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# BT's response to Ofcom's cost of capital proposals contained in recent Charge Control consultations

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BT welcomes comments on the content of this document

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# 1 Introduction and summary of BT's position

Ofcom's consultation on the charge controls to apply to BT in the provision of Wholesale Broadband Access services in geographic "market 1" published in January 2011 proposed – among other things – to reduce BT Group's pre-tax nominal WACC by 170bp (from 10.6% to 8.9%). The proposals for the separate disaggregated WACCs for "Openreach" and "Rest of BT" reflected similar reductions.

These same proposals were then set out in the separate consultations published at the end of March/start of April on the charge controls to be applied to BT's provision of LLU, WLR and ISDN30 services.

Overall, we believe that the reductions implied by Ofcom's proposals – coming less than two years since the WACC was last reviewed – are excessive and disproportionate when assessed against a range of available evidence.

Significant reductions in WACC from one charge control to another risk sending the wrong signals to the market, especially at a time when we are embarking on a significant investment programme to deploy fibre to two thirds of the UK and continue to face competitive pressure from large and well-financed players in the various markets in which we operate.

We note that the Competition Commission has recently stated that: *"in industries with long-lived assets regulators should take a long-term view of the cost of capital and adjust components only when they believe there has been a permanent shift in the pricing of risk."*<sup>1</sup> We agree and in this response and the supporting report from Oxera, we provide extensive evidence and analysis that challenges Ofcom's provisional view that there have been such permanent shifts in relation to key parameters underpinning the WACC calculation.

Ofcom's objective is to set the WACC for BT that is likely to prevail in the last year of the price controls to be set this year, i.e. in 2013/14. There are obvious risks of using recent historic trends in key cost of capital parameters to make judgements on the expected future level of those parameters, particularly in light of the volatility that has been evident in relevant data during the last 2-3 years. Although Ofcom acknowledges this risk in its consultation documents, we do not think Ofcom has ultimately given sufficient weight to this issue in reaching its provisional views. In particular, Ofcom's proposals provide limited, if any, headroom to deal with volatility and uncertainty around key market parameters in the coming years.

We believe that the evidence and analysis contained in this response and Oxera's report shows that:

- The **nominal risk-free rate** for 2013/14 should be set at 4.5%. This is derived from a real risk-free rate range of 1.5%-2.0% and an inflation range of 2.5%-3.0%. These ranges are based on a detailed analysis of the implied forward interest rates for 2013/14 for five- and ten-year index-linked gilts, as well as different forecasts of RPI inflation levels for 2013/14 (all of which are higher than Ofcom's inflation assumption of 2.5%). Furthermore, the

<sup>1</sup> Paragraph 2.368 CC Final Determination, CPW vs Ofcom, Case 1111/3/3/09

combined point estimate of 4.5% for the nominal risk-free rate is consistent with implied forward rates to 2013/14 for five and ten-year UK government nominal bonds.

- There is no evidence that BT's business risk and **asset beta** have decreased since May 2009 as suggested by Ofcom's proposals. Ofcom has indicated that in reaching a final decision it will rely on the updated 2-year asset beta estimate. We would strongly caution against the use of this single measure given that, as shown in section 1.3, it would result in the lowest asset beta estimate based on the latest available market data. Oxera has undertaken a more holistic analysis taking into account the evolution of the 1-year, 2-year and 5-year equity beta estimates since May 2009, as well as evidence on the level of gearing that investors had priced into our share price in the past few years. Based on their detailed analysis, Oxera concludes that a more appropriate estimate of BT's asset beta lies in a narrower and higher range between 0.59-0.65. This is similar to the range Ofcom consulted on in May 2009.<sup>2</sup> In other words, there is no support for the view that there has been a permanent reduction in BT's asset beta since May 2009.
- Ofcom's approach to estimate the **cost of debt** focuses on the cost of new debt and ignores the cost of BT's embedded debt. However, we argue that Ofcom should follow the CC's approach to the cost of debt in other sectors (eg, water and airports) and use a weighted average cost of new and embedded debt. This weighted average cost of debt for BT in 2013/14 is estimated conservatively by Oxera to be 8.0%. Consistent with the CC's approach, we use this number in our WACC calculations and believe Ofcom should do the same.

As shown in Table 1 below, we believe that a more appropriate range for BT Group's cost of capital for 2013/14 that reflects the evidence and analysis we have undertaken on each individual parameter would be **10.4%-10.8%**. The corresponding estimate for Openreach would be 10.0%-10.4% and for the Rest of BT 10.8%-11.2%.

These WACC estimates are considerably higher than Ofcom's current proposal but are similar to the point estimates provided in May 2009. Overall, therefore, the evidence contained in our response and Oxera's report provides no basis for the material reduction in BT's cost of capital that Ofcom is proposing.

<sup>2</sup> In May 2009, Ofcom proposed an equity beta range for BT Group of 0.8-1.0 which combined with a 38% gearing and 0.15 debt beta gives an asset beta range of 0.55-0.68. See Ofcom (2009), A new pricing framework for Openreach, Annexes, paragraph A8.61, May.

**Table 1 Cost of capital estimation for BT**

<b>WACC parameter</b>	<b>BT Group</b>			<b>Openreach</b>	<b>Rest of BT</b>
	<b>Ofcom May 2009</b>	<b>Ofcom Jan. 2011</b>	<b>Oxera Mar. 2011</b>		
Real RFR	2%	1.5%	1.5% - 2%	1.5% - 2%	1.5% - 2%
Inflation	2.5%	2.5%	2.5% - 3%	2.5% - 3%	2.5% - 3%
Nominal RFR	4.5%	4%	4% - 5%	4% - 5%	4% - 5%
Equity Risk Premium	5%	5%	4.5% - 5.5%	4.5% - 5.5%	4.5% - 5.5%
Equity beta (estimated)	0.9	0.78 – 1.08	0.90 – 1.00	0.80 – 0.90	1.00 – 1.10
Gearing for de-levering	38%	50%	40%	40%	40%
Asset beta <sup>1</sup>	0.61	0.45 – 0.60	0.59 – 0.65	0.53 – 0.59	0.65 – 0.71
Gearing (for re-levering)	35%	50%	40%	40%	40%
Equity beta (re-levered)	0.86	0.78 – 1.08	0.90 – 1.00	0.80 – 0.90	1.00 – 1.10
Debt premium	3%	2% - 2.5%	n/a	n/a	n/a
Cost of debt	7.5%	6% - 6.5%	8.0% <sup>2</sup>	8.0% <sup>2</sup>	8.0% <sup>2</sup>
Tax	28%	25%	25%	25%	25%
<b>WACC (pre-tax nominal)</b>	<b>10.6%</b>	<b>8.2%-9.7%<sup>3</sup></b>	<b>10.4%-10.8%<sup>4</sup></b>	<b>10.0%-10.4%<sup>4</sup></b>	<b>10.8%-11.2%<sup>4</sup></b>

Notes: <sup>1</sup>The asset beta is estimated based on the assumption that the debt beta is 0.125, which is consistent with Ofcom's proposal in its January 2011 consultation document. <sup>2</sup>This is the weighted average cost of new and embedded debt. <sup>3</sup>This is the extended range considered by Ofcom, not the range implied by the parameters shown in the column (which is 8.3–9.5%). <sup>4</sup>These WACC ranges are based on the point estimates for the nominal RFR (4.5%) and ERP (5%).

Source: Ofcom (2009), 'A new pricing framework for Openreach', May, p. 24, Table 4.4. Ofcom (2011), 'Proposals for WBA charge control—Consultation document and draft notification of decisions on charge control in WBA Market', January 20th, p. 83, Table 6.1 in Oxera's report (for BT Group estimates), and BT calculations (for Openreach and Rest of BT WACC estimates).

## 2 Our detailed views on individual WACC parameters

This section contains our assessment of Ofcom's proposals for each individual WACC parameter. We have relied on Oxera's detailed analysis and conclusions to inform our assessment and refer the interested reader to their report for further details.

### 2.1 Nominal Risk-free rate

Ofcom has proposed a point estimate of 1.5% for the real risk-free rate and a point estimate of 2.5% for the inflation rate. Combined, these assumptions give a point estimate of the nominal risk-free rate of 4.0%. This represents a reduction of 50bp from the point estimate of 4.5% Ofcom set in May 2009.

The evidence discussed below strongly suggests that Ofcom's estimates of the real risk-free rate and inflation do not provide sufficient headroom to account for recent trends and market volatility and are therefore too low.

#### 2.1.1 Real risk-free rate

In periods of stability, current yields and recent historic averages would tend to provide good estimates of the medium- to long-term value for this parameter. However, current yields are at historically low levels and continue to be affected by factors such as the government's programme of quantitative easing and increased demand for UK bonds in the post-crisis period.

Ofcom recognises this problem, and BT welcomes the intention to account for it by giving more weight to long-term averages rather than more recent rates.<sup>3</sup> However, because the distorted low rates have persisted for a relatively long period of time, historic averages are also likely to be biased downwards.

In this context, and given that Ofcom's objective is to set WACC parameters that are relevant for the final year of the charge control,<sup>4</sup> it is more relevant to consider information on the implied forward rates to assess where the market expects the real risk-free rate to be by 2013/14.

Ofcom states that its point estimate of 1.5% was reasonable in light of the implied forward rates of 1% in 3 years time.<sup>5</sup> However, we note that the implied forward rates in the past few months have fluctuated around 1.5% and reached a peak of about 1.6% in February 2011.

Figure 1 below highlights the evolution of the implied forward rates for five- and ten-year ILGs since July 2010 to date. As can be seen, in early July 2010, the implied forward rates for mid 2013/14 were around 1.5% (Point A). The forward

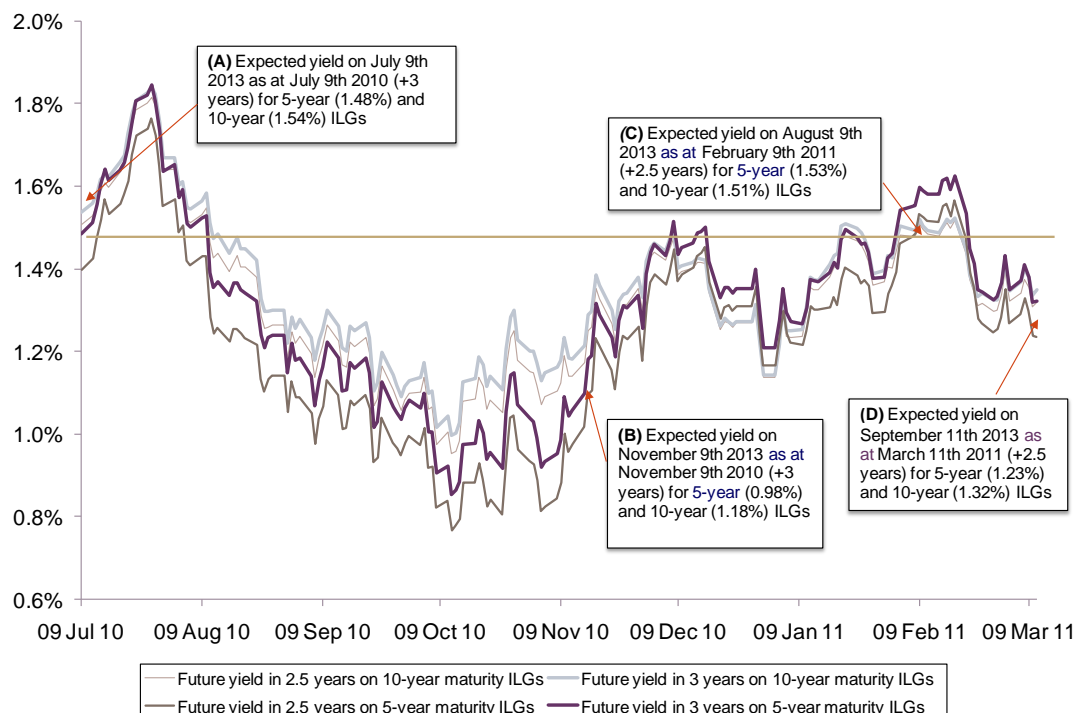
<sup>3</sup> WBA consultation, paragraph 6.60.

<sup>4</sup> As Ofcom states: "we need to be mindful that this charge control is for a 3 year period, and therefore our rate needs to be relevant for that period, and in particular for the final year of the charge control, which is the year in which we estimate BT's costs" (WBA consultation, paragraph 6.47)

<sup>5</sup> WBA Consultation, paragraph 6.73.

rates then dropped significantly to around 1% in November 2010<sup>6</sup> (Point B), but have since recovered in the past three/four months reaching a peak in mid February 2011 of around 1.6% (Point C).

**Figure 1 Implied future yields on five- and ten-year ILGs in 2.5 and 3 years' time**



Source: Oxera report, Figure 2.3

BT is concerned that, set against these forward rates (which are also likely to have been affected by the Bank of England's quantitative easing programme), Ofcom's proposal of 1.5% does not allow for any headroom to account for the likelihood that rates in 2013/14 could move above this level. The failure to provide any headroom is worrying given that, as Ofcom notes, the cost of setting the cost of capital too low is higher than the cost of setting it too high.<sup>7</sup>

It is also relevant to note that the implied forward rates reported in Figure 1 have been recently fluctuating at levels similar to those which were observed in July 2010 when the CC set the real risk-free rate at 2.0% in the Bristol Water final determination.<sup>8</sup> We therefore believe there are strong grounds for Ofcom not to deviate from the CC's proposal.

<sup>6</sup> Point B broadly corresponds to November 10<sup>th</sup>, 2010, which is the cut-off date used by Ofcom in Table 6.6 of the WBA consultation to estimate current and historic averages of the risk-free rate.

<sup>7</sup> WBA consultation, paragraph 6.194.

<sup>8</sup> Competition Commission (2010), 'Bristol Water plc—A reference under section 12(3)(a) of the Water Industry Act 1991', August 4<sup>th</sup>, p. 65, para 9.14 and Table 1.

Based on the evidence presented above, and applying a conservative headroom to the implied forward rate, BT believes that an appropriate estimate of the real risk-free rate for 2013/14 would lie in the range of 1.5% - 2%.<sup>9</sup>

### 2.1.2 Inflation

Ofcom uses an inflation assumption of 2.5%. However, Ofcom notes that when they publish a final decision, this assumption will be reviewed in light of the latest available forecasts.<sup>10</sup>

We asked Oxera to undertake a detailed analysis of a variety of inflation measures and latest available forecasts in order to assess whether the assumption of 2.5% is appropriate.

The results of Oxera's analysis clearly show that Ofcom's inflation assumption of 2.5% is too low when compared against a variety of forecasts benchmarks for RPI inflation (the relevant inflation measure for the nominal risk-free rate), eg:

- current RPI inflation of 5.3% for March 2011;
- independent medium-term forecasts of RPI inflation of 3.0% for 2013/14 compiled by HM Treasury;
- latest implied inflation figures (as of March 11<sup>th</sup>, 2011) of 2.9% and 3.3% based on 5-year gilts and 5-year inflation-linked swaps, respectively;
- Ofcom's own RPI assumption for the WBA charge control model of 3.0% in 2013/14.<sup>11</sup>

Set against these benchmarks, there is a high likelihood that Ofcom's inflation assumption for 2013/14 will turn out to be too low and, therefore, there is a substantial risk of underestimating what is arguably the most important parameter in BT's WACC estimation: the nominal risk-free rate.

In light of this evidence, Oxera concludes that an inflation assumption ranging between 2.5%- 3.0% would be more appropriate.

### 2.1.3 Conclusion on the nominal risk-free rate

Taken together, we believe the evidence presented above and the detailed analysis conducted by Oxera clearly indicate that the point estimate of 4.0% for the nominal risk-free rate in 2013/14 is too low.

Oxera's analysis suggests that a range of 1.5%-2% for the real risk-free rate combined with an inflation assumption of 2.5%-3% would be more appropriate. These estimates combine to give a range for the nominal risk-free rate of 4.0%-5.0%, with a point estimate of 4.5%.

As illustrated in Figure 2, this point estimate is consistent with the implied forward rate on five- and ten-year nominal bonds for 2013/14, which have fluctuated considerably above 4.0% in the past few months. Ofcom's proposal provides no headroom to account for this data.

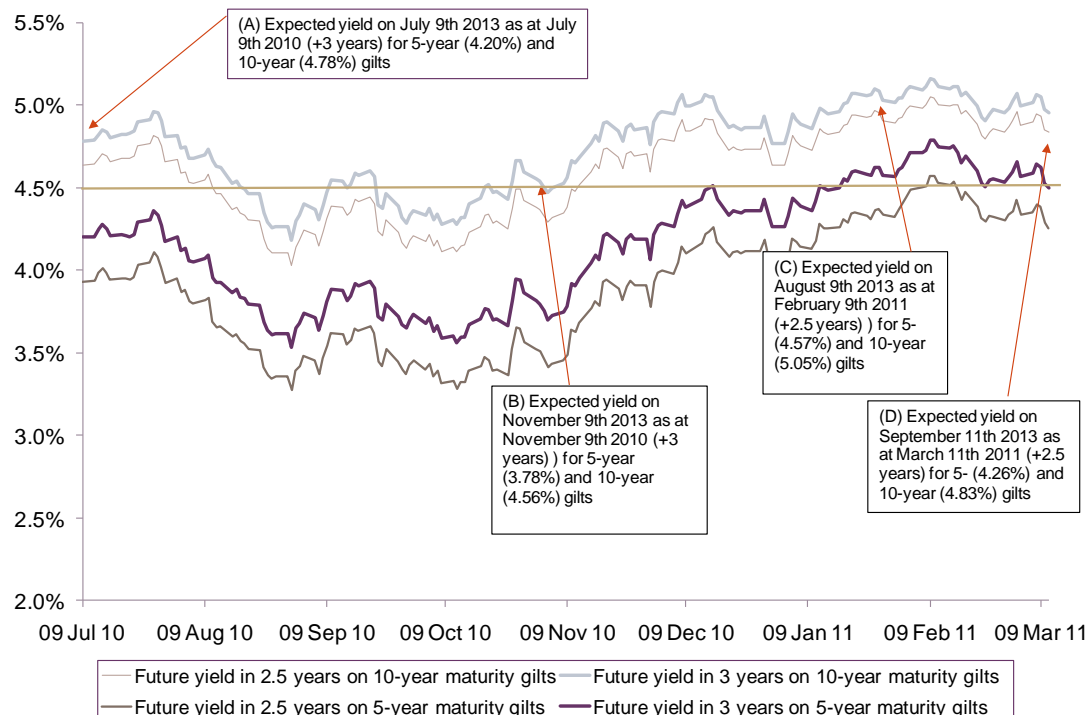
<sup>9</sup> Oxera's detailed analysis of the real risk-free rate can be found in section 2.1 of their report.

<sup>10</sup> WBA Consultation, paragraph 6.76.

<sup>11</sup> WBA Consultation, Table A7.6.



**Figure 2 Implied future nominal yields on five- and ten-year gilts in 2.5 and 3 years' time**



Source: Oxera report, Figure 2.9

## 2.2 Equity risk premium (ERP)

Oxera's analysis of the ERP suggests that a range of 4.5%-5.5%, with a point estimate of 5.0%, would be appropriate in the current market conditions. The central estimate of 5.0% is supported by recent forward-looking evidence derived from current market data and is in line with, if slightly lower than, the latest arithmetic mean of ERP (5.2%) reported by DMS for the UK.

From our perspective, the important point to note here is that the latest available evidence suggests that there has not been a significant shift in the forward-looking ERP to warrant a change from the 5.0% estimate that was set in May 2009. We therefore believe Ofcom's proposal to keep this parameter unchanged is reasonable.

## 2.3 Equity beta, asset beta and gearing

Ofcom's proposed range for BT's asset beta is 0.45-0.60, with a midpoint of 0.525. Whilst Ofcom does not explicitly state how it arrives at this range, it would appear that this is derived from estimates of BT's 1- and 2-year equity betas from different dates combined with a gearing assumption of around 50%.<sup>12</sup>

<sup>12</sup> The low end of the range appears to be based on a 2-year equity beta from Oct 26<sup>th</sup> 2010 of 0.84 and a gearing assumption of 53%. For a debt beta of 0.125 this gives an asset beta of 0.46. On the other hand, the upper end of the range appears to be based on a 1-year beta estimate from Jan 11<sup>th</sup>

We have significant concerns with this proposal and the underlying assumptions.

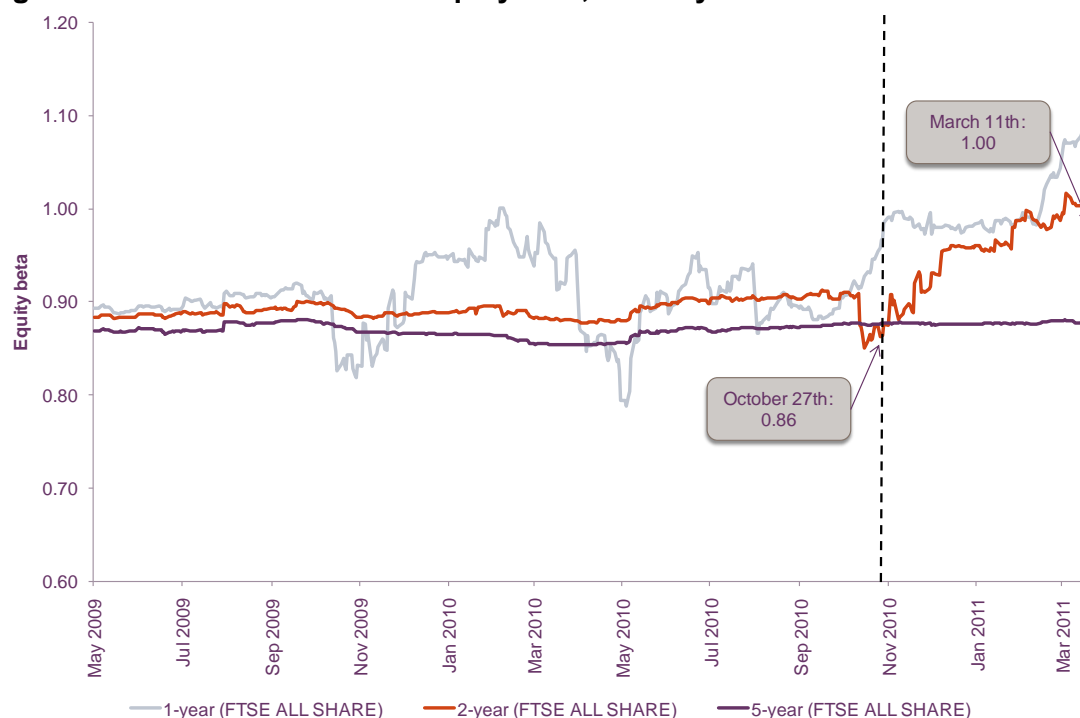
Ofcom's proposed asset beta midpoint of 0.525 represents a significant reduction from the May 2009 estimate of 0.61. This leads to the counterintuitive conclusion that BT's business risks have fallen at a time when we face increasing competition in our traditional business areas – e.g. from Virgin Media, fixed-mobile substitution and alternative infrastructure-based providers – as well as increased commercial and operational risks across our product portfolio as a result of our fibre investment programme.

There are two key reasons why we believe Ofcom's range and point estimate are too low:

1. The low end of the range—and by extension the midpoint—is influenced by the cut-off date used by the Brattle Group to estimate the equity beta which Ofcom relied upon. The Brattle Group's estimation date (27th October 2010) coincides with the period with the lowest estimates for BT's equity beta in more than two years and is therefore not representative of the long-term trend of this parameter (see Figure 3 below);
2. Ofcom's gearing assumption of around 50% used to de-lever the equity beta to obtain asset beta estimates is biased upwards by the unusually high levels of gearing in 2009 due to the steep decline in BT's share price (ie, it had nothing to do with a deliberate change in the target capital structure of the company). We argue that investors understood that these unusually high levels of gearing were a temporary phenomenon, and that a lower and more stable forward-looking gearing was reflected in BT's stock prices during this period

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2011 of 0.58 (see WBA consultation, paragraph 6.132). Given that the equity beta on that date was 0.98, it can be inferred that the gearing assumed was 47%.

**Figure 3 Evolution of BT's equity beta, January 2008 – March 2011**

Source: Oxera estimates based on Datastream data

Our views are supported by Oxera's analysis of the latest available market data, as well as their detailed assessment of the relevant gearing assumption that should be used to calculate the asset beta. Their analysis clearly shows that there is no evidence that BT's asset beta has decreased since May 2009.

Table 2 below provides a wide range of estimates of the 1-year, 2-year and 5-year equity and asset betas as of March 11<sup>th</sup>, 2011. As can be seen, the range of asset betas reported lies between 0.57-0.75, which is considerably higher than Ofcom's range. As an illustration, simply updating Ofcom's asset beta range with the latest available market data up to March 11<sup>th</sup> 2011 gives a range of 0.57-0.64.<sup>13</sup>

<sup>13</sup> Consistent with the way Ofcom derives its asset beta range, this range is derived as follows: the low end of the range (0.57) is a 2-year estimate measured against the FTSE Allshare index and using historic gearing of 50%; whereas the high end of the range (0.64) is a 1-year estimate measure against the same index and using historic gearing of 46% (see Table 1).

**Table 2 Estimates of BT Group's equity and asset beta (March 11th, 2011)**

	<b>FTSE All-share</b>	<b>70% FTSE All-share + 30% FTSE World excluding UK</b>
<b>1-year Equity beta</b>	<b>1.07</b>	<b>1.17</b>
Asset beta (using actual average gearing of 46%)	0.64	0.69
Asset beta (using forward gearing of 40%)	0.69	0.75
<b>2-year Equity beta</b>	<b>1.00</b>	<b>1.07</b>
Asset beta (using actual average gearing of 50%)	0.57	0.60
Asset beta (using forward gearing of 40%)	0.65	0.69
<b>5-year Equity beta</b>	<b>0.88</b>	<b>0.97</b>
Asset beta (using actual average gearing of 39%)	0.59	0.64
Asset beta (using forward gearing of 40%)	0.58	0.63

Source: BT estimates derived from Equity betas reported in Table 4.1 of Oxera's report and actual gearing data derived BT's Reported Net Debt (Debt Beta assumption: 0.125) .

The lowest of these estimates (0.57) is substantially above Ofcom's proposed midpoint of 0.525, let alone the low end of their range. This estimate is derived from a 2-year equity beta measured against the FTSE All-share index and actual gearing for de-levering purposes.

Ofcom states that it expects to use a 2-year asset beta when reaching a final decision,<sup>14</sup> which suggests that Ofcom's final point estimate could be updated to around 0.57.

Whilst BT welcomes Ofcom's stated intention to use a cleaner dataset that is not affected by the late 2008/early 2009 credit crisis period in reaching a final decision, we would strongly caution against the reliance on a single measure of the asset beta at a particular point time, especially when, as shown in Table 2, Ofcom's chosen measure would provide the lowest asset beta estimate.

Rather than focusing on the estimates at one particular date, Oxera has undertaken a more holistic analysis of the available evidence, taking account of the evolution of 1-year, 2-year and 5-year estimates since May 2009 to date. Their analysis concludes that a more appropriate estimate of BT's equity beta lies in a narrower range between 0.9-1.0.

To determine the appropriate gearing level for de-levering the estimated equity beta to arrive at an estimate of asset beta for BT, Oxera has carried out a detailed analysis on the likely gearing that was reflected in BT's stock prices in the past few years. Oxera concludes the market did not price in the observed and volatile level of gearing in BT's share prices, which peaked at over 60% in the beginning of 2009.

Instead, Oxera's analysis leads them to conclude that the market believed that the large swing in BT's gearing in the past few years would be temporary and

<sup>14</sup> WBA consultation, paragraph 6.115.

investors did not significantly adjust their view of the long-run gearing level for BT. Therefore, Oxera concludes that a conservative estimate of the gearing priced in BT prices would be 40%, and uses this gearing assumption for de-levering purpose (as well as for re-levering asset beta to estimate the forward-looking 2013/14 equity beta in the WACC formula). BT strongly agrees with this conclusion as it is consistent with a wide range of observations and evidence:<sup>15</sup>

- BT's equity beta estimates have been fairly stable over the past two years despite the swing in observed gearing. This trend is not consistent with the standard predictions of financial theory
- There is no evidence that the market perceived BT's business risks to have deteriorated during this time period; hence, the stable equity beta can only be explained if investors understood that the unusually high gearing levels in the past few years was a temporary phenomenon that was not reflective of BT's long-term capital structure
- Before the steep drop in our share price which took gearing to unusually high levels, BT's gearing had been mostly below 40% and is currently less than 38% and forecast to reduce even further
- Immediately after BT's gearing levels peaked in 2009, we communicated to the market our intention to reduce debt levels and these communications continued throughout 2010
- Investors' and analysts' reports during the past couple of years contain explicit forecast reductions in BT net debt levels in 2012 and 2013. On average, analysts were forecasting a reduction in BT's net debt of around [30] between 2009 and 2012<sup>16</sup>
- Furthermore, some analysts' reports contain explicit gearing assumptions of 25% and 35% in their BT valuation models during 2009 -2010<sup>17</sup>
- The level of spreads on BT's corporate bonds relative to the spread on the BBB bond index in the past couple of years is also consistent with the interpretation that investors understood these high levels of gearing were not representative of BT's long-term capital structure<sup>18</sup>

Taking all this evidence into account, Oxera concludes that *"a reasonable estimate of the potential gearing level that was incorporated into BT's share prices in the past few years is probably close to the historical average gearing prior to the spike in 2009. [...] To be conservative, the top end of this range—40% gearing—is used in the discussion below to de-lever the equity beta."*<sup>19</sup>

In light of the evidence discussed above and elaborated in further detail in Oxera's report (see section 4), we believe that, a forward-looking gearing that was likely to have been priced into our share prices in the past few years should be used to de-lever the estimated equity beta. This would result in a range of asset beta estimate of 0.59-0.65. These asset beta estimates are higher than

<sup>15</sup> See section 4.2 of Oxera's analysis for a more detailed explanation.

<sup>16</sup> See Table 4.4 and the discussion in the paragraph following Table 4.4 in Oxera's report.

<sup>17</sup> [30]

<sup>18</sup> See section 5.1 in Oxera's report.

<sup>19</sup> See last paragraph of section 4.2 in Oxera's report, pg. 36.

Ofcom's January 2011 consultation levels, but similar to Ofcom's May 2009 determination,<sup>20</sup> and consistent with the evidence that there is no identifiable decline in BT's business risk in the past two years.

## 2.4 Debt premium and the overall cost of debt

Ofcom proposes a debt premium range of 2%-2.5%. Combined with Ofcom's assumption of 4% for the nominal risk-free rate, the overall cost of debt for BT that is being proposed is in the range of 6-6.5%.

Oxera has undertaken a detailed analysis of the debt premium on BT's bonds and concluded that Ofcom's proposed range of debt premium of 2-2.5% is consistent with the evidence on the current and historical spreads of BT's bonds, as well as the spreads of the BBB rated bond index.

However, Ofcom's consultation document focuses exclusively on estimating the cost of new debt. This is in contrast to the approach that the CC has adopted in other sectors (water and aviation, for example) where it has used a weighted average cost of both existing and new debt.<sup>21</sup>

We strongly believe that in a charge control context, where the regulated company has the legitimate expectation that it will be able obtain a sufficiently high return to service existing liabilities that were incurred efficiently at the time of funding, the CC's approach should be applied. This is in fact consistent with one of Ofcom's core policy objectives for charge controls, namely, *"to ensure that the delivery of the regulated services is sustainable, in that the prevailing prices provide BT with the opportunity to recover all of its relevant costs (where efficiently incurred), including its cost of capital."*<sup>22</sup>

Consistent with this policy objective and in line with the CC's approach to the cost of debt in other sectors, we argue that Ofcom should estimate the cost of debt that BT will face in 2013/14.

Oxera has undertaken such an exercise, and their conservative estimate for the cost of the embedded debt for BT in 2013/14 is 8.0%.<sup>23</sup> This is based on a weighted average cost of the fixed-rate bonds [ $\Sigma$ ] and floating-rate borrowing (the cost of which would be similar to the cost of new debt estimated above as 6.5%-7.0%). This is based on the conservative assumption that BT will have the same level of net debt in 2013/14 as in December 2010 [ $\Sigma$ ], and that the difference between the net debt and the [ $\Sigma$ ] fixed-rate bonds that will be in existence in 2013/14 [ $\Sigma$ ] are borrowed at a floating rate.

The resulting weighted average cost of debt estimate of 8% for BT in 2013/14 is consistent with CC's approach in other sectors. We therefore use this number as

<sup>20</sup> In May 2009, Ofcom proposed an equity beta range for BT Group of 0.8-1.0 which combined with a 38% gearing and 0.15 debt beta gives an asset beta range of 0.55-0.68. See Ofcom (2009), A new pricing framework for Openreach, Annexes, paragraph A8.61, May.

<sup>21</sup> Competition Commission (2010), 'Bristol Water plc—A reference under section 12(3)(a) of the Water Industry Act 1991', August 4<sup>th</sup>; and Competition Commission (2007), 'BAA Ltd: A report on the economic regulation of the London airport companies (Heathrow Airport Ltd and Gatwick Airport Ltd), appendix F, September.

<sup>22</sup> WBA consultation, paragraph 2.27.

<sup>23</sup> See section 5.2 in Oxera's report.

the cost of debt in our WACC calculations and believe Ofcom should also do the same.

### 3 An appropriate WACC range for 2013/14

Table 3 below brings together our views and Oxera's estimates for each individual WACC parameter to arrive at an overall WACC for BT in 2013/14. Based on this analysis, an appropriate pre-tax nominal WACC range for BT Group would be 10.4%-10.8%.

Estimates of the equity beta of Openreach and the Rest of BT can be derived from the equity beta estimates of BT Group. We follow Ofcom's assumption of setting the equity beta for Openreach to be 0.1 lower than that of BT Group and the equity beta for the Rest of BT to be 0.1 higher than that of BT Group. At 40% gearing, this translates approximately into an asset beta difference of +/- 0.06 compared to BT Group's asset beta range.

Using the point estimates of the nominal risk-free rate of 4.5% and the ERP of 5%, this results in an Openreach WACC between 10.0%-10.4% and a Rest of BT WACC between 10.8%-11.2%.

These WACC estimates are considerably higher than Ofcom's current proposal, but are similar to the point estimate provided in May 2009. Overall, the evidence contained in our response and Oxera's report provides no basis for the material reduction in BT's cost of capital that Ofcom is proposing.



**Table 3 Cost of capital estimation for BT**

<b>WACC parameter</b>	<b>BT Group</b>			<b>Openreach</b>	<b>Rest of BT</b>
	<b>Ofcom May 2009</b>	<b>Ofcom Jan. 2011</b>	<b>Oxera Mar. 2011</b>		
Real RFR	2%	1.5%	1.5% - 2%	1.5% - 2%	1.5% - 2%
Inflation	2.5%	2.5%	2.5% - 3%	2.5% - 3%	2.5% - 3%
Nominal RFR	4.5%	4%	4% - 5%	4% - 5%	4% - 5%
Equity Risk Premium	5%	5%	4.5% - 5.5%	4.5% - 5.5%	4.5% - 5.5%
Equity beta (estimated)	0.9	0.78 – 1.08	0.90 – 1.00	0.80 – 0.90	1.00 – 1.10
Gearing for de-levering	38%	50%	40%	40%	40%
Asset beta <sup>1</sup>	0.61	0.45 – 0.60	0.59 – 0.65	0.53 – 0.59	0.65 – 0.71
Gearing (for re-levering)	35%	50%	40%	40%	40%
Equity beta (re-levered)	0.86	0.78 – 1.08	0.90 – 1.00	0.80 – 0.90	1.00 – 1.10
Debt premium	3%	2% - 2.5%	n/a	n/a	n/a
Cost of debt	7.5%	6% - 6.5%	8.0% <sup>2</sup>	8.0% <sup>2</sup>	8.0% <sup>2</sup>
Tax	28%	25%	25%	25%	25%
<b>WACC (pre-tax nominal)</b>	<b>10.6%</b>	<b>8.2%-9.7%<sup>3</sup></b>	<b>10.4%-10.8%<sup>4</sup></b>	<b>10.0%-10.4%<sup>4</sup></b>	<b>10.8%-11.2%<sup>4</sup></b>

Notes: <sup>1</sup> The asset beta is estimated based on the assumption that the debt beta is 0.125, which is consistent with Ofcom's proposal in its January 2011 consultation document. <sup>2</sup> This is the weighted average cost of new and embedded debt. <sup>3</sup> This is the extended range considered by Ofcom, not the range implied by the parameters shown in the column (which is 8.3–9.5%). <sup>4</sup> These WACC ranges are based on the point estimates for the nominal RFR (4.5%) and ERP (5%).

Source: Ofcom (2009), 'A new pricing framework for Openreach', May, p. 24, Table 4.4. Ofcom (2011), 'Proposals for WBA charge control—Consultation document and draft notification of decisions on charge control in WBA Market', January 20th, p. 83, Table 6.1 in Oxera's report (for BT Group estimates), and BT calculations (for Openreach and Rest of BT WACC estimates)

## 4 Response to specific consultation questions

*Q6.1 We welcome stakeholders' views on Ofcom's approach to estimating two different costs of capital for Openreach and Rest of BT*

We consider that Ofcom's approach to estimating two different costs of capital for BT is reasonable.

*Q6.2 We welcome stakeholders' views on Ofcom's approach to ERP estimates.*

Our comments are set out in **Section 2.2**.

*Q6.3 We would welcome stakeholders' views on Ofcom's approach to BT's Beta calculation.*

Our comments are set out in **Section 2.3**.

*Q6.4 Do respondents agree with the proposal that the 'rest of BT' rate should be used for the WBA charge control in Market 1?*

BT agrees that the 'rest of BT' WACC should be used for the WBA charge control in market 1, but this should be based on the estimate provided in section 3.

## Offices worldwide

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