*-estimate of the efficiency in BCMR. Why is BT only raising this issue now?

3.47 When efficiency estimates are calculated at the Openreach level, an allowance needs to be made for volume growth in services such as GEA services and Ethernet services and rapid declines in other services such as TISBO. The sum impact of these effects is likely to be an increase in overall costs, which should be accounted for in the V component. It is not clear how this has been treated in the PVEO analysis used by Ofcom or presented by Openreach and Oxera.

3.48 Openreach refer to the PVEO analysis. They are not wholly clear about what it is or what role it plays. If Ofcom relies on it we would be grateful for greater transparency over these issues, as we do not at present feel able to comment in an effective manner.

3.49 Based on what BT discusses we have the following other points:

- The costs should reflect all cost changes resulting from, for example, fewer lines, fewer faults per line, less time to repair faults, fewer engineers used and lower prices. It is academic as to whether, for example, fewer faults per line is classified as an improvement in efficiency or a reduction in volumes
- The PVEO type analysis can be applied historically and shows that BT efficiency improvement has been high (even though it has allowed fault rates to rise to excessive levels).

3.3.5 Other comments on efficiency

3.50 BT has been achieving efficiency savings of between 4-6% (Consultation §A7.27). This is consistent with BT's planning data reviewed by Ofcom (Consultation §A7.29-A7.36). There is no indication that it has struggled to achieve efficiency savings and has tended to outperform Ofcom's efficiency assumption in the past. Therefore there is no reason to suppose that Ofcom's analysis is wrong.

3.51 In fact across BT Group it appears that over the last 4 years the efficiency gain has been around 9%. Over the last 4 years BT has (on fairly flat line volumes) reduced costs by £4.7bn over a cost base of £19.6bn (which is a reduction of 6% per year). Assuming zero volume change and inflation of 3% this implies a (real) efficiency change of 9% per year. Even assuming that there has been some volume decline at the retail level would only marginally reduce the average efficiency gain

3.52 Openreach argue that historic efficiency data used to estimate future efficiency gains should exclude 'unrepeatable one-offs'. This is unsound. Many efficiency improvements are by their very nature one-offs and unrepeatable. Thus there will in future be currently unknown one-offs that can and should be achieved.

3.53 Openreach's particular plea that the reduction in cumulo rates should be excluded as an efficiency gain is also unsound. Though much of the historic decrease resulted from a new rating list, the ability to reset the rateable value due to a material change in circumstances (MCC) means that the cumulo rates charge can be reduced in future.

3.54 We note that even BT's partial and biased analysis shows two sources (Oxera's RFS analysis and PVEO historical average) that provide substantiation for an efficiency assumption above 5% – 6.3% for Oxera's analysis of the RFS and 5.6% for PVEO analysis)

4 Weighted average cost of capital

4.1 This section responds to §§478-508 of BT's response to the LLU charge control consultation, which deals with Cost of Capital. In summary, TalkTalk believes that BT's stated views in this section are largely without merit. In order to make its case, BT has quoted extremely selectively from statistics, and even then has had to draw

conclusions which are not merited on the basis of the data presented or economic logic.

4.1 Inflation assumptions

4.2 BT sets out its views on the relevant inflation assumptions at §481 of its response. It there states that

> *As a matter of clear principle, Ofcom must adjust the RPI inflation assumption of 2.8% used to set the nominal WACC to ensure consistency with RPI inflation assumptions used elsewhere in the charge control (frequent reference is made to a figure of 3.3% as representing a consensus forecast).*

4.3 However, BT's complaint that Ofcom is acting inconsistently is not correct. The figures that BT quotes are different figures: the 2.8% rate reflects the 2016/17 forecast inflation as estimated at in the BCMR report; the 3.3% is the average inflation forecast across the forecast period.

4.2 Real risk-free rate

4.4 TalkTalk believes that BT's representations on the appropriate risk-free rate are without merit.

4.5 BT argue that despite the recent market data suggesting a risk-free rate of no higher than around 0.5% it is justified to raise the rate above Ofcom's proposed 1.3% (see §490 of BT's response) on the basis of alleged 'volatility', an upwards trend and changes since the leased line charge control. These arguments are risible:

- Volatility in beta is no reason to 'aim up' on the beta assumption used;
- That the observed RFR has increased since the 2013 Leased Line Charge Control is no reason to raise Ofcom's RFR assumption since the RFR assumption used in the 2013 Leased Line Charge Control was out of line with the then contemporaneous evidence. Rather the RFR assumed for the LLU/WLR charge control must reflect the contemporaneous evidence available to Ofcom today;
- That the RFR (10 year forward rate) has increased over the last 6 months does not mean that the upward trend will continue[21]. This is nonsense; indeed, if the rate were predictably upward then it would be open to arbitrage and provide for riskless profit opportunities.

4.6 We discuss below an appropriate RFR based on the various evidence that BT has presented.

4.7 There are a number of different estimates of risk-free rate which could be used. TalkTalk considers that two of them are particularly relevant: the spot risk-free rates (at a range of maturities) and the three year forward spot rate. By taking both of

[21] The risk free rate does not 'trend' like, say, volumes do. You can't linearly interpolate them.

these data sources, funding conditions facing BT at the beginning and end of the regulatory period can be proxied. The spot rate data (Dec 2013) for different maturities are set out in the table.

	Spot rate
3 years	-1.76%
5 years	-1.13%
10 years	-0.23%

Source: Bank of England data for 11 December 2013

4.8 It can be seen from the above that spot rates are negative over all maturities up to ten years. As such, at the start of the regulatory period on 1 April 2014, it should be expected that the real risk free rate facing BT will be negative.

4.9 The same can be seen by considering 3 year forward rates (i.e. estimated rate in 3 years time).

- The most recent three year forward spot rate taken from Bank of England data is -0.68%. That implies that BT will be able to undertake short-term borrowing at negative real interest rates at the end of the forthcoming regulatory period.
- the data presented by BT in its submission to Ofcom is consistent with a real risk-free rate well below the 1.3% currently proposed by Ofcom. As can be seen from Figure 6 of BT's response, the 3 year forward 10 year rate (that is, the rate which market data predicts will prevail for 10 year bonds in three years' time) was around 0.4% at the time of BT's submission.

4.10 In TalkTalk's view, the 3 year forward 10 year rate of 0.4% is around the highest RFR for 2016/17 that market data provides support for.

4.11 Although Ofcom is using the cost of capital in the final year of the charge control when setting charges, we note that such an upwards path of risk-free rates will provide BT with considerable scope to finance itself at lower real rates than included in Ofcom's determination.

4.12 TalkTalk also notes that Figure 5 of BT's response is consistent with a real risk free rate below 1.3% over the forthcoming regulatory period. The curves in this chart for both August 2012 and August 2013 show that at no point before 2023 is the real risk free rate expected to exceed 0.8%.

4.13 As such, TalkTalk believes that the current market data, and the data provided in BT's response, is consistent with a significantly lower real risk free rate than 1.3%. In our assessment, the highest real risk free rate which could be supported by market data is around 0.5%. As such, given the continued low risk-free rates, TalkTalk believes that Ofcom should re-estimate the estimates provided at Table 15.3 of Ofcom's consultation document immediately prior to commencing the regulatory

period. Ofcom should not use a figure higher than the highest estimate presented in this table.[22]

4.3 Beta

4.14 In its submission, at §§491-497 BT argues that since the Brattle data was sourced in March 2013 BT Group's equity and asset betas have increased and so Ofcom's BT Group asset beta estimates are likely to be under-estimated. The implication of this – given BT's claim that the 'wedge' should not increase – is that the Openreach beta should also increase. In TalkTalk's view, any increase in the Openreach beta would be wrong.

4.15 First, TalkTalk notes that there does not appear to have been a meaningful change in the two-year asset beta of BT (see Figure 9), which is Ofcom's preferred time period for beta measurement. Despite this, BT places more stress on the one year beta, presumably because it is higher, and so will lead to a higher estimate of BT Group's cost of capital. BT has not identified any reasons why a one year beta is more appropriate than a two-year beta.

4.16 Second, even if it were correct that the BT Group asset beta had increased, then it would be incorrect for this to result in an increase in the Openreach-copper beta. There is no plausible reason as to why the Openreach-copper beta or systematic risk will have increased over the last 6 months. In contrast there are two clear sources that will have led to the increase in the BT Group beta: an increase in the beta of the Rest of BT; and, a greater weighting for RoBT in the BT Group beta).

4.17 In respect of the increase in the beta of the Rest of BT (i.e. the other parts of BT aside of Openreach-copper) there are two key areas of added risk:

- BT's roll-out of fibre. BT has cited elsewhere in its submissions to Ofcom that its fibre investment is particularly risky. For example, at §58 of its response to the FAMR, BT states that "*This is the first market review where fibre infrastructure forms a major part of the UK network... BT has taken the decision to invest significantly in the future ahead of known demand. As Ofcom recognises, considerable uncertainty remains regarding the range of services that will be provided over super-fast broadband and customers [sic] willingness to pay for them and hence the extent to which demand will eventually materialise*".[23] The investment in and roll-out of fibre will add to BT's financial gearing to the extent that it leads to a higher level of debt than in a

[22] That is, at the time of Ofcom's consultation document, the highest possibly supportable estimate would have been 1.0%. Given continued negative spot real risk free rates at all maturities, TalkTalk expects that the highest figure in these tables will now be below 1.0%, and will be further below at the time of the determination.

[23] BT (2013), *BT's response to Ofcom's consultation document "Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30"*, 30 September.

counterfactual without fibre roll-out.[24] As depreciation is included in BT's accounts, it will also add to operational gearing– potentially significantly– until such a time as fibre investments are fully depreciated. Such increases in gearing, particularly for an investment without proven demand (as BT argues) would be expected to increase the perceived riskiness of BT, and therefore its beta.

- BT's large payments for sports rights, which involve entry into a market which has historically seen a number of providers lose money and exit, including firms such as ESPN with a considerably greater track record than BT. Such payments– amounting to nearly £500m per annum at present, and due to rise further when BT starts paying for its recently acquired European Champions League rights– are likely to significantly increase the perceived riskiness of BT, and therefore BT's beta. BT Sport is at present heavily loss-making on a stand-alone basis, losses which appear likely to rise over the next few years, and is therefore being cross-subsidised from BT's other businesses. The provision of premium sports channels is a line of business with a high operational gearing, as essentially all costs are fixed in the short term, whereas most revenues are variable. It is unsurprising that BT's adventures into sport have led to an increase in the beta of BT Group.

4.18 The second factor that has increased the BT Group beta is the increasing weight of RoBT within the beta of BT Group – the BT Group share price has risen by about 25% over the last 6 months (from 270p to 370p) and this can only plausibly be due to an increase in the value of RoBT (as there is no reason for any material increase in the economic value of Openreach-copper over the last 6 months). This implies that the weight of RoBT within the BT Group beta has increased and since RoBT has a higher beta than Openreach-copper then an increase in the weight of RoBT will increase the BT Group beta.

4.19 There is no evidence or reason for an increase in the beta of Openreach-copper and in its submissions, BT provides no evidence or reasoning that would support Openreach's copper business having become more risky.

4.20 In the absence of any evidence regarding increases in the riskiness of Openreach's copper business, if Ofcom wishes to reassess BT Group's beta, then it should do so but at the same time make an offsetting adjustment in the approach to beta disaggregation assumptions which means that the recent increase in the Group beta does not feed through into the WACC determination for the purposes of the LLU/ WLR charge control.

4.21 This recent phenomena of an increase in the BT Group beta reinforces the argument we made in our October submission that the Openreach beta should be based in large (or larger) part on benchmarks with utility companies and (to a lesser degree) on UK telcos rather than being derived by disaggregating BT Group's beta. BT Group

[24] This will generally be the case. Either BT will have taken on new debt to roll-out fibre, or BT will have paid back existing debt less quickly due to the need to retain earnings to fund fibre roll-out, in either case assuming that BT has not changed its dividend due to fibre investments.

is becoming an increasingly poor proxy for the beta and WACC of the Openreach-copper business as the Openreach-copper business is an increasingly small part of BT Group and the rest of BT is becoming of increasingly high risk relative to Openreach-copper.

4.4 Beta disaggregation

4.22 TalkTalk considers that BT's points on beta disaggregation are fundamentally misplaced, and should not be attributed any weight by Ofcom.

4.23 BT's first main point, at §§498-499, is that BT does not like the principle of beta disaggregation, and that disaggregating the beta moves away from the use of market data and towards requiring regulatory judgement. This point is essentially irrelevant, for numerous reasons:

- Many aspects of CAPM require regulatory judgement. For example, the ERP cannot be directly observed, but rather has to be derived via indirect means, such as Delphi studies. As such, there can be no argument that Ofcom could have adopted a 'pure approach' to estimating WACC, based solely on market data and no judgement.
- BT does not make any argument that the beta of Openreach's copper business (and the systematic risk of Openreach's copper business) would be expected to be the same as the beta of the rest of BT (or BT Group). Indeed, TalkTalk does not believe that it would be possible to make such an argument: it appears clear that the risk of Openreach-copper (as a monopoly network business) would be expected to be considerably lower than the risk of the rest of BT. As such, using the same beta for Openreach-copper as for BT Group would unquestionably overestimate the beta for Openreach-copper, and result in supernormal profits being earned by BT's regulated business.
- BT does not make any argument that the beta which has previously been set has meant that Openreach has earned returns below its cost of capital or has led to disincentives to invest or under-investment. Rather, it just emphasises the "*imperfect nature*" of the exercise and the "*arbitrary*" nature of the disaggregation process. TalkTalk agrees that the exercise of beta disaggregation is imperfect– cost of capital estimation by its nature is always imperfect– but this does not hold any particular lesson for Ofcom. Ofcom should always make its best effort to set the appropriate charge control based on its best estimate of WACC. Given that BT has identified no reasons why Ofcom should 'aim up' on its cost of capital estimates, Ofcom should simply adopt the approach which at each point in time is expected to provide the best estimate of Openreach's beta and therefore WACC.
- The reality is that the BT Group beta is becoming an increasingly unreliable basis for deriving the Openreach-copper beta. Openreach-copper is becoming a smaller part of the overall BT Group (now accounts for about 20% of the economic value) and the RoBT risk and beta is increasing due to increasing role of high risk businesses such as fibre, BT Global Services and BT Sport. Thus

deriving the Openreach beta from the BT Group beta is becoming increasingly unreliable. It is for this reason that Ofcom must accord great (or greater) weight to the relevant comparators.

- Though BT claims that the disaggregation approach is unsound it then – with not a hint of irony – asserts that the wedge assumption should only be disturbed if there is objective justification "… *any proposal to 'increase the wedge' would need to return to first principles …*"(BT Response §502).

4.24 BT's second point, at §§503-508, is regarding the assumption for the Openreach-copper weighting within the overall BT Group beta. BT makes a fundamental error which mean that its analysis is irrelevant.

4.25 BT fails in its comments to understand the difference between Openreach and Openreach's copper business (which is the unit Ofcom is setting the WACC for). BT consistently treats these two different businesses as if they were the same, when actually Openreach-copper is a subset of Openreach as a whole. Obviously it is simply wrong to use a figure for the whole of Openreach when we are only concerned with the Openreach-copper activity particularly when the non-copper part of Openreach is large and increasing in size due to the fibre investment.

4.26 As such, it is of little relevance that, on an MCE basis, Openreach is an increasing proportion of BT. In our view, most of the investment which has taken place over the past three years in Openreach has been on roll-out of FTTC infrastructure (a claimed spend of £2.5bn plus £1bn or more on BDUK roll-out). FTTC assets are of no relevance for the LLU/ WLR charge control review, and even if an MCE basis of disaggregation were to continue to be used (and it should not be), then BT's calculations are wrong. §§504-506 should therefore be ignored by Ofcom.

4.27 Moreover, TalkTalk reiterates that MCE assets are not the appropriate variable to use for the purposes of beta disaggregation (see §§4.36-4.41 of TalkTalk's October submission). Rather, Ofcom should use estimates of economic value when determining the weight of Openreach-copper and the rest of BT in the beta (dis)aggregation. This would lead to a weight for Openreach-copper of around 20% for the purposes of beta calculations as explained in the TalkTalk October submission.

4.28 Regarding the use of MCE (rather than economic value) BT says that it should be used since it is consistent with the previous approach and the MCE figures are stable. Both of these are bad points:

- That MCE figures might be stable is not a good reason to use them. In fact it can be a reason not to use it. It is only by assuming a reducing weight for Openreach (as the BT share price has increased due to increases in the value of RoBT) that the increase in the BT Group beta can be properly explained
- BT also argue that continuing using MCE would promote regulatory predictability. However, there is no case for persisting using an approach that is not correct. As Ofcom said in its consultation (§3.188)

As noted previously in this section, regulatory predictability is important for dynamic efficiency. However, regulatory predictability does not mean doing the same thing at every market review. Instead, regulatory predictability requires that regulatory decisions are clearly reasoned, consulted on, and that stakeholders are given sufficient notice of regulatory changes

4.29 TalkTalk does not consider that such a change in approach to using economic value would lead to any loss of regulatory predictability. Ofcom clearly flagged at §A15.205 of its consultation document that this was an option under consideration.

5 Ancillary services

5.0 Cost orientation obligation on SFIs and TRCs

5.1 Ofcom has proposed that a cost orientation obligation is imposed on SFIs and TRCs that would require Openreach set prices below outturn FAC. BT disagree with Ofcom's proposal, and make a number of arguments:

- Many of the services are contestable and regulation should only apply to those services which are 'reasonably necessary' for the provision of LLU/WLR;
- Reducing prices to FAC will mean that Openreach 'would not make any margin' and so remove Openreach's incentive to provide services, innovate and be efficient (i.e. reduce costs);
- Providing SFIs/TRCs diverts limited resources from LLU/WLR;
- Even where SFI/TRC products are 'reasonably necessary' there should only be a safeguard cap.

5.2 We disagree with many of BT's arguments, as set out below.

5.3 BT argue that many TRC/SFI services are contestable and therefore should not be regulated. We would agree with this claim in relation to the type of work that Openreach describe as volume deals (i.e. internal wiring on campuses and multi-tenant buildings). However, for the majority of TRC/SFI services related to individual LLU/WLR products the service is not contestable:

- Though the ultimate work that needs to be carried out might be not on the Openreach network in many cases it requires an Openreach engineer visit to ascertain the location of a fault
- TalkTalk's fault repair approach already uses our own (Qube) engineers to carry out TRC/SFI type work [✂]

  thus the remaining TRC/SFI work which we request Openreach to carry out is genuinely unavoidable
- The reason we make use of our own engineers is that [✂] As such, the fact that we provide any work to BT engineers at all [✂] should be taken as evidence that BT holds market power over the provision of those TRCs/ SFIs.

5.4 BT repeatedly argue that if prices are set at FAC then Openreach will "*not make any margin*" (§368) and so will have no incentive to provide the service. They also say that "*… the key reason why Ofcom should allow Openreach a margin in excess of FAC is that this will incentivise an efficient outcome*". (§362). This is incorrect. Openreach will have an incentive to provide the service provided that the price is above incremental/marginal cost. Since the incremental costs will be less than FAC, setting prices at FAC will ensure that Openreach have the incentive to provide SFI/TRC services, as Openreach will make a positive incremental margin. In a similar vein, BT complain that providing SFI/TRC services will divert resources (see §§367, 368). But a company acting rationally will not have a fixed resource base – if it needs to provide SFI/TRC services at a positive margin then it will recruit additional resources to do so. We also note that Openreach has been reducing its workforce.

5.5 BT also complain that setting prices at FAC will result in other downsides. BT say at §371 that: "*[setting prices at FAC] would undermine any incentive for innovation or efficiency improvement*". By efficiency improvement we presume BT means cost minimisation. Neither of these claims is well founded:

- Regarding innovation BT's claim is false since BT 's revenue will be above marginal cost. It is also worth noting that historically the degree of innovation has been rather limited so the argument that high prices are required for innovation is weak;
- We agree with BT's argument that setting a cost orientation obligation will reduce cost minimisation incentives. However the solution is not no effective price regulation (or a safeguard cap) but rather a charge control where prices are effectively fixed through the charge control period thereby creating a strong cost minimisation incentive. Thus we consider that a charge control would be preferable to the cost orientation proposed

5.6 BT note that in the 2012 Charge Control Ofcom said that Openreach's prices were in line with 'normal expectations' (§374). We have a number of comments on this:

- This comment only covered TRC, not SFI
- Ofcom presented no data so it is not clear on what basis it reached this conclusion. For example, what do Ofcom mean by 'normal expectations'; what data was used as the basis for this check? Was the cost allocation used the same as that used for setting the charge control (e.g. to avoid BT gaming by allocating the same costs to, say, MPF/WLR for the charge control and then also to TRC)? Was the cost allocation reasonable?
- The prices should be based on efficient costs levels which would be much lower than Openreach's. For example on a like-for-like basis the cost of a Qube engineer is [✂]. It is for this reason we take great steps to use Qube engineers wherever reasonably possible.
- Since the 2012 charge control costs should have fallen by perhaps 5% to 10% so even if prices were in line with normal expectations at that point in time, they would not be now.

- We note that in BT's 2013 RFS there was a material change in the allocation of costs to TRCs and SFIs

5.7 BT conclude that even where products are 'reasonably necessary' for the provision of LLU/WLR then the correct form of regulation is a safeguard cap. To suggest that preventing prices rising in future will ensure that prices are set at a competitive level is illogical and wrong. Whether prices are excessive depends on whether price are above costs (not whether they are higher than they were previously). Moreover, as we would expect costs to be falling over time (due to increased efficiency) under a safeguard cap price could become (more) excessive.

5.8 We also note in respect of SFI that Ofcom should consider whether this should be provided as part of the core MPF/SMPF service. Currently only faults that do not meet the SIN349 quality level[25] are repaired as part of the MPF service. However, some broadband faults will meet SIN349 meaning that fault repair (by means of the SFI) is charged extra. Given that the majority of Openreach lines are used for broadband it is somewhat anachronistic that repair of the line to allow a broadband service to operate is not part of the core product.

5.1 Price consistency of new provide, WLTO and SLP

5.9 BT have identified an 'unintended consequence' of Ofcom's basket design that there will be a narrowing of the price difference as between MPF/WLR New provide and MPF/WLR WLTO (working line takeover) and SLP (stopped line provide). BT argue (§262*ff*) that the price difference is important since too narrow a difference will encourage CPs to use the more costly New Provide (which requires an engineer visit). BT then goes on to suggest a number of alternatives alighting on combining the MPF and SMPF baskets as their preferred option.

5.10 We think BT's preferred suggestion is a hammer to crack an egg, as they are suggesting a wholesale redesign of the baskets – which will diminish their integrity – to address a small problem.

5.11 The problem they see is (at most) a £3.30 narrowing of the price difference as between WLTO/SLP and new provide over three years[26]. In reality this small price change will have little impact on CPs choice between new provide and WLTO/SLP. There are many other reasons to choose one product over the other such as: new provide requires an appointment and the need for the customer to be at home; the appointment might be missed; and, lead times for an appointment are much longer (on average 12 days and sometimes much longer). Further, WLTO and SLP could be made much more attractive by Openreach by improving the processes (e.g. accurate address matching, lower fault rate). The small narrowing of price gap will make little incremental difference to the use of WLTO and SLP.

[25] If a line meets SIN349 then a voice service will operate on the line to a good sound quality. Clearly, this is not an appropriate test for a broadband based service.
[26] £3.30 = £6.59 less £3.32 (from Table 7.2 of Openreach's response)

5.12 The most appropriate solution to the perceived (albeit small) problem is to get proper cost data on the costs of MPF/WLR WLTO and SLP and set a separate basket (which is similar to BT's option 2). It is squarely BT's fault if reliable cost data is not available.

5.13 The other point to raise is that none of the solutions will actually result in prices fully reflecting costs. The underlying problem (if there is one) is that much of the (incremental) cost of a MPF/WLR new provide is capitalised and recovered from MPF/WLR rental charges for all lines. Whilst this approach continues there will always be potential distortions. Trying to prevent the slight narrowing of the price difference by re-designing the baskets is missing the 'elephant in the corner'.

5.2 Sub-caps

5.14 BT argues (Openreach response §300 onwards) for a much less restrictive sub-cap. Its arguments on this topic are for the most part unjustified.

5.15 It argues it needs lots of price flexibility and that the sub-cap will 'unduly restrict' flexibility. However, it has not provided a single example of where the proposed sub-caps restriction will be 'undue' or will be harmful to customers.

5.16 BT note that flexibility allows efficient pricing (Openreach response §306) – which we presume means Ramsey pricing whereby common cost recovery is increased on low elasticity products. Critically, however, BT also note that they do not have any price elasticity data (Openreach response §303). This means that the main consumer benefit from price flexibility is not possible. Therefore, based on BT's own evidence there is no benefit from price flexibility. In contrast to there being no benefits from price flexibility we know that there are material downsides from price flexibility allowing discrimination such as pricing up products used externally, providing BT with increased scope to adopt exclusionary strategies towards its downstream rivals.

5.17 BT's other argument for price flexibility is that the costs for each product are likely to change in different ways and BT will need to be able to align prices with costs. We find this claim surprising since BT seem to have very little disaggregated cost data so they do not know the costs they are aligning with. In any case, given the products in this basket are mature, the underlying costs are unlikely to change much relative to each other[27].

5.18 BT argue that they cannot game the prior year weight aspect of the price cap (by pricing up growing volume products) since they do not have volume forecasts from CPs. However, Openreach will have a reasonable idea on the likely volume of products even if no formal forecasts are provided, so it would be able to game the price cap.

[27] Although the underlying costs might not change greatly, the allocations and, therefore FACs, might change. However, unless they reflect major corrections to better reflect cost causality then they will not reflect genuine changes in underlying costs

5.19 BT highlight the administrative burden of a sub-cap which means that the price of every product needs to be reset annually even if there is no (or very low) volume for the product and suggest that this is another reason for no or a lax sub-cap. If this administrative burden is genuinely the case then the appropriate remedy is for the sub-cap to only apply on products above a volume materiality threshold.

6 Other points

6.0 Effect of higher wholesale prices

6.1 BT seem to argue (Openreach response §40*ff*) that higher wholesale prices are acceptable since:

- Wholesale prices have previously fallen
- Wholesale prices are relatively lower than EU averages
- Higher wholesale prices may not result in higher retail prices

6.2 These points are irrelevant and/or wrong.

6.3 The question of whether prices are economically efficiency depends on whether prices reflect the existing and future costs of an efficient operator – whether prices are efficient has nothing to do with whether prices are currently lower than they have previously been or currently lower than in other countries.

6.4 Regarding the relationship between wholesale prices and retail prices BT highlight that though wholesale MPF/WLR prices have fallen retail line rental prices have risen. To suggest based on this that there is no pass through of wholesale price changes in retail prices is (at best) naïve. Retail line rental prices reflect many factors and will have increased as retail prices have rebalanced from high call/broadband charges with low rental charges and more being included in bundles. BT is either naïve or incompetent if it genuinely thinks that higher wholesale prices will not result in higher retail prices given the competitive nature of the retail market which means cost increases are passed through[28]. The mechanism of cost pass through is a very straightforward economic concept. Rising retail prices will put more pressure on the cost of living. [✂].

6.5 It is also relevant to note BT's suggestion that there is no pass through. This implies (particularly as BT Retail is the price leader) that BT accepts that BT Retail's retail prices do not reflect wholesale charges. We strongly agree that BT Retail's prices do not necessarily reflect wholesale prices since BT do not *pay* wholesale charges.

[28] In a monopoly with linear demand and constant marginal costs, there will be a 50% pass-through of changes in incremental costs. In a perfectly competitive market, there will be 100% pass-through. Other market structures (e.g., *n*-firm Cournot equilibrium) lead to intermediate rates of pass-through.

6.1 TAM price adjustment

6.6 BT suggest that the removal of the TAM price adjustment should be made immediately (i.e. a 'P0' change) and not by means of a glidepath. We disagree. Changing prices by means of a glidepath is a central principle in Ofcom's pricing approach and should only be departed from in exceptional circumstances (for example, where previously no charge control applied or where product is being redefined). BT argue that:

> *"… any rational investor would recognise that Ofcom's goal was to remove this adjustment and that this intention was signalled over a protracted period. Immediately removing this adjustment is therefore unlikely to undermine reasonable expectations or threaten the provision of a stable regulatory framework" (Openreach response §210)*

6.7 BT's assertion is not correct.

- First, the removal of this adjustment was not signalled over 'a protracted period'. In fact, it was firstly explicitly addressed in the 2012 LLU/WLR charge control appeal during mid-2012.
- Second, the most reasonable expectation of an investor would be that changes due to the removal of the adjustment would be made via a glidepath since that was the basis on which price changes in charge controls have previously been made.
- Third, making a one-off change would plainly be a stark change in approach and thus would threaten the stable regulatory framework.

6.2 Adjustment for internal SMPF

6.8 Inclusion of internal SMPF in the (external) SMPF volume means that the volume driver for LLU systems costs includes internal SMPF volumes. This would appear to be inappropriate as our understanding is that internal SMPF does not use LLU systems and thus does not drive the costs of LLU systems.

6.3 Familiarity with the RFS

6.9 BT suggest that one of the benefits of using the RFS as the basis for modelling is "*the familiarity of stakeholders with RFS cost models*" (Openreach response §59). For the record we (as a key stakeholder) fundamentally disagree with this suggestion. The RFS are an opaque black box, providing little or no transparency to anyone. The PAD,[29] DAM[30] and consequently RFS are not currently fit for purpose, and TalkTalk has no confidence whatsoever in them, as they have been thoroughly distorted to meet BT's commercial aims. It is imperative that they are comprehensively reformed before the next LLU charge control takes place.

[29] Primary Accounting Document
[30] Detailed Attribution Methodology