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Ofcom's consultation on BT's cost attribution methodologies – a report for BT

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Glossary

Term	Definition
ABC	Activity Based Costing
BT	British Telecommunications plc
CP	Communications Provider
CTC	TSO Career Transition Centre
DAM	Detailed Attribution Methods
(D)LRIC	(Distributed) Long Run Incremental Costs
(D)SAC	(Distributed) Stand Alone Costs
EPMU	Equi-Proportionate Mark Up
FAC	Fully Allocated Costs
FTI Consulting	FTI Consulting LLP
LoB	BT Line of Business
PADs	Primary Accounting Documents
RFS	BT's Regulatory Financial Statements
RFR	Regulatory Financial Reporting
TSO	BT's Technology, Service and Operations division

1. Introduction

Background

1.1 This report has been prepared by FTI Consulting LLP ("FTI Consulting") for British Telecommunications plc ("BT") in connection with Ofcom's consultation, *Review of BT's cost attribution methodologies,* dated 12 June 2015 ("Cost Attribution Review").

Our instructions

1.2 We have been instructed to review Ofcom's approach to reviewing BT's cost attribution methodologies and its proposed changes.

Sources of information

1.3 In forming our conclusion we have reviewed:

- Ofcom's published decisions and consultations
- UK Charge Control appeals determinations
- Academic papers on activity based costing matters

1.4 A list of documents referenced is attached at Appendix 1.

1.5 In addition we have discussed with relevant BT operating and financial staff the activities and costs associated with the cost categories which Ofcom is proposing to change.

Restrictions

1.6 This report has been prepared solely for the benefit of BT for the purpose described in this introduction. BT may also use the report to support other submissions, including to Ofcom, where relevant. It should not be used by any other party for any purpose or reproduced or circulated, in whole or in part, by any party without the prior written consent of FTI Consulting.

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Structure of this report

1.9 The remainder of this report is structured as follows:

- In Section 2 we summarise our findings.
- In Section 3 we consider Ofcom's overall approach to its review of BT's cost attribution methodologies.
- In Section 4 we review Ofcom's assessment of BT's current overhead attribution methodologies.
- In Section 5 we review Ofcom's assessment of BT's cost attribution methodologies for overhead cost categories and their proposals to change these.
- In Section 6 we assess Ofcom's proposed approach to allocating unattributable corporate overheads based on 'previously allocated costs'.

2. Summary

Ofcom's approach to reviewing BT's cost attribution methodologies

2.1 Ofcom is currently consulting on proposals to require BT to change *inter alia* a number of its cost attribution methodologies used in the preparation of its Regulatory Financial Statements ('RFS') and which in turn Ofcom are proposing to adopt in the determination of costs for the purpose of setting prices in the forthcoming Leased Line charge control.

2.2 Ofcom has indicated that it rejected BT's cost attribution methodologies only where they were 'clearly inappropriate' with reference to Ofcom's Regulatory Accounting Principles.[1] However, Ofcom has not explained what specific test it has applied in order to assess whether BT's methodologies are 'clearly inappropriate'.

2.3 Whatever the specific test applied by Ofcom, its view that BT's attribution methodologies are 'clearly inappropriate' is wrong for five reasons.

2.4 Firstly, some of the revised cost allocation methodologies have previously been challenged in charge control appeals and have been actively defended by Ofcom and upheld by the Competition Commission. Where this is the case it is unreasonable for Ofcom to now claim that the approach is 'clearly inappropriate', given Ofcom's general regulatory principle of consistency and also the Regulatory Accounting Principles of consistency over time and with previous regulatory decisions.

2.5 Secondly, Ofcom has failed to recognise that many of BT's costs fail to meet the conditions needed for an activity based costing system to provide economically robust measures of unit cost:

- A single cost driver can be identified for each cost pool.
- Each cost pool must be strictly proportional to the level of activity in that cost pool.
- There are no joint or common costs.

2.6 These conditions mean that for some cost categories (such as corporate overheads), there is no cost causal way of allocating costs across products, and for many more categories (such as the computer costs associated with group functions) the cost causal relationship between variations in product volumes and costs is a very weak one. Ofcom's approach to assessing cost attribution methodologies does not recognise these limitations to activity based costing systems, and therefore incorrectly applies the cost causality Regulatory Accounting Principle.

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1 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 4.15.

2.7 Thirdly, BT has previously obtained professional opinions from a number of accounting and economic consultants, and auditors of the regulatory Financial Statements that changes to its cost allocation methodologies met the Regulatory Accounting Principles of cost causality and objectivity and were reasonable. For many cost categories, there will be a number of different, and equally reasonable, attribution methodologies. Where a particular methodology has been previously been found to be appropriate and in line with Regulatory Accounting Principles, Ofcom should not dismiss it as 'clearly inappropriate' in order to require an alternative approach to be adopted.

2.8 Fourthly, Ofcom has not followed its own guidelines for applying the Objectivity Regulatory Accounting Principle. In particular it has not explained why BT's existing methodology for attributing corporate overheads (which Ofcom has previously supported in charge control appeals) 'unfairly benefits BT' or 'creates undue bias' – which it now claims is the case.

2.9 Fifthly, Ofcom does not appear to have applied its statutory duty of proportionality in requiring BT to change its cost attribution methodologies:

- It reviews the Regulatory Financial Statements at such a granular level, that it is requiring BT to make changes to individual cost categories which are not in themselves material in the context of preparing the RFS.
- Ofcom's proposed change to the attribution methodology for costs for which there is no cost casual allocation basis is estimated to have a significant impact on BT's business. The decision on which allocation base to apply to these costs requires a choice to be made between many alternative and equally valid attribution methodologies. A proportionate approach would require Ofcom to fully and properly consider these alternatives - which it has not done. In addition, this would indicate that Ofcom has not demonstrated that its proposed approach is free from bias, as required under the Regulatory Accounting Principle of Objectivity

Ofcom's assessment of BT's current overhead attribution methodologies

2.10 Ofcom argues that BT's existing methodology for allocating corporate overheads is 'clearly inappropriate' because it is 'failing to provide an objective or causal basis for cost allocation' for three reasons:

- The use of a single allocation methodology for such a large cost category;
- The use of a 'combination' allocation methodology; and
- The pay and assets attribution rule included within the methodology.[2]

[2] Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 8.34

2.11 We disagree with Ofcom's arguments on each of these points

2.12 The question of whether many cost categories can reasonably be aggregated into a single allocation pool is a matter of practicality, not principle. In practice, corporate overheads represent only 4% of BT's total operating costs, and so it is not unreasonable to apply a single cost driver to these costs. Furthermore, applying a single attribution methodology to this aggregated pool is more objective, transparent and consistent than applying a range of different subjective measures to individual categories.

2.13 In our view, BT's current methodology for allocating corporate overheads using a base of factorised pay and assets is incorrectly assessed by Ofcom on cost causality grounds.[3] These costs are incurred at a corporate level and are 'caused' by the entirety of BT's business in a general way. It is not meaningful to seek a cost causality relationship between these cost categories and individual parts of BT's business, or individual services. All apportionment methodologies which allocate these costs across all products in a reasonable way are equally valid, and Ofcom has not demonstrated why the current approach is 'clearly inappropriate'.

2.14 Ofcom's explanation of why it considers the rules in the existing methodology are not causal or objective is not clear. In particular, Ofcom does not explain why it rejects the current base for costs for which there is no cost causal driver. In our view the current allocation cannot be criticised on cost causality grounds and Ofcom has failed to explain why the base fails its objectivity test for these cost categories

Review of Ofcom's proposed cost attribution methodologies for overhead costs

2.15 Whilst we consider it reasonable to apply a single cost attribution base to corporate overheads, a more disaggregated approach could identify individual cost categories for which a different approach could be appropriate. In practice whether or not it is reasonable to apply such a disaggregated approach should depend on the materiality of doing so.

2.16 We have reviewed Ofcom's detailed proposals for disaggregated cost attribution methodologies. These can be grouped as follows:

- Cost categories which we agree with Ofcom are 'unattributable' on grounds of causality, but disagree on the proposed attribution methodology.
- Cost categories which we disagree with Ofcom can be causally attributed.
- TSO overhead cost categories on which we disagree with Ofcom's proposed treatment.

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3 See paragraph 4.8 for details of the Pay and Assets base

- Cost categories which we agree with Ofcom can be causally attributed, but disagree on the methodology.

2.17 A summary of our findings in respect of each of these groups is set out below.

Cost categories which we agree with Ofcom are 'unattributable' on grounds of causality, but disagree on the proposed attribution methodology

2.18 We agree with Ofcom that many of the categories identified in Section 8 of its Review of BT's Cost Attribution Methodologies[4] relate to all BT Group activities[5]. All apportionment methodologies which allocate these costs across all products in a reasonable way are equally valid, and Ofcom has not demonstrated why the current approach is 'clearly inappropriate'.

2.19 As BT's existing approach is consistent with the Regulatory Accounting Principles, and in the absence of a clearly preferable alternative, we recommend that BT maintains the existing approach, which will continue to provide consistency with prior reporting periods and price controls.

Cost categories which we disagree with Ofcom can be causally attributed

2.20 Ofcom has identified some cost categories for which it has proposed alternative attribution methodologies based on the number of employees. We do not consider there to be a strong argument that such an approach would provide a more 'cost causal' methodology in context of corporate overheads. For example, in the event that a given Line of Business ("LoB")[6] materially increases its number of employees, this may increase costs incurred by that LoB's HR function, but it is not clear that the costs incurred by the Group HR function would increase.

2.21 As BT's existing approach is consistent with the Regulatory Accounting Principles , in the absence of a clearly preferable alternative, we recommend that BT maintains the existing approach, which will continue to provide consistency in the treatment of all unattributable overheads, and with prior reporting periods and price controls

TSO overhead cost categories on which we disagree with Ofcom's proposed treatment

2.22 Ofcom has identified some cost categories incurred in BT's Technology, Service and

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4 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015

5 With the exception of some categories of group functions for some overseas businesses as discussed in paragraphs 6.31 to 6.34

6 BT refers to its different operating divisions as Lines of Business - LoBs

Operations ("TSO") division, which it considers relate to all BT activities, and which it argues should therefore be attributed accordingly.

2.23 In our view, a more cost causal approach, consistent with the Regulatory Accounting Principles, would be to allocate these costs across TSO activities – as is currently the case.

Cost categories which we agree with Ofcom can be causally attributed, but disagree on the methodology

2.24 Our analysis has identified one group of corporate overhead costs - insurance - for which a more cost causal attribution is possible, although any requirement to change should be assessed on the basis of materiality.

2.25 Insurance costs include costs related to employer's liability insurance, employee practice liability insurance, employee healthcare, death in service benefit, business interruption insurance and motor vehicle insurance.

2.26 Ofcom proposes a range of alternative approaches, several of which are inappropriate and do not reflect the nature of costs, or the basis on which insurance premiums are calculated.

2.27 Our analysis has identified that data used by BT Group's Insurance and Risk Financing team used to allocate insurance costs across LoBs provides a more cost causal basis on which to allocate costs across the business. We recommend that BT considers how best to use information used by the insurance team to attribute costs in the regulatory costing system.

BT's proposed 'Previously Allocated Costs' cost attribution base

2.28 For those overhead cost categories for which it has not been able to identify a cost driver, Ofcom is proposing to attribute costs on the basis of 'Previously Allocated Costs'.

2.29 Ofcom's definition of previously allocated costs is unclear. We understand from BT that in calculating the Previously Allocated Cost allocation base, Ofcom's consultants, Cartesian included:

- All pay costs
- Non-pay operating costs
- Depreciation
- Payments to other licensed operators (POLOs)

2.30 In our view there are three important adjustments should make to this attribution base if it was to be applied:

- The attribution base should exclude pass-through costs.
- The attribution base should include the cost of capital.
- The attribution base should be adjusted to exclude overseas businesses which do not benefit from particular group support functions.

Pass-through costs

2.31 The cost attribution base should exclude those costs which are passed through to customers with very low margins – such as payments to other operators and some equipment and third party licenses provided in managed contracts.

2.32 This exclusion is important because an allocation of overheads to those elements of its services which are typically passed through with no or very little mark-up would distort competition in those markets. In particular BT's incentives to compete would be distorted. Potentially BT could choose to withdraw from some markets to the detriment of customers in all markets – regulated and unregulated.

Cost of capital

2.33 The allocation base should include the cost of capital. There are three reasons for this.

2.34 Firstly, BT's 'Previously Allocated Costs' approach appears to be an attempt to apply an 'Equi-Proportionate Mark-Up ('EPMU') approach to common cost recovery. By definition, an EPMU approach should include all costs – including capital costs in its allocation base.

2.35 Secondly, excluding the cost of finance could lead to distorted investment and financing decisions – in particular lease or buy decisions.

2.36 Thirdly, excluding capital costs could lead to allocatively inefficient prices to the extent they deviate from a Ramsey pricing 'neutral' EPMU approach.

Allocation of overhead costs to overseas subsidiaries

2.37 As currently drafted, the definition of previously allocated costs includes all of the costs of all of BT's overseas subsidiaries. However, many of the group support functions provided by BT such as elements of the finance, legal and HR teams are not relevant to overseas businesses which carry out at least some of these functions locally.

2.38 To the extent that some Group functions are not relevant to overseas businesses, the cost causality argument would require that the relevant proportion of the costs of these group functions are not allocated to the overseas businesses.

2.39 The previously allocated cost base should therefore be adjusted to ensure group

overhead cost categories are not allocated to those overseas business units which do not make use of the function.

3. Ofcom's approach to reviewing BT's cost attribution methodologies

Introduction

3.1 Ofcom is currently consulting on proposals to require BT to change *inter alia* a number of its cost attribution methodologies used in the preparation of its Regulatory Financial Statements ('RFS') and which in turn Ofcom is proposing to adopt in the determination of costs for the purpose of setting prices in the forthcoming Leased Line charge control.[7]

3.2 Ofcom's review of BT's cost attribution methodologies follows on from a review of BT's regulatory financial reporting obligations in May 2014.[8]

3.3 Ofcom's review is informed by a report prepared by its consultants, Cartesian, who undertook a detailed review of BT's cost attribution methodologies.[9]

Ofcom's approach to reviewing cost attribution methodologies

3.4 Ofcom states that its approach to reviewing BT's cost attribution methodologies was as follows:[10]

- Ofcom first considered whether BT's cost attribution rule was appropriate.
- If Ofcom determined that this was not the case, it then considered what alternative cost attribution methodology BT should apply.

3.5 Ofcom states that it recognises that different ways of attributing costs may be appropriate, and that:

> *"We therefore rejected only those attribution rules which were* ***clearly*** *inappropriate. This, in turn, we assessed against the Regulatory Reporting Principles"*[11] *[original emphasis]*

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7 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015 and Ofcom, *Business Connectivity Market Review: Leased lines charge controls and dark fibre pricing*, Consultation, 12 June 2015.

8 Ofcom, *Regulatory Financial Reporting*, Final Statement, 10 May 2014.

9 Cartesian, *BT Cost Attribution Review*, 8 June 2015

10 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 4.14

11 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 4.15.

3.6 We note that Ofcom has not set out a clear test for how it has tested whether or not attribution rules are 'clearly inappropriate'. Ofcom states that:

> *"We have identified some attribution methodologies (including methodologies relating to BT's General Overheads) that we consider are inappropriate because we do not consider that they appropriately reflect the activities that cause the costs to be incurred"*[12]

3.7 Ofcom did not indicate what it means by 'appropriately reflect'. As discussed below, any such test should take into account the fact that for some cost categories cost allocation cannot be made on the basis of causality and secondly any test should be proportionate. In particular, the test should take into account both the materiality of a change in methodology on unit costs of individual changes in attribution methodologies and the overall impact on BT's business of the proposed changes (as discussed in paragraphs 3.53 to 3.65).

3.8 The Regulatory Accounting Principles which Ofcom requires BT to comply with in preparing its Regulatory Financial Statements are set out in Table 1 below.

[12] Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 1.12.

Table 1: Regulatory Accounting Principles

Priority	Principle	
1	**Completeness**	Regulatory Financial Reporting must encompass all revenues, costs, assets and liabilities of the Markets and Technical Areas, together with residual activities (including wholesale and retail).
2	**Accuracy**	Regulatory Financial Reporting must maintain an adequate degree of accuracy, such that the information included in the Regulatory Financial Statements are free from material errors and double-counting. Materiality must be determined in accordance with the definition set out above
3	**Objectivity**	Each element of Regulatory Financial Reporting, so far as is possible, must take account of all the available financial and operational data that is relevant to that element. Where an element of Regulatory Financial Reporting is based on assumptions, those assumptions must be justified and supported by all available relevant empirical data. The assumptions must not be formulated in a manner which unfairly benefits BT or any other operator or entity, or creates undue bias towards any part of BT's or any other operator's business or product.
4	**Consistency with regulatory decisions**	Regulatory Financial Reporting must be consistent with our regulatory decisions as set out in the Regulatory Accounting Guidelines
5	**Causality**	Regulatory Financial Reporting must ensure that: a) revenues (including revenues resulting from transfer charges); b) costs (including costs resulting from transfer charges); c) assets; and d) liabilities are attributed in accordance with the activities which cause the revenues to be earned, or costs to be incurred, or the assets to be acquired, or liabilities to be incurred respectively.
6	**Compliance with statutory accounting standards**	Regulatory Financial Reporting must comply with the accounting standards applied in BT's statutory accounts; with the exception of any departures as OFCOM may direct from time to time (including in the Regulatory Accounting Guidelines).
7	**Consistency of the Regulatory Financial Statements as a whole and from one period to another**	Regulatory Financial Reporting must be applied consistently in all the Regulatory Financial Statements relating to the same period. Regulatory Financial Reporting must be applied consistently from one period to another. All the changes in Regulatory Financial Reporting from one period to another must be justified by reference to the Regulatory Accounting Guidelines and the Regulatory Accounting Principles. If there are material changes in Regulatory Financial Reporting from one period to another, BT must restate the previous period's Regulatory Financial Statements, applying the changes to the Regulatory Financial Statements for that period.

Source: Ofcom[13]

[13] Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 4.16.

3.9 Ofcom indicated that its review of cost attribution rules was primarily concerned with the Causality principle. [14]

3.10 In our view, there are five reasons to consider that Ofcom's assessment of BT's cost attribution methodologies fails to meet its stated test that the existing methodologies were 'clearly inappropriate.' These are that:

- Firstly, some of the revised cost allocation methodologies have previously been challenged in charge control appeals and actively defended by Ofcom and upheld by the Competition Commission.
- Secondly, Ofcom has failed to recognise that many of BT's costs fail to meet the conditions needed for an activity based costing system to provide economically robust measures of unit cost:
  - A single cost driver can be identified for each cost pool
  - Each cost pool must be strictly proportional to the level of activity in that cost pool
  - There are no joint or common costs
- Thirdly, BT has previously obtained professional opinions from a number of accounting and economic consultants, and auditors of the regulatory Financial Statements that changes to its cost allocation methodologies met the principles of cost causality and objectivity and were reasonable.
- Fourthly, Ofcom has not followed its own guidelines for applying the Objectivity Regulatory Accounting Principle.
- Fifthly, Ofcom has failed to adhere to the general regulatory principle of proportionality.

3.11 We consider each of these points in turn.

Ofcom has previously argued in favour of the methodologies it now finds '*clearly inappropriate*'

3.12 The most significant adjustment to the current attribution methodologies relates to Ofcom's rejection of the use of a 'Pay and Assets' base to allocate overheads.

3.13 In the 2009 LLU Charge Control appeal, that allocation base was challenged by Carphone Warehouse who argued for a wider cost allocation base.[15] In that appeal, Ofcom defended the use of the 'Pay and Assets' attribution base for corporate

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14 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 4.17.

15 Competition Commission, Determination, The Carphone Warehouse Group plc v Office of Communications, *Case 1111/3/3/09* 31 August 2010, Para 2.468.

overheads, as the Competition Commission noted:

> *"[Ofcom] therefore saw no error in using employee costs and assets (or reasonable proxies thereof) as a reasonable allocation method for corporate overheads (Ofcom Defence Annex C §27)*[16]

3.14 The Competition Commission supported Ofcom's approach and acceptance of BT's cost allocation methodologies for corporate overheads.

3.15 Ofcom however now states that:

> *"BT attributes a significant proportion of corporate costs and TSO support function costs using a methodology based on pay and return on assets. We consider that this approach does not provide an objective or causal basis for cost allocation."*[17]

3.16 Where a previous approach to cost allocation has been so clearly endorsed by Ofcom and the appeal authority, it is now unreasonable for Ofcom to argue that the approach is 'clearly inappropriate'.

Ofcom has failed to consider that activity based costing cannot robustly be applied to many of its cost categories

3.17 BT's fully allocated costing system is an activity based costing ('ABC') system which seeks to allocate all costs to individual cost drivers using cost attribution methodologies to derive fully allocated costs ('FAC').

3.18 For many of its proposed changes to cost attribution methodologies, Ofcom argues that the current cost allocation methodology is not objective or cost causal, and that a 'more' cost causal approach can be identified.

3.19 However, the academic research that has been undertaken on ABC systems since the concept was first developed in the early 1980s has evolved and a number of important restrictions on the ability of ABC systems to generate useful product costing information have been identified. In particular, there is now a general acceptance that ABC cannot be robustly applied to all cost types, and that attempts to do so are likely to lead to incorrect understanding of costs, which in turn can lead to poor production, investment and pricing decisions.

3.20 The key academic paper on this topic is by Noreen.[18] Noreen explains that pricing, costing and investment decisions need to be based on avoidable costs:

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16 Competition Commission, Determination, The Carphone Warehouse Group plc v Office of Communications, *Case 1111/3/3/09* 31 August 2010, Para 2.515.

17 Ofcom, *Business Connectivity Market Review Leased lines charge controls and dark fibre pricing, Consultation, 12 June 2015,* paragraph 6.130.

18 *Conditions Under Which Activity-Based Cost Systems Provide Relevant Costs*, Eric Noreen, University of Washington and INSEAD, Journal of Management Accounting Research, Vol. 3, No. 4, 1991.

"The objective in this section is to establish necessary and sufficient conditions under which the ABC product costs represent avoidable product costs and ABC overhead rates represent incremental activity costs."

"A well- specified ABC system exists in which product costs are avoidable costs and activity costs are incremental costs if and only if:

(1) the underlying cost function C(a(q)) can be partitioned into cost pools, each of which depends only upon a single activity;

(2) the cost in each cost pool is strictly proportional to its activity

(3) each activity can be divided among products in such a way that the portion attributed to each product depends only upon that product"

3.21 The second and third of these conditions are particularly restrictive, as discussed in the following sub-sections.

Strict proportionality

3.22 The second of these conditions, the strict proportionality condition, means that:

"the cost in each pool must be strictly proportional to the level of activity in that cost pool. This rules out, at the level of the cost pool, nonlinear cost functions and linear functions in which there are nonzero intercepts. Thus, if ABC systems are to provide relevant cost data in the contexts discussed in this paper, costs that are not strictly variable at the level of the cost pool should be excluded from the allocations and handled in some other manner"[19]

"Given the second necessary condition…it does not appear to be prudent to allocate all costs to products"[20]

3.23 This restriction on the type of cost functions that should be included in ABC systems for costing purposes reflects the underlying economic rationale that individual pricing or investment decisions should be based on marginal (or incremental costs) and that the question of how fixed or common costs should be recovered is one to which ABC systems cannot provide a definitive solution.

3.24 The cost function of many of BT's costs will have a significant amount of common costs (i.e. non-zero intercept for zero volumes), reflecting the minimum scale of operation needed to operate a national network. For these 'common costs', ABC cannot provide a robust or economically 'correct' allocation.

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19 *Conditions Under Which Activity-Based Cost Systems Provide Relevant Costs*, Eric Noreen, University of Washington and INSEAD, Journal of Management Accounting Research, Vol. 3, No. 4, 1991, page 164.

20 Ibid page 165.

Joint costs

3.25 The third condition for ABC is described as follows:

> *"each activity can be partitioned into elements that depend solely upon each product. That is, the activity measures assigned to individual products can be simply summed to arrive at total activity. This assumption rules out all dependencies between products in the production process, In particular this assumption rules out joint processes."*[21]

3.26 As for the constraint on cost functions which are not strictly proportional, this condition reflects the inability of ABC systems to address the recovery of common costs by setting individual prices.

3.27 It is clear that many of BT's costs are joint, or common, costs and as such an ABC cannot provide a robust or economically 'correct' allocation.

Implication of restrictions on applicability of ABC costing systems

3.28 The recognition that ABC was not suitable for allocating all costs to individual products is described by Jones and Dugdale, who describe the development of activity based costing and the recognition in the 1990s that using ABC to calculate unit costs was not appropriate and likely to generate misleading results and decisions.[22] They cite comments of Robert Kaplan, a leading proponent of activity based costing:

> *"Once Robin*[23] *developed and articulated the hierarchical structure of activity-based costing, we understood that ABC was really a contribution margin approach, not an attempt to get "more accurate fully-allocated unit costs"*
>
> *"Our statement that the costs of "all of a company's activities … should be considered product costs" has led many people to believe we were saying that all expenses, even expenses caused by activities above the product level, should be allocated down to a unit product cost calculation…[However] Intuitively, we knew that obtaining such a unit-cost number was impossible"*[24]*.*
>
> And from Kaplan's website:
>
> *"Disadvantages of ABC: (inter alia): It is impossible to allocate all overhead costs to specific activities."*[25]

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21 Page 164.
22 Jones, Dugdale, *ABC Bandwagon And The Juggernaut Of Modernity*.
23 Robin Cooper, Harvard professor who worked with Kaplan in the development of ABC.
24 Jones, Dugdale, *ABC Bandwagon And The Juggernaut Of Modernity*.
25 http://kfknowledgebank.kaplan.co.uk/KFKB/Wiki%20Pages/Activity%20Based%20Costing%20(ABC).aspx

3.29 In its own definition of the Cost Causality principle, BT has previously recognised the limitations of applying the cost causality principle in cost allocation:

> *"Principle 3 – Cost Causality*
>
> *Revenue (including appropriate transfer charges), costs (including appropriate transfer charges), assets and liabilities shall be attributed to network components, wholesale services and retail products in accordance with the activities which cause the revenues to be earned or costs to be incurred or the assets to be acquired or liabilities to be incurred.*
>
> ***Where it is not possible to attribute revenues, costs, assets and liabilities in accordance with the preceding paragraph**, the attribution shall be such as to present fairly the revenues, costs, assets and liabilities accounted for in the Regulatory Financial Statement for each SMP Market or Technical Area (as applicable), as disaggregated, where BT has a regulatory financial reporting obligation and to present fairly a comparison between the Markets or Technical Areas (as applicable) as disaggregated."*[26] *(emphasis added)*

3.30 However, in its consultation on regulatory financial reporting, Ofcom excluded this caveat in BT's own Cost Causality principle when it restated the principle:

> *"5. Causality*
>
> *Regulatory Financial Reporting must ensure that:*
>
> *a) revenues (including revenues resulting from transfer charges)*
>
> *b) costs (including costs resulting from transfer charges)*
>
> *c) assets, and*
>
> *d) liabilities.*
>
> *e) are attributed in accordance with the activities which cause the revenues to be earned, or costs to be incurred, or the assets to be acquired, or liabilities to be incurred respectively"* [27]

3.31 Ofcom did not state why this amendment was made.

3.32 In their assessment of cost attribution methodologies, neither Ofcom nor its consultants appear to have considered whether any cost categories should be regarded as *not* having a meaningful cost causal driver.

3.33 This is surprising given that the issue of cost causality has previously been considered by Ofcom in the context of a challenge to BT's approach to allocating overheads. In the

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26 BT, *Primary Accounting Documents*, 15 August 2014.
27 Ofcom, RFR Statement May 2014 Page 130.

2010 Leased Line Charge Control Appeal, the Competition Commission noted that:

> *"Ofcom also argued that:*
>
> *(a) identifying cost drivers and causal links in itself was not always possible for some types of corporate overheads;"*[28]

3.34 In the 2010 Leased Line Charge Control Appeal, the Competition Commission stated that:

> *"we agree with Ofcom that identifying cost drivers and causal links is not always possible and we recognize that cost allocation necessitates an exercise of judgement."*[29]

3.35 In its cost attribution review, Ofcom does not appear to consider the possibility that for some costs there may not be a cost causal driver. In relation to corporate overheads, for example, Ofcom states that:

> *"We do not consider that the attribution methodologies currently used for these costs follow the principles of Causality and Objectivity, for the following reasons:*
>
> *• The use of a single allocation methodology for such a large cost category does not provide an objective or causal basis for cost allocation.*
>
> *• The use of a "combination" allocation methodology does not provide an objective or causal basis for cost allocation.*
>
> *• The rules included within the combination allocation methodology may not provide an objective or causal basis for cost allocation."*[30]

3.36 Instead of recognising that for some cost categories there is no meaningful cost driver, Ofcom tries to find a cost driver, and in the case of BT's Group Finance function, for example, state that:

> *"at this stage we consider that the costs of the group finance team are more closely linked to all the activities of BT Group (rather than the number of people who work there) and therefore propose that these costs should be allocated in line with previously allocated total costs"*

3.37 Here, Ofcom is clearly trying to identify a cost causal basis for allocating costs where one does not, and cannot, exist – the costs of group finance are not 'closely linked to all the activities of BT Group', and as discussed above, attempts to establish a linkage

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28 Competition Commission, Determination, Cable & Wireless UK v Office of Communications, Case 1112/3/3/09, paragraph 4.76.

29 Competition Commission, Determination, Cable & Wireless UK v Office of Communications, Case 1112/3/3/09, paragraph 4.91.

30 Paragraph 8.34.

for common or joint costs are flawed.

3.38 Whilst Ofcom recognises in principle that there may be more than one way in which to allocate costs, its approach is one which assumes that all allocation methodologies can be allocated based in relation to cost causality, even at the most aggregated level for the entire group.

3.39 The academic literature suggests that unless the strict conditions set out by Noreen are met no one methodology can be viewed as necessarily more cost causal than another – and in effect arguments about whether staff numbers, pay, or assets are more cost causal drivers are missing the point – they are all arbitrary.

Ramsey Pricing

3.40 From an economic, rather than accounting, perspective the problem of common cost recovery is considered in terms of setting economically efficient prices. It is generally recognised that efficient prices will be set at incremental costs plus a mark-up for common costs. The most efficient mark-up will be one which allocates common costs in proportion to the inverse elasticity of demand for different services – referred to as Ramsey Pricing. [31]

3.41 However, applying Ramsey pricing in practice is difficult, and so alternative approaches to common cost recovery are applied – most typically using an Equi Proportionate Mark-Up ('EPMU').

3.42 In the context of assessing costs for the purpose of setting prices in a charge control, it is important to recognise that there may be circumstances in which activity based costing approaches to common cost recovery may not provide the most appropriate answer and that Ramsey pricing considerations may apply. We consider this point further in Section 6.

Conclusion on limitations of ABC

3.43 The fundamental limitations on the application of ABC in the calculation of unit costs appears to have been overlooked by Ofcom in its assessment of BT's cost allocation methodologies.

3.44 In particular, Ofcom has failed to recognise that many of the cost categories it has assessed fail to meet the restrictions needed for ABC costing to produce economically robust unit cost allocations. This means that any attempt to apply 'more cost causal' cost allocation methodologies is flawed for two reasons.

- Firstly, there simply may not be a cost causal relationship to try and capture in the attribution base – certain costs should be regarded as 'unattributable' and

[31] For a discussion on Ramsey Pricing see Oftel, *Review of the Charge Control on Calls to Mobiles* Annex 5 *Economic efficiency and Ramsey pricing*, 26 September 2001.

recovered without reference to cost causality.

- Secondly, many cost categories will comprise a fixed or common element and variable element. For these categories, ABC may provide a cost causal basis on which to allocate the variable element of the cost, but assuming the same cost driver applies to the fixed or common element is not correct from a cost causality perspective. In principle, these fixed and common elements should also be regarded as unattributable.

3.45 The implications of this potentially inappropriate application of ABC are threefold.

- Firstly, Ofcom's rationale for rejecting existing cost attribution methodologies on the basis that they are not cost causal may be incorrect. This has implications for Ofcom's decision on whether to apply the impact of the change in methodology as a starting charge adjustment or to apply it through the glide path.
- Secondly, a focus on cost causality risks generating unnecessarily complex regulatory costing systems in search of cost causality where none exists.
- Thirdly, it risks regulatory decisions (related to both regulatory accounting obligations as well as pricing decisions) being based on fully allocated unit cost numbers which have attached to them a spurious level of accuracy.

BT's cost allocation methodologies had been reviewed by its auditors and a range of professional and economic experts

3.46 BT's cost attribution methodologies which Ofcom now considers 'clearly inappropriate' have been previously approved by the auditors of BT's RFS, In addition, a number of the methodologies had been reviewed by BT's economic and financial advisors who have indicated that they were reasonable and prepared in accordance with the Regulatory Accounting Principles approved by Ofcom.

3.47 For example, BT published a report by Deloitte which reviewed changes made to its attribution methodologies in the 2013 RFS.[32] Deloitte reviewed 14 changes to attribution methodologies and supported all but one of the changes.[33] Whilst this review did not consider the corporate overheads base, it did support the use of a Pay and Assets base for the allocation of Openreach overheads which it described as a *"demonstrable enhancement"*[34]

3.48 The fact that the current methodologies have been repeatedly supported by expert reviews, and previously, Ofcom and the Competition Commission suggest such a

32 Deloitte, *BT RFS Attribution Methodology Changes*, 15 October 2013.
33 Deloitte disagreed with BT's approach to attribution of costs of staff assigned to BT's Career Transition Centre.
34 Ibid paragraph 12.3.

material change as that proposed by Ofcom should only be made on the basis of clear evidence the current approach is 'clearly inappropriate'.[35]

Ofcom has not applied its stated criteria for testing its Objectivity principle

3.49 Ofcom is proposing to change a number of BT's cost attribution methodologies on the basis that they do not meet its new Regulatory Accounting Principle of Objectivity, which states that:

> *"3. Objectivity*
>
> *Each element of Regulatory Financial Reporting, so far as is possible, must take account of all the available financial and operational data that is relevant to that element.*
>
> *Where an element of Regulatory Financial Reporting is based on assumptions, those assumptions must be justified and supported by all available relevant empirical data. The assumptions must not be formulated in a manner which unfairly benefits BT or any other operator or entity, or creates undue bias towards any part of BT's or any other operator's business or product."*[36]

3.50 In relation to the application of this principle, Ofcom also states that:

> *"We recognise that a methodology change may create winners and losers but will only contradict the objectivity principle when it 'unfairly benefits BT' or 'creates undue bias'."*[37]

3.51 We note that Ofcom's consultants, Cartesian state that it was:

> *"satisfied that BT's cost attribution system is free from bias"*[38]

3.52 Ofcom has not stated how it will assess whether a change is 'unfair' or creates 'undue bias'. In particular, in relation to its decision to change BT's cost base for otherwise unattributable corporate overheads, which cannot be allocated on a cost causal basis, Ofcom has not explained why the current approach fails to meet its objectivity principle. We discuss this further in paragraphs 4.25 to 4.32.

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35 See paragraphs 3.12 to 3.16.
36 Ofcom, *Regulatory Financial Reporting, Final Statement,* 20 May 2014, Annex 3 p130.
37 Ofcom, *Regulatory Financial Reporting, Final Statement*, 20 May 2014, paragraph 3.52.
38 Cartesian, *BT Cost Attribution Review*, page 18.

Ofcom has failed to apply any materiality or proportionality test to its decision to apply individual cost allocation methodologies to individual cost categories

3.53 Ofcom has an obligation to act proportionately in applying regulatory remedies.[39]

3.54 There are two issues relating to Ofcom's proposals where the obligation to act proportionately is relevant:

- Firstly, the disaggregated level at which Ofcom is proposing to require changes to cost allocation methodologies that are not material to the RFS
- Secondly, Ofcom's assessment and justification of the proposed change in attribution methodologies for unattributable overhead costs has not been assessed in a way that is proportionate to its significant impact.

3.55 We consider each of these points below.

Materiality of proposed changes

3.56 Ofcom has determined that in the context of preparing the RFS, Ofcom considers that a material change in attribution methodologies is one in which:

> *"A change in any element of the Regulatory Financial Reporting is material if the resultant percentage change (be it positive or negative) in any figure in the Regulatory Financial Statements exceeds the higher of 5% or £1 million."*[40]

3.57 A number of the cost categories investigated by Ofcom have a total value of less than £5m, and the allocation to individual markets is less than £1m. The impact of Ofcom's change in methodologies on any one market, and in aggregate is, in many cases less than £1m.

3.58 Given the fact that many of these cost categories are not material in the context of preparing the RFS, it is not clear how Ofcom's approach can be regarded as 'proportionate'.

39 Part 1 of the Communications Act 2003, Section 3 (3) (a).
40 Ofcom, *Directions for Regulatory Financial Reporting*, 30 March 2015, Paragraph 7.20.

3.59 We note that Ofcom has previously indicated that BT should have a degree of flexibility in how it allocates costs:

> *"BT has a degree of discretion in relation to how it calculates and allocates its costs within the broad frameworks agreed with Ofcom. Allowing BT flexibility is generally desirable because it is unlikely to be proportionate for Ofcom to dictate every single cost allocation method, especially where services are new"*[41]

3.60 Ofcom's current approach of setting individual cost attribution methodologies which have no material impact on costs appears to be doing precisely what Ofcom has previously indicated would not be proportionate.

Proportionate approach to assessing impact of changes

3.61 The impact of Ofcom's proposed changes to cost attribution methodologies on BT's pricing is significant – Ofcom estimates a reduction in costs recovered from regulated services of £226m.[42]

3.62 The single largest change proposed by Ofcom results from the change in attribution methodology for costs which are unattributable on a cost causality basis – discussed in sections 4 and 6.

3.63 As we discuss in section 4, in our view, Ofcom has not provided a fully reasoned explanation of why the current attribution methodology is 'clearly inappropriate' for the purposes of allocating unattributable costs.

3.64 A proportionate approach to regulation would mean that changes of this order of magnitude are considered particularly carefully, and all of the arguments for and against set out and assessed. This is particularly the case given that there is no 'cost causal' basis on which to allocate corporate overheads and there are a large number of potential methodologies each of which could be regarded as valid.

3.65 Ofcom has not considered whether its proposed approach provides a reasonable allocation of costs, compared to either the current approach or equally valid approaches. Given the impact of its proposals it would have been reasonable for it to have done so in order for Ofcom to satisfy itself that its approach met the objectivity Regulatory Accounting Principle of being free from bias.

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41 Ofcom, Ethernet Dispute Determination, 20 December 2012, Paragraph 11.25.
42 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, Table A5.1.

4. Review of Ofcom's assessment of BT's current overhead attribution methodologies

Introduction

4.1 In this section we describe the different categories of overhead cost categories which Ofcom has reviewed. We then consider Ofcom's arguments in relation to BT's use of an aggregated approach to allocating overheads.

BT's overhead cost categories

4.2 Section 8 of Ofcom's Review of BT's cost attribution methodologies describes a series of significant changes that Ofcom proposes BT should make to its treatment of Corporate Costs and TSO support functions. In this section we assess Ofcom's proposals in principle and in detail.

4.3 Ofcom argues that elements of BT's treatment of general overheads do not conform to the revised Regulatory Accounting Principles and, in particular, the principles of Objectivity and Causality. Based on the Cartesian report and its own analysis, Ofcom concludes that the way in which BT currently attributes its general overheads is 'clearly inappropriate' and, as a result, proposes alternative methodologies. Our analysis of Ofcom's approach to this is set out in Section 3, above.

4.4 The four categories of general overheads considered by Ofcom are summarised in Table 2 below.

Table 2: General overhead categories considered by Ofcom

Cost category	2013-14 Value
Selling, General and Admin Costs	[£150-200m]
Costs allocated using pay drivers	[£150-200m]
Corporate Costs (AG112)	[£500-1,000m]
TSO Support functions (AG103)	[£100-150m]
Total	**[£1,000-1,500m]**[43]

Sources: BT, Cartesian

4.5 Cartesian's analysis of 'Selling, General and Admin Costs', and 'Costs allocated using pay drivers', did not highlight any concerns. Ofcom therefore concludes that there was no reason to consider the changing these attributions. We do not consider these further in our report.

43 Cartesian, *BT Cost Attribution Review*, Sections 5.3.4 to 5.3.7.

4.6 Ofcom's analysis of BT's approach is focused on 'Corporate Costs' and 'TSO Support Functions', which we discuss below.

Corporate Costs (AG112)

4.7 At [£500-1,000m], the Corporate Costs Activity Group AG112, is a significant individual cost category, but one which represents less than [3-8%] of BT's total operating costs.[44]

4.8 BT's current methodology, which it has applied consistently since the introduction of factorised pay for the FY2011-12 RFS is described in the Detailed Attribution Methodology as follows:

> *"The costs allocated to AG112 relate to head office type expenses e.g. the Chairman's office and the Group secretariat. The purpose of these head office activities is generally seen as being two-fold:*
>
> - *Management of the employees within the company.*
> - *Management of the assets of the company to create a return.*
>
> *The base to apportion these costs must reflect these activities if it is to reflect cost causality.*
>
> *The ASPIRE system is given instruction to take the following costs to generate an apportionment allocation:*
>
> - *Factorised salary expenses for the whole of BT (current and capital account).*
> - *Net book value of fixed assets revalued for current cost accounting (CCA) for the whole of BT.*
>
> *The AG112 base draws on the result of the previously attributed pay costs within the ASPIRE system following the base reference stage.*
>
> *The 'return on assets' percentage is then applied to the CCA net book value of each fixed asset class identified by the Regulatory Accounting system. This percentage is determined by Ofcom. This is applied to ensure that the driver reflects the corporate activities of 'managing the assets of the company to create a return'.*
>
> *By weighting the previously attributed pay costs together with the CCA fixed asset values (taking into account the fact that the asset amounts have already had the return on assets and investments percentages applied to them) an apportionment base for AG112 is derived.*

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44 BT's total operating costs in 2014 were £14.9bn (BT 2014 Annual Report page 139).

The final base apportionment excludes subsidiaries and associates as these are overseas activities and the AG112 costs are being attributed solely to UK activities."[45]

4.9 Ofcom argues that BT's existing methodology is 'clearly inappropriate' for three reasons:

- The use of a single allocation methodology for such a large cost category does not provide an objective or cost casual basis for cost allocation;
- The use of a 'combination' allocation methodology does not provide an objective or cost casual basis for cost allocation; and
- The 'rules' in the pay and assets attribution base may not provide an objective or cost casual basis for cost allocation. [46]

4.10 We disagree with each of these criticisms.

The use of a single allocation methodology for such a large cost category

4.11 Ofcom argues that the scale of the AG112 cost pool itself presents a challenge to causality:

"Given the scale of the costs in this category we would not expect a single allocation rule to provide the most objective or causal basis for allocating these costs. Within this overall category of costs, we would expect to see different sub-categories of costs with different cost drivers. BT's choice of a single allocation rule (a "combined" -pay and assets-basis) indicates that BT considers that some of the costs are driven by people and some are driven by assets."[47]

4.12 Ofcom also contends that BT's use of a combined driver indicates that BT considers that some of the costs are driven by people and some are driven by assets.[48] Both arguments are flawed.

4.13 The question of whether many cost categories can reasonably be aggregated into a single allocation pool is a matter of practicality, not principle. BT's accounting system contains approximately 28,000 general ledger codes[49]. Clearly it would be impossible to identify separate cost allocation methodologies for each of these categories and so costs are aggregated at many different levels in the regulatory reporting system.

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45 Detailed Attribution Methodology 2014 (DAM 2014), p 124.
46 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 8.34.
47 *Ibid*. paragraph 8.36.
48 Ibid. paragraph 8.37.
49 DAM 2014, p7.

4.14 In an activity based costing system, some costs at different layers of aggregation will be 'unattributable' on the basis of cost causality, and the application of a single methodology for all of these costs is clearly reasonable. Moreover, the aggregation of many overhead cost categories which cannot be attributed on a cost casual basis, and the application of a single attribution methodology to this aggregated pool, is more objective, transparent and consistent than applying a range of different subjective measures to individual categories:

- More objective – given that the attribution of overhead costs is intrinsically arbitrary, objectivity is enhanced by reducing the number of subjective assumptions to a minimum. Each time a subjective judgment is required there is scope to introduce undue bias in the attribution of cost.
- More transparent – transparency is an important consideration in enabling stakeholders to understand the way in which the RFS are prepared.[50] Many of the models and methodologies that underlie the RFS are necessarily complex because they represent a complex and expansive network business; it is therefore important that additional and unnecessary complexity is avoided. As such, there is a clear benefit to maintaining simpler approaches to cost attribution, particularly where there can be no causality or objectivity benefits arising from more complex approaches.
- More consistent – in addition to Ofcom's general regulatory principle of consistency[51], consistency is one of Ofcom's Regulatory Accounting Principles (which applies to the RFS as a whole and from one period to another).[52]
    - Looking at the RFS as a whole, clearly the adoption of a single method that is applied to a wide range of similar categories of overheads provides explicit consistency in the treatment of similar costs.
    - Looking at the periodic element, by making fundamental changes to the attribution of such a large quantum of costs, Ofcom will introduce significant inconsistency with the preparation of prior years' RFS, and with previous charge controls.

4.15 In our view, Ofcom has failed to demonstrate why the use of a highly aggregated cost pool for corporate overheads is 'clearly inappropriate'.

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50 "Transparency is essential to ensure that the data can be understood by the target audience and tested and challenged when necessary. We identified two key aspects to transparency:" Paragraph 2.71, Ofcom, Regulatory Financial Reporting, Statement, 20 May 2014.

51 Ofcom is mandated "in pursuit of the policy objectives", to promote "regulatory predictability by ensuring a consistent regulatory approach over appropriate review periods" (Article 8(5)(a) of the Framework Directive (2002/21/EC) as amended); and "In performing their duties…Ofcom must have regard, in all cases, to – (a) the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed;" (Section 3(3)(a) of the Communications Act 2003).

52 See Table 1.

Use of a combination allocation methodology

4.16 Ofcom misunderstands BT's rationale for the use of the 'pay and return on assets' driver as a basis for attributing corporate overheads. Ofcom states that:

> *"BT's choice of a single allocation rule (a "combined" pay and assets-basis) indicates that BT considers that some of the costs are driven by people and some are driven by assets"* [53]
>
> and
>
> *"[The combined pay on return on assets rule]...appears to be based on assumption (that, on average, all of these costs are caused equally by asset value and people) rather than an assessment of all available data to determine the most attribution methodologies."* [54]

4.17 On the first point, BT defines Intermediate Activity Groups (IAGs) such as AG112 as:

> *"a collection pot for revenue, expenditure and Balance Sheets amounts whose underlying nature means that they have* ***the same apportionment driver****"*[55]

4.18 Therefore BT is explicit that it does not consider that some of the costs are driven by people and some by assets.

4.19 On the second point, BT makes no assumption about the relative causality between assets and people, equal or otherwise; BT is simply applying a common base that reflects the dual purpose of head office activities: the management of employees and the management of assets to create a return.

4.20 In our view, Ofcom fails to demonstrate in principle why BT's use of a combination driver is 'clearly inappropriate'.

The rules of the pay and assets base may not provide for a casual or objective allocation

4.21 The final concern that Ofcom cites in concluding that the current attribution methodology is 'clearly inappropriate' is that the rules used to construct the driver may not provide an objective or causal basis for cost allocation.

4.22 BT's methodology for the allocation of corporate costs is based on a driver constructed by combining the value of factorised pay and a return on assets.

4.23 Factorised pay is calculated by dividing the value of pay cost by a factor which captures

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53 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 8.36.

54 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 8.37.

55 DAM, p. 122. Emphasis added.

the differences in pay between the individual BT Lines of Business ('LoB'). Separate factors are defined, for example, for Openreach, BT Wholesale, Retail and Global Service. The pay factor adjustment is used to reduce the impact of differences in average pay between the different LoBs. At the LoB level, the factorised pay base is equivalent to a base that uses the number of employees.

4.24 As discussed above, it would be spurious to attempt to define a causal basis for the attribution of common cost categories which, by definition, lack a causal driver. To discount a methodology on this basis suggests a failure to understand the essential characteristic of a common overhead cost category.

4.25 Ofcom does not state why it does not consider the pay and assets base meets its objectivity principle. As discussed in paragraph 3.50, Ofcom has indicated that the Objectivity principle will only be contradicted when the methodology it 'unfairly benefits BT' or 'creates undue bias'."[56]

4.26 We note that Cartesian state in their report that the Pay and Assets base is not objective because:

> *"The methodology is not objective as it uses an arbitrary weighting factor. A WACC of 10.8% is used to effectively weight the importance of pay and asset values in the apportionment. Whilst this value may be reasonable, we understand that it is not directly driven by BT's actual WACC. This arbitrary factor therefore raises concerns regarding objectivity".*[57]

4.27 For those cost categories that cannot be allocated in a cost causal way, any allocation can be viewed as 'arbitrary'. Furthermore whether or not an allocation base is arbitrary is not relevant under Ofcom' definition of the Objectivity principle.

4.28 Ofcom has not explained whether it considers the base 'unfairly benefits BT' or 'creates undue bias' – the relevant test under its Objectivity principle.

4.29 Ofcom states that the current methodology:

> *"appears to be based on assumption (that, on average, all of these costs are caused equally by asset value and people) rather than an assessment of all available data to determine the most appropriate attribution methodologies."*

4.30 As discussed in paragraphs 4.16 to 4.20 above, BT's methodology does not make any assumption regarding the cost relationship between overheads and pay and assets other than in the broadest sense that all services require staff and equipment inputs.

4.31 The fact that on disaggregation, some cost categories may be found to have a more cost causal allocation methodology does not mean that the existing methodology for

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56 Ofcom, *Regulatory Financial Reporting, Final Statement*, 20 May 2014, paragraph 3.52.
57 Cartesian , BT Cost Attribution review, Version 3.1, Paragraph 6.3.6.4.

cost categories for which Ofcom does not identify a more cost causal relationship is not an objective one.

4.32 In the absence of any argument why the existing pay and assets base is not appropriate, and given that Ofcom has previously supported this base (as described in paragraphs 3.12 to 3.14), and in order to adhere to Ofcom's general regulatory principle of consistency and also the Regulatory Accounting Principle of Consistency over time (as per Table 1), the current pay and assets base should not be adjusted.

4.33 We comment separately on Ofcom's proposed 'previously allocated costs' methodology for otherwise unattributable costs in Section 6.

TSO Support Function costs (AG103)

4.34 The TSO Support Function category (AG103) represents the central overhead costs for the TSO LoB; at [£100-150m] for FY13-14 it represents [10-15%] of the costs incurred within TSO. BT's current methodology, which it has applied since the TSO LoB was created during FY12-13, is described in the Detailed Attribution Methodology as follows[58]:

> *"The costs allocated to AG103 relate to BT TSO's overall support function expenses, e.g. The Finance function, Human Resources function and the TSO Strategy team. The purpose of these TSO support function activities is generally seen as being two-fold:*
>
> *• Management of the employees within BT TSO.*
>
> *• Management of those assets managed by BT TSO to create a return.*
>
> *The ASPIRE system uses the following costs to generate an apportionment allocation:*
>
> *• Salary expenses for BT TSO (current and capital account)*
>
> *• Net book value of Core fixed assets, excluding the following fixed asset classes: Copper; Fibre; Land and Buildings; Vehicles; Office Machines; and Materials Awaiting Installation.*
>
> *The AG103 base draws on the result of the previously attributed pay costs within the ASPIRE system following the base reference stage.*

58 BT, *Detailed Attribution Methods* 2014, p. 123.

The 'return on assets' percentage is then applied to the net book value of each of the fixed asset class identified by the Regulatory Accounting system. Certain fixed asset classes are specifically excluded (as described above). The return on assets percentage is determined by Ofcom. This is applied to ensure that the driver reflects the BT TSO support function activities of 'managing those assets BT TSO manages".

By weighting the previously attributed pay costs together with the fixed asset values (taking into account the fact that the asset amounts have already had the return on assets and investment percentages applied to them) an apportionment base for AG103 is derived."

4.35 Ofcom's arguments in respect of this methodology mirror those raised for AG112. Ofcom argues that:

"We do not consider that the current allocation rules comply with the principles of Causality and Objectivity, because the use of a single allocation rule for such a large cost category does not provide an objective or causal basis for cost allocation and the rules included within BT's combination allocation rule in particular does not appear to provide an objective or causal basis for cost allocation".[59]

4.36 For these reasons Ofcom concludes that:

"We therefore consider that BT's cost attribution rule used for the TSO Support Functions (AG103) is obviously inappropriate"[60]

4.37 For the reasons set out above in relation to corporate overheads, we do not consider that Ofcom has demonstrated that BT's current approach is 'obviously inappropriate'.

59 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 8.112.

60 *Ibid*, Section 8.113.

5. Review of Ofcom's disaggregated attribution proposals

Introduction

5.1 In this section we consider in detail Ofcom's proposed changes in attribution methodologies for allocating overheads for BT's corporate headquarters and Technology, Service & Operations division ('TSO).

5.2 As noted above, a highly aggregated cost category need not be problematic in the context of the treatment of corporate overheads; indeed, a single transparent base applied to all corporate overheads has the advantages of transparency, consistency and objectivity in that it reduces the number of attribution paths, reduces modelling complexity, provides a single base, and reduces the number of subjective assumptions and decisions.

5.3 Notwithstanding the benefits of applying a single attribution methodology for overheads in the context of Ofcom's decision to review the cost categories at a more granular level, FTI has considered whether there are cost attribution methodologies which – at that more granular level – are arguably more cost causal.

5.4 Our analysis has identified some sub-categories for which there are cost attribution methodologies which, at a granular level, are arguably more cost causal. For these categories, we have identified alternative approaches which we believe would be appropriate to apply, subject to an overall proportionality test discussed in Section 2.

5.5 We address each of the AG112 and AG103 sub-categories identified by Ofcom. Based on interviews with relevant BT senior management, and discussions with subject matter experts from BT's Group Regulatory Finance team, we have undertaken the following in respect of each cost category:

- Analysis of the constituent costs, in order that the nature of the costs captured within the category is understood, and to identify any material elements within each category which BT might be required to treat separately.
- Analysis of the appropriateness of Ofcom's proposed attribution method.
- Where appropriate, identification of an alternative attribution base and an assessment of this against key Regulatory Accounting Principles.

5.6 For the purpose of this report, we have grouped the overhead attribution methodologies based on the cost type, and our opinion of Ofcom's proposed treatment[61]:

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61 The letter codes used here follow the conventions in Section 8 of Ofcom's document. The letter codes that apply to AG103 categories are prefixed with 'AG103-'.

- **Cost categories which we agree with Ofcom are 'unattributable' on grounds of causality, but disagree on the proposed attribution methodology.** In this section we examine Ofcom's proposals relating to those categories of cost incurred by BT Group that Ofcom considers relate to all of BT's activities, and which we therefore characterise as unattributable corporate overheads;
    - j. Group finance
    - o. Reporting planning and analysis
    - p. Corporate special projects
    - m. Corporate Communications
    - n. Group Legal
    - k. TSO Chief Information Office for Group
    - s. TSO Research and Innovation

  In this section we also discuss two categories for which we consider that Ofcom's proposed attribution methodology is appropriate:
    - AG103-h BT Fleet
    - AG103-a. TSO Redundancy payments

- **Cost categories which we disagree with Ofcom can be causally attributed.** In this section we examine Ofcom's proposals relating to seven categories to which Ofcom proposes to apply specific attribution methods, but which we consider should continue to be treated as unattributable corporate overheads:
    - l. Group Human Resources
    - d. Employee broadband offer
    - h. BT Group computing assets
    - t. TSO Chief Information Office for Retail
    - q. Learning Academy – HR
    - i. TSO Architecture and Global IT Platforms

- **TSO overhead cost categories on which we disagree with Ofcom's proposed treatment.** In this section we examine Ofcom's proposals relating to seven categories for which we disagree with Ofcom's proposed treatment, either because they do not relate to all of BT's activities as Ofcom suggests, or for

other reasons that we set out below:

- AG103-c. TSO Human Resources & Communications
- AG103-d. TSO Service, Strategy and Operations
- AG103-e. TSO Finance
- AG103-f. TSO Chief Information Office for Global Services
- AG103-g. TSO General Infrastructure Services
- AG103-i. TSO Global Network Services Management and Support
- AG103-b IT Services Subcon Offshore SGA

- **Cost categories which we agree with Ofcom can be causally attributed, but disagree on the methodology.** In this section we examine a subset of categories that we consider may be more appropriately treated as non-common costs with specific attribution bases:
  - a. Employer's Liability insurance
  - b. Employment Practice Liability
  - c. Employee healthcare
  - e. Employee death in service benefit insurance
  - f. Business interruption insurance
  - g. Motor vehicle insurance

  In this section we also discuss a category which requires disaggregation such that two separate approaches can be applied:

  - r. Strategy, Policy and Portfolio

Cost categories which we agree with Ofcom are 'unattributable' on grounds of causality, but disagree on the proposed attribution methodology

5.7 This section of our report addresses Corporate Overhead (AG112) cost categories that Ofcom proposes should be attributed based on previously allocated total cost.

5.8 Ofcom recognises that all of these categories relate to all the activities of BT Group, and as such should be treated as unattributable corporate overhead costs. Ofcom proposes that this attribution should be based on some measure of 'previously allocated total costs'. Our discussion of the appropriateness of this approach is set out

in Section 6 below.

5.9 In Table 3 below we review the nature of the costs represented by these categories in order to judge the appropriateness of their treatment as unattributable corporate overheads. We then discuss some specific issues to be considered in relation to the attribution of these common costs.

Table 3: Analysis of Unattributable Corporate Overhead categories

Cost category	2013-14 Value	Commentary
j. Group Finance	[£50-100m]	This category is made up primarily of pay costs associated with Group Finance functions such as Group Control and Investor Relations, Reporting Planning and Analysis, Contract Management, Group Chief Auditor, Group Financial Control, Controller Finance and Group Regulatory Finance. There are separate finance teams in each of the LoBs; these Group Finance teams are therefore distinguished by their pan-Group responsibilities. It should be noted, however, there are some functions, for example Treasury, that are duplicated in Global Services in respect of overseas operations. For these functions, it is important to avoid allocation to overseas operations.
o. Reporting planning analysis	[£10-50m]	This category represents a specific charge made by Global Services to Group relating to the costs of offshore finance shared service centres in India, Latin America and Hungary. These teams provide a range of finance support services that complement the activities of the UK-based Group Finance teams.
p. Corporate special projects	[£10-50m]	This category represents the cost of undertaking a wide range of corporate projects, the specific nature of which may vary significantly from year to year. These projects might include the transformation projects of the type outlined by Ofcom[62], but will also include one off internal consulting projects relating to, for example, corporate sponsorship, group pensions and regulation.

62 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 8.84.

Cost category	2013-14 Value	Commentary
m. Corporate Communications	[£10-50m]	This category is made up primarily of pay costs relating to a range of internal and external communications, media relations, and public affairs teams. All functions are responsible for Group-wide activities rather than LoB-specific communications and marketing. [63]
n. Group Legal	[£10-50m]	This category is made up primarily of pay costs relating to BT's Group-wide legal teams, but also includes pay elements related to the BT Board and Operating Committee, and the Corporate Governance teams. The costs associated with the Equality of Access Board and Equality of Access Office are also captured here.
k. TSO Chief Information Office for Group	[£50-100m]	This category represents a small proportion of the total cost of the TSO CIO for Group function. This value relates to development programmes associated with Group platforms that support central administrative functions such as finance, HR, supply chain management, facilities management and group regulatory finance.
s. TSO Research and Innovation[64]	[£10-50m]	This category is made up primarily of pay costs relating to TSO teams undertaking pioneering research into new technologies and services, for example at BT's Adastral Park research campus in Martlesham in Suffolk. The team of approximately 250 people is responsible for around 70 patent applications each year, and are engaged in general research which benefits BT group in general

Review of Ofcom's proposals

5.10 As recognised by Ofcom's proposal to use 'previously allocated total costs', and as

63 We note that two of the teams that were included in this category in FY2013/14 have since transferred out to other parts of Group function; the Better Future corporate social responsibility team is now part of Strategy, Policy and Portfolio, and the Group Brand & Marketing team is now part of the Consumer LoB. Both teams retain their Group-wide remit and should therefore continue to be treated as unattributable corporate overheads going forward.

64 Note that Ofcom's consultation document misclassified category 's' as TSO CIO for Wholesale, and category 'h' as TSO Research and innovation.

evidenced by our own interviews with senior stakeholders, each of the categories discussed above should be characterised as unattributable corporate overheads on the basis that:

- The costs incurred relate to all BT Group's activities;
- The activities do not relate to specific LoBs, markets or products; and,
- There is no single causal basis that could be applied objectively to individual categories.

5.11 The most appropriate treatment of these categories would be to maintain the existing approach, i.e.; aggregation within the Corporate Costs Activity Group (AG112). For the reasons outlined above, in Section 4, the existing base should continue to be applied, however if Ofcom were to impose an alternative base by reference to total costs, it would be important to ensure that the issues with Ofcom's proposals outlined in Section 6 are corrected.

Other categories for which we agree with Ofcom's proposals

AG103-h BT Fleet

5.12 Ofcom has identified a cost category assigned to the AG103 TSO Support Function activity group, which relates to BT Fleet. As Ofcom notes, 'it is unclear why these costs would not be allocated to BT Fleet directly, and allocated to products and services in line with other BT Fleet costs.'

5.13 On investigation, BT has explained that the two account codes to which this relates should both be transfers out from TSO to Fleet, however for FY13-14, one item was a debit rather than the expected credit, and as a result the Fleet cost attribution base has attributed a small amount against the TSO code which is subsequently attributed to AG103. The values in question are small and unlikely to be material, however we recommend that BT corrects this issue for future reporting periods.

Cost categories which we disagree with Ofcom can be causally attributed

5.14 This section of our report addresses Corporate Overhead (AG112) cost categories that we consider to be unattributable corporate overheads, but which Ofcom proposes to apply alternative attribution methodologies to.

Table 4: Analysis of Other unattributable Corporate Overhead categories

Cost category	2013-14 Value	Commentary
l. Group Human Resources	[£10-50m]	This category represents the cost of Group HR, and primarily the pay costs associated with teams that manage Group HR policy. Whilst each LoB has its own HR function, Group HR is responsible for central policy, including the reward team, workforce management, employee relations and union negotiations around policy and pay. Whilst there has been a degree of centralisation in recent years, the LoB HR teams retain responsibility for career development and recruitment etc. There are also LoB specific training functions. Ofcom proposes that the category should be attributed based on 'the number of employees'[65].
d. Employee broadband offer	[£10-50m]	As Ofcom notes, this category relates to the cost of providing the free employee broadband benefit to BT employees. We understand that all UK-based employees are eligible for this benefit. Ofcom proposes that this category should be attributed based on 'the number of employees'.
h. BT Group computing assets	[£50-100m]	This category represents depreciation charges relating to computing asset categories including Own Use Mainframes and Peripherals, Data Communications Equipment and Personal Computers. It also includes depreciation relating to accommodation plant used in support of data centres. Ofcom proposes that this category should be attributed based on 'the number of employees'.

65 Ofcom's explanation of its proposal for a base that used the number of employees is provided in footnote 143 of the consultation document: "BT's cost attribution system … allocates costs to the different levels of their cost exhaustion system. When we propose that these costs should be allocated based on the number of employees we mean that each division, market, service, and component (i.e. the different levels of the cost exhaustion system) should be allocated employee liability insurance costs based on the number of employees at that level of the cost exhaustion system divided by the total number of employees within BT as shown in the following formula $x = OUC's\ costs\ X \left(\frac{number\ of\ employees\ at\ level\ x}{Total\ employees\ within\ BT}\right)$ where x = allocation of employee practice liability costs at a specific level of BT's cost exhaustion system.

Cost category	2013-14 Value	Commentary
t. TSO Chief Information Office for Retail	[£0-10m]	This category represents a small proportion of the total cost of the TSO CIO for Retail function. This value relates to UKBH Development, which is the Group-wide programme that captures the cost of TSR-related systems separation. Ofcom proposes that this category should be attributed based on previously allocated total costs, within the Retail divisions only.
q. Learning Academy – HR	[£10-50m]	The category includes two groups of cost types - [£10-50m] that relates to an HR outsourcing contract, and the remainder that relates to the operational costs associated with the management training function that BT describes as the Learning Academy. Ofcom proposes that BT should allocate these costs based on the direct pay of employees on the explicit assumption that 'employees paid more would require a higher degree of training investment.' [66]

66 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 8.89.

Cost category	2013-14 Value	Commentary
i. TSO Architecture and Global IT Platforms	[£50-100m]	The value of this category for FY13-14 was [£50-100m]; there is a clear subdivision between three main components: ▪ Development [0-10m] ▪ UKBH Development [£10-50m] ▪ Oracle Licence [£10-50m] The Development charge represents the costs incurred in relation to programmes undertaken for Group support functions such as revenue assurance reporting, fleet, procurement and other Group areas. The UKBH Development charge represents the costs incurred in relation to the TSR systems separation programme. The Oracle licence provides BT with unlimited access to a range of Oracle applications on a non-volumetric-basis. i.e. the licence costs do not vary according to the number of users, upgrades or databases. Ofcom proposes that BT should attribute these costs based on previously allocated IT costs[67],

Review of Ofcom's proposals

5.15 With respect to the first three categories, Ofcom proposes to attribute these categories based the number of employees. As set out in Section 3.39, we do not consider there to be a strong argument that such an approach would provide a more 'cost causal' methodology in the context of corporate overheads. For example, in the event that a given LoB materially increases its number of employees, this may have an impact on the level of cost incurred by that LoB's HR function, but it is far from clear that there would be any effect on the costs incurred by the Group HR function.

5.16 The fourth category, TSO Chief Information Office for Retail, includes systems development charges which relate to the ongoing Group-wide systems separation

67 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 8.67.

programme, and as such should clearly be treated as a non-attributable overhead.

5.17 The fifth category, Learning Academy – HR includes two cost types, [£10-15m] that relates to an HR outsourcing contract, and the remainder that relates to the operational costs associated with the management training function that BT describes as the Learning Academy.

5.18 Ofcom proposes that BT should allocate these costs based on the direct pay of employees[68] on the explicit assumption that 'employees paid more would require a higher degree of training investment.' We consider this to be a subjective and unsubstantiated assumption upon which it would be inappropriate to base cost attribution.

5.19 The outsourcing contract should be treated as an unattributable corporate overhead in the same manner as the rest of Group HR.

5.20 We have considered whether it would be appropriate to treat the cost associated with the Learning Academy using an alternative base. Our understanding is that the facility is used primarily for management training; LoB-specific technical training is undertaken separately by the LoBs themselves. This being the case, the cost of management training should be considered to be an unattributable overhead, and should be treated as such as part of the AG112 Corporate Cost activity group.

5.21 As all of the costs represented by this category should be considered to be unattributable corporate overheads, we conclude it is not necessary for this category to be disaggregated.

5.22 For the sixth category, TSO Architecture and Global IT Platforms, the costs in this category represent the costs incurred by TSO in relation to IT programmes that provide Group-wide support to BT's operations. Ofcom proposes that BT should attribute these costs based on previously allocated IT costs[69], In our view this is not appropriate as it implies a relationship between the costs of all other IT programmes and the costs incurred in relation to platforms and licences used by BT Group's support functions. In our view, these costs are more appropriately characterised as Group Overheads and should be attributed as such.

Conclusion

5.23 In conclusion on these categories, our interviews with senior stakeholders suggest that each of the categories discussed above should be characterised as unattributable corporate overheads on the basis that:

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68 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 8.89.

69 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 8.67.

- The costs incurred relate to all BT Group's activities;
- The activities do not relate to specific LoBs, markets or products; and,
- There is no single causal basis that could be applied objectively to individual categories.

5.24 The most appropriate treatment of these categories would be to maintain the existing approach, i.e. aggregation within the Corporate Costs Activity Group (AG112). For the reasons outlined above, in Section 4, the existing base should continue to be applied, however if Ofcom were to impose an alternative base by reference to total costs, it would be important to ensure that the issues with Ofcom's proposals outlined in Section 6 are corrected.

TSO overhead cost categories on which we disagree with Ofcom's proposed treatment

5.25 This section of our report addresses four cost categories that are currently attributed as part of the TSO Support Function (AG103) cost pool, using a weighted combination of TSO pay costs and a return on TSO-managed assets.

5.26 For the first three categories listed below Ofcom proposes that BT should attribute costs across all activities that BT carries out based on previously allocated total cost. For the final category, redundancy costs, Ofcom propose that the attribution should be 'based on BT's actual employee pay costs'.[70]

5.27 In Table 5 below we review the nature of the costs represented by these categories in order to judge the appropriateness of their treatment as unattributable corporate overheads across all of BT's activities.

70 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 8.119. The meaning of 'actual employee pay costs' as distinct from the 'previously allocated pay costs' used for other categories is unclear; in the absence of further guidance we assume the meaning to be the same.

Table 5: Analysis of Unattributable support function costs

Cost category	2013-14 Value	Commentary
AG103-c. TSO Human Resources & Communications	[£10-50m]	This category represents the costs associated with the LoB specific HR function for TSO, which manages the day to day HR requirements for TSO (i.e.; in addition to the general policy elements provided by BT Group HR). Aside from the pay costs, there are about [£0-10m] of training costs that are not identifiable as relating to a specific engineering Class of Work (COW).
AG103-d. TSO Service, Strategy and Operations	[£10-50m]	The costs attributed to AG103 from the TSO Service, Strategy and Operations (SSO) function, are a small proportion (c.[10-15%] for FY13-14) of the total costs incurred by SSO. The costs relate to three teams; ▪ The strategy team, which supports all of TSO, providing strategic analysis, continuous improvement and project management support. ▪ The business analytics team, which supports all of TSO, providing business analytics reports and associated analysis. ▪ The production planning team, which supports exchange-based engineers that make up the vast majority of SSO in relation to, for example, demand forecasting.
AG103-e. TSO Finance	[£0-10m]	All of the costs associated with the TSO Finance team are assigned to the AG103 TSO Support Function activity group, and are primarily pay or pay-related costs. The team provides a range of finance support services across all TSO functions, including management reporting, business case and capital investment review, support to internal and external audit and business partnering.
AG103-a. TSO Redundancy payments	[£10-50m]	This category captures the costs incurred by TSO in relation to BT's New Start redundancy programme.

Cost category	2013-14 Value	Commentary
AG103-b IT Services Subcon Offshore SGA		Ofcom's analysis of the AG103 TSO Support Function cost category includes reference to 'IT Services Subcon Offshore SGA', which it argues should be attributed across all BT activities based 'on all other previously allocated IT costs'.71 However Ofcom fails to take account of the fact that this line item is an accounting (debit) adjustment raised by TSO against which there are two categories of offsetting credits. Since all of these line items are attributed to the AG103 activity group, they net off against each other. It would be 'clearly inappropriate' to attribute this item separately to the offsetting credits. We recommend that all three associated categories continue to be assigned to the TSO Support Function activity group, and attributed onward based on the existing attribution base.

Review of Ofcom's proposals

5.28 With respect to the first three categories, Ofcom's proposal to attribute these categories across all BT activities is 'clearly inappropriate'. These categories all clearly relate exclusively to the TSO LoB, and should be treated as an unattributable overhead to the TSO LoB only.

5.29 Each of the categories discussed above should be characterised as unattributable overheads of the TSO LoB on the basis that:

- The costs incurred relate to all of TSO's activities;
- The activities do not relate to other LoBs, markets or products; and,
- There is no single causal basis that could be applied objectively to individual categories.

5.30 The most appropriate treatment of these categories would be to maintain the existing approach, i.e. aggregation within the TSO Support Function Activity Group (AG103). For the reasons outlined above, in Section 4, the existing base should continue to be applied.

5.31 With regard to the next three categories, these only appear as part of the AG103 TSO Support Function activity group by virtue of the treatment of the TSO Career Transition

71 *Ibid*, Section 8.122. Category AG103-b.

Centre (CTC). These categories are:

- AG103-f. TSO Chief Information Office for Global Services
- AG103-g. TSO General Infrastructure Services
- AG103-i. TSO Global Network Services Management and Support

5.32 Following Ofcom's review of BT's FY12-13 methodology changes, TSO CTC costs are allocated directly to the appropriate TSO OUCs. In order that they can be treated as an overhead to the TSO business as a whole, they are associated with the AG103 TSO Support Function cost pool.

5.33 The majority of the costs that are attributed to AG103 from these categories are the CTC charges for the relevant OUC. However, during the course of our analysis, we have identified a minor issue in the calculation of the attribution base which causes a subset of TSO Support Function costs to be mislabelled such that they are associated with the above categories rather than other TSO Support Function categories. BT has explained that this arises because the CTC TSO charge itself is included in the base used to attribute other TSO Support Function costs between TSO OUCs.

5.34 We understand that this does not affect the level of cost assigned to AG103 as a whole, or the onward attribution of those costs, as all items are appropriately attributed to AG103, however it does give rise to a mislabelling of the origin of these costs, and hence some confusion as to their treatment.

5.35 We recommend that BT removes the TSO CTC charge from the relevant cost attribution bases in order to prevent this from happening in future reporting periods.

Other considerations

5.36 We have considered whether it would be appropriate to disaggregate the SSO category such that the proportion of costs that related specifically to the SSO production planning team can be attributed in line with the remainder of the SSO function; the low materiality of the cost of this team of 10 staff suggests that the treatment as a general overhead across all of TSO does not materially affect the distribution of total TSO costs across markets.

Cost categories which we agree with Ofcom can be causally attributed, but disagree on the methodology

5.37 This section of our report examines specific cost categories currently treated as unattributable corporate overheads which, upon investigation, we consider it may be more appropriate to treat separately.

5.38 These categories represent the cost to BT of various categories of insurance.[72] The nature of each category is described in Table 6 below.

Table 6: Analysis of costs for which alternative bases can be identified

Cost category	2013-14 Value	Commentary
a. Employer's Liability insurance	[£10-50m]	This category represents the insurance premium related to BT Group's cover for claims arising from accidents at work, including death, injury or disease experienced by UK employees arising from their employment by BT Group. This is a compulsory class of insurance under the 1969 Employers' Liability Act. The costs captured in this subcategory include two components: ▪ the premium paid to external insurers for move forward cover; ▪ provisions for anticipated claims made against BT during FY13-14 relating to events occurring in prior years Employers' Liability premium is calculated by reference to the number of two categories of staff – clerical and manual.
b. Employment Practice Liability	[£0-10m]	This category represents the insurance premium related to BT Group's cover against claims or action taken by BT employees in relation to a wrongful employment act, such as discrimination, wrongful termination of employment, failure or refusal to hire/promote, harassment, retaliation, defamation and breach of any employment contract.

72 We understand that there are additional categories of insurance managed by the Group Insurance and Risk Financing team General liability insurance.

Cost category	2013-14 Value	Commentary
c. Employee healthcare	[£10-50m]	This category represents the costs associated with providing eligible BT staff with private health coverage. The Group premium is calculated by reference to the number of staff who subscribe to each tier of the scheme (single, married, family).
e. Employee death in service benefit insurance	[£0-10m]	This category represents the cost to BT of providing Death in Service pension to eligible staff members' dependents in the event of the employee's death.
f. Business interruption insurance	[£10-50m]	This category represents the cost to BT of insuring against increased costs and/or lost profits associated with physical events that interrupt BT's businesses. Covered events include, for example, weather-related damage, and fire. Claims against this policy may include an assessment of lost profits, either from lost revenues or compensation payments, and additional costs of running the business during and after the interruption. The policy does not include coverage against the cost of repairing damage to property or equipment itself, which is covered separately.
g. Motor vehicle insurance	[£10-50m]	This category represents the cost to BT of insuring its fleet of vehicles in the event of accidental damage and third party claims. The policy covers all vehicles in BT's fleet, including technical vehicles and company cars made available to eligible members of staff. Technical vehicles such as those operated by Openreach are a higher insurance risk than company cars due to the specialist nature of some vehicles, the amount of time they spend on the road, and the nature of the environments in which they are used.

Review of Ofcom's proposals

5.39 Ofcom proposes new attribution methodologies for each of these cost categories, however many of these proposals fail Ofcom's own key tests of causality and objectivity. These proposals and the main issues arising are summarised in Table 7 below.

Table 7: Analysis of Ofcom's proposals

Cost category	Ofcom Proposal	Commentary
a. Employer's Liability insurance	Number of employees	As Ofcom acknowledges[73], the premium associated with clerical and manual members of staff can vary significantly; as a rule of thumb we understand that the weighting for staff classified as 'manual' is approximately five times higher than for a 'clerical' member of staff. Ofcom's proposal to use the number of employees would be inappropriate, because it would not reflect the differential in the insurance risk faced by the individual LoBs resulting from the variations in the make-up of their respective workforces.
b. Employment Practice Liability	Number of employees	We would recommend assessing the basis on which insurance premium is calculated in order to determine whether costs vary between LoBs or types of employee. If not, then Ofcom's proposed basis would be appropriate.
c. Employee healthcare	Number of employees	Not all grades of staff are eligible to join BT Group's healthcare scheme. Ofcom's proposal to use the number of employees would be inappropriate, as it would fail to take account of variations between LoBs in terms of the number of eligible staff.
e. Employee death in service benefit insurance	Previously allocated pay costs	Only members of BT Group's new pension scheme are eligible for this benefit. Ofcom's proposal is not appropriate as it would not take account of variations between LoBs in terms of the number of members of the new pension scheme.
f. Business interruption insurance	Previously allocated property costs	Business interruption insurance is not related to the value of property, therefore Ofcom's proposal to base the attribution on previously allocated property costs is entirely inappropriate.

73 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 8.44.

Cost category	Ofcom Proposal	Commentary
g. Motor vehicle insurance	Previously allocated fleet costs	Ofcom's proposal assumes that the insurance premium faced by BT is a function of the value of the vehicles in its fleet. In our view, it would be preferable to apportion costs in a way that better reflected the basis on which premium are calculated.
r. Strategy, Policy and Portfolio	Attributed 'on the basis of relevant revenue'[74].	The value of this category for FY13-14 was [10-50m]; there is a clear subdivision between [£10-50m] that relates to the administrative charge paid annually to Ofcom, and the remainder that relates primarily to pay costs incurred by a range of policy, strategy and corporate affairs teams.

Alternative recommendations- insurance

5.40 Our analysis has identified the strong potential for data held by BT Group's Insurance and Risk Financing team to be used to inform the attribution of these categories. This team is responsible for gathering the information required by underwriters to assess the level of BT's risks in respect to the various categories of insurance, and for negotiating these costs with external providers. The team is also responsible for determining the allocation of these premia to each LoB for management accounting purposes. In determining the allocation of premia to the LoBs, where possible the team seeks to simulate the costs that would be incurred by the LoBs if they were to undertake their own insurance and risk financing activities.

5.41 We recommend that BT investigate the use of the data maintained by the Insurance and Risk Financing team as the basis for determining the cost attributions. Our recommendation is based on an assessment against Ofcom's new cost allocation principles, as summarised below:

74 Ofcom, *Review of BT's cost attribution methodologies*, Consultation, 12 June 2015, paragraph 8.92.

Principle	Commentary
Completeness	Our recommendation will maintain the completeness of BT's current approach in that all costs associated with BT's insurance requirements will continue to be attributed across all relevant Markets and Technical Areas, together with residual activities (including wholesale and retail).
Accuracy	Our recommendation should be no less accurate than BT's current approach, and will be more accurate than Ofcom's proposals in that it will avoid, for example, the attribution of business interruption insurance using a previously allocated property cost methodology which would have failed to reflect accurately the nature of this cost.
Objectivity	By utilising available data that is used in practice to determine the level of each premium, and to allocate it between LoBs this approach meets the objectivity principle We note that in order to use this data for cost allocation in the RFS, further work will be need to be done in order to allocate costs from LoBs to individual assets and activities.
Consistency with regulatory decisions	We are not aware of any regulatory decisions that would conflict with our recommendation.
Causality	By taking explicit account of the data and calculations used by BT's underwriters to determine the levels of premia, our recommendation would ensure that costs are attributed in accordance with the activities which cause costs to be incurred.
Compliance with statutory accounting standards	Absent guidance from Ofcom to BT to the contrary, our recommendation would apply the same rules as the accounting standards applied in BT's statutory accounts.
Consistency of the Regulatory Financial Statements as a whole and from one period to another	By applying the data and assumptions adopted by the Group Insurance and Risk Financing trade to all material categories of insurance, including those not identified by Ofcom in its analysis, our recommendation would provide consistency of treatment across all categories of insurance.

Alternative recommendations - Strategy, Policy and Portfolio

5.42 We agree with Ofcom that the administration charge payable to Ofcom should be attributed on the basis of relevant revenues, however it would be inappropriate to attribute the pay costs incurred by the strategy, policy and portfolio teams in such a manner, as these costs will relate to all BT Group's activities, and should therefore be treated as an unattributable overhead.

5.43 With regard to the Ofcom administration charge, this is levied based on an analysis of BT Group's relevant UK revenues, which for the purposes of Ofcom's assessment exclude internal revenues[75]. We recommend that the attribution of this charge should be calculated by reference to internal as well as external revenues for relevant services.

5.44 We therefore conclude that if Ofcom requires a disaggregated approach to the attribution of corporate overheads, this cost category should be further disaggregated to separately attribute the Ofcom administration charge, subject to a materiality test.

Other methodologies – treatment of profits arising on property disposal

5.45 Ofcom has raised concerns regarding BT's treatment of the proceeds on disposal of its Keybridge House property. BT asked us to assess the available evidence in order to understand whether BT's attribution of proceeds to residual markets only is appropriate.

5.46 BT Group Property has explained that the construction of Keybridge House was completed in November 1977, at which point it was handed over to the Post Office, and later to British Telecommunications plc. The first equipment to be installed formed part of the international leased telegraph message switching system. In February 1982 a new computer-controlled telex exchange was installed, and in summer 1984 the world's largest digital international exchange at the time was commissioned. Keybridge House continued to serve as one of BT's two international exchange hubs. Keybridge House has never been used to house local exchange switching equipment; all local telephony was, and still is, provided from nearby Vauxhall and Nine Elms telephone exchanges. As such Keybridge House has never had any CP LLU equipment installed and was never classed as an 'unbundled' building or an LLU Point of Presence (POP). Keybridge House also hosted much of BT Conferencing's voice platform, corporate data centre equipment, and also housed secure lines for the Metropolitan Police and the security services nearby. International traffic ceased passing through equipment in Keybridge House on 4th December 2014, and the last rack was switched off on the same day. Based on the evidence presented by BT, the costs of this building will have been attributed almost entirely, if not exclusively, to residual and therefore BT's treatments of the proceeds on disposal would appear to be appropriate.

5.47 In addition, we consider that Ofcom's previous approaches to cost recovery relating to costs associated with historical activities are relevant to this issue. In particular, the arguments that Ofcom has previously made in charge controls in disallowing costs relating to pension deficit payments and deafness claims suggests that the profits on disposal of property assets should also be excluded from the calculation of costs for the purpose of setting prices.

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75 http://stakeholders.ofcom.org.uk/binaries/consultations/designation/statement/guidelines.pdf

5.48 In these charge control decisions, Ofcom typically relies on 'Six Principles of Cost Recovery' first set out by Oftel in the assessment of mobile termination rates. These are set out in Table 8 below.

Table 8: Oftel's six principles of cost recovery

Principle	Explanation
Cost causation	Costs should be recovered from those parties whose actions cause the costs to be incurred at the margin.
Cost minimisation	The mechanism for cost recovery should ensure that there are strong incentives to minimise costs.
Distribution of benefits	Costs should be recovered from beneficiaries, especially where there are externalities.
Effect on competition	The mechanism for cost recovery should not undermine or weaken the pressures for effective competition.
Reciprocity	Where services are provided reciprocally, charges should also be reciprocal.
Practicability	The mechanism for cost recovery needs to be practicable and relatively easy to implement.

Source: Ofcom[76].

5.49 Ofcom's new 'Consistency with Regulatory Decisions' Regulatory Accounting Principle requires that the RFS are in general consistent with regulatory decisions.[77] Under Ofcom's revised regulatory financial reporting regime, Ofcom intends to set out the approach BT should take to implementing these principles in Regulatory Accounting Guidelines which Ofcom will publish.

5.50 We note that Ofcom has not yet prepared any Regulatory Accounting Guidelines, and that these would be consulted on before BT will be required to adhere to them.[78] However, given that new reporting framework is expected to create a closer alignment between costs attribution methodologies in the RFS and those used in calculating costs for setting prices in charge control, we think it relevant to consider the Six Principles of Cost Recovery in assessing Ofcom's proposed treatment of costs in the current consultation.

5.51 In particular, Ofcom has previously applied the cost recovery principles to argue that:

76 Ofcom, *Provision of Technical Platform Services Guidelines and Explanatory Statement* 21 September 2006 Paragraph 3.8.
77 See Table 1.
78 Ofcom, *Regulatory Financial Reporting Statement*, 20 May 2014, paragraph 3.71.

- Holding gains and losses should be excluded from regulatory cost stacks
- Cost forecasting errors in charge controls should not be corrected for retrospectively
- Only forward looking costs are relevant

5.52 All of these arguments which Ofcom has previously applied to disallow costs can be applied to profits arising on disposal of property and indicate that the profit should not be included in calculating property costs.

5.53 The following paragraphs set out Ofcom's view on these issues in previous statements relating to pension deficit costs and deafness provision costs and their relevance to property related profits.

5.54 In its review of pension costs, Ofcom disallowed the costs of pension deficit payments from the costs included in calculating regulatory charges on the basis that:

> *"In general, as stated earlier, we do not reflect experience gains or losses in price controls. For example, in the case of fixed assets, BT generally bears the risk of unanticipated changes in asset prices which create holding gains or losses."*[79]
>
> *"we do not think that taking retrospective action in response to new information is conducive to efficient investment incentives over time. This means that whilst we may update our assumptions or methods of valuation, we do not make adjustments for potential over or under recovery during past control periods."*[80]

5.55 Property related costs in the regulatory accounts typically reflect 'arms-length' transactions based on commercial property rents in the case of leased or rented buildings and depreciation in the case of owned buildings. To the extent that a profit arises on sales of a lease or freehold, that can be regarded as an 'unanticipated changes in asset prices' and should therefore not be included in future charge controls.

79 Ofcom, *Pensions Review*, Statement 15 December 2010, Paragraph 5.15
80 Ofcom, *Pensions Review*, Statement 15 December 2010, Paragraph 5.19

5.56 In the 2014 Fixed Access Market Review, Ofcom excluded the costs BT incurred in relation to payment for potential deafness claims made by engineers relating to past employment. Ofcom stated that:

> *"the deafness provision costs in question are not entirely forward-looking because they relate either to past claims or to insuring against future claims for injuries or damage to health sustained in the past. Payments for historic claims, or insurance to protect against retrospective potential claims, are not causally-related to the provision of MPF and WLR services on a forward looking basis, because BT should be capable of delivering the services efficiently without the risk of causing preventable permanent injury to its current employees."*[81]

5.57 Including profits arising on disposal of property in the calculation of costs will mean that costs are not forward looking, and as a result could set inefficient pricing signals, in this case prices would be too low and would disincentivise investment.

5.58 Ofcom should be consistent in its application of cost recovery principles. It is clear that profits on disposal of property are not forward looking costs, represent unanticipated increases in value and should therefore not be included in the calculation of costs for the purpose of setting economically efficient regulated charges.

81 Ofcom Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30 – Annexes A13.79.

6. Ofcom's proposed attribution base for Corporate Overheads

Introduction

6.1 Ofcom considers that for a number of corporate overhead cost categories which Ofcom regards as relating to all of BT's services, it is appropriate to allocate those costs in proportion to 'Previously Allocated Costs'. Ofcom's approach appears to be to use this base where it does not identify a specific cost driver to use to attribute costs – i.e. the costs are otherwise unattributable.

6.2 BT's current attribution methodology for corporate overheads, using a base of pay and assets is discussed, in paragraph 4.16.

6.3 In this section we discuss Ofcom's proposed alternative attribution base.

6.4 In particular, we explain why an allocation base of Previously Allocated Costs should include capital costs and exclude costs incurred by BT but which are typically passed directly on to customers at zero or very low margins.

Definition of Previously Allocated Costs

6.5 Ofcom's definition of previously allocated costs is unclear. It states that:

> *"Cartesian has used the 'total sum' of CCA from the destination cost categories (excluding the cost category being exhausted) as a metric of 'Previously Allocated Cost' (as agreed with Ofcom)"*[82]

6.6 We understand from BT that in calculating the Previously Allocated Cost allocation base, Cartesian included:

- All pay costs
- Non-pay operating costs
- Depreciation
- Payments to other licensed operators (POLOs)

6.7 In our view there are three issues with this approach to allocating corporate overheads for which there is no direct cost driver:

- Firstly, the cost allocation base should exclude those costs which are typically passed through to customers with very low margins – such as payments to other operators and some equipment provided in managed contracts.
- Secondly, the allocation base should include cost of capital.
- Thirdly, the allocation base should be adjusted to exclude costs of overseas

82 CAR A5.4.

businesses which do not benefit from all Group overhead activities

Exclusion of very low margin elements of a service

6.8 There are a number of external costs incurred in providing certain services for which the costs are typically passed through at very low, or zero margin.

6.9 Typically, these are elements of a service which the end user could buy independently, but for practical reasons tend not to do so (e.g. ease of billing, potential to take advantage of volume discounts available to BT).

6.10 In BT's portfolio of services, there are two major costs which tend to be 'passed-through' to end customers with very little or no margin. These include payments to other operators and equipment hardware in managed contracts.

Payments to other operators

6.11 Payments to other operators represent payments to UK and other overseas operators to termination services on other networks. In 2014, BT's payments to other operators amounted to approximately £2.4bn, or approximately 17% of BT's total operating costs.[83]

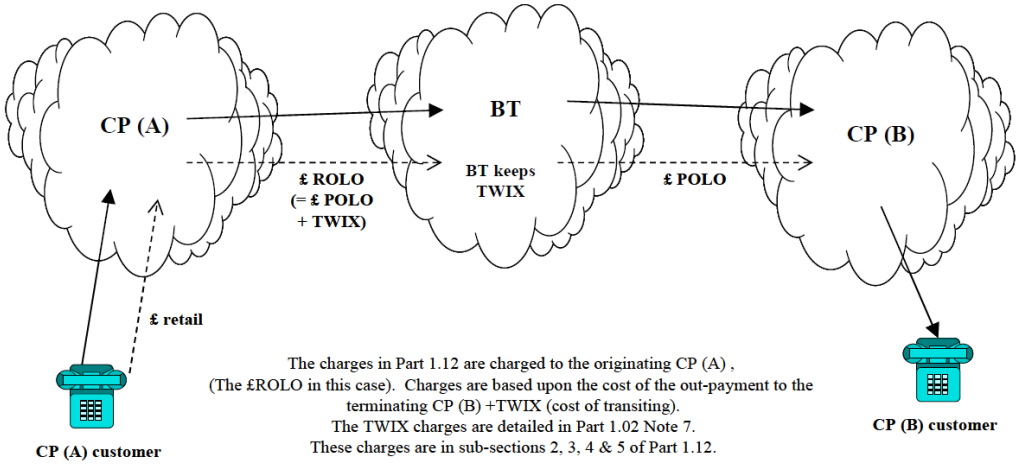
6.12 Wholesale voice transit services provided by BT are defined as calls:

> *"which pass through BT's trunk network on a route between one Communication Provider (CP) switch and another"*[84]

83 Page 159 BT Annual Report 2015.
84 https://www.btwholesale.com/shared/document/Products/Voice/Transit/Transit_Calls_Product Description_2010_Issue_3.pdf

6.13 The main elements in a transit call are shown in Figure 1 below.

Figure 1: Transit services



Source: BT[85]

6.14 Transit services provided by BT to another, originating, Communications Provider ('CP A in Figure 1) involve receiving traffic from CP A and handing it over to another terminating CP (CP B in Figure 1) to terminate the traffic on its own network. Two billing arrangements are available.

6.15 Firstly, BT pays the cost of terminating the call on CP B's network and passes this cost back to CP A together with its own conveyance charge (referred to as TWIX in Figure 1) BT refers to this transit product as 'basic' or 'Cascade Billing'.

6.16 Secondly, transit services for which BT only charges CP A for carrying the call on its own network and CP A settles the cost of terminating with CP B directly are referred to as 'TWIX only' services. (TWIX refers to the BT Conveyance Charge).

6.17 We understand from BT that the margins on transit services are very low – in the order of 2-3%[86].

6.18 An allocation of corporate overheads could significantly reduce the margin on transit service, potentially to the point where they became unprofitable. In this case, the impact of including payments to other operators in the allocation base would create an incentive for BT to exit a market in which it was unable to recover allocated costs.

85 https://www.btwholesale.com/shared/document/Products/Voice/Transit/Transit_Calls_Product Description_2010_Issue_3.pdf

86 "transit revenues are a low-margin business, generally attracting 2-3 pct margins" BT CEO, 2007, http://www.advfn.com/lse/ShareNews.asp?sharenews=BT.A&article=24616556

6.19 This would clearly not be an outcome consistent with a competitive market. In the context of assessing cost recovery issues in charge controls, Ofcom typically applies 'Six Principles of Cost recovery' set out by Oftel in the assessment of mobile termination rates. These are set out in Table 8 above.

6.20 The 'Effect on competition' principle is relevant here. Requiring BT to apply an arbitrary (at least from an economic perspective) allocation methodology which led to BT withdrawing from a market in which it could otherwise compete on an efficient basis would breach the 'Effect on competition' principle, by reducing choice and competition in the transit market.

6.21 This potential outcome can also be viewed as an unintended consequence of rigidly applying an inefficient pattern of common cost recovery onto a firm which sells both regulated and unregulated products.[87]

Cost of Capital

6.22 Ofcom's proposed 'Previously Allocated Costs' base to allocate otherwise unattributable overheads is a form of Equi-Proportionate Mark Up ("EPMU") for recovery of common costs, often applied in Long Run Incremental Cost ("LRIC") costing methodologies.

6.23 An example of an EPMU approach to allocation of costs in an activity based costing system used for regulatory purposes is provided by Royal Mail. For example, in its Costing manual Royal Mail states that:

> *"EPMU must be applied for each of the Activity costs within Overheads separately, and be based **only** on the proportions of **all** the Attributable Costs once they have been attributed. EPMU applications must not take account of any other costs already allocated using EPMU (non-nested approach)."(original emphasis)*[88]

6.24 In our view, an EPMU allocation methodology should include Return on Capital Employed in the definition of attributable (or previously allocated) costs used to allocate unattributable costs. There are three reasons for this:

6.25 Firstly, in principle an EPMU approach allocates all attributable (or previously allocated) costs first, and then allocates 'unattributable' costs in proportion to the attributed costs. Many capital costs are attributable, and typically follow depreciation costs. An EPMU methodology which allocated unattributable costs on the basis of only a portion of previously allocated costs would, by definition, not be a true EPMU approach.

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87 In a different context, the risks of inefficient outcomes when applying a fully distributed costing pricing regime to a firm operating in both regulated and unregulated markets is discussed in *Welfare Implications of Fully Distributed Cost Pricing Applied to Partially Regulated Firms, George Sweeney, Bell Journal of Economics, vol 13, No. 2 (Autumn 1982).*

88 Royal Mail, *ABC Costing Manual,* 2011-12.

6.26 Secondly, excluding the cost of finance would lead to distorted cost and price signals. In particular, the amount of overheads BT would be able to recover on a particular asset or service would depend on whether or not the asset was purchased or leased. If capital costs were excluded from the EPMU allocation base, the amount of overheads allocated to a leased asset (where the capital charge is included in the operating lease included in previously attributed costs base) would be higher than the same asset purchased outright (where the capital cost, in the form of ROCE, would not be included in the previously attributed costs base).

6.27 Thirdly, excluding capital costs would lead to allocatively inefficient prices. From a theoretical perspective, a Ramsey pricing based approach to cost recovery – which allocates common costs in proportion to the inverse elasticity of demand for different services, provides the most efficient pattern of cost recovery.

6.28 Under a Ramsey pricing approach, incremental costs **including capital costs** are allocated directly to products and common costs then allocated in proportion to the inverse elasticity for that product.

6.29 An EPMU cost allocation will generate the same outcome as Ramsey pricing where elasticities of demand of all services are the same. However, this will only apply if incremental capital costs are include in the definition of incremental costs used in the EPMU allocation base. Excluding capital costs will therefore arbitrarily distort prices away from an efficient set of prices.

6.30 For these reasons, it is clear that an EPMU type approach to common cost recovery which does not include capital costs in the pool of attributed or previously allocated costs risks distorting prices, investment decisions and competition.

Allocation of overhead costs to overseas subsidiaries

6.31 Ofcom's proposed attribution methodology for overheads which cannot be attributed on a cost causal basis – uses a base of previously allocated costs.

6.32 As currently drafted, the definition of previously allocated costs includes all of the costs of all of BT's overseas subsidiaries. However, many of the group support functions provided by BT such as elements of the finance, legal and HR teams are not relevant to overseas businesses which carry out at least some of these functions locally.

6.33 To the extent therefore that some Group functions are not relevant to overseas businesses, the cost causality argument would require that relevant proportion of these group functions are not allocated to the overseas businesses.

6.34 If Ofcom's proposed base is to be applied in the RFS, we recommend that BT identify those activities of group overhead functions which are undertaken directly by the overseas businesses. The previously allocated cost base should then be adjusted to ensure these group overhead cost categories are not allocated to overseas business units.

Appendix 1 - References

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