Price controls for wholesale ISDN30 services

Openreach response to the Ofcom consultation
dated 1 April 2011

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NON-CONFIDENTIAL VERSION

1 Executive Summary

1. ISDN30 is widely perceived as a legacy service that is now in decline, with customers increasingly switching over to IP-based alternatives. The introduction of a charge control for the first time on a service that is in decline runs counter to normal regulatory practice, where obligations tend to be relaxed as services move toward obsolescence. Openreach has consistently expressed concerns that the introduction of a charge control on this legacy service would risk significant adverse consequences by stoking up demand – thereby causing inefficient investment - and impeding migration to newer, alternative technologies.

2. Openreach considers that Ofcom's proposals have gone some way to addressing its concerns, in particular by accepting the inappropriateness of a snapshot assessment of the profitability of wholesale ISDN30 services and acknowledging that there is uncertainty surrounding the development of demand both for these services and for alternatives, such as IP-based services. Openreach acknowledges that Ofcom has sought to balance the diverse views of relevant stakeholders, and in this context has proposed measures that seek to:

   a) take account of the depreciated state of ISDN30 assets and of the material risk of unintended consequences by setting a control based on an adjustment of BT's costs to represent those of a hypothetical ongoing network, while at the same time accounting for increased levels of demand that may be stimulated by the price control, in Ofcom's modelling

   b) avoid potential shocks to demand that might result from too great a step-change in regulation. In particular:

      - given the existing requirement for ISDN30 charges to be fair, reasonable and not unduly discriminatory, the end-of life status of ISDN30, the lack of any previous price control as well as the low number of services in the proposed charge control baskets and the proposed safeguard caps, it would be disproportionate and inappropriate to impose an additional cost orientation obligation

      - insofar as a smooth glide path without step changes is crucial in the context of significant demand uncertainties (such as in the case of ISDN30), the imposition of a start-price adjustment could result in immediate shocks to demand and would thus be inappropriate and disproportionate.

3. Notwithstanding this, Openreach continues to have concerns regarding other aspects of Ofcom's proposals, which Openreach considers disproportionate and at risk of giving rise to adverse consequences.

4. First, Openreach considers that the uncertainties associated with demand mean that Ofcom would need to strike a delicate balance between setting a price ceiling in the near-term, which reflects the operations of Openreach on the one hand, and ensuring that the control does not have the adverse effect of stimulating demand for a declining product on the other hand. This is particularly important where increases in demand may lead to higher unit costs for Openreach (due to the scarcity and unavailability of

necessary components) that it may be unable to recoup within an ever-shortening time horizon.

5. Second, Openreach disagrees with a number of the costs and parameters used by Ofcom to model ISDN30 costs. These costs and parameters are common to the controls for WLR and LLU and, as laid out in detail in Openreach's response to the WLR and LLU charge control consultation, Openreach particularly disagrees with the following assumptions and considers that Ofcom should adjust its estimate of costs to take account of these errors:

    i) Ofcom's duct valuation, which understates the value of Openreach's duct assets

    ii) Ofcom's estimate of inflation, which is too low

    iii) Ofcom's estimate of efficiencies, which is too high

    iv) Ofcom exclusion of pension deficit repair payments from the costs to be recovered from regulated charges.

6. Third, while it is clear that as a business-only service ISDN30 is subject to greater systematic risk than copper lines and that it is therefore more appropriate to apply the "Rest of BT" rate of WACC than the "Copper Access" rate of WACC, Openreach considers that there is strong evidence to suggest that both of these rates of WACC are understated and therefore inappropriate with respect to ISDN30.

7. Fourth, Openreach generally prefers a broad basket structure allowing greater flexibility in setting prices to reflect market demand and to enable an alignment of prices with costs throughout the control period. The combined basket for rentals and connections proposed by Ofcom allows Openreach some of this flexibility, but the exclusion of transfers from this basket and the imposition of sub-caps unnecessarily complicate the basket structure. Moreover, Openreach believes it is not appropriate to include Enhanced Service Levels 3 and 4 in the connections and rentals basket because these services rely on the discretionary spend of CPs, with the result that demand is more elastic than for core services and any increase in price by Openreach would likely lead to a decline in volumes.

8. Finally, Openreach requests that Ofcom provides an additional four weeks (i.e. 8 weeks from publication of the statement) for the charge control to become effective so that Openreach has sufficient time to reflect the final conclusions of Ofcom's statement into its price notification.

This response is provided on behalf of British Telecommunications plc (BT) by Openreach, a line of business within BT. References to Openreach should also be read as BT, where appropriate.

2 Answers to the Ofcom questions

9. This section provides Openreach's responses to the questions raised in the Ofcom consultation.

Question 1 Do you agree that we should assess the profitability of wholesale ISDN30 services using the adjusted ROCE approach? Do you also agree that we should make an adjustment to Openreach's depreciated ISDN30 assets (line-cards and access electronics) by setting the NRC/GRC ratio of these assets to 47% (i.e. Option 4)? If not, please explain your rationale and propose alternative approaches.

10. Competition authorities have recognised that snapshot metrics, such as return of capital employed ("ROCE"), are not an appropriate indicator of levels of profitability of products that require significant upfront investment.[1] This is because ROCE fails to reflect profitability over the life-time of a product (including the early years when losses were incurred) and focuses instead on a snapshot view of commercial performance later in the life of that product, when earlier losses are being recouped. Under such circumstances, the use of methods to assess underlying economic profitability, such as an Internal Rate of Return ("IRR"), is preferable to assessing profits as a result of accounting conventions.

11. As Openreach has previously indicated, ISDN30 services were introduced in 1986 and involved significant upfront investment. Since then, the underlying assets (access electronics and linecards) have been subject to significant depreciation or have been completely written down in the accounts. Ofcom recognises this fact and acknowledges that "*the reported return of capital employed (ROCE) may appear relatively high…because the accounting value of the asset base is below its economic value, or its value in steady state*".[2] Ofcom notes the potential suitability of IRR methods, but highlights the difficulties associated with these where there is insufficient data available for periods of an asset's lifetime.[3] Ofcom goes on to conclude that ROCE may be used, albeit subject to adjustments in order to reflect an on-going network at steady state.

12. Openreach acknowledges these difficulties with the IRR methods and accepts that the adjusted ROCE approach proposed by Ofcom is an appropriate alternative to the IRR approach in this case, particularly as it is reconcilable to BT's Regulatory Financial Statements ("RFS") and consistent with the approach Ofcom has taken in respect of the regulation of Wholesale Broadband Access ("WBA"). Nonetheless, the difficulties in implementing the IRR approach reflect the unavoidable uncertainties in determining the true economic returns associated with a declining product such as ISDN30. When moving to a second-best adjusted ROCE method, Ofcom should take into account the

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1 See for example the Competition Commission comments in appendix 6.4 "Approach to profitability analysis and results" of its ROSCO inquiry, April 2009. Further discussion is contained in paragraphs 79 to 81 of the DotEcon report included at Annex 5 to BT's response to the review of retail and wholesale ISDN30 markets, dated 18 June 2010.

2 Ofcom, *Price controls for wholesale ISDN30 services,* 1 April 2011, paragraph 3.2 (referred herein as the "Ofcom consultation")

3 Ofcom consultation, paragraph 3.24.

uncertainties when interpreting the results in order to avoid unintended consequences from under-pricing legacy ISDN30 services.

13. Openreach considers that Ofcom should bear in mind the particular circumstances of wholesale ISDN30 services when it makes any relevant adjustment to its ROCE calculations. This is consistent with the EU Access Directive, which stresses the need for the chosen cost recovery method to take account of prevailing market circumstances, stating that *"(t)he method of cost recovery should be appropriate to the circumstances taking account of the need to promote efficiency and sustainable competition and maximise consumer benefits*".[4] (emphasis added)

14. Most importantly, Ofcom should take account of the fact that ISDN30 is approaching the end of its life. As Ofcom itself recognises, the end of life status of ISDN30 means that the underlying assets are heavily depreciated and a simple calculation of the ROCE based on the asset values in the accounts will result in an overstatement of profitability.[5] It is therefore particularly important that Ofcom's ROCE calculation appropriately adjusts asset values to reflect this; an insufficient adjustment will result in an overly strict charge control, which in turn will undermine incentives for efficient investment in alternative technologies and customer migration to those services.

15. The considerable uncertainties associated with the future demand for ISDN30 services and the uncertainties of the speed with which IP based solutions will be taken up, mean that Ofcom needs to adopt a cautious approach and strike a delicate balance between setting a price control in the near-term that reflects the operations of Openreach on the one hand and ensuring that the control does not have the adverse effect of inefficiently stimulating demand for a declining product on the other hand. These risks are asymmetric. Detriment from setting a price cap too slackly would be limited, as ISDN30 is approaching the end of its life and emerging substitutes would be encouraged, along with bandwagon effects in their adoption. However, as mentioned above, setting a price cap too tightly would wastefully divert investment into a legacy technology with the result of impeding the switch to the newer, superior technology (and its associated innovations in functionality).

16. The approach proposed by Ofcom will adjust the NRC of the assets so that they approximate their steady state values more closely. These steady state asset values are then used to recalculate the ROCE. In a steady state with continued reinvestment, the NRC/GRC ratio of ISDN30 assets might be approximately 50% (i.e. on average assets would be half way through their lives). Ofcom proposes to adjust the NRC to result in an NRC/GRC ratio of 47%. While Openreach considers 47% to be a reasonable approximation of the 'steady state' ratio in this case, it would be disproportionate for Ofcom to allow it to fall any further from the appropriate rate of 50%. To do so would risk understating the value of the investment required to maintain the network and result in an overly strict charge control, the dangers of which have been outlined above.

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4 *Directive 2002/19/EC of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities*, 24 April 2002, paragraph 20.

5 Ofcom consultation, paragraph 3.28.

Question 2 Do you agree that an RPI-X type charge control would be the appropriate form of price control for core wholesale ISDN30 services? If not, please explain why.

17. In line with the position articulated in its response to Ofcom's review of retail and wholesale ISDN30 markets (the "Market Review"), Openreach maintains that the imposition of price regulation on wholesale ISDN30 services is neither appropriate nor proportionate, not least because these are legacy services and artificially suppressing their prices brings about the risk of delaying efficient migration to newer technologies.[6]

18. One of the key considerations for Ofcom when assessing the appropriateness of regulatory proposals such as charge controls is the need to minimise the unintended consequences to which they may give rise. Indeed, in its report on its approach to Impact Assessments, Ofcom itself notes that: "[*i]n developing policy proposals, our aim will be to think widely about the possible impacts, taking account of the whole value chain and knock-on effects across the communications sector. By doing so, we will seek to minimise any unintended consequences*".[7]

19. The imposition of a charge control on wholesale ISDN30 services has the potential to lead to serious adverse unintended effects, even if certain adjustments are made to the control in order to mitigate some of the risks. As anticipated in the DotEcon report annexed to Openreach's response to the Market Review, these unintended risks include:

    - artificial demand stimulation for ISDN30, restricting migration to SIP trunking alternatives and in turn delaying the introduction of new benefits to customers

    - higher unit costs for Openreach as a result of meeting this growth in ISDN30 demand, given the scarcity and unavailability of necessary components to serve a legacy product such as ISDN30. Moreover, the higher unit costs of investing to meet this increased demand would need to be recovered over a shorter period than the previous investments given the limited remaining lifecycle of the ISDN30 product. Indeed, to recover incremental costs going forward, price increases may be required rather than reductions in charges

    - the diversion of funds to ISDN30 to meet the increased demand would mean a reduced scope for investment by Openreach in new technologies such as Next Generation Access.

20. Openreach notes that Ofcom draws some comfort from its assessment that ISDN30 equipment is managed for reuse thereby reducing the potential for new ISDN30 investment. While it is the case that some cards can be managed for reuse, there are a number of other ISDN30 components where reuse would be costly and would increase lead-times. In particular:

    - ETSI demand and DASS demand have different growth profiles [✂]

[6] Openreach, *Review of retail and wholesale ISDN30 markets – Openreach response to the Ofcom consultation dated 4 May 2010*, 18 June 2010.

[7] Ofcom, *Better Policy Making: Ofcom's approach to Impact Assessment*, July 2005, paragraph 1.5.

- racking is problematic particularly on the [✂] platform where there is less scope to lift-and-shift kit and a greater shortage of components both at the concentrator and processor layers. [✂]

- the mix of ISDN30 ETSI cards does not reflect the mix of concentrator types in the network. Customers upgrading to ISDN30 from PSTN or ISDN2 have a greater likelihood of coming from a Mark 1 concentrator than Mark 2 or Mark 3 variant and ISDN30 ETSI cards are more prevalent at Mark 3 concentrators

- Openreach has no new supply of racking and, except where spare capacity exists, would recycle existing kit if demand occurs. This process requires a large number of customer systems being moved and a willingness of Openreach's suppliers to lift and shift kit. [✂]

- [✂]

21. On the basis of the above, while the reuse of some ISDN30 equipment could limit the need for potential new ISDN30 investment, this is impeded by the technological mix of ISDN30 variant, exchange type and concentrator and linecard versions.

22. In the event that Ofcom still believes that a form of regulatory intervention is appropriate, then Openreach considers that extending the safeguard cap regime would be preferable to the introduction of an RPI-X charge control. This is because, in contrast with an RPI-X regime, a safeguard cap:

    - would not drive the unintended effects detailed above

    - would not carry the same risk of wastefully diverting investment into the legacy technology, thus impeding the switch to newer, superior technology (with its associated innovations in functionality); if prices were capped at current levels then investment in newer substitutes would be encouraged and consumer benefits would not be delayed

    - is simpler to implement, and would provide transparency and certainty to Openreach and stakeholders about the prices that are likely to be charged; it would also allow Openreach the flexibility to manage migration to the new technology over a sensible timeframe.

23. Accordingly, the introduction of an RPI-X regime is likely to drive a number of harmful unintended consequences. These would only be compounded in the event that Ofcom should choose to impose a cost orientation obligation in addition to the charge control. As Ofcom has itself previously noted in the context of fixed narrowband services: "*To move from the existing arrangements where BT has no price regulation to a situation where it is subject to both a basis of charges condition and charge control may be considered a strong response*".[8] Indeed, to do so would be a disproportionate and inappropriate response, which would be contrary to Ofcom's objectives for this charge control, in particular to avoid undue disruption.

[8] Ofcom, *Review of the fixed narrowband services wholesale markets*, Consultation, 19 March 2009, paragraph 17.17.

Question 3 Do you agree that CCA FAC is the appropriate cost basis for setting the proposed charge controls? If not, please explain why.

24. The Ofcom consultation refers to the fact that the Competition Commission (CC) endorsed Ofcom's use of CCA FAC as the cost basis for the previous set of LLU and WLR charge controls.

25. Openreach agrees with Ofcom's proposal to use a CCA FAC methodology to establish the cost base for a wholesale ISDN30 charge control. The reasons for this are fully explained in Openreach's response to the LLU and WLR Charge Control consultation.

Question 4 Do you agree that a three year duration for the charge controls on wholesale ISDN30 services is appropriate? If not, please explain why.

26. In general, Openreach prefers market reviews, and the period covering charge controls, to be set for a longer period than three years to encourage stability and investment. Openreach accepts, however, that Ofcom's proposal for a three year duration is consistent with the EU Electronic Communications Framework. We therefore, somewhat reluctantly, agree that this control should expire on 31 March 2014.

27. Should Ofcom's proposed charge control for wholesale ISDN30 services result in a distortion to effective competition or result in significant inefficient incremental demand, then Openreach expects that Ofcom will revisit the charge control.

Question 5 Do you agree with our proposal to apply the anchor pricing approach to wholesale ISDN30 services and reflect migration to IP based alternatives? If not, please explain why.

28. Openreach understands how Ofcom has applied the anchor pricing approach in the specific case of wholesale ISDN30, and as Openreach has no plans to replicate wholesale ISDN30 services using new technology it would seem sensible to base cost modelling on the costs of the existing technology.

29. It is the case that end-users are switching to IP-based alternatives which are not, and will not be, supplied using wholesale ISDN30 access services. Therefore it seems wholly appropriate that Ofcom reflects the resultant reduced volumes for wholesale ISDN30 in its cost modelling.

Question 6 Do you agree that the proposed charge control on wholesale ISDN30 should be indexed to RPI?

30. As noted in response to Q2, Openreach considers that an RPI-X charge control is disproportionate and inappropriate and that, in the event that Ofcom still believes that a form of regulatory intervention is necessary, then extending the safeguard cap regime

would be preferable to the introduction of an RPI-X charge control. This approach would obviate both the need to use RPI, and to set an X that reflects the specific circumstances of wholesale ISDN30 as a legacy service.

31. In the event that Ofcom considers that an RPI-X charge control is appropriate, then as Ofcom states, the RPI remains a widely used measure of general inflation and is typically used to set price caps in other sectors subject to economic regulation. Whilst not perfect, it is not clear that any other index is preferable and there are no apparent reasons why Ofcom should break from regulatory precedent and move away from the use of RPI as a measure of inflation indexation in this case.

32. Openreach notes, however, that the need to re-use equipment is likely to make the provision of new ISDN30 services especially labour intensive (relative to non-legacy services). This is likely to lead to unit costs increasing further than RPI with limited scope for offsetting efficiency gains. Therefore, RPI could be considered a harsh indexation metric in this case.

Question 7 Do you agree with the use of prior year revenue weights when setting charge control baskets? If not, please explain why.

33. Openreach agrees that measuring compliance using prior year weights is a proportionate and practical approach and notes that the approach has worked successfully in previous charge controls.

34. Openreach agrees with Ofcom's reasons for using prior year revenue weights.[9] As explained more fully in Openreach's response to the WLR and LLU charge control consultation,[10] current year volume weights have several disadvantages, including:

- price volatility: Openreach would likely need to adjust prices mid-year to reflect forecast versus actual volume variances resulting in price volatility
- practicality: There are the practical considerations of gathering and validating forecasts from CPs in order to inform the revenue weights. This gathering of data would need to be done in time for any subsequent control year. As Ofcom points out, the accuracy of such forecasts cannot be guaranteed and would place an unnecessary and disproportionate administrative burden on CPs, Openreach and Ofcom.

35. Ofcom expresses the concern over potential gaming that could arise whenever prior year revenue weights are used.[11] In particular, Ofcom considers that Openreach has the incentive to concentrate the price decreases on the product(s) whose volumes are expected to decrease and concentrate price increases on the product(s) whose volumes are expected to increase. Given that all volumes are expected to decrease over the charge control period, there is in reality little scope for 'gaming'. Therefore, Openreach

9 Ofcom consultation, paragraphs 4.74-4.80.

10 See Openreach, *Charge control review for LLU and WLR services, Openreach response to the Ofcom consultation dated 31 March 2011*, July 2011, section 6.5.

11 Ofcom consultation, paragraph 4.79.

does not consider that it has the incentive or ability to 'game' the baskets and thus this is not a relevant concern for Ofcom in setting this charge control.

Question 8 Do you agree with our proposal to implement a combined basket for wholesale ISDN30 connection and rental services and a separate basket for transfers? Do you also agree with our proposal not to impose a cost orientation obligation on core wholesale ISDN30 services? If not, please explain why.

36. As to the question of combined baskets, Ofcom considers that a charge control structure which combines services in broad baskets is superior as it provides greater flexibility and is likely to lead to more efficient pricing. Ofcom puts it succinctly when it states that the application of a charge cap on individual services can become unnecessarily complex and may unduly constrain Openreach's scope to price and recover common costs efficiently.[12] Openreach agrees with Ofcom's comments and therefore supports a combined basket approach.

37. That said, in line with Ofcom's stated preference for broad baskets, Openreach considers that the transfer product should be included within the same basket. The rationale for using a basket applies in equal measure to the transfer product and there is no good reason for singling this product out for exclusion from the basket.

38. As to the question of cost orientation, wholesale ISDN30 services have never been subject to a price control and the services are at the end of their life. In order to be proportionate, the means proposed by Ofcom must not be more than is necessary to accomplish the stated objective(s). Ofcom's primary objective for this charge control is stated to be to prevent Openreach from setting excessive charges for wholesale ISDN30 markets (where it has Significant Market Power) while providing incentives for it to increase its efficiency. The proposed value of X, together with the requirement for charges to be fair, reasonable and not unduly discriminatory, are more than adequate to meet this objective; it would therefore be inappropriate and disproportionate to impose a cost-orientation obligation on core wholesale ISDN30 services in conjunction with the charge control obligation. As Ofcom itself noted in the context of fixed narrowband services: "*To move from the existing arrangements where BT has no price regulation to a situation where it is subject to both a basis of charges condition and charge control may be considered a strong response*".[13]

Question 9 Do you agree with our proposal to impose a safe-guard cap of RPI+5% on the average connection charge? If not, please explain why.

39. In setting the connection price Openreach must strike a balance between conflicting dynamics. On the one hand, Openreach would not want to encourage inefficient demand for ISDN30 but, on the other hand, it is in its commercial interests to attempt to

[12] Ofcom consultation, paragraph 4.8.

[13] Ofcom, *Review of the fixed narrowband services wholesale markets*, Consultation, 19 March 2009, paragraph 17.17.

address increasing competition from IP based alternatives over the price control period by cutting price to make best use of available equipment, but only to the extent that new investment is avoided. Therefore, it is not in Openreach's commercial interests to price connections at an excessively high level.

40. Should Ofcom nevertheless consider it necessary to impose a control on connection charges Openreach would welcome the flexibility, albeit very limited, proposed by Ofcom to react to market demands in an efficient manner.

Question 10 Do you agree with our proposal to include enhanced care services in the combined wholesale ISDN30 rental and connection basket? Do you agree that each of the enhanced care services should also be subject to a safe-guard cap of RPI-0%? If not, please explain why.

41. Openreach does not consider that Ofcom should apply a charge control to ISDN30 Enhanced Service Levels. In common with its position in respect to WLR and LLU, Openreach considers that a charge control will limit its incentives for innovative pricing and therefore Ofcom should not apply a charge control to Enhanced Service Levels.

42. Openreach considers that Enhanced Service Levels are value-added services. Openreach strongly believes that CPs will only purchase the Enhanced Service Levels and other discretionary services where the price reflects the economic value of the product to the CP, and in turn, the end-user, of those additional elements which are not provided as part of the core rental service. Therefore, Openreach considers that the market provides an effective constraint on ISDN30 Enhanced Service Level prices.

43. In the event that Ofcom has any concerns with the pricing for ISDN30 Enhanced Service Levels, Openreach notes that the range of regulatory controls available to Ofcom is quite extensive and allows Ofcom to intervene in the event that these services were to be provided on a basis that was not fair or reasonable. This includes the obligations to provide network access and new network access on fair and reasonable terms and conditions; to provide ISDN30 services; to notify charges and to not unduly discriminate.

44. In terms of its objectives for the charge control, Ofcom clearly identifies the goals of preventing Openreach from setting excessive charges in the relevant wholesale ISDN30 markets and ensuring that Openreach still has the incentives to maintain service quality, investment and innovation in the provision of wholesale ISDN30 services. In the case of Enhanced Service Levels more specifically, Ofcom indicates that the concern it is aiming to address is Openreach's supposed incentive to increase the price of these services in order to recoup some of the lost revenues from the core rental product.[14] For the reasons set out below, Ofcom's proposed approach would be inappropriate and unnecessary to achieve these objectives:

    - all historic and recent price movements on wholesale ISDN30 have been downwards

[14] Ofcom consultation, paragraph 5.46.

- given that Enhanced Service Levels rely upon the discretionary spend of CPs, demand is likely to be more elastic than for core rental services and, therefore, if Openreach were to increase the prices there would be likely to be a decline in volumes

- programmes such as Service Harmonisation demonstrate our willingness to innovate in this space, however inconsistency in regulatory approach between WLR, LLU and ISDN30 may make Openreach more risk averse to broader innovation across the portfolio in the future.

45. In summary, Openreach considers that the inclusion of Enhanced Service Levels in the combined wholesale ISDN30 rentals and connections basket as part of this charge control would be disproportionate and contrary to the objective of the charge control consultation.

Question 11 Do you agree that the DDI rental and connection services should be subject to a safe-guard cap of RPI-0%, whilst other ancillary services should not be subject to a specific form of price control? If not, please explain why.

46. Ofcom's key concern is that Openreach could increase the price of ISDN30 DDI services excessively in a bid to recoup some of its lost profits on its core services.[15]

47. From 1st January 2010, Openreach decreased most of the WLR Calling and Network Feature prices.[16] DDI rentals prices were significantly reduced (in the order of 85%). The prices for DDI connection and rentals are consequently very low: £0.75 for connection per DDI number and £0.24 for rental per quarter.

48. Given the history of DDI pricing, Openreach does not consider a safeguard cap on DDI to be necessary. To the extent that Ofcom nevertheless considers it necessary, Openreach reluctantly supports the proposal for a safeguard cap of RPI-0% on DDI services as it addresses Ofcom's primary concern while providing pricing flexibility, albeit very limited, for Openreach.

49. Given the extremely low revenues associated with other ancillary services, and the practical cost of complying with a control on these services, Openreach considers it would be disproportionate to apply any sort of price control to these services.

Question 12 Do you agree with our proposal that the costs of wholesale ISDN30 services should be based on BT's costs? If not, please explain why.

50. Openreach agrees that Ofcom should base the costs of wholesale ISDN30 services on BT's costs rather than those of another operator, whether real or hypothetical. That said, Openreach accepts that its cost base is lower than that of a hypothetical efficient

[15] Ofcom consultation, paragraph 5.61.

[16] Three WLR Analogue products were excluded from this reduction as the increase in consumption were demanding such network capacity that they could not be sustained on an ongoing basis.

operator[17] and agrees that, consequently, it is appropriate for its costs to be adjusted in setting a charge control to ensure that the right signals are sent to the wider market.

51. Ofcom has sought to make Openreach's costs fit for the purpose of setting the control by adjusting costs to represent those of a hypothetical efficient operator. Openreach considers this to be an acceptable approach in this case, in particular as Ofcom has:

    - recognised that many of Openreach's ISDN30 assets are now largely depreciated and has sought to take account of this by adjusting Openreach's costs to approximate a steady-state level

    - assessed the likely impact the proposed charge control will have on the take-up of wholesale ISDN30 services and has factored this into the volume forecasts used to set the control.

52. In this way, Ofcom has sought to address two key concerns regarding the use of Openreach's cost base as a starting point for the charge control: the end-of-life status of ISDN30 products and the risk of inefficiently stimulating demand for a declining product and thereby impeding transition to IP-based services.

Question 13 Do you agree with our proposed adjustments to Openreach's cost base in 2009/10 for core wholesale ISDN30 services? If not, please explain why.

53. In addition to the steady state adjustment, Ofcom proposed to adjust Openreach's cost base to take account of the revaluation of duct and the Regulatory Asset Value ("RAV") for pre-1997 access copper and duct and exclude pension deficit payments.

54. Openreach's response to this question will address each of these matters in turn before commenting on Ofcom's failure to include BT's pension deficit repair payments in the costs to be recovered under this charge control.

Steady State adjustment

55. The considerable uncertainties associated with future demand for ISDN30 services and the speed with which IP based solutions will be taken up, mean that Ofcom needs to adopt a cautious approach and strike a delicate balance between setting a price control in the near-term that reflects the operations of Openreach and ensuring that the control does not have the adverse effect of inefficiently stoking demand for a declining product. Detriment from setting a price cap too slackly would be limited, as ISDN30 is approaching the end of its life and emerging substitutes would be encouraged, along with bandwagon effects in their adoption. Moreover, Ofcom has powers to intervene should circumstances dictate. However, setting a price too tightly would wastefully divert investment into a legacy technology with the result of impeding the switch to the newer, superior technology (and its associated innovations in functionality).

56. The approach proposed by Ofcom will adjust the NRC of the assets so that they approximate their steady state values more closely. These steady state asset values are

[17] Ofcom consultation, paragraph 5.79.

then used to recalculate the ROCE. In a steady state with continued reinvestment, the NRC/GRC ratio of ISDN30 assets might be approximately 50%. Ofcom proposes to adjust the NRC to result in an NRC/GRC ratio of 47%. While Openreach considers 47% to be a reasonable approximation of the 'steady state' ratio in this case, it would be disproportionate for Ofcom to allow it to fall any further from the appropriate rate of 50%. To do so would risk understating the value of the investment required to maintain the network and result in an overly strict charge control, the dangers of which have been outlined previously.

RAV and Duct

57. Ofcom proposes to continue to value duct assets installed prior to 1997 on a HCA basis which results in a significantly lower valuation than on a replacement cost basis (the "RAV Adjustment").

58. Ofcom committed to reviewing the appropriateness of the RAV Adjustment in 2005,[18] but have not evidenced here that the adjustment is still appropriate. In fact, the evidence suggests that should Ofcom continue with the RAV Adjustment it will result in significant distortions. A return to a full CCA approach will send the correct economic signals and will not result in any distortions. Therefore Openreach proposes that Ofcom returns to a full CCA approach instead of applying the RAV Adjustment.

59. Ofcom's key reason for continuing the RAV Adjustment is not supported by the evidence and in particular the supposed 'windfall' gain for BT shareholders, claimed by Ofcom, is completely illusory; in fact, the evidence shows that the RAV Adjustment perpetuates continued under-recovery of costs.

60. Not only is Ofcom's 'windfall' rationale contrary to the evidence, but it is demonstrably the case that the resultant lower valuation from the continued application of the RAV Adjustment will distort competition and investment incentives, the very impacts Ofcom seeks to avoid. Moreover, removing the RAV Adjustment would improve productive efficiency.

61. Notwithstanding our disagreement with the continued application of the RAV Adjustment, should Ofcom continue to apply it, Ofcom must correct two errors in its valuation of Openreach's access network assets:

    - the industry specific index (General Building Cost Index) should not be reduced by as much as 1% per annum; an appropriate adjustment should be no greater than 0.5% per annum

    - applying a national discount to the valuation is incompatible with Ofcom's indexation methodology and should not be applied.

62. Openreach refers Ofcom to the detailed response on this matter in its response to the LLU and WLR charge control consultation.

[18] Ofcom, *Valuing Copper Access*, 18 August 2005, paragraph 5.22.

Pensions deficit repair contributions

63. Ofcom has made no allowance in its costs model for any of the annual pension deficit repair payments that BT is currently required to make in relation to the period of the proposed charge control. These are a cost of BT doing business going forward and, insofar as they result from pensions costs that were efficiently incurred, it is reasonable and consistent with Ofcom's regulatory duties and stated objectives for this charge control that they be included when calculating the cost base for regulated charges for Openreach's wholesale ISDN30 services going forward. Annex A provides further detail on why BT considers that pensions deficit repair payments should be taken into account when setting this charge control.

Question 14 Do you agree with our volume forecasts for wholesale ISDN30 rental, connection and transfer services? If not, please explain why.

64. Openreach recognises that forecasting volumes for a particular service over a long time-period, especially given the environment of a potentially very disruptive technology in SIP Trunking solutions, is a difficult task. Ofcom's two stage approach, relying upon a wide range of evidence to reach a first stage forecast before taking account of the impact of the charge control proposals themselves on volumes in the second stage, goes some way to overcoming these difficulties. However, Openreach has concerns about the treatment of uncertainty in this approach.

65. As can be seen from the table below, the evidence upon which Ofcom relies in its first stage is extremely varied, reflecting the uncertainty surrounding likely developments in the ISDN30 market and the take-up of IP based alternatives.

Table A8.3 Summary of evidence used to forecast future ISDN30 demand for the period of the charge control

	Range of assumptions
Stakeholder forecasts	- 0% to -50%[222]
Market research	- 14% to -44%[223]
External consultants forecast	-20 to -30%[224]
Forecast based on 2009-2010 trend in retail ISDN30 volumes	-24%[225]

Source: Ofcom consultation, page 173.

66. Although Ofcom attempts to balance the different forecasts appropriately by focusing on stakeholder forecasts and its own survey evidence, the ultimate result is a first stage estimate of wholesale ISDN30 rental volumes which "*falls roughly in the middle of stakeholder forecasts*",[19] namely 27.5%. Ofcom indicates that a consistent approach was taken to forecast connection volumes and while this approach may make a particular estimate of future volumes possible, it does not address the fundamental

[19] Ofcom consultation, paragraph 5.105.

uncertainty surrounding likely market developments i.e. the forecasts do not consider the impact of different retail prices and the potential for short-run demand to be boosted by lower wholesale ISDN30 prices, even if in the long-run SIP based services eventually replace these.

67. Ofcom then consider a second stage, to reflect the impact of the price change. Using the volume estimate from the end of Stage 1, Ofcom has then estimated the RPI-X that would apply to the basket containing ISDN30 rental and connection services based on the Cost Forecast Model. The resultant price decrease on ISDN30 rental has consequential impacts on volume demand for ISDN30 and alternative services, which Ofcom has estimated as follows:

    - a 5% increase in retail demand by 2013/14
    - a 5.7% increase in reduced switching to IP-based alternative services by 2013/14
    - a 0.7% increase in switching of services from PPCs to ISDN30.

68. The second stage analysis increases the decline in volumes forecast in the first stage by 11.5% leading to an overall decline in wholesale ISDN30 rental volumes for the period 2009/10 to 2013/14 of around 19%. Again, although the second stage correctly seeks to take account of the impact on volumes of the charge control itself, it does not take account of the additional uncertainty arising from the imposition of the charge control.

69. The volume forecasts are pivotal to the findings of Ofcom with respect to both the need for the control and its design (to the extent that this may stimulate inefficient demand), and thus it is key that Ofcom treats uncertainty appropriately and is as accurate as possible. Openreach's own forecasts suggest that the decline of ISDN30 channels will be rapid[20] and that Ofcom's volume forecasts for wholesale ISDN30 rental, connection and transfer services are too high. As noted in paragraph 15 above, there are asymmetric risks from the control being set too high and too low, which must be considered alongside any point forecasts of future demand.

Question 15 Do you agree with our proposed AVEs for line-cards and access electronics? If not, please explain why.

70. As a good overall approximation for the purpose of the Steady State Adjustment, on balance Openreach agrees with Ofcom's proposed AVEs.

71. Ofcom states that linecard costs move in line with volumes i.e. all linecard costs are variable with volumes, and for this reason they have chosen an AVE for linecards of 1.0. It should be noted that the linecard component actually includes a number of fixed costs, including racks, power etc, which may suggest that an AVE less than 1.0 is appropriate. However, on the basis that Ofcom's Cost Forecast Model is an ABC model that does not use AVEs, and that the AVEs for linecards are only used by Ofcom to make the Steady State Adjustment, Openreach is content for Ofcom to make a simplifying assumption that the AVE is 1.0.

[20] Ofcom consultation, Table A8.7.

Question 16 Do you agree with our proposed approach to forecasting capital expenditure for core wholesale ISDN30 services? If not, please explain why.

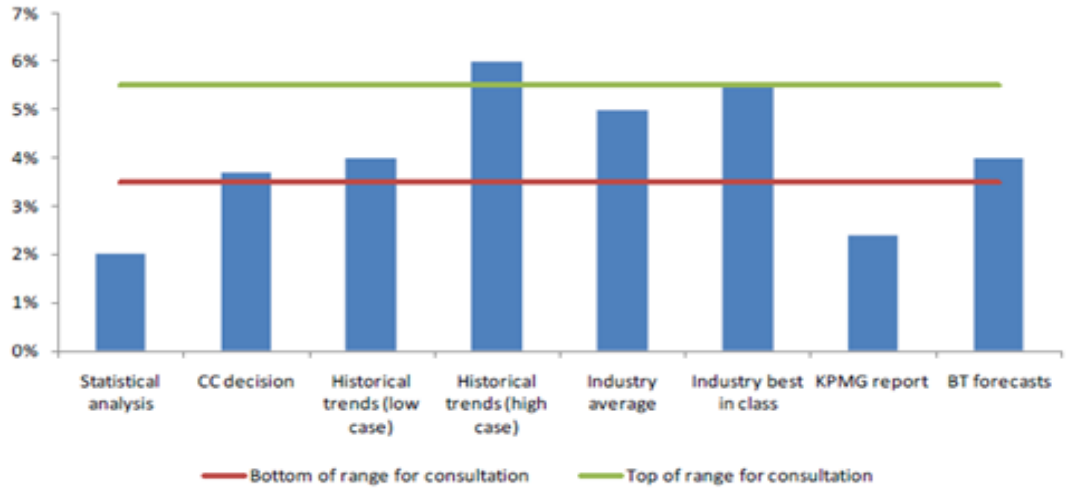
72. Openreach agrees with the proposed approach to forecasting capital expenditure for core wholesale ISDN30 services. However, Openreach considers that Ofcom's ISDN30 rental volume forecasts are high (please see response to Q14 above) and that it is appropriate that Ofcom has not adjusted for possible reuse of linecards (for the reasons explained in response to Q1).

Question 17 Do you agree with our proposed efficiency assumption range of 3.5% to 5.5% for core wholesale ISDN30 services? If not, please explain why.

73. Ofcom proposes a target range for efficiency savings of between 3.5% and 5.5% each year, net of implementation costs, with a midpoint of 4.5%. We do not consider that this range nor midpoint is supported by the evidence Ofcom provide. Openreach considers, for the reasons set out below, that an appropriate efficiency target should be no greater than 3.5% per annum.

74. The evidence Ofcom used to inform its efficiency range is set out in Figure 1 below. Openreach has significant concerns with the levels presented by Ofcom for the three sources that are higher than its midpoint, including in particular the 'Best in Class" estimate (which should be excluded). Moreover, on inspection, it is not obvious why the bottom of Ofcom's proposed range is not lower, i.e. towards 2%.

Figure 1 Ofcom's range of evidence to inform efficiency[21]



75. Ofcom's evidence does not support the upper end of its proposed range. In particular:

[21] Ofcom, *Charge Control review for LLU and WLR services*, Consultation, 31 March 2011, Figure 7.1 on page A49.

- The industry benchmark 'Best in Class" presented is based on an assessment of costs in discrete functional areas. No one undertaking in the sample set can achieve 'Best in Class" in all areas. This is an expected outcome given each organisation's different decisions regarding trade-offs between areas of expenditure. The purpose of Ofcom's analysis should be to consider efficiency rates across a range of appropriate comparators. Therefore it is inappropriate for Ofcom's purposes to include 'Best in Class" as an indicator of the range of efficiency that could be expected from Openreach

- The industry average to which Ofcom refers has been incorrectly interpreted as an efficiency target. Openreach has commissioned E&Y to independently review the calculations that should be taken to estimate Openreach's relative efficiency to the industry "peer average" and it concludes that an appropriate efficiency target in the range of 1.9% to 2.6% per annum for this charge control

- In terms of historic efficiency performance Ofcom should use the low case estimate instead of the high case. The high case estimate includes one-off efficiencies which cannot be repeated and therefore cannot be relied upon as a forward looking indicator of future efficiency.

76. Turning to Ofcom's remaining sources of evidence, Openreach considers that an efficiency target of no greater than 3.5% per annum should be applied:

    - the CC Determination[22] stated that 3.7% per annum was the appropriate efficiency target for Openreach for the period to 2012/13 i.e. covering two-thirds of the duration of this control. One would not expect, and Ofcom does not evidence the case for a deviation from these recent findings

    - Ofcom recommissioned the KPMG report. The previous version of this report was relied upon by the CC as the most important indicator of Openreach's scope for future efficiency gains. The updated KPMG report determined a figure of between 2.3% to 2.6% per annum, which is below the bottom end of Ofcom's range

    - Ofcom states that Openreach's forecast represents an efficiency target of 4% per annum but this fails to take into account that there is a degree of execution risk and that this is a challenging target

    - Statistical analysis supports a 2% efficiency estimate which is significantly below the bottom of Ofcom's range and may suggest that Openreach is efficient.

77. As a cross-check, it is worth considering how Ofcom's proposed efficiency target compares with the decisions of other UK regulators. In the majority of cases, these decisions set efficiency targets which are lower, and often significantly lower, than Ofcom's proposed figure (4.5%).

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[22] *The Carphone Warehouse Group plc v Ofcom (Local Loop Unbundling)*, Case 1111/3/3/2009 ("LLU Appeal") and *The Carphone Warehouse Group plc v Ofcom (Wholesale Line Rental)*, Case 1149/3/3/2009 ("WLR Appeal"), Competition Commission Final Determinations of 31 August 2010 and Competition Appeal Tribunal Rulings of 11 October 2010; paragraph 2.239.

78. Openreach has elaborated these arguments in greater detail in its response to the LLU and WLR consultation.

Question 18 Do you agree with the range of WACC proposed for wholesale ISDN30 services? If not, please explain why.

79. In relation to the WACC, Openreach notes the following:

- it is appropriate to apply the "Rest of BT" WACC for ISDN30 services (as opposed to the "Copper Access" WACC)
- the level of the "Rest of BT" WACC is too low.

Applying the "Rest of BT" WACC

80. It is clear that as a business-only service ISDN30 is subject to greater systematic risk than copper lines, as evidenced by the steep drop in ISDN30 volumes in 09/10 resulting from the economic downturn and other factors, and that it is therefore more appropriate to apply the Rest of BT rate of WACC than the Copper Access rate of WACC. This conclusion is supported by Ofcom's analysis of a range of other evidence, including:

- the extent to which common assets are shared between copper, ISDN30 and leased — Ofcom finds that ISDN30 only shares 16% of assets with copper, whereas it shares 86% of assets with local 2Mbit/s PPC ends[23]
- forecast accuracy – Ofcom's analysis demonstrates that it is much more difficult to forecast ISDN30 volumes than copper[24]
- demand cyclicality – Ofcom's analysis indicates that demand for ISDN30 services are more correlated to the economic cycle compared with copper products.[25]

Level of the WACC

81. We have submitted our detailed response to Ofcom's WACC proposals in the context of the Wholesale Broadband Access ("WBA") charge control consultation, together with an independent report by Oxera.[26] This provided extensive arguments, evidence and analysis to support the view that Ofcom's proposed reduction in BT's WACC is excessive and disproportionate. We understand Ofcom is due to publish shortly a decision on the "Rest of BT" WACC that will apply to the WBA charge control. We therefore reserve the right to make further comments on the appropriateness of Ofcom's WACC statement to the ISDN30 charge control once the statement has been published.

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23 Ofcom consultation, paragraph A7.26.

24 Ofcom consultation, paragraph A7.35.

25 Ofcom consultation, paragraph A7.43.

26 See BT, *BT's response to Ofcom's cost of capital proposals contained in recent Charge Control consultations*, April 2011, and Oxera, *The cost of capital to BT: An assessment in relation to Ofcom's WBA charge control consultation*, April 2011. Both documents are available from http://stakeholders.ofcom.org.uk/consultations/wba-charge-control/?showResponses=true.

82. At this stage, however, we do think it is important to emphasise the need for consistency in the RPI assumption used in the LLU/WLR/ISDN30 model and the WACC. In particular, we draw Ofcom's attention to the fact that a different set of RPI inflation assumptions for 2013/14 has been applied in the pre-tax nominal WACC and the charge control model— 2.5% in former and 3.0% in the latter. As we argued in our WACC response to the WBA consultation, we believed, based on the latest available forecasts at the time, that 3.0% was the appropriate forecast to use for both WACC and, by extension, all charge control models.

Question 19 Do you agree with our proposed approach to inflate operating costs at 2.5% p.a., pay costs at 3.0% p.a. and holding gain/losses at an average RPI of 3.0% p.a.? If not, please explain why.

83. In its cost model, Ofcom increases costs to account for inflation. Non-pay costs, such as equipment, accommodation etc, attract an inflation rate which is below the RPI. Pay costs, such as labour, attract an inflation rate which is higher than the non-pay rate, and should be higher than RPI because wages historically increase at a faster rate than prices.

84. Openreach agrees that it is appropriate to reduce RPI to estimate non-pay inflation in order to make allowances for changes in value-added tax and mortgage interest costs. However, this estimate for **non-pay** inflation should not be used as the base for calculating **pay** inflation.

85. The base for calculating pay inflation should be RPI. Ofcom should then adjust its base inflation estimate upwards by 1% rather than the proposed 0.5% per annum, because:

- real wage inflation of 1.4% per annum is consistent with the long term historical trend (according to ONS data covering the period January 1991 to January 2011)
- the recent economic downturn has impacted negatively on real wage inflation. However, over the course of the charge control period, it is appropriate to assume that it will trend back to the observed long term historical average
- this would be consistent with recent CC precedent, which states that forecasts for real wage inflation should converge to the long term historical average by the end of the charge control period.[27]

86. Pay settlements are made with reference to RPI. However, instead of adding the real wage adjustment to RPI, Ofcom has in fact added this to their adjusted non-pay inflation rate (which Ofcom has reduced by 0.5% from the prevailing RPI rate). In other words, Ofcom allows for pay to increase in line with RPI only, and no real increase in pay rates is catered for. As mentioned above the long term real wage inflation trend is 1.4% per annum.

[27] CC, *Bristol Water plc – A reference under section 12(3)(a) of the Water Industry Act 1991*, Report, 4 August 2010, Appendix K, page K25 paragraph 119 (calculations based on ONS data).

87. Openreach has provided a more detailed response to this question in its response to the WLR and LLU charge control consultation.

Question 20 Do you agree that one-off adjustments to the starting charges of wholesale ISDN30 rental services are not required? If not, please explain why.

88. Openreach agrees with Ofcom that one off adjustments are appropriate only in exceptional circumstances and where there is strong evidence that the current level of charges would lead to significant distortions.

89. Openreach agrees with Ofcom's analysis that demonstrates that there is no strong evidence that the current charges for wholesale ISDN30 rentals are creating significant distortions. In the absence of such evidence it would be disproportionate and inappropriate for Ofcom to impose any start price adjustments.

90. Moreover, Ofcom's proposal is entirely sensible in the context of ensuring that the glide path is set so that there are no immediate shocks to demand as a result of the control. In particular P_0 adjustments would be especially risky as they may boost demand inefficiently and send the wrong message to potential users and developers of SIP-based alternatives. A smooth glide path without step changes is crucial in the context of significant demand uncertainties, such as in the case of wholesale ISDN30.

Question 21 Do you agree that one-off adjustments to the starting charges of wholesale ISDN30 connection services are not required? If not, please explain why.

91. Openreach agrees with Ofcom that one-off adjustments are appropriate only in exceptional circumstances and where there is strong evidence that the current level of charges would lead to significant distortions.

92. Openreach agrees with Ofcom's analysis that demonstrates that there is no strong evidence that the current charges for wholesale ISDN30 connections are creating significant distortions. In the absence of such evidence it would be disproportionate and inappropriate for Ofcom to impose any start price adjustments.

93. Moreover, Ofcom's proposal is entirely sensible in the context of ensuring that the glide path is set so that there are no immediate shocks to demand as a result of the control. A smooth glide path without step changes is crucial in the context of significant demand uncertainties, such as in the case of wholesale ISDN30.

Question 22 Do you agree with Ofcom's approach to the pricing of wholesale ISDN30 transfer charges during the next charge control? If not, please explain why.

94. Generally, Openreach considers that prices should reflect efficiently-incurred costs. The current price for wholesale ISDN30 transfer is below the LRIC costs and the costs that are not recouped via the product price are recovered elsewhere.

95. Ofcom considers whether to impose a safeguard cap of RPI-0% on ISDN30 transfers (with the shortfall in costs recovered via the connections and rental basket) or to allow charges to rise to DLRIC over the life of the charge control. Ofcom proposes not to make any one-off adjustments to the starting charge of transfer services and to impose a safeguard cap of RPI-0%.

96. In the case of ISDN30, Openreach supports Ofcom's proposal. Openreach considers that maintaining the artificially low price of ISDN30 transfer will encourage CP's to utilise the transfer product rather than the connection product when an end-user chooses to migrate to a different provider, ensuring that the existing assets are re-used.

Question 23 Do you agree with our analysis of the LRIC differentials? If not, please explain why.

97. Openreach is generally cautious about using LRIC differentials to compare wholesale access inputs. In general, it is not the case that one can reach any conclusions based on this analysis absent considerations of lifecycle effects. For example, where products have different levels of future costs or future demand it might be inappropriate to undertake this analysis.

98. However, in this instance PPCs and ISDN30 are both mature products and are used to provide a similar retail level service. Therefore, Openreach does not object to the price differential based on LRIC being used as a cross-check against distortions.

Question 24 Do you agree with our analysis assessing the extent of switching from 2Mbit/s PPCs to wholesale ISDN30 services? If not, please explain why.

99. Openreach considers that it is right for Ofcom to be concerned that reducing wholesale ISDN30 prices will result in potential unintended consequences in the form of switching from alternate suppliers that use PPCs for the access component.

100. Openreach does not have cost information which would allow it to validate Ofcom's modelling, however the model itself and the level of detail that Ofcom has used to investigate this issue would give some comfort that the prices proposed are unlikely to lead to significant switching and therefore inefficient investment requirements for Openreach.