Treatment of Openreach Pensions

a report prepared for BT

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1. INTRODUCTION

In December 2008 Ofcom published its second consultation on the New Pricing Framework for Openreach in which it sets out a range of proposals for modified price controls to apply to Openreach's services from 2009 for a four year period (to 2012/13).

The general principles applied in setting these prices are based on a Fully Allocated Current Cost Accounting (FAC CCA) approach. In applying this approach Ofcom has relied on financial data provided by Openreach which sets out its expected estimates of costs and revenues in CCA terms over the period to 2012/13. Nevertheless, although it is Ofcom's stated approach to rely to a significant extent on these CCA estimates, the regulator has made some adjustments to key assumptions underlying the estimate provided by Openreach in its provisional determination of regulated prices. Among the most important of these adjustments is the proposal to disallow the share attributed to Openreach of the annual costs paid by BT to the pension fund, over and above the ordinary pension costs, to fund the so-called 'pension deficit'.

In this report, we consider, in a preliminary way, this proposed treatment of pension costs by Ofcom. In particular, we focus on the following aspects of Ofcom's process and decision to date:

- The extent of consultation, and depth of supporting reasoning, presented by Ofcom in deciding and in substantiating its proposed treatment of pension costs;
- The consistency of Ofcom's proposed approach to pension costs with other UK regulators who have adopted forward-looking regulatory frameworks, and who have all recognised (albeit to varying extents) that this is a relevant cost facing the regulated firm;
- The specific reasons presented for the disallowance of these costs presented by Ofcom in the current review, and whether they are consistent with Ofcom's general regulatory principles; the approach it has adopted to other cost and revenue items; and the implications its proposed approach may have for the allocation of risk and the resultant cost of capital.

Our main conclusions are first that the issue of pension costs associated with defined benefits schemes is a distinct and unique problem confronting all UK regulated sectors, and consequently it is an issue that at least merits special and specific consideration by regulators, and, depending upon the final conclusions from such consideration, may merit special or unusual treatment as part of the price control framework. Second, compared with other regulators, Ofcom has thus far engaged in relatively limited consultation on, and explicit consideration of, principles that might be relevant in the treatment of pension costs. There may therefore be merit in greater engagement, not only for the communications sector but also in terms of Ofcom's potential contribution to a wider policy process.

2. THE PROCESS OF ASSESSMENT OF OPENREACH'S PENSIONS COSTS

Before turning to the substantive matters relating to the proposed treatment of Openreach's annual pension costs under the new regulatory framework, we begin by making some general observations on the process by which this issue has been considered by Ofcom to date. In particular we focus on the question of the scope and extent of consultation with interested parties on this issue, and the extent of supporting analysis and reasoning relating to the proposed treatment of pension costs which has been put into the public domain.

Such consideration of the process by which the decision to disallow annual pensions costs was made is potentially of wide significance, since, in our experience, the rigour and skill with which the policy development process is handled is often reasonably closely correlated with the quality of substantive outcomes/decisions. More specifically, evaluation of Court decisions concerning the exercise of executive authority suggests that there is a positive, albeit not exact, correlation between failures of process and failures of substantive decision making. That is, poor processes and procedures are more likely to be associated with inferior/unreasonable decisions.

Examination of the process by which the future treatment of pension costs has been considered by Ofcom suggests to us first that, given the potential significance of the issue, it is short of what might be considered necessary and proportionate under best practice guidelines; and second that it appears to be inconsistent with the approach, and with the weight/significance afforded, to this issue in other regulated sectors. Indeed, the relatively cursory approach to the issue seems generally inconsistent with the more open and responsive approach typically adopted by Ofcom in relation to other matters that it is considering.

In the course of a detailed review of the consultation documents and supporting materials relating to the new pricing framework for Openreach, we have identified only a very limited, and concise, discussion of the proposed treatment of annual pension costs. The extent of substantiation for Ofcom's position is limited to half a page and is located in the last Appendix in the second consultation document. The relevant substantive discussion here notes simply that:

A10.76 In the context of a forward looking price control we believe these costs should be excluded. Our cost assessment should therefore only include the annual charge to meet future liabilities of members of the defined benefits scheme.

A10.77 Even if one off pension liabilities are allowable, it is likely that the liability has arisen wholly or partially in relation to employees who no longer work for BT and employees who continue to work for BT but whose pension liability is in relation to past service. These costs do not relate to the forward looking provision of Openreach costs and services and we have disallowed the £94m annual pension cost. Of this total, £57m was allocated to the Core Rental Services.

It seems likely from the brevity of this extract that Ofcom has developed no substantive analysis of the issue, and nor has it adequately substantiated its reasoning, in proposing to treat annual pension costs in this way.

It is a matter of common observation that, in business reality, the weight of past burdens can affect future business decisions. The extent to which it does so, and the circumstances in which the effects are material, depend upon the context, and therefore stand to be analysed in the individual case. Thus, even if the 'bygones are bygones' approach of static economic models under conditions of certainty and zero transactions costs is an adequate approximation in most circumstances -- and that is in itself far from obviously the case – it is still necessary to consider whether it is adequate <u>in this specific case</u>, rather to assume that it is without further thought.

In our view, therefore, the failure of Ofcom to consider or assess in greater depth (than in the paragraphs cited above) either the nature of the underlying annual pension costs, or the magnitude of the possible effects associated with annual pension costs on Openreach's activities – including the potential impacts on different stakeholders (and on the incentives of those stakeholders) of treating pensions in this way – is a significant weakness of the consultation process to date.

The importance of detailed supporting reasoning and full transparency as to how Ofcom reaches its decisions to allow (or disallow in this case)

certain costs is arguably heightened by the proposed form of price regulation used to determine Openreach's prices. As is well recognised, the question of what are the 'relevant costs' in the context of forward looking cost estimation approaches – such as LRIC or CCA costing approaches – is necessarily *subjective*, being derived from forecasts and expectations. This implies that the results of the assessment exercises depend heavily upon the precise details of how this general pricing methodology is implemented in practice. Depending on the approach taken and the choices made by the regulator as to which costs to allow and disallow (and by what proportions), prices can in some cases closely resemble those derived from stand-alone cost approaches and, in other cases, from, fully allocated cost approaches.[1]

The point being made here is simply that, given the importance of the specifics of implementation of (subjective) LRIC and CCA pricing approaches, it is also of considerable importance that the reasoning of the regulator as to how it treats various cost categories and items is presented in sufficient detail.

A final more general point, discussed below in detail, is that Ofcom's approach to the treatment of pension costs contrasts with the attention given to this issue and the process employed by other UK regulators who also apply forward looking regulatory frameworks, albeit of different types. Of particular note is that some of these regulators have viewed the matter to be of such significance that they have issued consultation papers that have been dedicated to this issue alone.

[1] This wide variation in possible implementations of LRIC/CCA approaches was recognised by the Competition Commission in its mobile termination charge report in 2002 where it noted that: '*We agreed with the DGT that LRIC was the appropriate basis for estimating costs because it identifies costs that are directly caused by a particular service. ... Beyond the choice of the basis for estimating costs, it is important to consider the detailed methodology behind the LRIC model. Depending on how the costing systems are designed, a LRIC model can be very similar to, or very different from, an FAC model*' Competition Commission (UK), *Vodafone, O_2, Orange and T-Mobile: Reports on References under section 13 of the Telecommunications Act 1984 on the charges made by Vodafone, O_2, and T-Mobile for Terminating Calls from Fixed and Mobile Networks*, December 2002, point 2.251.

3. THE PRINCIPLES OF INCENTIVE REGULATION AND IMPLICATIONS FOR THE APPLICATION TO FUTURE PENSIONS COSTS

3.1 Forward-looking regulatory frameworks

In very general terms, the notion of 'incentive regulation' can be said to refer to the use of various measures employed by a regulator to encourage the efficient production of services by a regulated firm. In many practical settings this involves introducing mechanisms that collectively incentivise the firm to combine inputs, technology and processes to produce a given level of output at least possible cost; although the approach is far broader than that in principle, and today's regulatory problems often point toward incentivisation of more dynamic aspects of conduct, such as investment and innovation.

One way in which incentive mechanisms are introduced into regulatory arrangements across different sectors is through the adoption of a forward-looking perspective in estimating costs and revenues. In general terms, forward looking approaches estimate prices and revenues on the basis of future projections of costs and revenues associated with projections of expected future levels of output. This differs from 'backward looking' approaches which typically employ *historical* cost and revenue information when determining prices and revenues of the regulated firm.[2]

The choice as to the appropriate perspective with which to estimate costs depends on a range of factors. However, there is an obvious trade-off between historical cost estimates that are more accurately recorded but may be potentially inefficient, and forward looking estimates that are more difficult to estimate with precision but may be potentially more efficient. That is, while the forward looking cost perspective is, by its nature, less predictable than a backward looking perspective, it is generally believed that it can provide incentives that are more consistent with competitive markets. It is for this reason that such an approach has been adopted right across the regulated sectors in the UK, including in the telecommunications sector.

[2] The differences can be exaggerated, since some of the more mechanistic forward-looking approaches rely heavily on past/historical data as the basis for the determining future cost and revenue projections.

The forward looking perspective is usually considered to be particularly appropriate for the telecommunications sector because it captures the 'economic costs' and not just the historical costs (which more closely resemble accounting costs) associated with the provision of future output. It is argued that economic costs rather than accounting costs are particularly appropriate in the sector because of the continuing potential for rapid and substantial technological change. More specifically, it is often argued that this perspective enables costs to be set on the basis of the costs that a new entrant would incur, rather than on the actual costs incurred by the incumbent provider, and hence that it provides unbiased incentives for 'build or buy' decisions by new entrants in relation to infrastructure assets.

We mention this latter argument because it illustrates the significance of a point already made, namely the essential requirement that issues be addressed in their factual contexts. The sustained 'marking to market' of forward-looking cost estimates may look as if it is neutral in relation to build-or-buy decisions, and in some contexts the approach does approximate neutrality; but there are also circumstances in which it does not, because, for example, it fails to take account of option values in conditions of uncertainty when some capital expenditure is sunk once incurred. Here then is an example of a situation where, once the factual context is taken into account, the sunkness of past capital expenditure should properly affect the regulated price.

Although there are important differences in the specifics of how forward looking costs are estimated across the different regulated sectors in the UK, the purposes of, and general approaches to, estimating forward looking costs are broadly similar across the sectors in so far as allowable prices (revenues) are determined on the basis of the expected operating costs and capital costs associated with supplying the services over the long-term. This is how it should be: similar policy principles applied to different contexts and problems can be expected to lead to variations in the detailed implementation of policy; and all that we are suggesting in relation to pensions costs is that specific, factual reality should be addressed, at least in the event that the issues are considered to be quantitatively material.

3.2 Allocation of risk under forward looking approaches

It follows quickly from the above discussion that an important aspect of the implementation of any forward looking regulatory approach is how the risks associated with future uncertainty as to the actual level of costs (and demand) are allocated between shareholders and consumers.

This issue is one that applies across the regulated sectors that rely on forward looking approaches to price determinations. As discussed below in more detail, the general approach in most sectors is to distinguish between the different forms of risks, and to expose regulated firms to a greater extent to those risks that are within its control or influence. The analytic framework used by UK regulators for thinking about the technical details of the relevant trade-offs has evolved from what in economics is known as 'principal-agent analysis'.

The general issue of risk allocation is important as it has implications for the incentives that shareholders have to invest in a regulated company. It is generally recognised, for example, that if shareholders are exposed to *all* of the risk associated with volatility in future costs and revenues, then this can potentially act as a strong disincentive for investment in the regulated entity.[3] It is for this reason that most forward looking regulatory arrangements have tended to adopt approaches in practice which combine forward looking aspects with a recognition that shareholders in the regulated firm need to be sufficiently assured that their investment in the firm will not be eroded over time as a result of factors outside of their control/influence, and most particularly as a result of future regulatory decisions.

The recognition of the close link between how the regulatory arrangements deal with future uncertainty under forward looking approaches and shareholders' incentives to invest in the regulated firm is perhaps best captured in the notion of financial capital maintenance. Although there are various definitions of financial capital maintenance across the different regulatory sectors – reflecting the specifics of the regulatory arrangements – the underlying principle is

[3] Unless, of course, such greater risk is sufficiently reflected in the return on capital, which is generally not the best way of doing things.(see Dixit Avinash K. and Pindyck Robert S. "*Investment Under Uncertainty" Princeton University Press, 1994* for further discussion of this issue)

that the regulatory framework should ensure that the shareholder's invested funds are the same in real terms at the end of the regulatory period as they are at the beginning of the regulatory period. That is, in principle, over the lifetime of the regulated firm shareholders should not receive any windfall gains, and should not be subject to unexpected losses, as a result of the regulatory framework employed. A slightly different, but related, definition sometimes used is that the regulatory arrangements should be structured such that the future revenue stream is sufficient to cover the future expenditures of the firm.

Put very simply, the approach is based on the recognition that shareholders will have reduced incentives to invest in firms where – as a result of how the regulatory arrangements treat significant cost changes outside of their control – the potential exists for their investment to not be maintained in real terms, or where it is expected that the future flow of revenue of the firm will be less than the expenditures associated with the firm.

As discussed in more detail below, the principle of financial capital maintenance can best be seen in forward looking CCA approaches through the adjustments made to allow for changes in the underlying value of assets, and in associated adjustments to depreciation expenses, to be reflected in regulated prices. Implicit in this approach is the recognition that the volatility in asset values can potentially act as a disincentive to investment and that it is appropriate that customers, not shareholders, be exposed to these risks.

3.3 Distinguishing between different types of risks

It follows from the above points that all forward looking regulatory arrangements involve an implicit judgment as to which party should bear the risks of future cost uncertainty. As already implied, in considering this issue a distinction typically employed is whether the risk of cost changes can be 'controlled', or mitigated, by one or another specific party. In particular, the notions of 'controllable' and 'non-controllable' risk are commonly employed as a means of allocating risks to parties (be it shareholders or users/consumers) on the basis of who it is that might reasonably be able to control or influence such risk.

In this context, 'controllable' risks are sometimes defined as those financial risks associated with future uncertainty that can be materially influenced by either the regulated firm and/or users of the regulated firm. Conversely, 'non-controllable' risk would be the financial risks associated with future uncertainty that are common to the entire regulated sector and which cannot materially be influenced by users and/or the regulated firm.

This distinction between controllable/non-controllable risks can be seen across the regulated sectors in the UK where prices and revenues are generally set so as to be independent of the *controllable* costs of the regulated supplier for a significant period of time. In some implementations, where particular cost elements are deemed to be subject to significant uncertainty and non-controllable in nature – and therefore beyond the influence of the regulated firm – 'pass-through' mechanisms have been employed (such as in RPI - X + Y approaches) to account for these non-controllable costs and to allocate these costs onto the consumer directly within the regulatory period.

In other cases, adjustments are made to reflect changes in the non-controllable cost items at the time of the next regulatory review. In this case, the regulated firm (and its shareholders) are exposed to the risks associated with future cost uncertainty during the regulated period (assuming the firm is unable to reflect these changes in prices), but the effects of this cost uncertainty is ultimately transferred to consumers when prices are next adjusted to reflect costs.

3.4 The allocation of risk and the cost of capital

A further general consideration is the interaction between the allocation of risk under different regulatory arrangements and the choice as to an appropriate cost of capital under forward looking regulatory frameworks.

The extent to (and time at) which the regulatory arrangements allow prices to reflect changes in underlying costs can clearly affect the cost of capital. For example, the use of cost adjustment or pass-through clauses that allow regulated firms automatically to pass higher non-controllable costs onto customers, without having to wait until a future regulatory reset, effectively shifts this operating risk onto customers. The

effect of such clauses which allow operating cost risk to be shifted to consumers is that the regulatory regime effectively reduces the shareholders' risk and consequently it would be expected that the regulated firms' cost of capital should be lower.[4] The converse of this point is relevant where the regulated firm is not able to adjust its prices either within period to reflect changes in non-controllable costs, or the regulatory arrangements do not allow for prices to reflect changes in these underlying costs at the time of the next regulatory review.

In the standard regulatory approach to telecommunications services – including the approach being proposed by Ofcom in relation to Openreach – prices are effectively fixed by the regulator for a set period of time. Moreover, according to Ofcom's current interpretation of its approach, adjustments to reflect changes in underlying values of costs are not systematically made at the time of the next regulatory reset. Following the general reasoning outlined above, this suggests that in light of the potential for non-controllable cost fluctuations to occur, the regulatory arrangements should either:

1. Allow for cost adjustments to reflect changes in these non-controllable costs at the time of the next regulatory reset, shifting the risk onto consumers and with no corresponding change to the underlying cost of capital; or

2. Where changes in these non-controllable costs are <u>not</u> allowed within the specific regulatory arrangements, then the cost of capital should, in principle, be adjusted to reflect the fact that shareholders bear this greater risk.

3.5 Summary: applying general principles to the treatment of pension costs

In provisionally disallowing the annual pension costs of Openreach the reasoning *presen*ted by Ofcom was that, in its view, these costs are inconsistent with a forward looking price control framework. In this section, we have examined this explanation by reference some of the

[4] Clarke, Roger G. 1978. "The Impact of a Fuel Adjustment Clause on the Regulated Firm's Value and Cost of Capital." *Journal of Financial and Quantitative Analysis*, 13(4): 745–57.

more general principles of forward looking regulatory frameworks, and specifically, the treatment of costs subject to substantial uncertainty within those frameworks. In doing so, we have highlighted the fact that the specific issue of whether or not annual pension costs are consistent with a forward looking price control framework is complex and nuanced ('context dependent'), and requires, among other things, a consideration of the following sorts of issues (the list is not exhaustive):

- The nature of the underlying annual pension costs, and the sources of volatility;
- The extent to which volatility associated with these costs could reasonably be expected to be controllable by Openreach;
- Whether Openreach can reasonably be expected to be able to diversify the risk associated with this future volatility in annual pension costs;
- The materiality or magnitude of the effects associated with this volatility;
- The potential impacts on the incentives of shareholders and consumers of the risk associated with this volatility being allocated to them;

In sum, the point being made, and one that has been generally recognised by other regulatory authorities, is that given the circumstances in which these costs have arisen and their special nature the appropriate treatment of annual pension costs within a forward looking regulatory framework requires a detailed and thorough assessment of the specific factual circumstances.

4. Treatment of Pensions Costs in other Regulated Sectors

In this section we provide a high level overview of approaches to pension funding taken by other UK economic regulators. By way of background we note that, until relatively recently, the issue of pension funding had generally not been significant in the determination of price controls across the sectors. This appears to be because pension funds were typically balanced or in surplus, and therefore, volatility in costs had a relatively small impact on the financial viability of regulated companies.

Recent detailed consideration of the issue by UK regulators has been driven by the recognition that external circumstances have changed and that pensions funding is now generally a material issue for regulated utilities. This has been primarily caused by recent volatility of capital markets and generally lower investment returns, coupled with demographic changes (primarily changes in mortality rates).

4.1 Energy

Process and History

Ofgem first considered pensions issues in detail in its "Developing Monopoly Networks Price Controls" consultation process in August 2002. The conclusions of this process were reflected in Ofgem's July 2003 "Electricity Distribution Price Control (EDPCR4) Initial Consultation", and were consulted on and defined through the EDPCR 4 review.

Issues surrounding the treatment of pension costs have been considered in energy network price controls since this time, broadly following the principles established in the EDPCR 4 review. These issues have been considered in detail and extensively consulted upon, most recently in the Electricity Distribution Price Control 5 process where, in the early stages of the process, Ofgem issued a dedicated consultation on pension principles[5].

Treatment of Pension Costs

[5] Ofgem 'Price Control Pension Principles Consultation Document' August 2008.

Ofgem's current treatment of pension costs is to set an *ex ante* allowance for the cost of pension benefits accruing during the price control period, but to make an ex post adjustment to allow companies to recover their actual pension costs at the subsequent price control. This is provided that the costs are economic and efficiently incurred and changes in costs relate to changes in ex ante assumptions beyond the control of the utility (e.g. mortality rate changes, membership, market movements and legislation).[6] Variations in pension costs against allowances are therefore generally recoverable from consumers and it is consumers who are exposed to pension cost volatility[7].

4.2 Post

Process and History

Postcomm considered the funding of pensions in detail in its 2006 Royal Mail Price and Service Quality Review process, which began in March 2004. It first explicitly consulted on pension principles in its September 2004 document[8] and pension principles were a major focus of the review process until its conclusion in June 2006.

Treatment of Pension Costs

Postcomm's current approach to pension funding is to provide an *ex ante* allowance, which both provides for the cost of pensions benefits accruing during the price control period and funds the costs of reduction in the Royal Mail Group pension deficit. In addition to this *ex ante* allowance there is a "risk sharing" mechanism[9] which allows for

[6] Ofgem's examples taken from, Ofgem, "Price Control Pension Principles Consultation Document" Ofgem, August 2008. P9

[7] Aggregate ex ante funding for defined benefit pension schemes for the monopoly energy networks is £441 million per year, with approximately 50% of this allowance in respect of pension deficit repair payments. Indications as of December 2008 were that the electricity distribution networks actual pension costs were forecast to exceed allowances by approximately 7%, with Ofgem expecting a similar trend of pension costs exceeding allowances for the transmission companies. (see Ofgem, "Electricity distribution price control review: Policy paper - supplementary appendices, December 2008)

[8] Postal Services Commission "2006 ROYAL MAIL PRICE AND SERVICE QUALITY REVIEW: CONSULTATION ON PRINCIPLES", September 2004

[9] Within an "inner" corridor of volatility in pension deficit the company solely faces the risk of increased pension costs. Outside of this corridor, the company can recover a proportion of the "excess deficit" from customer charges in following years

the costs of pension deficit volatility outside of the control of the company. This provides for the increased costs caused by changing mortality assumptions and investment returns to be shared between the company and consumers within price control rather than being borne solely by the company until the next periodic review.

Under the current approach, therefore, variations in pension costs against allowances are partially recoverable within period. Subject to the same general approach of deficit funding being applied at future price controls, any increase in the deficit in the current price control would be recoverable in future price controls. Risk is therefore shared between consumers and the company.

4.3 Rail

Process and History

The Office of Rail Regulation (ORR) considered its approach to pensions in the 2008 Periodic Review process, begun in December 2005. Its approach to pensions issues was explicitly considered and consulted on in its document of September 2007[10], with the Regulator's decision on this approach set out in its February 2008 document[11].

Treatment of Pension Costs

ORR's approach to pension costs is to treat pension costs in the same way as any other operating cost, with Network Rail bearing exposure to pension costs. ORR does not determine a specific *ex ante* allowance for pension costs. It instead makes an assumption regarding Network Rail's total efficient employment costs in the determination of the revenue requirement. However, in doing so ORR's approach to opex in setting the last price control was to roll forward the 2008-09 starting point by a general efficiency assumption. Therefore, as ORR recognised, the *implicit* pensions assumption in the allowance for employment costs was based on Network Rail's cash pensions cost in 2008-09 (which included deficit contributions).

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[10] Office of Rail Regulation "*Financial issues update and further consultation*", September2007.

[11] Office of Rail Regulation "*Update on the framework for setting outputs and access charges and strategic business plan assessment*", February 2008

Under this approach variations in pension costs against allowances within price control period are borne by the company. However, at least to some extent, variations in pension costs across price control periods are shared by consumers and the company.

4.5 Water

Process and History

Ofwat considered and consulted on the treatment of pensions in its 2004 periodic review process, begun in October 2002 and concluded in December 2004[12].

Treatment of Pension Costs

Ofwat's current approach (as set out in its 2004 periodic review) is to provide an *ex ante* allowance for the costs of pensions benefits accruing in the price control period, and to recover half of any past pension deficit. Under this approach variations in pension costs against *ex ante* allowances are shared between consumers and companies.

4.6 Aviation

Process and History

The Civil Aviation Authority has consulted in detail on the treatment of pension policy in setting price controls relating to airports and to air traffic control services. It and the Competition Commission most recently considered this issue in detail in the review of price controls for designated airports which started in October 2004 and is ongoing in relation to Stansted airport.

Treatment of Pension Costs

CAA's approach to pension funding is to broadly set allowances for pension costs based on the expected cash costs of pensions funding. Over or under expenditure against this allowance is then at least partially recovered through an adjustment to the Regulatory Asset Base in subsequent price control periods.

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[12] Ofwat, "*Future water and sewerage charges 2005-10 Final determinations*", December 2004

In respect of National Air Traffic services, the CAA has put in place a mechanism to allow companies to recover their actual pension costs relating to existing employees only (as these costs are regarded as substantially outside of the influence of management[13]) through adjustments to future RAB, effectively allowing a pass through of these pension costs.

In its final decision[14] with regard to Heathrow and Gatwick airports the CAA reduced the regulatory asset base by the estimated value of earlier period net pension holidays taken by BAA. A similar approach is also proposed in the CAA's current ongoing review in relation to Stansted airport.[15] These approaches effectively pass through to final customers (albeit in a different time period) the variation in pension costs against allowances.

4.7 Summary and common themes

In examining the approaches taken by the various regulators a number of common themes emerge. The key themes include:

- **Materiality**
  Until pension funding was a material issue, regulators had in general not explicitly developed or considered specific principles to address pension funding. Recent volatility of capital markets, generally lower investment returns and changing mortality assumptions have had the effect of increasing the level and volatility of pension funding costs. This has increased the materiality of pension costs relative to the total cost base of the regulated utilities. The increased materiality of the issue has resulted in regulators examining in detail the appropriateness of their arrangements.

- **Consultation**
  Regulators have consulted on the treatment of pensions funding. These consultations have addressed the *principles* of pensions

[13] See CAA, "*NATS Price Control Review 2006-2010, CAA's Firm Proposals*", May 2005, P 80
[14] CAA, "*Economic Regulation of Heathrow and Gatwick Airports 2008 -2013, CAA Decision*", March 2008
[15] CAA, "*Stansted Airport CAA price control proposals*", December 2008

funding as well as the application of a given approach to pensions funding.

- **Pension Costs to some extent are outside of the direct control of the company**
  It is a common theme that there is limited scope for the regulated company to manage volatility in pension costs for a *given level* of pension benefits.

- **Pension Costs have a material effect on the risk profile of the company and potentially increase its cost of capital. It therefore may be more efficient for volatility in pension costs to be borne by consumers**
  While there has been debate regarding the incentive effects of a pass through of [some] pensions costs, and the relative importance of this particular incentive effect, there has been a general recognition of the impact of pension costs can have on the risk faced by the company, and hence on its cost of capital. This recognition has typically resulted in some form of risk sharing between customers and the company.

  This consideration was perhaps best captured in the context of pension fund investment performance in Ofgem's initial thinking on this issue in 2003.

  "On this basis, customers will to a large degree bear the risk of investment under-performance and benefit from out-performance, and companies will be protected to the same degree. This should have a commensurately beneficial impact on their cost of capital, compared to unregulated companies, to the benefit of customers. Conversely, if companies were fully exposed to investment risk in relation to their pension funds, the consequent negative impact on their cost of capital may be expected to disadvantage consumers."[16]

[16] Ofgem 'Developing Monopoly Price Controls: Initial Conclusions', Ofgem, June 2003, page 54

5. OFCOM'S PROPOSED TREATMENT OF OPENREACH'S PENSIONS COSTS

The discussion in this report so far has focused on the general principles relevant to the consideration of annual pension costs, and on the approaches that have been adopted to this issue in other regulated sectors in the UK. In this section we consider the specific approach of Ofcom to the treatment of annual pension costs, and, in particular, address the issue of whether the proposed treatment is consistent with Ofcom's general regulatory principles and the approach it has adopted to other cost and revenue items in applying the forward–looking CCA framework. In addition, we consider the implications of Ofcom's proposed approach for the allocation of risk between shareholders and consumers, and whether such an allocation requires changes to Openreach's underlying cost of capital.

5.1 The unique nature of pension costs associated with defined benefits schemes

Before examining the proposed treatment of pension costs in detail it is worth noting that, for a number of reasons, the issue of pension costs is a unique one facing UK regulatory authorities. Firstly, the circumstances in which the liabilities arose, and the specific form of those liabilities (defined benefits schemes) are closely related to the legacy of British Telecom and the fact that such liabilities were standardly used in public owned entities. As such, it is unlikely that a similar type of liability will arise in the future. Secondly, defined benefits pension liabilities are in themselves special in nature in so far as they commit a company to a series of forward expenses which are not defined in terms of length of obligation (ie: how long the liability extends) or, correspondingly, in terms of the amount of future liability. Finally, and perhaps most importantly, the nature of the uncertainty relating to future pension costs is unique among classes of liabilities, being linked to factors such as mortality rates and underlying stock market movements (and we note that, by their nature, pension funds can be expected to exhibit substantial levels of systematic risk).

In consequence of such factors, it is our view that the issue of pension costs associated with defined benefits schemes is a unique issue

confronting UK regulators, and is one which consequently deserves special, or particular, treatment as part of the price control framework.

5.2 Objectives of, and approach to, Openreach's new pricing framework

The first consultation document for the new pricing framework clearly sets out four objectives for the new pricing framework for Openreach. Among these objectives are to:

> *"Ensure that the delivery of the regulated services is sustainable, in that the prevailing prices provide Openreach with the opportunity to recover all of its relevant costs (where efficiently incurred) including the cost of capital".*[17]

In its second consultation document on its approach to the new pricing framework Ofcom notes that it will place significant weight on the costs determined through Openreach's Fully Allocated Current Cost Accounting model in determining the prices for core Openreach services. In adopting this approach Ofcom is acting consistently with the relevant EU recommendations and with the approach adopted by telecommunications regulators in the majority of European countries that have adopted either FL-LRIC or FL-CCA approaches.

Before addressing the issue of how future costs and revenues are treated under a CCA approach it is useful to consider briefly the underlying purposes of a CCA approach in the telecommunications sector. Generally speaking, the principal argument for the use of CCA in regulated sectors is that this approach represents the cost that would be faced by a hypothetical new entrant and, on this basis, the current cost operating profit reflects the surplus that such an entrant could earn from its operations, and the current costs of assets represent the costs of creating the business in a competitive market. More specifically, it is often argued that CCA approaches implicitly correct for any the errors, or inefficiencies, associated with past decisions, and

[17] Ofcom ' A new pricing framework for Openreach' First Consultation 30 May 2008, page 8

as such reflects the opportunity cost associated with the use of existing assets at a particular point in time.

In relation to telecommunications networks it is argued that a major benefit of forward looking CCA approaches is that they potentially avoid the unnecessary duplication of the network infrastructure by appropriately reflecting the current costs of the network in regulated prices, and therefore allow for efficient 'build-buy' decisions. In setting prices on the basis of CCA (rather than Historic Cost Accounting (HCA) information) it is argued that the regulatory framework more accurately mimics the price that would prevail in a competitive market. However, as we have pointed out earlier, these propositions are only valid in some circumstances, and are generally not valid – being rather an approximation whose accuracy stands to be assessed – in the presence of significant levels of uncertainty and sunk costs.

5.3 Allocation of risk exposure under CCA approaches

It was noted earlier that an important aspect of the implementation of any forward looking price regulation approach is the appropriate allocation of risk associated with volatility in future costs between shareholders and consumers. The issue is particularly important in regulatory arrangements that adopt forward looking CCA approaches.

Under 'pure' forward looking CCA approach, shareholders are exposed to *all* of the risks associated with future changes in costs and revenues. In principle, this approach is seen as desirable in so far as it ensures that prices (and revenues) accurately reflect the current value of costs. In implementing such a pure approach the regulatory framework effectively determines the future costs of a hypothetical new entrant – including assumptions about the network optimisation and the efficiency of the technology employed – each time the regulated prices are set. It follows that under such a 'pure' forward looking CCA approach the network topography and technology (and the associated costs) of the incumbent are of little relevance to the price determination process.

However, it should be obvious that such a pure approach to cost determination can potentially act as a strong disincentive for future investment where the uncertainty associated with different cost items is significant, and where as a result shareholders are required to

effectively gamble on potential future movements in these cost items. Nor can this outcome be justified as one that mimics a competitive outcome under similar conditions. For any degree of sunkness in costs, new entry prices would not fall instantly to the level of the economic costs of a new entrant, since, in the entry decision, a new entrant would itself need to consider the consequences of post-entry sunkness of its own assets. The new entry price can be expected to lie above the entrant's economic costs.

In recognition of the potentially adverse effects on the incentives to invest under 'pure' CCA, approaches most telecommunications regulators – including Ofcom – have adopted hybrid approaches that combine forward looking aspects of the CCA approach with historical elements relating to the incumbent provider of services. This reflects a more general recognition that providing shareholders in the regulated firm with a greater degree of assurance that their investment in the firm will be maintained over time is beneficial in terms of the overall trade-offs that a regulator is necessarily required to resolve.

This recognition is most clearly seen in CCA approaches in the telecommunications sector where adjustments are made to allow for changes in the underlying value of assets, and associated adjustments to depreciation, to be reflected in regulated prices. In the current context, the hybrid (ie: not pure) CCA approach being adopted by Ofcom can be seen by the fact that primary source of data used to set prices are the expected costs and revenues as modeled by Openreach for its current operations. While Ofcom does apply some adjustments to the cost data presented by Openreach, it is notable that it assumes that the network costs, and associated physical and human capital embodied in that network, are closely related to the existing situation of Openreach. Put simply, it is not the case that Ofcom is basing its estimate of future costs for Openreach on the basis of hypothetical firm employing a fully optimised network employing the latest technology, rather its starting point is grounded in the actual network and associated costs of Openreach. On the arguments that we have presented, that is a sensible adaptation.

5.4 Cost Estimation of pensions funding in a CCA approach

Thus while the typical "theoretical" application of the forward looking

CCA methodology would be to set charges on the basis of the current costs that an efficient new entrant would face, in practice most CCA assessments use as a starting point the costs of the incumbent, as is the case in Ofcom's treatment of BT, and it is in this context we will consider how defined benefit pension costs might be considered in a CCA framework and offer an a few thoughts of Ofcom's proposed treatment. These should be treated as preliminary remarks only since, precisely because the pension issues are difficult and *sui generis*, they merit much more careful and thoughtful assessment than is possible in a few paragraphs.

In considering this issue it may be helpful to consider the economic characteristics of a defined benefit pension scheme as operable in the UK. At a basic level it is simply form of remuneration for employment in the current time period, in which there is a commitment from the employer to pay for future benefits, which will have an uncertain cost to the employer.[18] In addition pensions regulation in the UK effectively requires the sponsoring company to make payments to its pension fund in the current time period to broadly:

[i) pay the expected cost of future benefits accrued by employees in the time period
ii) make/receive payments to account for changes in expected costs of existing employee benefits which may have been "misforecast" in the past.]

It is apparent that the economic cost of providing defined pension benefits in a time period has two distinct components:

i) the expected value E(V) of the future payments required to provide future benefits.
ii) the cost of the "uncertainty" or the volatility in these future flows.

The first of these economic costs, the expected value is, at least from a regulatory perspective, relatively straightforward to derive from actuarial valuations. Its treatment under various regulatory regimes is also relatively straightforward, as it generally forms the basis of any "allowance" for pensions costs in price controls.

[18] As discussed earlier, primarily relating to investment performance and mortality rates.

The derivation of the second of these costs and its regulatory treatment is less straightforward. There are a number of broad conceptual options which might be used to address these costs, including:

i) A direct pass through of actual pension costs to end consumers in charges; an example of which is Ofgem's current approach to pensions costs. In essence the second category of cost does not need to be explicitly valued as this uncertainty is borne by customers.

ii) The "market testing" of the cost of "selling" pensions liabilities to a third party. The difference between the price that a third party would pay/require to assume the "position" of the pension fund and the actuarial valuation of that position would indicate the price of risk or the second category of costs. This cost would then be explicitly incorporated in any "allowance" for pension costs.

iii) An assessment of the impact of increased uncertainty in future cash flows borne by the company on its ability to raise funds, which could be reflected in the cost of capital.

In common with standard regulatory practice, Ofcom's approach with regard to Openreach is to allow forward looking expected costs of pensions to be included in charges. i.e. the expected value or first "type" of costs. Its treatment of the second component of costs (the costs of volatility/risk) is less clear: *prima facie* it does not include any allowance for these costs.

That is, there appears to be no explicit "allowance" for uncertainty in its derivation of pension costs, whether derived from market testing or from some other source (option ii). Similarly there is no explicit allowance in the cost of capital for the increased volatility in cash flows (option iii) Finally as implied by Ofcom's approach to disallow historical deficit repair costs, there is no pass through of actual costs to customers (option i).

This is one aspect of the regulatory approach, therefore, that would at least merit further consideration in circumstances where the pensions issue is considered material in quantitative terms. Thus, to repeat earlier points, a new entrant setting up a pension scheme of the Openreach type *ab initio* <u>could</u> be expected to factor in risk as a cost of that

scheme: it would not simply work with the expected value. If, therefore, the regulatory approach is to cost Openreach's actual operations on the basis of the forward looking costs of a new entrant operating in today's economic circumstances, it is to be expected that the relevant costs of risk/uncertainty/volatility would appear somewhere or other in the assessment.

6. Conclusions

Our main conclusions of this preliminary review of the proposed treatment of Openreach's pension costs by Ofcom are as follows:

- Ofcom has thus far engaged in only limited public consultation or discussion regarding the treatment of pensions costs. To the extent to which there has been consultation, it has focused on the derivation of pension costs rather than on discussion of the principles regarding how these costs and risks should be accommodated in the regulatory regime. Particularly given that all regulators necessarily have to grapple with this latter issue, we think it would be useful if, as has occurred in other sectors, Ofcom engaged in more detailed consideration of and consultation on the relevant matters, the better to contribute to progress on a common/shared problem.

- Ofcom's substantive approach to this issue appears, on the face of it, to be at odds with the approach taken by other regulators. This is particularly so in respect of its contention that all risk associated with pension costs should be borne by the company. While this is in itself not necessarily a cause for concern, since circumstances between sectors may differ in ways that call for different approaches, it would at least be comforting to know that there is a reasonable basis for the difference. This too points the desirability of some further investigation, consultation and explanation.

- From the limited information available to us, Ofcom's approach to deriving forward looking pension costs appears to consider only one aspect of the economic costs of defined benefits pension schemes, namely the expected value of those costs, and it appears to neglect costs associated with risk. We may be wrong on this (there may be analysis of which we are ignorant) but, either way, it would be helpful for Ofcom to give a fuller account of how forward looking pension funding risk is handled in the costings.

- Given the above issues we see significant benefits in Ofcom engaging in some further thinking on this issue and in setting out

more clearly its "pensions principles", to serve as the basis for further consultation and analysis in this area. Whilst we understand that there are considerable sensitivities around some of the issues, and that this can give rise to pressures to relax normal standards of transparency and consultation, we believe that the better way forward in these circumstances is to maintain standards but for regulators to 'think together' more and to develop shared understandings of the trade-offs that are involved in this difficult area.