An investigation into BT's costs of product management, policy and planning

A final report to Ofcom by Ovum and Robson Rhodes

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Version 1

Executive summary

I Introduction

This report presents the findings of an investigation by Ovum and RSM Robson Rhodes into BT's product management, policy and planning (PPP) costs in providing other communications providers (OCPs) with narrowband interconnect services. The findings will provide evidence which Ofcom may use in its review of BT's PPP charge and may help it resolve a dispute between Cable & Wireless and BT over PPP costs and charges. The main findings of our investigation are summarised below.

II Definition and calculation

There is no detailed definition of the activities which comprised PPP. We therefore recommend that Ofcom specify and publish a detailed and precise definition of PPP for the future.

We believe that, providing bad debt is excluded, the working definition used by BT in calculating its PPP costs is a reasonable one. It is consistent with the definition used by the industry-wide Incremental Cost Working Group in 1997. The definition is set out in overview in BT's DAM. Under the BT definition, there are five main activities in PPP:

- the development and management of narrowband interconnect products
- the cost of managing the relationship with the OCPs which purchase narrowband interconnect services
- the administrative costs of dealing with orders for narrowband interconnect services and
- the billing of narrowband interconnect services.

We propose that BT's working definition is used as the starting point for the new definition but that it is amended to:

- exclude the cost of OCP bad debt from PPP[1]
- exclude from PPP any direct (ie non-labour) expenditure on marketing by Wholesale Markets, given that narrowband interconnect products are not actively promoted by BT
- define PPP so as to explicitly exclude the cost of activities associated with the provision of ad hoc services that are charged to specific OCPs.

To calculate the PPP costs, BT:

[1] Strictly speaking the PPP component of narrowband interconnect products which generate bad debt is still attributed to PPP

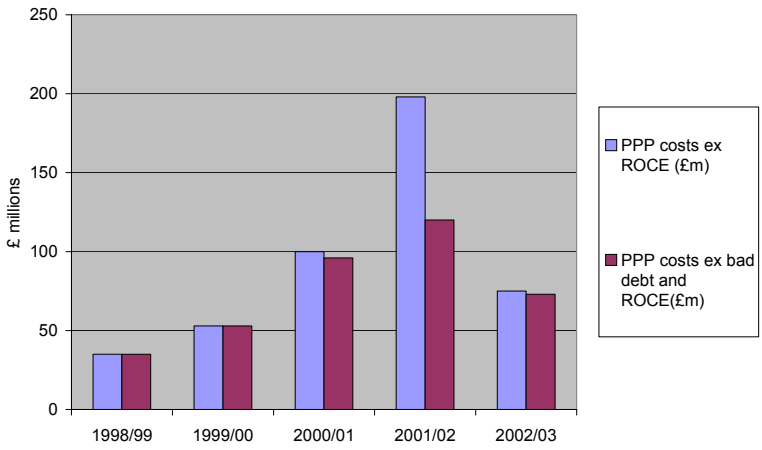
- uses its cost accounting system to allocate relevant costs to Plant Group (PG) 512A. This plant group records the product management, policy and planning costs to BT of dealing with all network based wholesale products
- uses a survey of relevant staff to determine the proportion of these costs which are generated in dealing with narrowband interconnect products.

The detailed attribution methods (DAM) used to make these calculations has changed in two important respects over the period:

- in 1999/00 and 2000/01 the PPP-like activities for private circuits were excluded from PG512A. From 2001/02 onwards these costs were included in this plant group category
- up until 2001/02 bad debt associated with narrowband interconnect products was allocated to the PPP cost pool. From 2002/03 onwards BT allocated bad debt to individual narrowband interconnect products instead

The change in the treatment of bad debt has led to major fluctuations in PPP costs as shown in Figure 1. It is worthwhile noting that PPP costs for 2001/02 were not restated in BT's 2002/03 Regulatory Financial Statement to reflect this change.

Figure 1 PPP costs with and without bad debt



The survey used to attribute the costs of Wholesale Markets to PPP is a fundamental determinant of the size of the PPP cost pool. We understand that the initial survey approach was crude in nature but that, since then, BT has made considerable efforts to improve the survey. We believe that, with these improvements, a survey approach offers a satisfactory method for estimating PPP costs.

Our examination of PPP and PG512A costs by SFR sector over the last four years has highlighted four mis-attributions of costs to the PPP cost pool:

- the costs of provision and installation were overstated by about £1 million in 2002//03

- direct marketing costs to promote broadband were, erroneously, included in PPP costs in 2002/03. This overstated PPP costs by just over £5 million
- the treatment of the PPP like costs in the supply of Surfport lead to an overstatement. Depending on whether Surfport should be partially or wholly excluded from PPP costs this leads to an overstatement of between £1 million and £2 million in 2002/03
- the £1.8m costs associated with the now withdrawn product, service provider network, in 2001/02 were wrongly attributed to PPP.

Subject to the items identified above, we believe that BT allocated costs to narrowband interconnect PPP in accordance with the DAM and that the method used does not appear unreasonable.

III Cost drivers

Based on a qualitative analysis of the cost drivers of PPP we conclude that:

- the cost drivers for PPP are diverse in nature and include the number of operators, the number of new products, the number of existing products, the number of interconnect circuit orders, the number of points of interconnect, and the number of interconnect minutes
- current PPP costs are recovered through a charge per interconnect minute. Such cost recovery does not follow the principle of cost causation. We believe the volume of interconnect minutes is a relatively minor driver of PPP costs
- the cost drivers for service centre activities are very different from those for other PPP activities. There is a strong causal relationship between service centre cost and orders for interconnect service circuits. Consequently we believe it would be appropriate to separate service centre activity costs from other PPP costs and charge for them on a per order basis
- if service centre costs are treated separately, we believe the most appropriate drivers for the remaining costs are the number of OCPs and the complexity of OCP accounts.

IV OCP concerns

Many of the OCPs are concerned about PPP costs and charges. This is not surprising given the lack of information in the public domain on PPP. We therefore recommend that Ofcom should take steps to require BT to publish more information on PPP. Ofcom might require BT to provide:

- more granular information on PPP cost
- additional information in the DAM which sets out the nature and contents of the PPP costs
- an estimate of the costs of PPP-like activities which BT Retail generates in using narrowband interconnect products.

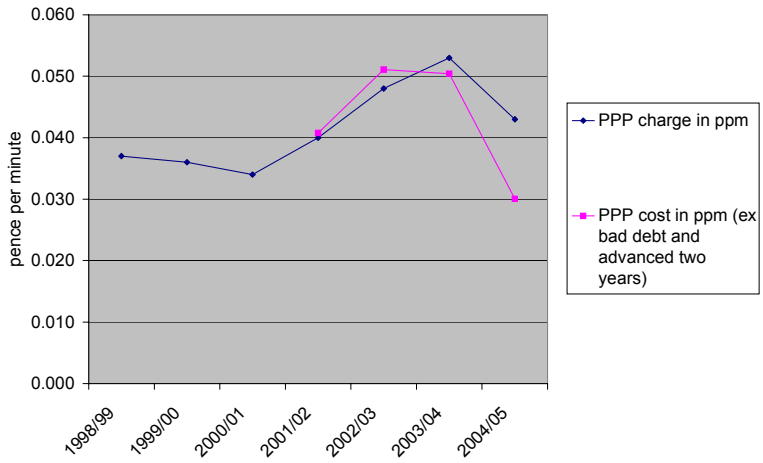
Having investigated the various other OCPs concerns on ***PPP costs*** we reach the following conclusions:

- the substantial fluctuations in PPP costs tend to reflect one off events. They do not support the contention that the PPP cost pool is used as a dumping ground for costs which cannot be allocated elsewhere;
- there is a significant pressure on BT to reduce PPP costs. However the current price control mechanism for exerting this pressure could be improved;
- the Accounting Separation methodology and system precludes the double counting of costs. Therefore it is highly unlikely that PPP charges involve double recovery;
- the costs of departments such as regulatory affairs and legal services are not loaded onto PPP. Less than 1% of the cost of these departments were attributed to PPP in 2002/03;

The OCPs also have concerns about ***PPP charges***. On these we reached the following conclusions:

- the current PPP charge mechanism does not reflect the main underlying cost drivers. Moreover the use of a per minute charge distorts competition in favour of OCPs who make little infrastructure investment against those which do
- changes in PPP charges are broadly cost oriented, once bad debt is excluded from the PPP cost pool and allowance is made for the 18 month lag between BT setting its PPP charge for a given year and confirming its PPP costs for that year. Figure 2 illustrates
- BT has not tried to recover bad debt through PPP charges. Again Figure 2 illustrates.

Figure 2 The relationship between PPP costs and charges



Based on fully allocated unit costs

One particularly important concern raised by the OCPs is that BT RSB is not paying PPP charges which reflect the PPP costs which BT Retail generates[2]. Our analysis indicates that:

- there is no causal link between the PPP cost which BT Retail generates and the PPP charges which BT RSB pays
- the activities of BT Retail can be causally linked to 6% of PPP costs as incurred in BT Wholesale, but BT RSB pays in transfer charges more than 25% of the PPP revenues earned by BT Network.

This lack of a causal link is unsatisfactory. We therefore recommend that Ofcom consider alternative approaches. There are many options. We put forward two for consideration:

- exclude the PPP costs generated by BT Retail from the PPP cost pool and recover the remaining costs from the OCPs alone. This option is based on application of the ***cost causality*** principle
- require BT Network to treat BT RSB and OCPs on an ***equivalent*** basis. Under this equivalence concept, proposed by Cable & Wireless, BT would include all of BT Retail's cost from PPP-like activities in the PPP cost pool and recover PPP cost from all operators, including BT RSB, in proportion to their size.

V Future recovery of PPP costs

In deciding on how BT might best recover its PPP costs in future we suggest that Ofcom consider the following ideas:

- remove service centre costs from PPP and recover them through transaction charges per interconnect circuit order. A charge per interconnect order would reflect costs much more accurately than the current charging mechanism for this portion of PPP costs
- put PPP in a price basket of its own. The current price cap on PPP raises problems. It controls prices for both PPP activities, where costs are very largely people generated, and the supply of interconnect circuits, where costs are largely dependent on the price/performance of network equipment. Given this mix of very different cost structures it is difficult for Ofcom to set a price cap which is appropriate for PPP
- recover remaining PPP cost from OCPs in a manner which more closely reflects cost causality. Given the cost drivers this might consist of charge per OCP and a volume based charge to reflect the complexity of each OCP account.

[2] Through transfer charges between BT Retail Systems Business and BT Network. In this report we use the term BT RSB to refer to the BT Retail Systems Business as defined by regulation (to contrast with BT Network). We use the term BT Retail to refer to the organisational units BT Retail and BT Global Services (to contrast with BT Wholesale)..

1 Background to the study

1.1 Introduction

This report presents the findings of an investigation by Ovum and RSM Robson Rhodes into BT's product management, policy and planning (PPP) costs in providing other communications providers (OCPs) with narrowband interconnect services.

1.2 The current situation

The price of each of BT's narrowband interconnect services[3] has two main components[4]:

- a network element based charge for the use of BT's network
- a product management, policy and planning (PPP) charge designed to recover BT's administrative costs in providing narrowband interconnect services.

The PPP charge is designed to recover the costs of:

- the development and management of narrowband interconnect products
- the cost of managing the relationship with the OCPs which purchase narrowband interconnect services
- the administrative costs of dealing with orders for narrowband interconnect services and
- the billing of narrowband interconnect services.

The charge is levied in two ways:

- through a fixed charge per minute which is added to the price of all narrowband interconnect services. This charge is distance independent. It is the same for a DLE call termination service and a long double tandem call termination service
- through a charge per FRIACO port. FRIACO is an alternative way for OCPs to purchase call origination for BT using capacity based charging. So the FRIACO PPP charge is set equal to the per minute PPP charge times the number of minutes which the FRIACO port is deemed to deliver.

The PPP charge is paid on all narrowband calls which involve interconnect. It is not paid by BT for BT to BT on-net calls but it is paid by BT on narrowband calls which terminate on other networks.

The cost of PPP is calculated in the Regulatory Financial Statements each year in accordance with BT's Detailed Attribution Methods (DAM). This cost has increased

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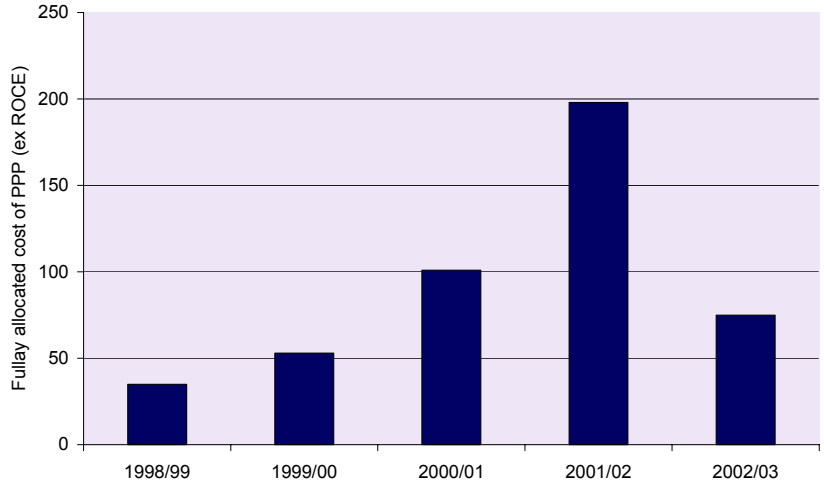
[3] For example call origination, call termination, transit services, NTS calls, FRIACO

[4] Charges for NTS calls also include retail uplift component

significantly over the years. BT's PPP costs were £22 million per annum in 1994/5. By 2000/01 the costs were just over £100 million. In recent years the costs have also fluctuated quite dramatically as shown in Figure 1.1.

Figure 1.1 BT's PPP costs over the last five years



Source: BT's Regulatory Financial Statements

The introduction of the network charge controls on BT in 1997 deliberately established a regime where a direct relationship between the costs of PPP activities and PPP charges was not maintained over time. Under the network charge control mechanism:

- a starting charge for PPP is set at the beginning of each four year control period. This charge is designed to recover BT's costs of PPP
- in subsequent years BT is free to change its PPP charge provided that the charge does not lead BT to breach the price cap constraints placed upon it. The PPP charge is part of the Interconnect Specific Basket where it contributed 44% of the basket revenue yield in 2002/3. The other main components of this basket are BT's charges for interconnect links to OCPs. The basket is currently subject to an RPI –8.25% per annum price cap.

BT is also required to constrain the charges so that they do not exceed a ceiling represented by the stand alone costs (SAC) of PPP or a floor represented by the LRIC of PPP[5].

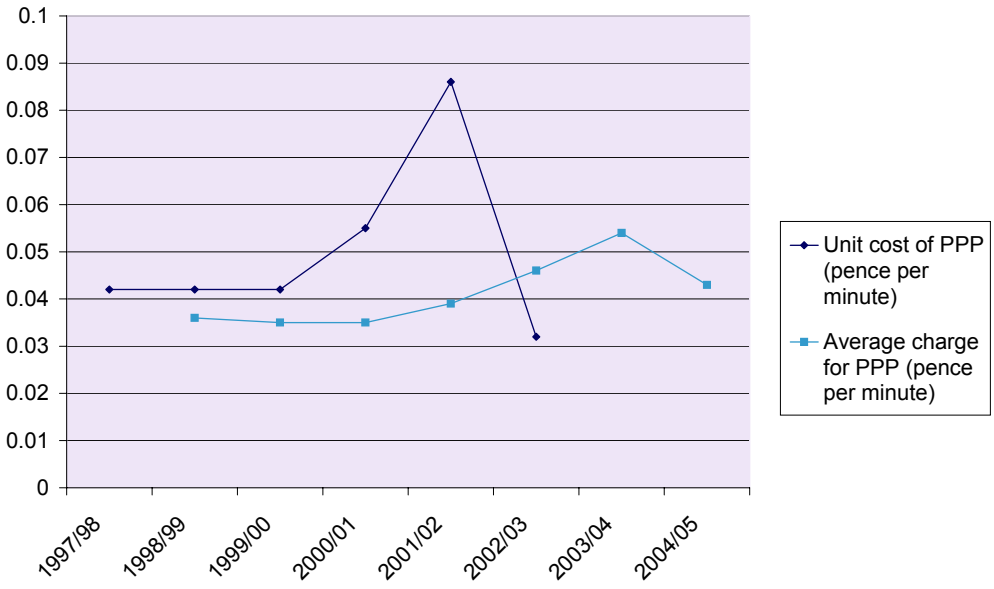
The link between PPP charges and PPP costs on a year by year basis is further weakened by the substantial time lag between BT setting the charge for PPP and BT knowing for certain what costs that charge is intended to recover. For example BT announced its PPP charge for 2004/5 in December 2003. It will prepare its

[5] Strictly speaking the charge should not fall below the distributed LRIC or increase beyond the distributed SAC

Regulated Financial Statement, and so confirm its PPP costs for 2004/05, in the Summer of 2005. It will publish this statement later in the year.

Figure 1.2 shows the relationship between charges and unit costs over the period 1997/8 to 2004/5.

Figure 1.2 The relationship between PPP costs and charges



Fully allocated unit costs taken from BT's Regulatory Financial Statements

1.3 OCP concerns about PPP

Many of the other communications providers (OCPs) are clearly concerned about the PPP costs and charges described above. We have held discussions with three OCPs, Cable & Wireless, ntl and Energis, to identify and discuss these concerns. Our findings are set out below.

The OCPs are very concerned about the impact of PPP charges on their business. But it is difficult for them to understand the basis of these charges or examine how they operated because they lack information on:

- the definition of PPP
- the way in which BT estimates its PPP costs and how these PPP costs are generated
- the extent to which BT RSB pays towards these costs
- how BT RSB pays for the costs of PPP like activities generated in dealing with BT to BT calls.

Given this lack of transparency OCPs are suspicious of PPP costs and charges. In our view, many of their concerns are unwarranted and would be removed if Ofcom and BT were to provide more information. We therefore recommend providing increased transparency in this area.

We can divide the main worries of the OCPs about PPP into concerns about costs and concerns about charges. Concerns expressed about ***PPP costs*** are as follows:

a) there is no clear and detailed definition of PPP against which to test whether BT is attributing costs appropriately

b) there is no published breakdown of PPP costs. Such a breakdown would act as a sanity check on whether total PPP costs are reasonable

c) PPP costs fluctuate violently from one year to the next as illustrated in Figure 1.1. This suggests to the OCPs that PPP is a dumping ground for costs which BT Wholesale cannot attribute elsewhere

d) there is little pressure on BT to reduce its PPP costs. PPP charges are subject to an RPI minus 8.25% per annum price cap as part of the Interconnect Specific Basket but this still leaves BT with freedom to increase PPP charges, which OCPs cannot avoid, while dropping prices for interconnect circuits, which many OCPs can avoid

e) the cost attribution methods used by BT overstates PPP costs. In particular the OCPs are worried that PPP includes a high proportion of the cost of BT's regulatory affairs department and legal services department and a substantial proportion of the costs of disputes between BT, Ofcom and the OCPs

f) PPP costs are double counted – they are included both in the PPP costs and elsewhere in BT's regulated financial statements.

The OCPs have also expressed a number of concerns about ***PPP charges***:

a) PPP charges have risen over 20% per annum recently - from an average of 0.034 pence per minute in 2000/01 to 0.053 pence per minute in 2003/4

b) as a result the effective prices paid for call origination and call termination services have fallen much more slowly than expected. Standard call origination and termination services are subject to an RPI - 10% price cap. But the addition of the PPP component to this basic price has meant that the prices paid by the OCPs for these services has fallen at only 3% or 4% per annum

c) PPP charges do not reflect the costs generated by each OCP. The PPP charges are levied per minute of interconnect traffic generated. Yet the cost of PPP activities are more a function of the number of OCPs to whom BT provides interconnect. At the same time a new operator generates more costs than a mature operator. So a large and mature operator may generate less in the way of PPP costs than a small new operator but pays the bulk of the PPP charges

d) PPP charges discriminate in favour of rivals to BT with relatively little investment in infrastructure and against those with high levels of infrastructure investment. The PPP charge per minute is the same for all interconnect services. So, for a service-based rival using double tandem call origination and call termination, PPP represents only 7% of the interconnect bill while, for an infrastructure-based rival who uses only local call origination and call termination, PPP represents 22% of its interconnect bill

e) BT RSB does not bear its full share of PPP charges. Cable & Wireless argues that, for effective competition, BT RSB and the OCPs should be treated on an equivalent basis and that PPP costs should be recovered from all customers of BT and its rivals - in the same way that BT's set-up costs for carrier pre-selection are recovered

f) BT may have recovered bad debt generated by the failure of some OCPs from those that remain. Yet the remaining OCPs have not generated any of these costs

g) BT may be recovering costs via PPP charges that it has already recovered in other ways. For example one OCP is concerned that BT is recovering the cost of developing FRIACO both through product charges and through PPP charges

h) the recent increases in BT's PPP charges are not justified. One OCP believes that, under pressure from Oftel, BT cut interconnect circuit prices and then raised PPP charges so as to take full advantage of the freedom allowed to it under the RPI - 8.25% price cap of the Interconnect Specific Basket. These price rises did not reflect cost increases.

We analyse each of the OCP concerns listed above in the relevant chapters of our report.

1.4 The need for a cost investigation

Cable & Wireless is so concerned by the developments in PPP costs and charges that it has raised a dispute with BT on the matter. Cable & Wireless accepts that BT has probably not breached the network charge controls rules in setting PPP prices. But it argues that there is an additional duty on BT to make its charges reasonable, non-discriminatory and cost-oriented. Cable & Wireless claims that BT has failed to meet this second obligation. So it has asked Oftel to:

(i) examine BT's regulatory accounts to strip out any cost elements that have been attributed to PPP but ought not to have been placed within this category;

(ii) depending on the results of this examination, lower the PPP charge to prevent incorrect or excessive cost recovery by BT;

(iii) ensure cost recovery on a pence per minute basis only for those elements within PPP which are truly volume driven;

(iv) ensure recovery according to cost drivers for elements which are not volume driven - for example, as a per operator charge where appropriate;

(v) secure recovery on a fair, reasonable and non-discriminatory basis from both BT Retail and competing operators, to ensure effective and efficient competition in downstream wholesale and retail markets; and

(vi) re-set the PPP charge accordingly, dating from the point at which the charge ceased to be reasonable, cost oriented and non-discriminatory.

With BT's agreement, Cable & Wireless referred the matter to Oftel who, in November 2003, agreed to investigate. Oftel decided that it was appropriate to handle the dispute as part of the review of the PPP charge.

So as to provide it with the necessary evidence to review the PPP charge and resolve the dispute Oftel, now Ofcom, commissioned Ovum and its subcontractor RSM Robson Rhodes, to carry out a cost investigation. Under its terms of reference Ovum should:

- carry out an analysis of activities and costs which must:
  - set out in sufficient detail each distinct activity and/or cost type that BT has included in PPP in the preparation of its regulatory financial statements for 2001/02 and 2002/03;
  - review the attribution methodologies that BT has used in preparing its 2001/02 and 2002/03 regulatory financial statements for PPP, against the regulatory accounting principles agreed with Oftel; the most relevant being the principle of cost causality; and
  - identify and examine, in each of the above financial years, the relevant cost drivers for PPP activities and/or cost type;
- compare the above attribution methodology and the set of activities with the methodology and activities that were included by the Director in the costs for PPP in 1999/00, the accounting year on which financial information for the current charge controls are based. This work must consider all the activities that were part of the PPP cost in 1999/00 and the activities that BT states is part of PPP cost in 2001/02 and 2002/03;
- carry out an assessment of why there is a variance in cost between the years on individual activities and how and why this has arisen. In particular, Ovum Limited must:
  - quantify and explain the differences in the set of activities and attribution methodologies between 1999/2000 and 2001/02 and 2002/03;
  - obtain BT's reasons for the change in costs between 1999/00, 2001/02 and 2002/03; and
  - critically review BT's explanation and the robustness of the data provided.

It is important to note that the terms of reference focus the study team on an examination of the costs and cost drivers for PPP. Ofcom will then use the study as

an input to help it determine the appropriate charging mechanism to recover PPP costs in future.

1.5 The structure of our report

We set out the findings of our investigation in this report.

In Chapter 2 we examine the various definitions of PPP and the differences between them. We then specify a working definition against which to judge the reasonableness of BT's calculations of PPP costs and propose a possible definition of PPP for the future.

In Chapter 3 we:

- discuss the findings of our investigation into how BT calculates its PPP costs and how this procedure has changed over time
- consider how the cost components of PPP have changed over the past four years and what might have caused these movements
- identify PPP costs generated by BT Retail
- consider in turn each of the OCPs' concerns about PPP costs
- provide a critique of BT's PPP cost attributions and calculations and make recommendations for its improvement.

Chapter 4 then provides an assessment of the main cost drivers for each of the main activities which generate PPP costs and examines the extent to which these cost drivers, together with one off events, explain the observed variations in BT's PPP costs.

Chapter 5 considers, in the light of our findings, various aspects of PPP charging. These include:

- the concerns of the OCPs on PPP charges and, in particular, Cable & Wireless's allegation that BT's PPP charges are not cost oriented
- possible future options for PPP charging.

Finally, in Chapter 6, we summarise our conclusions and recommendations.

2 The definition of PPP

2.1 Introduction

It is important that we establish a clear and reasonably detailed definition of PPP against which to judge BT's calculation of its PPP costs. Such a definition is an essential input to Chapter 3. There is also a general consensus, both from BT and from the OCPs, on the need for a clear, precise and detailed definition of PPP for the future.

There are a number of existing high level definitions and descriptions of PPP. For example:

- Oftel, in its guidelines on the operation of network charge control[6] defines PPP costs as follows. "*These costs arise from the planning of interconnect and the management of interconnect relationships. They are paid by operators interconnecting with BT. Charge control is necessary to ensure that these charges are not excessive and that costs are incurred efficiently by BT. They are therefore included in the interconnect specific basket."*
- BT's DAM of the 19th September 2003 describes PPP as follows. "*This plant group captures the Product Management, Policy and Planning activities that comprise the costs incurred by BT in servicing and supporting the Interconnect market. The primary BT units concerned are Wholesale and Wholesale Markets Finance."*
- the Incremental Cost Working Group, a working group with broad participation from the industry as well as Oftel, sent out an information request to OCPs in February 1997. In this document it describes PPP as "*a term used by BT to refer to costs that are specific to interconnect arising, for example, from interconnect finance and billing and the management of interconnect relations with operators*"
- in the course of our investigation BT has defined PPP costs as "*the sales, general and administrative costs generated in supplying narrowband interconnect products*".

These definitions/descriptions are not inconsistent with one another. But they are clearly not sufficiently detailed for us to decide what costs should be included or excluded from the PPP cost pool. There are two potential sources of such a definition:

- the current definition used by BT in allocating the costs of PPP
- the working definition of PPP used by the Incremental Cost Working Group in 1997.

We specify each of these definitions below and then compare them.

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[6] Paragraph 2.27, October 1997

2.2 BT's current definition of PPP

BT defines PPP in two dimensions:

- the activities which generate the costs of PPP
- the products supported by those activities

PPP products

BT carries out PPP like activities for three main categories of products:

a) narrowband interconnect products. This includes narrowband call origination[7], call termination, transit and NTS interconnect services together with FRIACO services and narrowband interconnect links

b) other network products provided by BT Wholesale to OCPs and service providers. The main products in this category are CPS interconnect facilities, unbundled local loops, partial private circuits, private circuits, wholesale line rental and DSL products

c) other non network products provided by BT Wholesale. This includes consulting, equipment sold to wholesale customers and use of BT sites by mobile operators for micro-cells.

Only activities which relate to the first of these three groups of products, the narrowband interconnect products, are defined as PPP activities.

It is useful, in understanding how BT has calculated its PPP costs over time, to note that:

- BT's Wholesale Markets division, the division which generates the bulk of PPP costs, deals with all three of the categories of costs listed above
- five years ago, as the Carrier Services division, Wholesale Markets dealt almost exclusively with narrowband interconnect products
- PPP type costs generated by this category of products grew with the introduction of FRIACO in 2000
- the number of products in the other two categories has grown substantially over the last five years. Back in 1999 private circuits were the main type of non narrowband interconnect product handled by the predecessor to Wholesale Markets. Now there is a wide range of products.

PPP activities

BT lists five main activities which generate PPP costs.

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[7] Including call origination for CPS and indirect access services

1. Marketing

The main activities covered by this term include:

- the development and maintenance of the web site of BT's Wholesale Markets division
- understanding the statement of requirements (SoRs) of OCPs and assessing them to see whether BT should develop interconnect products to meet them.

Both these activities are carried out by the ***marketing directorate*** of Wholesale Markets, a division of BT Wholesale. The marketing directorate also conducts proactive marketing campaigns. But this activity should not generate PPP costs since narrowband interconnect products are not actively promoted by BT. Marketing activities are carried out exclusively for OCPs. BT Retail runs its own market analysis and marketing campaigns.

2. Product management

This activity covers investigation into the feasibility of products, product definition, product development and price setting, product launch and in-life product management. We understand that the bulk of product management costs for narrowband interconnect products (85%) are generated by in-life product management. This includes functions such as pricing, planning, revenue assurance, reporting, dealing with management requests and responding to regulatory requests. The ***wholesale product management directorate*** of Wholesale Markets is responsible for product management. It manages interconnect product requests from both the OCPs and BT Retail. In total the directorate dealt with just under 300 SoRs in the last 12 months[8].

3. Sales and customer management

There are two main aspects to sales and customer management:

- commercial management. This includes negotiating interconnect agreements with OCPs, ongoing maintenance of contracts as OCPs change products and expand or reduce orders, dispute resolution and business planning to establish the revenue the OCPs will generate
- technical account management. This includes estimating capacity requirements, agreeing network architecture, supervising the implementation of data changes on the BT network and ensuring end to end performance of interconnect services provided.

The ***strategic sales directorate*** of Wholesale Markets carries out these activities for OCPs. Corresponding activities for BT Retail are carried out by a separate directorate of Wholesale Markets – the internal sales and trading relationships directorate.

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[8] Of which 33% came from OCPs, 38% for BT Retail, 9% were generated by regulatory obligations and 20% were initiated by BT Wholesale

4. Service centres

The ***customer and business services directorate*** (often referred to as service centres) within Wholesale Markets deal with administrative functions involved with in provisioning of interconnect services. This involves receiving, validating and entering orders for interconnect links[9], design of the circuits to provide the link, control of circuit provision[10], booking tests of the link, order completion, reporting on the status of the orders, customer liaison and attending service review meetings. The service centres are also involved in fault reporting, screening and resolution. Service centres provide these functions to OCPs alone. BT Retail provides its own order and fault handling facilities which are excluded from PPP activities.

5. Billing and finance

The finance division of BT Wholesale carries out interconnect billing of OCPs using the Genius billing system. This involves collecting call detail records (CDRs) for interconnect calls, rating them using an element based charging matrix, issuing bills and call record summaries, invoicing, reconciling bills with the estimates produced by the OCPs, and dispute resolution. Billing of BT Retail by BT Wholesale is excluded from PPP activities. Such billing involves the calculation of transfer charges based on the volume of calls originated by BT Retail customers and on the network service prices set out in BT's Regulated Financial Statements.

Up until 2001/2 BT also included within the billing and finance costs any bad debt generated by narrowband interconnect products. In the years before 2001/2 this was of little significance since bad debt from OCPs was negligible. But in 2001/2, following the dotcom crash, bad debt rose dramatically. In response BT decided to exclude all bad debt from PPP from 2002/03 onwards.

Other activities included in PPP

BT also includes within the definition of PPP specific activities carried out by other corporate level departments, such as the regulatory affairs department and the legal services department, in supporting the five main activities listed above.

Finally PPP attracts costs from other activities which generate general overheads and which are shared across all BT activities. This includes activities such as those carried out by the Chairman's Office and by BT Group Secretariat. These attributions are based on general attribution approaches as set out in the DAM.

The extent to which BT Retail is included in the PPP definition

Another aspect which we need to consider in analysing BT's definition of PPP is the extent to which BT includes PPP-like activities which are currently carried out by BT Wholesale on behalf of BT Retail within its definition of PPP.

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[9] Whether new links, re-arrangements or cessations

[10] But not the provision itself

Our investigation indicates that BT excludes all costs associated with PPP-like activities related to on-net BT calls from its definition of PPP. In addition BT also largely excludes from PPP the activities generated by BT originated calls which interconnect with the networks of other OCPs. As Figure 2.1 shows:

- BT Retail carries out its own market analysis before submitting a SoR to Wholesale Markets for an interconnect product
- Wholesale Markets treats BT as an account just like the OCPs. But it has set up a separate directorate within Wholesale Markets, the Internal Sales and Trading Partnerships directorate, to provide these services. The costs of this division, which BT has told us amounted to £7.6 million in 2002/03, are excluded from PPP
- BT Retail runs its own order and fault handling centres which are separate from those run by Wholesale Markets
- BT Retail is charged for the BT Wholesale services it uses in a radically different way from OCPs. Billing OCPs involves collecting and rating call detail records, issuing invoices, reconciling bills and resolving billing disputes. In contrast BT Retail is charged through a transfer charge which is calculated using information from BT's Regulatory Financial Statements.

Only in the case of product management are BT Retail and OCPs treated in the same way.

Figure 2.1 Where BT Retail is included in PPP

Activity	*For interconnecting OCPs*	*For BT Retail*
Marketing	In PPP	Excluded - done by BT Retail
Product management	In PPP	In PPP
Account management	In PPP	Excluded - done by Internal Trading directorate of Wholesale Markets
Order and fault handling	In PPP	Excluded - done by BT Retail
Billing and finance	In PPP - done using CDRs	Excluded - uses accounting separation process to calculate transfer charge

2.3 The PPP definition of the Incremental Cost Working Group

In February 1997 the Incremental Cost Working Group (ICWG) set out a reasonably detailed list of the activities and costs which should be included in PPP. This list, which was tacitly agreed by the industry, is as follows:

- interconnect management costs i.e. the costs of managing the day to day commercial relationships with interconnecting operators.
- network management costs. This includes the costs of forecasting and analysing interconnect traffic and network planning to ensure that the network met interconnect requirements by OCPs
- billing costs. This covers the costs of the financial support and analysis for interconnect management and interconnect billing, together with the running costs, depreciation charges and a return on capital employed[11] in the development and use of the interconnect billing system
- product development. This covers the cost of developing specific interconnect products. It excludes the cost of developing retail products

In each case the costs should include staff costs, associated expenses, computing and accommodation costs and relevant legal and consulting costs. In addition these costs should be uplifted to recover an appropriate share of general overheads including the cost of personnel finance and other general management costs.

2.4 The comparison of the two definitions

Figure 2.2 compares the two definitions in terms of activities covered and costs included. The comparison immediately raises a number of issues:

- did the ICWG mean to include BT's market analysis of the SoRs of OCPs within its definition of PPP? We believe that these activities are legitimate PPP activities and should be included. However we also believe that the cost of any pro-active marketing by Wholesale Markets should be excluded, given that the narrowband interconnect products of PPP are not actively sold or promoted by BT.
- did the ICWG mean to include in-life product management in the term product development? Again, we believe that these are legitimate PPP activities.
- should the ordering and the fault handling for interconnect links, referred to as service centres activities by BT, be included in PPP? It is certainly possible to interpret the ICWG's Interconnect Management category (the cost of managing day to day relationships with interconnect operators) so that it does. Indeed, when the ICWG undertook its work in 1997, the activities now undertaken by the BT service centres were dealt with as part of account management

[11] at 12.5% per annum or, more recently, at 13.5 % per annum

- should PPP costs include bad debts incurred in the supply of narrowband interconnect products? There is general consensus amongst the OCPs and BT that bad debt should be excluded from PPP. They argue that bad debt is caused almost entirely by the failure of specific OCPs and not by the OCPs which remain. Recognising this BT has attributed bad debt to individual products rather than to the PPP cost pool since 2002/3. No doubt it will seek to include an element of this bad debt in the starting charge for narrowband interconnect products in the next network charge control period. This debate is outside the scope of our report. The extent to which BT has attempted to recover bad debt through PPP charges in the period up to 2001/2 is discussed in Section 5.3.
- what did the Incremental Cost Working Group mean by relevant legal and consulting costs? We believe that the attribution of regulatory affairs department costs and legal service department costs to PPP is legitimate under this heading provided that the share of these costs borne by PPP is calculated on a reasonable and transparent basis.

There is one final definitional issue which arises from the OCP concerns. Some OCPs are worried that BT charges them twice – once for one off development work done specifically for them and then again through the PPP charge. Raising one off bills is a relatively rare occurrence since BT is required, under the principle of non discrimination, to make products it develops at the request of one operator available to all. So, if a narrowband interconnect product is involved, BT normally attributes such costs to PPP and recovers them through PPP charges. To prevent double recovery when OCP specific charges are made, we propose that PPP should be defined so that BT explicitly excludes such one off development costs from the PPP cost pool.

Figure 2.2 A comparison of definitions of PPP

BT definition	*Definition of ICWG*	*Issue*
Marketing	Nothing	Did the ICWG include Marketing within Product Development?
Product management: - product development - in life product management	Product Development	Did the ICWG mean to include in-life product management in Product Development?
Sales and customer management	Interconnect Management Network Management	None
Service centres for order and fault handling	Nothing	Did the ICWG mean to include this within Interconnect Management?
Billing and Finance (including bad debt until 2001/02)	Billing	Should bad debt be included in Billing and Finance?
Regulatory affairs and legal services costs	Nothing	Is this what the ICWG meant by "relevant legal and consulting costs"?
Reasonable share of corporate overheads	Reasonable share of corporate overheads	None

2.5 A proposed future definition of PPP

Based on the analysis set out above, we conclude that:

- there is no detailed definition of the activities which comprised PPP in 1999/00. So it has not been possible to examine BT's PPP costs against such a definition as required in the terms of reference
- BT's current definition of PPP (as set out in Section 2.3) is broadly consistent with the definition used by the Incremental Cost Working Group in early 1997
- we therefore use this definition as the basis for reviewing BT's calculation of its PPP costs in Chapter 3 and for checking for consistency with what BT has set out in its detailed attribution methods.

Looking to the future we believe that it is appropriate to change the definition of PPP used by BT so as to:

- exclude the cost of OCP bad debt from PPP[12]
- exclude from PPP any direct expenditure[13] on marketing by Wholesale Markets, given that narrowband interconnect products are not actively promoted by BT

[12] Strictly speaking the PPP component of narrowband interconnect products which generate bad debt is still attributed to PPP

[13] And any indirect expenditure consequently attributed

- define PPP so as to explicitly exclude activities which result in one off charges to specific OCPs

3 BT's reported PPP costs

3.1 The cost attribution process used by BT

BT is required, under Condition 78 of its licence, to prepare financial statements under the current cost convention for each of its business and activities. The financial statements are prepared in accordance with the Accounting Documents (AD), which have been agreed between BT and Oftel.

BT, in agreement with Oftel, applies a top-down methodology to the preparation of these financial statements, by disaggregating balances recorded in the core accounting records of the business and attributing these costs to products on the basis of their causality.

The range of activities and associated financial transactions that are performed in BT are recorded at source in BT's accounting ledgers and collected in the general ledger (GL). Costs identified at a general ledger level are aggregated into cost pools, which are defined as a combination of summary account code (referred to by BT as F8 codes, being groupings of similar GL account codes) and organisational unit codes (OUCs). These F8/OUC combinations are the lowest level analysis available within the Accounting Separation System (AS).

In addition, the AS system also maintains some visibility of activities within the system. These activities, or standard financial reporting sectors (SFR sectors) as they are referred to by BT, are aggregations of F8 codes with similar functional characteristics. They provide a method for presenting information developed by the AS system in a manageable way, although it should be recognised that the underlying costs are likely to have been attributed from several different cost pools, and are a reporting tool and not an intermediary step in the attribution process. Descriptions of the overall attribution process and details of the F8 and OUC codes and the sectors are given in BT's Detailed Attribution Methods document (DAM) as shown in Figure 3.1.

The AS system takes the F8/OUC inputs (which number a few hundred thousand in total) and manages the sequential attribution of these inputs into different plant groups (there are around 250 plant group codes in total). This attribution process has 10 stages, of which nine are relevant to the calculation of PPP cost. Each attribution is carried out according to a set of rules or methodologies described in the DAM. They may be ***allocations,*** where an item of cost is allocated wholly to a particular product, plant group or activity group without the need to split the underlying cost, or they may be ***apportionments***, where the costs are split across a number of cost pools on an appropriate basis. The term **attribution** refers to either apportionment or allocation. The consequence of this approach to cost attribution is that an audit trail, albeit very complex due to the size of the system, can be followed for each of the product cost results.

Figure 3.1 An extract from the DAM describing PPP (2002/3 DAM, Volume 4, Level 8 Allocations, Plant Groups, Page 995)

Description

This plant group captures the Product Management, Policy and Planning activities that comprise the costs incurred by BT in servicing and supporting the Interconnect market. The primary BT units concerned are Wholesale and Wholesale Markets Finance

Methodology

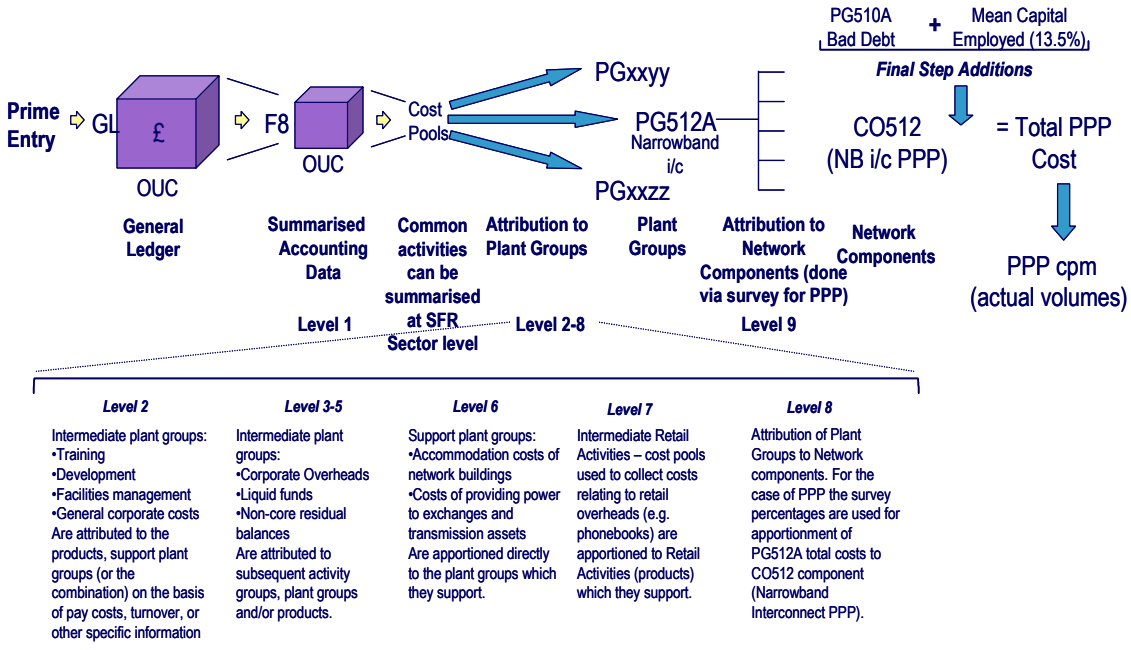
A half year 2002/2003 activity analysis was carried out, to gain a greater knowledge of the effort being invested in supporting interconnect and other Wholesale products and services within Wholesale Markets.

The survey was sent out electronically, at 3 and 4 digit OUC level, asking for FTE to be divided on a percentage basis between a supplied list of products and services.

From this survey, a base was created to reflect the time spent on each product and service as a percentage of the overall total.

Figure 3.2 sets out an overview of the attribution process as it relates to PPP.

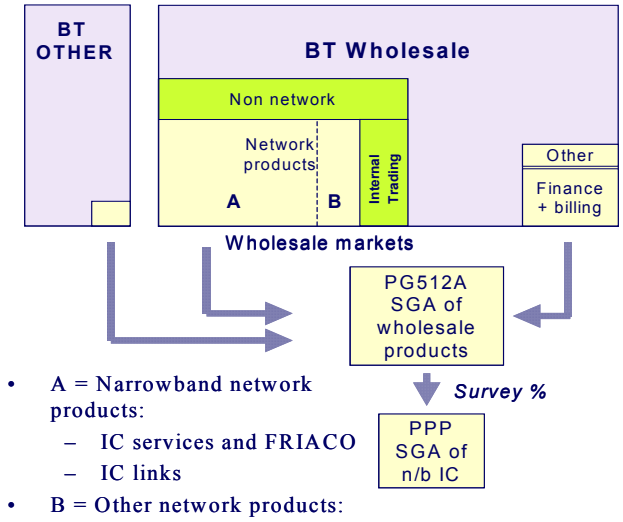
Figure 3.2 The attribution process for PPP in 2002/03



The costs incurred within BT Group associated with PPP activities for other communications providers (OCPs) are collected in a specific plant group, referred to as PG512A. PG512A is a collection point for activity costs relating to PPP-like activities for a wide range of products and network components, of which the narrowband interconnection products and components of PPP is one part.

The costs associated with narrowband interconnect PPP are collected, through an apportionment of PG512A costs, in a network component referred to as CO512. The apportionment from PG512A to network components is based on the results of a specific survey. The organisational source of costs attributed to PPP from the different parts of BT is illustrated in Figure 3.3.

Figure 3.3 The attribution of PPP costs from an organisational perspective



In Figure 3.3 the term ***non-network*** includes products such as Microconnect (a pico-cell service for mobile operators) and some solution sales. ***Internal trading*** is a specific OUC which manages the relationship between BT Wholesale and BT Retail.

A quantitative overview of the attribution process for 2002/03 is set out in Figure 3.4 and for 2001/02 in Figure 3.5.

Figure 3.4 PPP cost attribution in 2002/03

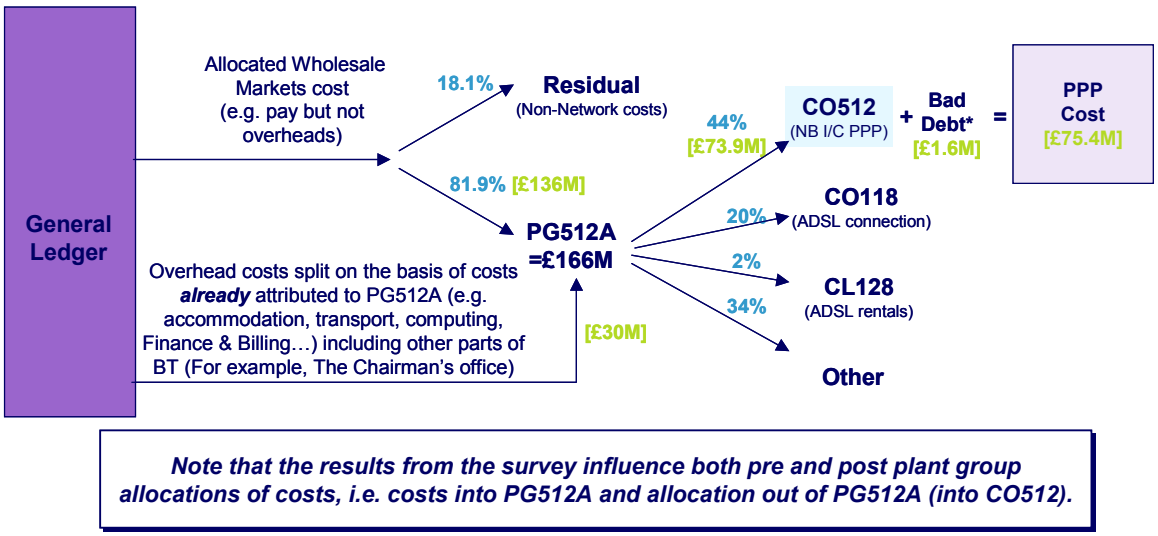
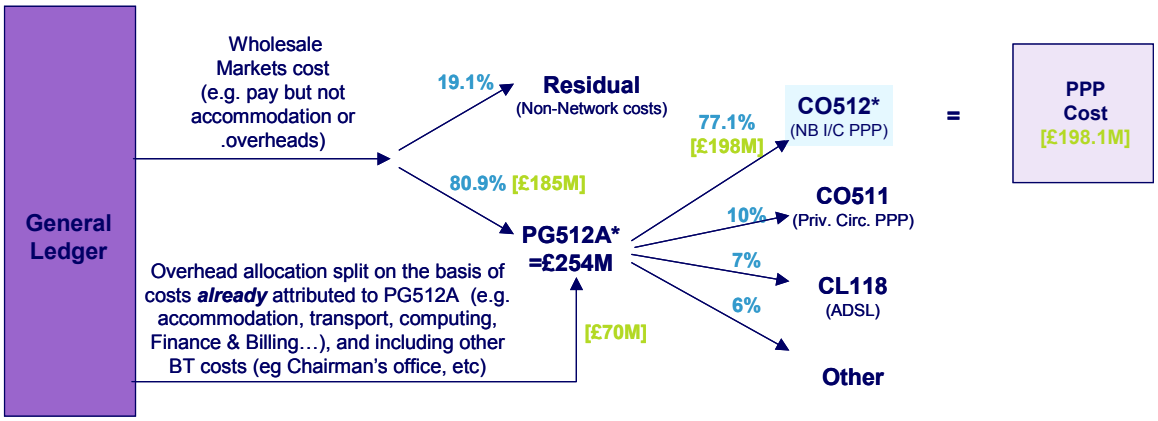


Figure 3.5 PPP cost attribution in 2001/02



Note that bad debt was attributed to PG512A in 2001/02 rather than added afterwards to CO512 as in 2002/03

3.2 Changes to the costing approach

There are several ways in which changes can occur to the underlying methodology and key inputs to the attribution process for PPP costs. We have subdivided these into three broad categories:

- direct effects (methodology change of cost 'flow' up to the Plant Group attribution).
- indirect effects (changes in allocation weights that impact the allocation results)
- survey results (final step in attribution from Plant Group to Network Components).

Figure 3.6 below summarises the major changes as they have impacted PG512A and CO512. Each of these is discussed in more detail in the following sections.

Figure 3.6 The main changes in the derivation of PPP since 1999/00

	99/00	00/01	01/02	02/03
PPP activities for PCs				
In PG512A	No	No	Yes	Yes
In PPP	No	No	No	No
Bad debt in PPP	£0m	£4m	£78m	£2m
Survey of WM	No	No	Yes	Yes
%age of PG512A in PPP	100%	100%	77%	44%

PCs = private circuits

Direct Effects

There has been two significant methodology changes that has impacted the overall PPP costs over the past four years:

- the treatment of bad debt
- the treatment of the costs of PPP-like activities associated with private circuits (PCs)

These changes have been made by BT to improve the accuracy and reliability of the calculation of PPP costs, as these costs have become more significant over recent years.

Bad debt

Prior to 2001/02, minimal levels of bad debt had been attributed to PG512A, although significant provisions for bad debt were incurred in BT Wholesale Markets (the entity responsible for managing the relationships between BT and the OCPs). In 2001/02, both the absolute level of bad debt provision and the proportion of the P&L charge attributed to PG512A increased significantly. In part this was a consequence of several operator bankruptcies which resulted in significant one-off losses for BT. BT wrote the debts off and attributed the majority of losses to PPP (and specifically CO512). Due to the level of bad debt in that year, this approach had a very significant effect on the overall level of cost attributed to PPP in that year. Following the production of the 2001/02 Regulatory Financial Statements, and in part as a consequence of the scale of the bad debt attribution in that year, it was concluded by BT that this treatment was inappropriate and needed to be amended. In

2002/03, the P&L charge for bad debt was analysed and attributed at a product level[14]. The prior year results were not restated.

In 2001/02, the BT Wholesale P&L charge for bad debt was £125.7m. This charge was made up of a number of specific provisions against insolvent companies [ ], specific provisions against trading companies [ ], the release of prior year provisions [ ] and general and other provisions [ ]. It is probable that some of the specific provisions against trading companies were subsequently recovered. However, these provisions were made at a time when the long term viability of some of these organisations looked to be in severe doubt and as such, the creation of such provisions was not unreasonable. Furthermore, because BT has not sought to recover the cost of bad debt through its PPP pricing regime, as discussed in Section 5.3, we do not believe this to be a material issue. When the definitions for PPP were developed, bad debt was not substantial and therefore the choice of attribution approach applied was not considered important. No significant efforts had gone into developing a robust apportionment approach for bad debt. Specifically, in 2001/02, BT did not have a breakdown of bad debt by product that could be incorporated into individual narrowband interconnect product costs. Instead a proportion of bad debt expense was apportioned to PPP as a significant element of bad debt related to business with OCPs.

BT has subsequently improved the internal tracking of bad debt. Now it is able to allocate it directly to products, by analysing the products against which bad debt has been incurred. This change in approach has been set out in the 2002/03 DAM (Pg. 995). Thus BT now seeks to recover bad debt costs directly through a component of each specific interconnect charge. A small element remains that is specific to PPP (being the revenue losses associated with non-payment of PPP-related debts), which is allocated to PPP.

Additionally BT has improved its credit checking and vetting processes. The effect is that BT no longer has to offer 90 days of free credit for all OCPs. Instead it can ask for credit from OCPs with poor credit ratings and this, along with an improved macro-economic environment, has helped reduce overall bad debt levels.

The evolution of Bad Debt over time is shown in Figure 3.7. Note that the strongest effect is in 2001/02 which coincides with the TMT downturn. On the same graph we have shown the levels of Bad Debt that have been allocated to PPP.

Figure 3.7 Bad debt and its impact on PPP costs

[confidential]

[14] This means that only the PPP component on narrowband interconnect products which generate bad debt was attributed to PPP

Treatment of private circuit PPP

There has been one other change in methodology that has had a material impact on PG512A costs. Up till 2001/01, the costs associated with PPP activities for private circuits were excluded completely from PG512A, From 2001/02, these costs have been explicitly recognised in PG512A and then, through the use of the survey, attributed to specific components[15].

Other changes

In addition there has been one minor direct attribution methodology change, which relates to revenues received for siting mobile antenna on BT Wholesale exchange buildings. Previously, we understand that these revenues were used to offset costs. Following discussion with Oftel, these revenues were removed from the Network Business analysis. In the context of overall PPP charges, this change has had an immaterial effect.

Indirect Effects

The use of allocation methodologies using survey results (for example, of people's time, property usage by department and so on) and general proxies (such as pay, staff numbers, overall cost, revenue and so on) can result in significant changes in indirect cost attributions, especially for less material plant groups and products.

Indirect effects mainly impact the allocation of the 'overhead' type costs because in general they cannot be directly mapped to a plant group/network component but rather need to be distributed on a causal basis. Examples of these are: accommodation, secretarial support, IT and so forth.

Changes in indirect allocations can occur for a variety of reasons including, for example, the introduction of new General Ledger codes, pay increases in a department, assets acquisition or disposal, organisational changes and many others. Due to the fact that AS system is a fully allocated costing (FAC) based system, changes in BT's overall business (e.g. property disposals, restructuring and so on) have a significant impact on the amount allocated into Plant Groups. The impact of changes in the indirect attribution of cost, and the underlying specific drivers of these changes, is considered in more detail in the section below on analysis of costs by SFR sector.

Survey changes

BT does not believe it appropriate to require all staff to complete timesheets. Instead BT has used surveys to identify the distribution of staff time spent supporting specific products, and has used this survey over the last two years to:

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[15] In 2001/02 these included the following components CO439 – PC Rental 2 Mb Local end Fibre, CO432 – PC Rental 64 Kbit link local end, CO381 – PC Rental 64 Kbit Link per Link and CO371 – PC Rental 2 Mbit link per km Distribution.

- allocate staff costs to PG512A
- apportion the costs of plant group PG512A to Network Component CO512 (PPP cost).

In the year 2002/3, the majority of the costs attributed to PPP (of the order of 80%) were incurred within a BT operating unit called Wholesale Markets (formerly Carrier Services). The unit was originally formed to support and sell regulated services to the OCP community. The structure of Wholesale markets has changed with time and market trends. At present it provides support for narrowband interconnect products, and other regulated products like Wholesale Access and LLU and a variety of unregulated products. Costs from outside Wholesale Markets which are attributed to PPP costs included Finance and Billing and a number of other smaller costs (none of which generates more than £0.5M in costs per year).

Prior to 2001/02, surveys were not carried out. Instead, in these years, the total cost of PG512A was allocated to CO512 (and therefore directly to narrowband interconnect PPP). The allocation of costs from BT Wholesale Markets to PG512A was then based on an analysis of other pay costs, and as such, was quite crude.

The survey is now carried out each autumn. In 2002/03 the survey was carried out using electronic questionnaires. These were distributed to managers in the various groups within Wholesale Markets and followed up with face to face questionnaires. Managers were asked to allocate the time spent by their staff between a list of about 200 products and components. The results were then analysed:

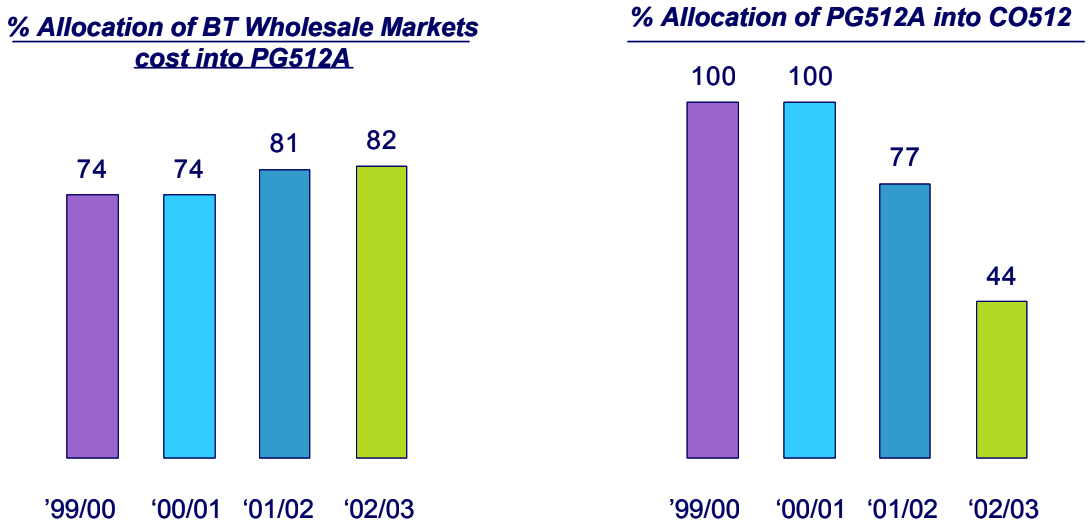
- the costs of each manager's group (measured using the management accounts) were allocated to each product/component using the survey percentages
- each product/component was then classified as a PPP product/component, a non PPP network product or a non network product
- the sum of the costs for each category then give the percentages used to calculate the PPP costs as shown in Figure 3.4.

The 2002/03 survey was an enhancement of a similar survey carried out in 2001/02. There are two main differences between the two surveys:

- there were no face to face interviews in 2001/02
- the 2001/02 survey was done at a higher level of aggregation than the 2002/03 survey. The former was a high level survey where participants allocated their time to broad families of products. The latter was a much more detailed survey which was carried out at the level of individual product and components.

Over the past three years, underlying changes in the activities of Wholesale Markets, the different survey methodologies applied in different years and the different level of detail surveyed have resulted in a significant shift in the end results. Thus the proportion of PG512A which is recovered through PPP has varied significantly over this period. The variation is shown in Figure 3.8 below.

Figure 3.8 The variation in PG512A and PPP costs



The change in percentage allocation to CO512 from PG512A over the past three years reflects in part the changing nature of BT Wholesale Markets. As BT Wholesale Markets has extended its range of regulated (and in particular, regulated products that are not narrowband conveyance-related) and non-regulated products, so the proportion of BT Wholesale Markets "Sales, General and Admin" costs attributed to narrowband interconnect PPP has reduced.

In 2003/04, a further survey has been carried out. The results from this survey are not available yet. BT have made further amendments to the survey methodology, specifically in the use of a more detailed analysis of the relationship between specific products and PPP. In particular, FTE allocations to certain products that contain an element of regulated components within the overall product wrap, for example Surfport, are now proportionately allocated to PPP. It is not clear whether this treatment is appropriate. Given the current prominence of PPP, and the fundamental significance of the survey to calculated PPP costs, one might expect the regulatory auditors to review the survey in detail during their next review.

There are four potential areas of concern in relation to the BT Wholesale Markets attribution survey:

- ***subjectivity***. There is always a 'subjective' factor of how interviewees perceive that they are spending their time. The results are likely to be biased towards the products that they are working on at the time when survey was carried out. The survey captures results only in one point in time and therefore may not be representative of activities across the year. If the activities undertaken within BT Wholesale Market vary across the year, this will not be captured. The changes, for instance, might be due to the change in market conditions whereby a certain type of product becomes 'popular' with the customers. Such a situation happened in 01/02 with the introduction of FRIACO However any such bias is likely to be neutral to PPP attributions.

- ***cost base used for grossing up*** The cost base for the survey was the cost taken from the management accounts in Period 10. This disregards the impact of any year end recharges. It is not inherently inappropriate, but does mean that the costs used to calculate the allocation percentages are not the same as the costs to which these percentages are applied.
- ***granularity*** The level of detail provided by the survey respondents has varied over time. In 2001/02 the allocation to products was carried out at a high level. In 2002/03 a more detailed product list was provided, although the allocation was still binary in nature[16]. In the 2003/04 survey, BT has moved away from this binary analysis by considering products which contain component that fall within the PPP definition. For example, in order to deliver Surfport, a product which is provided to independent service providers and BT's downstream activities, the provider needs to have FRIACO as well as the 'pipe' and surrounding services. Because of FRIACO, even though it does not account for most of the time or cost in the provision of Surfport, the Surfport product picks up the PPP charge. In 2003/04, only a proportion of these costs will be attributed to PPP. As noted above, it is unclear whether this approach is appropriate.
- ***application of labour based "activity analysis" to direct costs***. The survey has been developed by asking individual managers to estimate the proportion of time spent by their people on supporting different products. This is not particularly sophisticated but provides a reasonable, proportionate method of developing an apportionment base. However, there are specific direct costs incurred in BT Wholesale Markets and other parts of BT which are attributed to PG512A and then apportioned using the apportionment base developed by this survey which have different causalities. For example, direct marketing costs for a specific, non-regulated product group, such as broadband, should not be allocated across all products on the proportions developed by the survey.

Despite these drawbacks we do not believe that the use of the survey is inappropriate. We are not able to conclude on the absolute accuracy of the survey results, and in earlier years there have been some significant approximations applied in the survey approach. As PPP costs have become more significant, so more effort has been expended on the survey and it has consequently become more sophisticated. Given the nature of the costs attributed, we believe the survey approach is reasonable and that the accuracy of the survey has increased progressively over time.

3.3 Changes in the scope of PPP over time

From discussions with BT, we understand that BT has applied a consistent definition in the calculation of PPP costs and consequently we do not believe the underlying activities allocated to PPP have changed over the period. However the nature of the Wholesale business has changed dramatically and this has, in particular, extended the scale of activities through:

- increasing numbers of customers and customer contracts;

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[16] If the product was considered to be in PPP, all of the associated costs were attributed to PPP, and conversely if not, then no costs were attributed

- growing product portfolio of regulated products, only some of which fall into the narrowband interconnect product category, and indeed some which are assembled from combinations of regulated and unregulated products;
- the design and launch of complex regulated narrowband interconnect products such as FRIACO;
- an emergent portfolio of non-regulated products;
- codification of key processes (for example, customer service)

Thus changes in the allocation approach associated with narrowband interconnect PPP and actual results have more to do with the evolution of services provided to OCPs rather than any inappropriate extension of the scope of PPP activities. The impact of these changes is considered in more detail in the SFR analysis section below.

3.4 OCP concerns on PPP cost

We have met a number of OCPs to better understand their concerns over PPP. From discussions with representatives of certain OCPs, it became apparent that many of these concerns are based on a lack of visibility and understanding of the definition and calculation of PPP costs and charges. It is worth noting that the Regulatory Financial Statements do not provide a clear breakdown of PPP by activities or SFR sectors. Moreover, the lack of a clear definition of PPP introduces great uncertainty as to which costs might have been included and how they have been estimated. The OCP representatives raised concerns both about PPP costs and charges. We discuss their specific concerns in relation to PPP costs below:

Concerns about ***PPP costs*** are as follows:

- *there is no clear and detailed definition of PPP against which to test whether BT is allocating costs appropriately.* The lack of clarity of the definition of PPP has contributed to OCP concerns over the make-up of, and appropriateness of recovery methods for, PPP costs. We found that when we shared the broad make-up of the PPP charge, generally the OCPs conceded that it was reasonable for BT to recover these cost types. However more clarity in the DAM over the definition of PPP, the cost build-up of PPP and the relationship between PPP and BT Retail would help significantly to abate the OCP concerns in this area.
- *there is no published breakdown of PPP costs. Such a breakdown would act as a sanity check on whether total PPP costs are reasonable.* OCPs do not have access to information of what activities form a base for PPP costs and how these costs are calculated. Naturally, there is concern that some costs are included in the PPP cost pool which should be excluded[17]. As noted above, more clarity in the make-up of PPP would help, and it may be appropriate for BT to publish a more detailed quantified breakdown of costs in this area.
- *PPP costs fluctuate violently from one year to the next. This suggests to the OCPs that PPP is a dumping ground for costs which BT Wholesale cannot allocate elsewhere.* The

[17] For example Research and Development, Legal costs

variation of PPP costs on an annual basis raises questions of whether the PPP pool is treated as a "dumping ground" by BT. Also, OCPs feel that there is little pressure for BT to reduce PPP costs. From an OCP perspective, the issue of variability and the fact that the costs do not seem to be predictable increases the perceived risks associated with business and strategic planning. In reality, much of the variation can be explained quite easily (much of it has been driven by bad debt and one-off costs associated with accommodation changes and the implementation of a new wholesale billing system); however the lack of granularity of the analysis prevents this conclusion being drawn by the casual reader of the AS statements.

Similarly internal trading costs are captured in a separate OUC and are specifically excluded from PG512A. Our review of the AS allocation approach does not support the OCP contention that PPP is used as a dumping ground for costs. Again, visibility of a detailed PPP definition and public accessibility to a PPP cost break down would abate these concerns.

Concerns that BT use PPP as some form of "dumping ground" for otherwise unrecoverable costs appear unfounded following our review. For example, the proportion of Regulatory Affairs and Group Legal Services department costs attributed to PPP is less than 1% of the total costs incurred by these departments.

- *there is little pressure on BT to reduce its PPP costs. PPP charges are subject to an RPI minus 8.25% per annum price cap as part of the Interconnect Specific Basket but this still leaves BT with freedom to increase PPP charges, which OCPs cannot avoid, while dropping prices for interconnect circuits, which many OCPs can avoid*. The anecdotal evidence which we collected suggests that BT is continuing with cost reduction efforts across BT Wholesale to maintain profitability in the face of declining tariffs for regulated products. Nevertheless we are concerned that the interconnect specific basket combines heterogeneous products and components which make it difficult for Ofcom to set an appropriate value for X in the price control formula. We set out proposals for dealing with this problem in Chapter 5
- *the cost allocation methods used by BT overstates PPP costs. In particular the OCPs are worried that PPP includes a high proportion of the cost of BT's regulatory affairs department and legal services department and a substantial proportion of the costs of disputes between BT, Ofcom and the OCPs.* The proportion of Regulatory Affairs Department and Group Legal Services costs attributed to PPP is 0.78%. Costs incurred directly within BT Wholesale Markets are attributed to PPP in proportion to the survey percentage and these costs will include costs associated with disputes. This does not appear unreasonable.
- *PPP costs are double counted – they are included both in the PPP costs and elsewhere in BT's Regulatory Financial Statements.* The methodology applied in the development of these statements, namely a top down fully allocated cost allocation approach, does not allow for costs to be double counted. Given that a reconciliation between published statutory accounts and the Regulatory Financial Statements is a key audit check, we do not believe this concern is valid.

3.5 Analysis of PPP costs by SFR sector over time

The Accounting Separation (AS) system uses Standard Financial Reporting sectors (SFR) sectors as a means of providing some visibility of the cost make-up of specific product cost types and, as such, they provide a high level activity-aligned analysis of costs. The sectors provide a manageable way of presenting all of the costs, revenues, assets and liabilities in the Accounting Separation system. The costs that make up each SFR sector represent an aggregation of broadly similar cost types within a common category, for example accommodation, planning & development, marketing and sales and so on. The costs that make up an SFR sector are, however, derived from different attribution routes and hence do not have a unitary cost driver. Thus, strictly speaking, SFR sectors do not provide an activity analysis. They are intended to be informational, and are in no way an intermediate attribution step between general ledger entries and product costs.

The full listing of SFR sectors relevant to PPP as well as variation of PPP cost with time is shown in Figure 3.9. The analysis below shows both component and plant group costs, and hence allows the impact of the survey (which varies from 100% to 44% over the period) on variations in PPP component cost to be more visible.

Figure 3.9 CO512 and PG512A costs by SFR sector

		CO512				PG512A			
Sector Code	*Sector Description*	*99/00*	*00/01*	*01/02*	*02/03*	*99/00*	*00/01*	*01/02*	*02/03*
B0	General Support	2.4	5.1	2.3	1.8	2.4	5.1	3.0	4.0
B1	Provision and Installation	0.6	5.5	3.7	1.0	0.6	5.5	4.8	2.2
B2	Maintainance	0.1	0.3	0.3	0.1	0.1	0.3	0.4	0.3
B4	Planning and Development	8.6	10.0	2.3	0.1	8.6	10.0	3.0	0.1
B5	Operator Services	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2
B6	Supplies	0.1	0.3	0.2	0.3	0.1	0.3	0.3	0.7
B7	Transport	0.3	0.3	0.4	0.2	0.3	0.3	0.5	0.6
B8	Marketing and Sales	2.4	4.6	3.5	5.6	2.4	4.6	4.5	12.8
B9	Finance and Billing	2.7	2.1	2.0	7.4	2.7	2.1	2.6	16.8
BA	Computing	4.8	5.7	7.7	4.5	4.8	5.7	10.1	10.3
BB	Customer Serivce	0.0	1.1	2.4	0.3	0.0	1.1	3.1	0.6
BC	Accomodation	1.5	2.2	6.9	6.3	1.5	2.2	9.0	14.2
BE	Personal And Admin	4.9	9.4	8.0	6.2	4.9	9.4	10.5	14.2
BF	General Management and Other	4.5	13.4	14.3	6.8	4.5	13.4	18.6	15.4
BK	Plant Support	0.3	2.2	0.5	0.2	0.3	2.2	0.7	0.4
BV	Customer Support	15.3	28.6	47.9	25.5	15.3	28.6	62.6	58.1
C2	POLOs	0.1	0.5	3.0	0.7	0.1	0.5	3.9	1.6
C6	Redundancy	0.5	0.6	0.0	0.0	0.5	0.6	0.0	0.0
	Other Cost Categories	0.3	(0.0)	5.6	2.0	0.3	(0.0)	7.3	4.6
	Depreciation	3.6	4.5	8.7	4.7	3.6	4.5	11.3	10.8
	Total (exc. Bad Debt)	**53**	**96**	**120**	**74**	**53**	**96**	**156**	**168**
	Bad Debt	(0.0)	4.0	78.4	1.6	(0.0)	4.0	102.5	1.6
	Total	**53**	**100**	**198**	**75**	**53**	**100**	**259**	**169**
					Apportionment %	**100**	**100**	**77**	**44**

* Note that Bad Debt was extracted from Finance and Billing and added as a separate item.

We have carried out an analytical review of the cost trends over time at an SFR level so as to form a conclusion on the reasonableness of the detailed attributions that underpin the AS system. However it is important to recognise that we have not undertaken an audit of these results, nor have we sought to validate, check or verify the results or their supporting documentation, and have relied upon detailed representations, explanations and supporting analyses from BT where available to understand the variances.

Before considering the detailed sectors it is important to consider the concept of materiality, as interpreted by BT, and its implications for this review. In developing a cost allocation model, it is possible to develop highly precise estimates of attributed cost. However the reliability and accuracy of these attributions will be dependent on the accuracy of the inputs (both the absolute cost inputs and the allocation keys). The nature of cost attribution is such that these allocation keys will only be so accurate, as they are based on surveyed data, subjective inputs or partial analysis of other data sources. The concept of materiality is applied to ensure that the efforts of developing attribution statements are subject to thresholds.

Relative to the magnitude of the cost attributed to the core products costed within AS, PPP attracts a comparatively low absolute level of cost. As a consequence of the scale of the costs attributed through the AS model, the definition of materiality applied by BT in the model means that, at a sector level, year on year changes are only considered material if they are either in excess of £2M or more than 5% of the cost group (in this case CO512), whichever is greater. Variances below this level are considered immaterial by BT. As can be seen from Figure 3.9, only a few SFR sectors fall into this category.

In developing a year on year analysis of changes in respective SFRs, there are two other effects worth considering. Certain costs are allocated on general allocation drivers, such as pay costs or headcount. As a consequence of the relative scale of BT Wholesale Markets to the remainder of BT, relatively small changes in local scale can have disproportionate effects in year-on-year allocations. For example, increasing headcount in BT Wholesale Markets at a time of declining headcount across the remainder of the business can lead to rapidly growing central overhead apportionments. In addition, BT introduced a number of reporting sector changes in the statutory accounts in '99/00. The intent was to enhance the visibility and granularity of cost going forward. Unfortunately, one consequence was to diminish the value of historic year on year comparisons. Several new sectors were introduced:

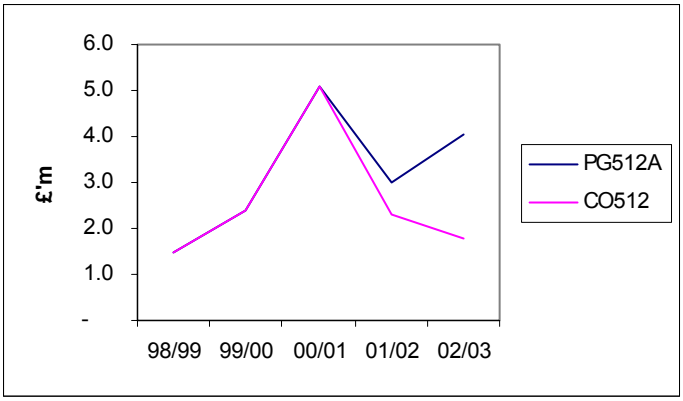
- Customer Support - originally included within Provision and Installation and Systems Support
- General Support - originally included within Systems Support
- Plant Support - originally included within Systems support
- Customer Service - introduced in 1998/99. In later years a portion of the cost allocated to Provision and Installation and Systems Support was spread between Customer Support and Customer Service.

In the following paragraphs we consider the movements in sector costs for narrowband PPP as a means of validating the reliability of the underpinning allocations. We consider both PG512A and CO512 costs, as a means of offsetting the impact of the blanket application of surveys to PG512A costs to apportion costs to narrowband interconnect PPP.

3.6.1 General Support

This sector represents the BT Wholesale markets costs associated with the general support to BT Wholesale Markets employees. The variation in component costs is, in part, due to the changing survey results, dropping from 77% to 44% in 2001/02 and 2002/03, as well as re-classification of costs from a different SFR sector ('Internal') to General Support in 2001/02. Thus these costs (of the order of £2m in 2001/02) should be taken out of General Support (for 2001/02 only) and grouped with Other Costs in that year. The underlying increase in costs reflects the growth in overall BT WM headcount. The underlying cost movements in this sector seem reasonable.

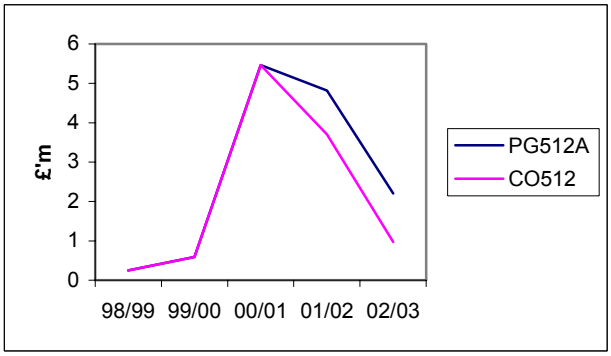
Figure 3.10 Movements in general support costs



3.6.2 Provision and Installation

This SFR sector represents the costs of provision and installation of equipment to external customers for equipment which is purchased by BT Wholesale from suppliers such as CISCO and Nortel. After a service wrap is added, this equipment is sold on to third party customers. It is likely that the majority of these costs were related to "Residual" products" (ie non network products) and, strictly speaking, these costs should not have appeared in CO512. It appears that they did because they were mis-allocated at General Ledger level. BT have informed us that, from 2003/04, all such P&I costs will be treated as purchase costs for the relevant products and the cost pointed to the appropriate product.

Figure 3.11 Movements in provision and installation costs



In summary the majority of these costs should not have appeared within the PPP cost calculation. We estimate the misstatement to be in the order of £1.0m in 2002/03, but to have peaked in 2000/01 at £5m.

3.6.3 Maintenance

These costs are immaterial (maximum PG512A cost - £0.4m 2001/02), and variances have not been considered.

3.6.4 Planning and Development

The Planning and Development SFR relates predominantly to the development of IT systems within BT Wholesale Markets. The main systems development projects related to the e-commerce platform and the Genius billing platform (using the Geneva billing application as its core product). We understand that there was a sector reallocation in 2001/02 whereby costs previously accumulated in this SFR were reallocated to Computing. The analysis of the Computing and Planning & Development SFRs in aggregate is shown below:

Figure 3.12 Movements in planning and development costs

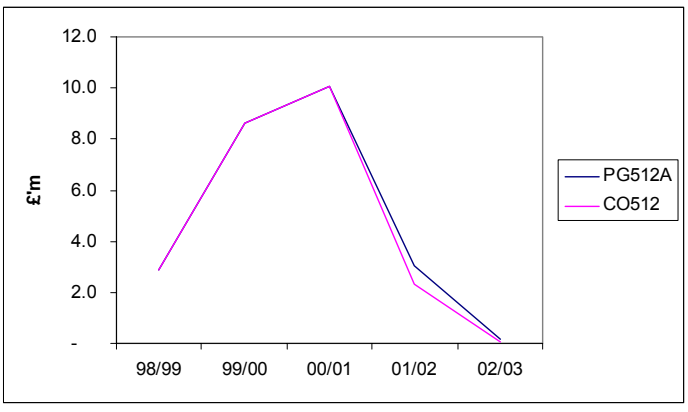
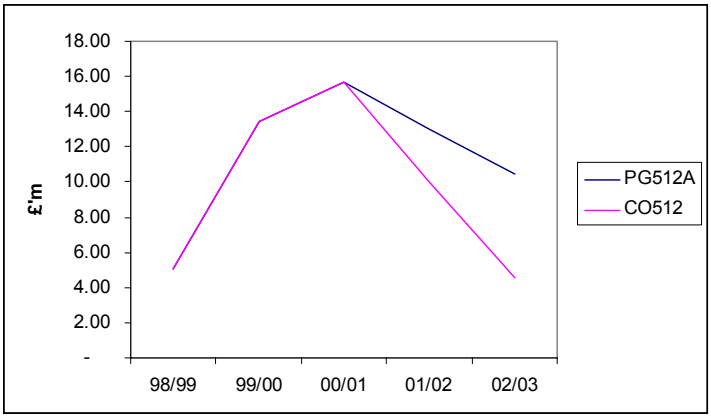


Figure 3.13 Movements in computing and planning and development costs combined



The costs peaked in 2001/02 and have declined since, reflecting the declining level in absolute expenditure in this area as the two major systems development projects move to completion. Reviews of the underlying OUC cost breakdowns, and the explanations proffered lead us to conclude that cost movements in this area appear reasonable.

3.6.5 Operator Services

These costs are immaterial (maximum PG512A cost - £0.2m 2002/03), and variances have not been considered.

3.6.6 Supplies

These costs are immaterial (maximum PG512A cost - £0.7m 2002/03), and variances have not been considered.

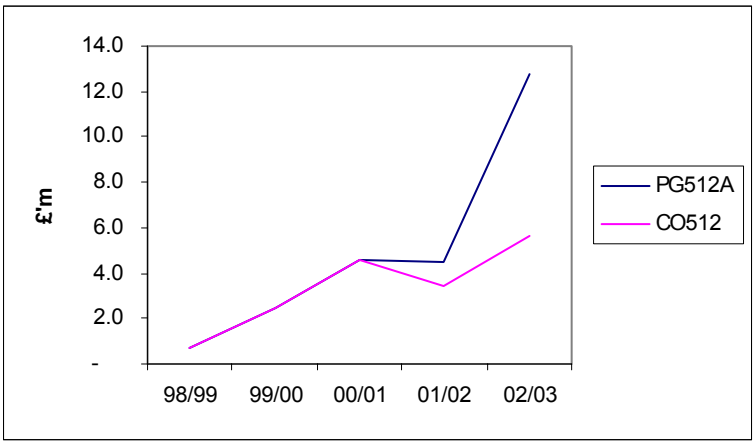
3.6.7 Transport

These costs are immaterial (maximum PG512A cost - £0.6m 2002/03), and variances have not been considered.

3.6.8 Marketing and Sales

This sector is made up of two distinct types of marketing expense. Some costs relate to the internal activities (predominantly labour costs) associated with validating future demand for both existing and potential wholesale products. Others relate to costs associated with external marketing of the Wholesale products portfolio. Typically, marketing and raising of awareness of the products to the interconnect customers is done through the creation of product documentation, and we understand that there is little external marketing spend in relation to regulated products.

Figure 3.14 Movements in marketing and sales costs



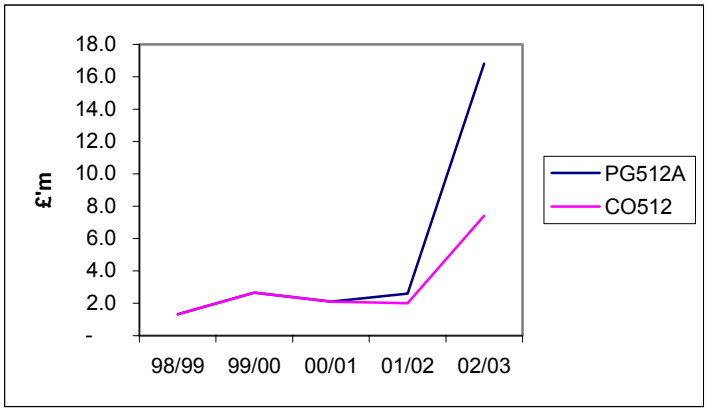
The increased spend in 2002/03 is, we understand, driven predominantly by Broadband publicity costs. Within the AS environment, publicity marketing by BT is allocated in two different ways depending on whether the campaigns are deemed to be product or product group specific or linked more widely to brand development. In the former situation, costs are apportioned directly to relevant products. For brand related marketing expenditure, the costs are spread across all products (and hence some portion is attributed to Interconnect PPP).

In the case of broadband marketing, as a consequence of the application of a general allocation percentage to determine PPP costs (CO512) from its source plant group (which considers FTE attributions, but doesn't reflect one-off direct expenditure), these costs have been misallocated to PPP. This overstates PPP costs in 2002/03 by an estimated £5m. There was no equivalent impact in 2001/02.

3.6.9 Finance and Billing

This sector includes the costs of the finance departments, for example financial and management accountants and billing. As is evident from the graphic above, costs in this area have increased dramatically in 2002/03. A more detailed breakdown of these costs (an F8 analysis derived from the AS system) implies that the increase is caused by significantly increased accounting costs (made up, we understand, of internal commercial accountants and external accountants fees), which totalled £6.8m in 2002/03, compared to £0.5m in the prior year.

Figure 3.15 Movements in finance and billing costs



For discussions with BT, we understand that these costs were mainly staff related and, as such, the BT Wholesale Markets survey should provide a reasonable proxy for attribution.

In total, approximately 10% of BT Wholesale finance costs were attributed to PPP, whereas about 65% of BT Wholesale external revenues were derived from PPP interconnect products in 2002/03. Although there is a substantial increase in SFR costs for this sector, BT's explanation of the cost movement is reasonable.

3.6.10 Computing

The Computing SFR has been considered in conjunction with Planning & Development (see above). This sector contains the computing costs mainly attributable to software. The increases in 2000/01 and 2001/02 as well as the reduction in 2002/03 are due to spend on projects related to the Geneva billing platform as well as the change in the survey results. The apportionment for the computing costs is carried out based on pay. Initially the total cost base is constructed by grouping individual development invoices received from BT Exact and other developers for systems and software. These costs (unless they can be attributed directly to a product or a product group) are apportioned based on pay to the relevant plant groups. For PPP the 'relevant' plant group is PG512A and the base on which the cost is apportioned is derived from the pay costs of Wholesale Markets.

3.6.11 Customer Service

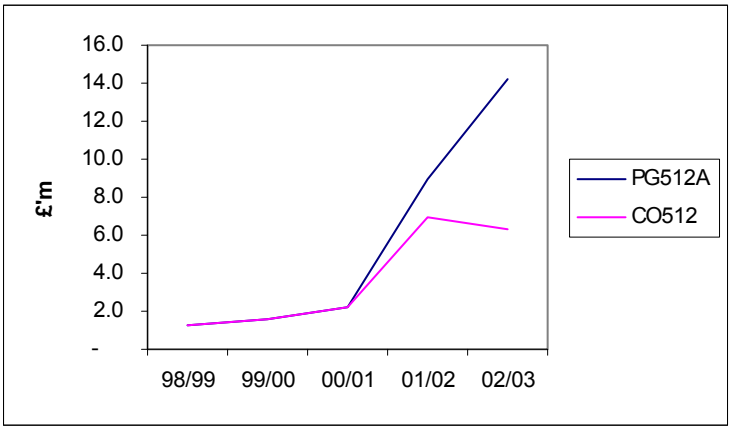
We consider Customer Service in conjunction with Customer Support (see below).

3.6.12 Accommodation

This sector covers the cost of accommodating people within BT office buildings. The driver of change is development and design costs of the City Place buildings complex for Wholesale

Markets, where the business unit aims to relocate the majority of its activities[18] . The move accounts for 60% of the increase in costs in 2001/02. In addition we understand that BT Wholesale Markets is liable for certain residual costs associated with their previous property. Also note that this 'overhead' type cost is effected indirectly due to the re-organisation and OUC codes change (e.g. inclusion of the Broadband team with its 'Local Loop Unbundling hostels' accommodation charge, into the Wholesale Markets cost base) as well as the property cost re-evaluation that was carried out in 2001/02 (as part of BT's property outsourcing arrangements).

Figure 3.16 Movements in accommodation costs



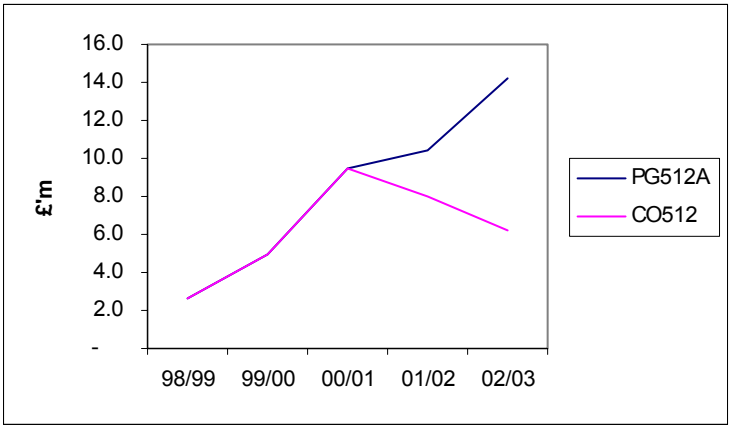
The accommodation cost has been allocated to PPP on the basis of a labour-based survey; however we believe this provides a reasonable cost proxy and as such conclude that this cost movement can be adequately explained by BT.

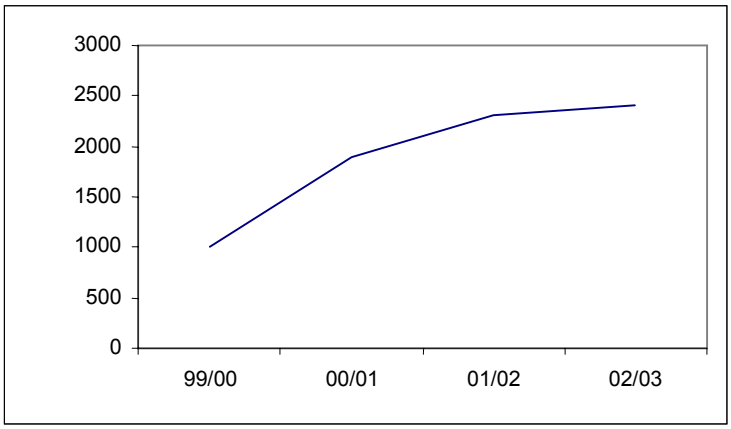
3.6.13 Personnel and Admin

This sector reflects the pay costs of the temporary agency staff employed in BT Wholesale Markets. The gradual increase in PPP costs up to 2001/02 follows the increase in the number of agency staff employed. The drop in 2002/03 is driven almost exclusively by the survey results (77% to 44%). The costs correlate reasonably well with overall headcount increases. The disproportionate increase in cost relates to an indirect allocation effect (whereby general personnel costs are allocated on the basis of headcount, and while BT WM headcount is increasing, the headcount in the remainder of BT is decreasing, which exacerbates the effect. In addition there were significant agency staff increases over the same period. We conclude that these costs seem reasonable in light of developments within BT Wholesale Markets.

[18] There were some residual charges associated with the old premises which should diminish to zero in 2003/04

Figure 3.17 Movements in personnel and admin costs vs changes in headcount

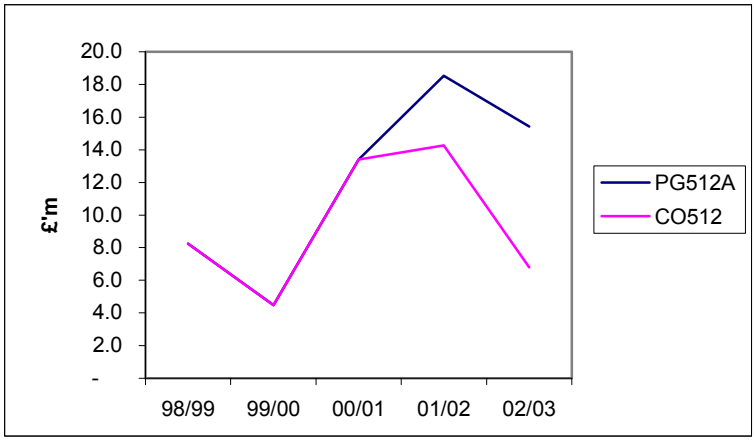




3.6.14 General Management and Other

This sector contains the apportionment of general network development projects through the use of BT Exact as well as a share of corporate overheads. The increase in '00/01 and '01/02 is driven by the development costs of the Geneva Billing platform. Note that for the reasons explained earlier (c.f. Indirect Effects) this sector will be effected by developments throughout the wider BT.

Figure 3.18 Movements in general management costs



3.6.15 Plant Support

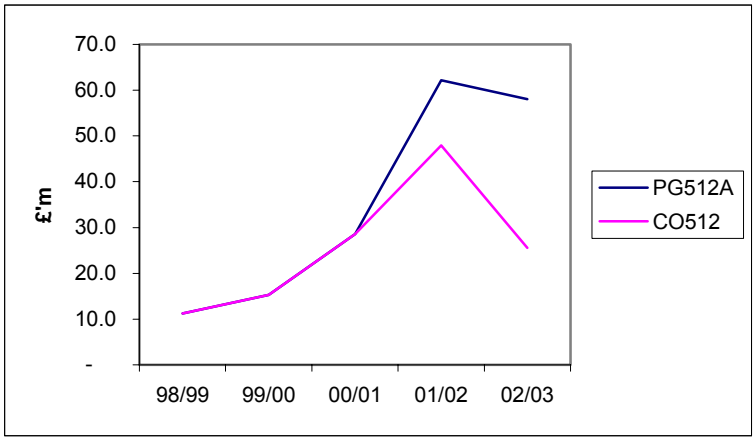
This sector contains costs of pay and equipment. It is driven by pay for the work done in connection to support and control of provisions, ceases and re-arrangements for PSTN and private services on network plant. The variation of total costs in this sector as well as the reasons are similar to the 'Provision and Installation' SFR sector described earlier. In summary, this SFR category is immaterial.

3.6.16 Customer Support

This is the SFR sector which generates the highest proportion of PPP costs. It represents the pay cost of staff answering queries of progress of faults and doing work in repair. The costs included in this sector, apart from faults handled by Customer service, also include repair and diagnostics for all Wholesale customers, service automation and efficiency programmes and work done in relation to Customer Satisfaction for BT Wholesale. The growth up to '01/02 reflects the growth of OCPs and Wholesale Markets staff and setting up of the dedicated front offices for dealing with OCPs. The drop in '02/03 is mainly an effect of re-classification of 'Customer Services' sector to the 'Customer Support' sector (see later). However we have considered these two SFR together to overcome this effect.

These sectors contains the main Wholesale Markets pay costs allocated to OCP support. The increase in earlier years reflects the growth of the Wholesale Markets staff numbers and the sudden change in the last year is a combination of survey effects and the apportionment change. Personnel supporting Broadband were included in the '01/02 PG512A balance and the rapid rise can be related in the popularity of Broadband technology. Certain costs for Broadband support were directly allocated to ADSL in '02/03.

Figure 3.19 Movements in customer support costs



The overall costs grew from around £30m to around £60 million at the same time as the Wholesale Markets product portfolio grew rapidly. In 1999/00, Wholesale Markets provided only private circuits and narrowband interconnect products. By 2002/03, Wholesale markets had added FRIACO, DSL, LLU, PPCs, CPS and WLR to the portfolio. Consequently staff numbers grew rapidly, which drove costs up. Overall we believe this aggregated attribution to be reasonable.

3.6.17 Payments to Other OCP

This sector represents the attribution of payment to OCP by Wholesale Markets. Overall it is driven by the rise in staff and the use of the mobile phones. The figure in 2001/02 also includes a one-off charge of £1.8 million for Service Provider Network costs. The service provider network was, as far as we have been able to ascertain, a non-regulated service, and as such the costs should be excluded from PPP. Otherwise, this SFR category is immaterial.

3.6.18 Other Cost Categories

This is a grouping of miscellaneous smaller cost categories. The main components are "Internal product charge from core"[19] and "Other operating income". The remaining costs relate to employee share options. The reduction in costs in 2002/03 predominantly relates to a reduction in the internal product charge from the core business and some minor re-allocations with other sectors.

[19] This sector contains transfer charges for products used internally by BT which make up , around 80% of this SFR sector

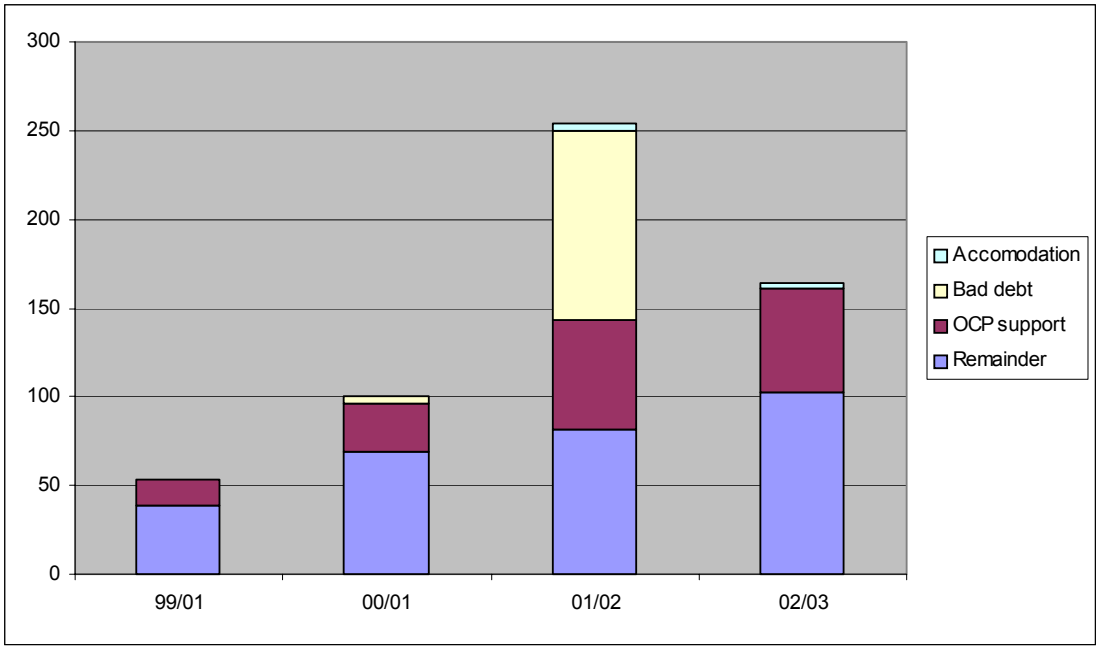
3.6.19 Depreciation

Some significant cost categories were shown separately pre 2001/02, namely General Computers, Motor Transport and Software with the remainder being contained within 'Other'. Since then they have been included under the Depreciation sector. The above mentioned categories make up 75% of the Depreciation sector.

3.7 Overall review of PPP cost levels

In order to compare costs in a meaningful way, we have developed a "like-for-like" comparison, which identifies exceptional items such as accommodation changes and bad debt. This analysis, presented in Figure 3.20, shows a steady increase in underlying cost attributed to the plant group 512A. This matches the continuing growth in BT Wholesale Market activities as the portfolio of both regulated and non-regulated products is extended.

Figure 3.20 Cost movements – overall summary of major change in PG512A costs



3.8 Conclusions

We have reviewed the costs attributed to PPP that have been calculated using BT's AS system and reached the following conclusions:

- the costing methodologies used in the model are broadly consistent with the definition of PPP adopted by BT and have remained relatively unchanged for the period we have

reviewed. There are two specific exceptions. These are the treatments of bad debt and the method used for capturing and identifying private circuit PPP costs.

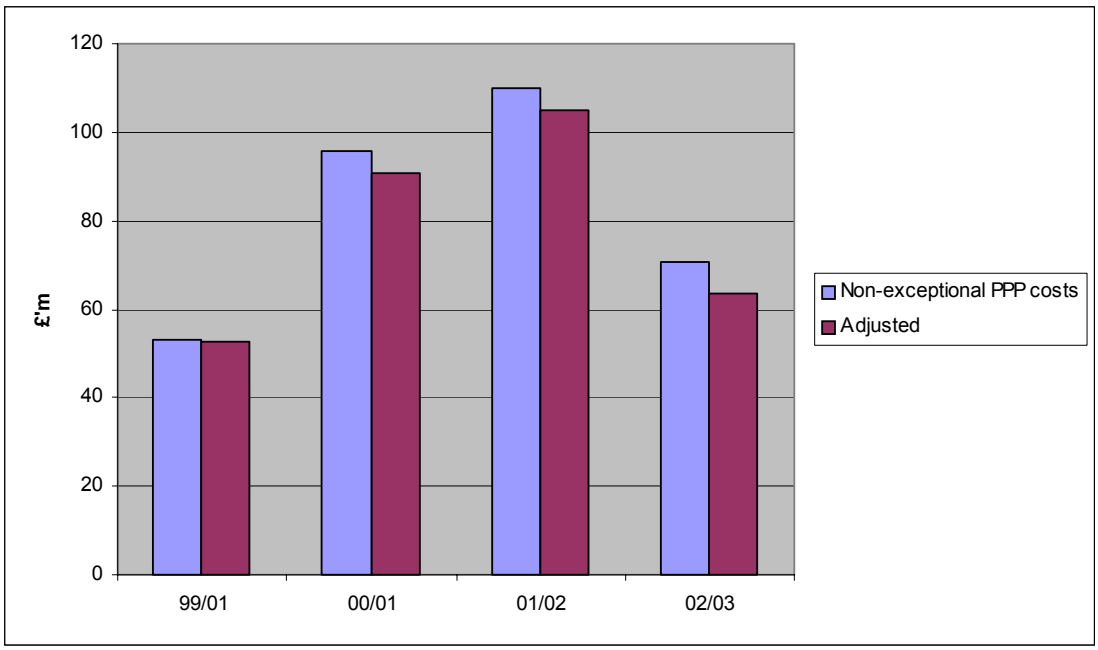
- the change in the treatment of bad debt has led to major fluctuations in PPP costs as illustrated in Figure 3.20. It is worthwhile noting that PPP costs for 2001/02 were not restated in BT's 2002/03 Regulatory Financial Statement to reflect this change
- the review of overall cost attribution trends, and a more detailed review at SFR level has uncovered several issues:
  - Provision and installation overstatement (2002/03) - £1.0m
  - Direct Marketing overstatement (2002/03) - £5.3m
  - Treatment of Surfport in survey (2002/03) overstatement. Depending on whether Surfport should be partially or wholly excluded from PPP costs this leads to an overstatement of between £1 million and £2 million
  - Attribution of Service Provider Network (2001/02) - £1.8m
- the cumulative effect of excluding these items is shown in Figure 3.21 - relative to PPP costs by year with bad debt and one-off accommodation charges excluded. Overall we conclude that the impact of these adjustments is not fundamental, or indeed even material to the interpretation of the PPP cost analysis.
- our review has highlighted the fundamental significance of the BT Wholesale Markets survey to the overall results. There are no details available on the method used in the initial survey in 2001/02. However we understand that the initial survey approach was crude in nature and it is uncertain how reliable the results were. Since then BT has made considerable efforts to improve the survey and the 2002/03 survey was considerably more rigorous in its approach. We understand that BT has put significant effort into improving and documenting the 2003/04 survey for audit purposes. We believe that, with these improvements, a survey approach offers a satisfactory method for estimating PPP costs. But, given the central role of the survey in determining PPP costs, we hope that BT's auditors will review it in detail in their examination of the 2003/04 accounts.

Subject to the items identified above, we believe the allocation of costs to narrowband interconnect PPP appears to have been carried out in accordance with the DAM and does not appear unreasonable.

We also believe that external readers of BT's Regulatory Financial Statements and associated documents would benefit from:

- more granular information on PPP cost
- additional information in the DAM which sets out the nature and contents of the PPP costs. In particular, a summary of the allocation processes applied, together with more details on the survey, would assist the reader's understanding of how the costs are derived. However there is a risk that too much detail may actually obscure the overall transparency of the system.

Figure 3.21 PPP costs – reported vs adjusted



4 PPP cost drivers

4.1 The cost drivers for each PPP category

Figure 4.1 tabulates the five main activities which make up PPP and provides our judgement on the main cost drivers for each of them[20]. Our judgement is based upon discussions with BT, Cable & Wireless, NTL and Energis.

Figure 4.1 The costs drivers of PPP

Activity	*% of PPP*	*Components*	*Direct driver*	*Driver's driver*
Marketing	8%	Maintain web site Analyse SoRs	Number of products Number of SoRs	Number of OCPs
Product management	15%	New product development In life product management	Number of new products Number of products	Number of OCPs Regulation
Account management	27%	Commercial management Technical management	Number of OCPs Number of new OCPs Complexity of OCP	
Service centres	36%	Order handling Fault handling	Number of IC circuit orders	
Billing/finance	15%	Calculate charges from CDRs Reconcile bills Resolve disputes	Number of bills issued Number of billing disputes	Number of OCPs Number of interconnect minutes Number of points of interconnect

% refer to 2002/03

Marketing made up around 8% of PPP cost in 2002/03. There are two main components:

- the analysis of statements of requirements (SoRs) by OCPs. This largely depends on the number of OCPs who might potentially submit SoRs. Over the last 12 months for example BT received between 10 and 20 SoRs from OCPs for narrowband interconnect products[21]
- the development and maintenance of marketing information for customers and prospective customers including website maintenance. This depends on the number of narrowband products and the number of new products added each

[20] This classification of activities is based on the organisational split of BT and not on the SFR sectors described in Chapter 3

[21] Excluding FRIACO

year. The number of narrowband interconnect products included within PPP is now fairly stable. So this cost is roughly constant.

Product management generates 15% of PPP costs. For narrowband interconnect products this consists of new product development (15%) and in-life product management (85%). In-life product management includes pricing, planning, reporting, revenue assurance and responding to regulatory requirements. The immediate cost drivers are the number of new narrowband products and the number of existing narrowband products. The former is, in turn, driven by the number of OCPs who might make a request and the level of regulatory intervention. A regulatory enquiry can absorb substantial amounts of time from product managers within Wholesale Markets.

Account management of OCP customers generates 27% of PPP cost. There are two main types of account management:

- commercial management which includes tasks such as negotiating and maintaining interconnect agreements with OCPs and resolving disputes
- technical management which involves estimating capacity requirements, agreeing network architectures and routing, supervising data changes on BT's network, and ensuring end to end performance of interconnect services.

The main cost driver here is the number of OCPs. The complexity of each account also impacts the resources used. But the correlation between the revenue generated by an account and the size of a team serving it is surprisingly weak as Figure 4.2 illustrates.

Figure 4.2 Account management resources vs revenues generated

[confidential]

Service centres, which process orders and handle fault reports by the OCPs, generate 36% of PPP costs. The main cost drivers here are very clear. The number of orders, whether new interconnect circuits, rearrangements or cessations, generate the bulk of the cost. But it is worth noting there can be substantial difficulties in collecting charges for cessations.

Billing and finance generates around 15% of PPP costs. This involves collecting call detail records (CDRs) for interconnect calls, rating each call using BT's element based charging matrix, issuing bills, reconciling bills with OCPs and resolving disputes. There is a mix of cost drivers here. The number of OCPs determines the number of bills issued. The number of points of interconnect over which interconnect calls are carried for a customers generates complexity within the billing process, making disputes more likely and dispute resolution more costly. Transit traffic, where BT uses cascade charging and acts as a financial clearing house between the originating and terminating operators, generates significantly more dispute costs than other interconnect services.

4.2 Implications for future cost recovery

When we examine Figure 4.1 a number of points become clear:

- the cost drivers for PPP are a complex mix of variables which includes the number of operators, the number of new products, the number of existing products, the number of interconnect circuit orders, the number of points of interconnect, and the number of interconnect minutes
- current PPP costs are recovered through a charge per interconnect minute. But it is clear from Figure 4.1 and the comments of Section 4.1 that such cost recovery does not follow the principle of cost causation. The volume of interconnect minutes is only one of the drivers for billing and finance while this activity generates only a relatively modest proportion of PPP costs
- the cost drivers for service centre activities are very different from those for other PPP activities. There is a direct relationship between service centre cost and orders for interconnect service circuits. So it makes sense to consider separating out service centre activity costs from other PPP costs and charging for them on a per order basis
- if we do this then the main cost driver which is left is the number of OCPs
- complexity of OCP accounts also drives PPP costs although, as Figure 4.2 suggests, the relationship between OCP interconnection revenues and PPP costs is weak.

4.3 PPP costs vs PPP cost drivers

Figure 4.3 tabulates PPP costs[22] and the cost of Plant Group 512A[23] i.e. the sales, general and administrative cost of supplying wholesale network products to OCPs. It also tabulates four possible drivers of these costs:

- the number of interconnect minutes from which PPP costs are currently recovered
- the number of narrowband interconnect circuits
- the number of orders (new orders, rearrangements and cessations combined) for narrowband interconnect circuit
- the number of customers with interconnect contracts with BT. In this measure the franchises of the cable companies are counted separately.

We have then plotted in Figure 4.4 the movement in each of these costs and cost drivers, indexing each measure to 100 in 1999/00[24]. We can see that:

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[22] Excluding bad debt

[23] Again these costs exclude bad debt and, for the years of 1999/00 and 2000/01, allow for the fact that PPP like activities for private circuits were excluded from PG512A in those years

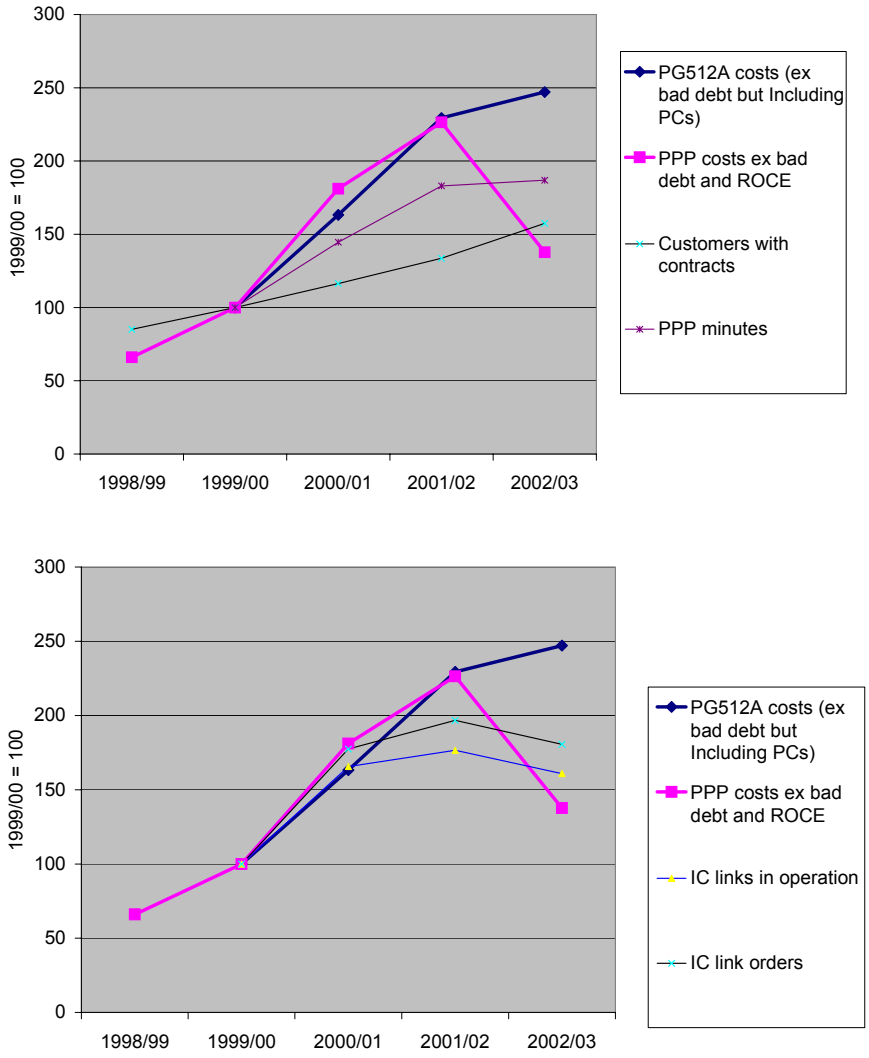
- PG512A costs are increasing more quickly than the cost drivers
- PPP costs are moving more in line with the cost drivers but are less stable. We cannot provide any conclusive explanation for this behaviour. Rather than any underlying change in PPP costs, the most likely explanation is that the different methods used to estimate PG512A, together with the changing method used to estimate the proportion of these costs attributed to PPP, have caused the variation
- PPP minutes, interconnect circuits and interconnect orders are better predictors of PPP costs than the number of customers. This presents a dilemma. On the one hand the qualitative analysis of Section 4.2 suggests that the number of OCP accounts are the primary driver of PPP costs. On the other hand the correlation between PPP costs and the number of OCP accounts is poor. Given this poor correlation, one might infer that a charge per OCP to recover PPP costs could lead to unstable charges year on year.

Figure 4.3 PPP costs and cost drivers

Year	1998/99	1999/00	2000/01	2001/02	2002/03
PPP costs ex bad debt and ROCE(£m)	35	53	96	120	74
PG512A ex bad debt (1)(£m)		67	115	156	168
Customers with contracts	114	134	156	179	211
IC links in operation (000)	na	64	106	113	103
IC link orders (000)	na	31	55	61	56
PPP minutes (bn)	na	130	188	238	243

[24] We also looked at the possibility of trying to correlate PPP costs to the number of products covered by PPP but abandoned the analysis because of difficulties in collecting the required data in an unambiguous form.

Figure 4.4 Trends in PPP costs and cost drivers



4.4 BT Retail as a driver of PPP costs

Figure 4.5 shows the extent to which BT Retail generates PPP costs. It is clear that BT Retail generates significant costs from PPP-like activities. But Figure 4.5 also indicates that only a small proportion of these costs are attributed to the PPP cost pool. For example we estimate that BT Retail activities generated 6% of PPP costs in 2002/03.

Figure 4.5 BT Retail as a cost driver for PPP

Activity	*For OCPs interconnect*	*For BT Retail*	
		off net calls	*on net calls*
Marketing	In PPP	Excluded	Excluded
Product management	In PPP	In PPP	Excluded
Account management	In PPP	Excluded	Excluded
Order and fault handling	In PPP	Excluded	Excluded
Billing and finance	In PPP	Excluded	Excluded

At the same time BT RSB pays a PPP transaction charge per minute, set equal to that paid by the OCPs, on all calls which are BT generated and which terminate on the networks of the OCPs. It also pays PPP charges on the FRIACO circuits which it uses. As a result BT RSB pays through transfer charges more than 25% of BT Network's total revenues from PPP[25].

This analysis suggests that, at both the qualitative and quantitative level, there is no causal relationship between what BT RSB pays towards PPP and what BT Retail generates in PPP costs.

[25] In making this estimate we have excluded revenues from PPP charges generated by NTS calls from BT customers to NTSs run by OCPs

5 Cost recovery issues

5.1 Introduction

In this chapter we consider three issues to do with how PPP costs are recovered:

- does BT's PPP charge breach its regulatory ceiling?
- are the OCPs justified in their concerns about PPP charges (as set out in Section 1.3)?
- how might BT be required to recover its PPP costs in future?

5.2 Will BT's PPP break its reach and ceiling?

BT is required to set PPP charges which remain above the floor represented by its distributed LRIC and below the ceiling represented by its distributed stand alone cost (DSAC). The DSAC for PPP is calculated as follows:

$$DSAC_{PPP} = LRIC_{PPP}SAC_{CN}/\Sigma_i LRIC$$

where:

$LRIC_i$ = long run incremental cost of core network element i

$SAC_{CN} = LRIC_{CN} + CC_{CN/AN} + CC_{R/N}$

$LRIC_{CN} = \Sigma_i LRIC_i$

$CC_{CN/AN}$ = Common costs of BT's Access and Core Networks

$CC_{R/N}$ = Common costs of BT's Retail Systems Business and Network business

Given the way the DSAC of PPP is defined we would expect a 10% change in the LRIC or FAC of PPP to produce a change in the DSAC which is close to, but below, 10%. BT has confirmed this hypothesis by examining how the DSAC of PPP changes as its LRIC of PPP changes.

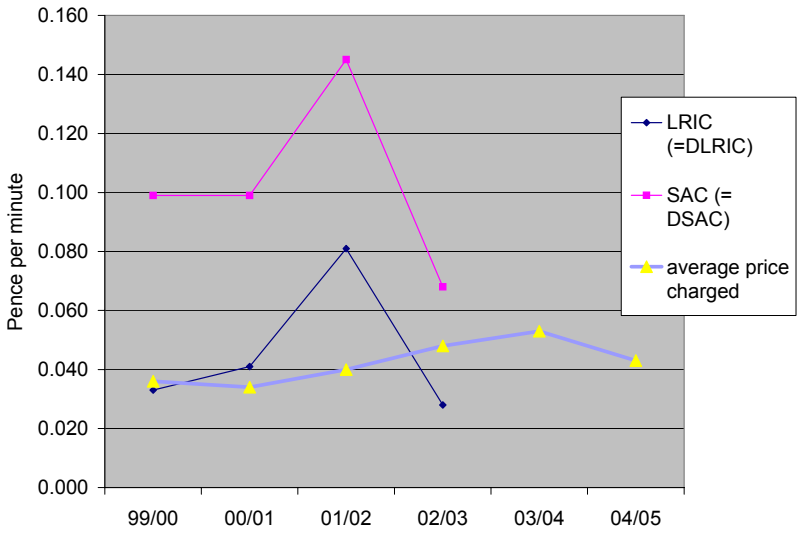
Figure 5.1 shows this behaviour in graphical form. In it we have plotted:

- the DSAC (ceiling) for the PPP charge for four years from 1999/00
- the DLRIC (floor) for the PPP charge for the same period
- the actual PPP charge for the six years from 1999/00.

We can see from the plot that:

- the PPP charge fell below the DLRIC floor in 2000/01 and 2001/02. If bad debt were removed from the plot then we estimate that the PPP charge might rise to a level just above the floor
- there is a good chance that the PPP charge will (just) breach the ceiling in 2003/04. A 20% fall in the FAC of PPP in 2003/04 will bring the DSAC just below the charge.

Figure 5.1 PPP charge vs DSAC



Source: confidential BT information

If a breach does occur then it is likely to be a temporary one. One of the main factors leading to such a breach is the time lag between setting charges and knowing the cost which those charges are intended to recover. So for example BT set its 2003/04 charge for PPP at the end of 2002. It will not know what the relevant costs are for 2003/04 until mid-2004.

5.3 An analysis of OCP concerns

We set out below our analysis of the OCP concerns about PPP charges which are listed in Section 1.3. Our conclusions are summarised in Figure 5.2.

Increases in PPP charges are not cost oriented

OCPs are concerned that PPP charges have risen by more than 20% each year recently. As a result the prices paid for interconnect services have fallen much more slowly than expected. At the same time OCPs are concerned that BT's PPP charges are not cost oriented.

It is certainly true that PPP charges rose substantially in 2001/02, 2002/03 and 2003/04. But they then fell by more than 20% in 2004/05. Setting aside bad debt, there is reasonable evidence that BT has set cost oriented prices. BT increased its prices when it saw its PPP costs rising and cut them again when it saw its PPP costs reducing. The problem is that the costs changes are reflected in changes to charges two years hence and not in charges related to the year in which the costs are incurred. Figure 5.3 illustrates. In it we plot:

- PPP charges in pence per minute

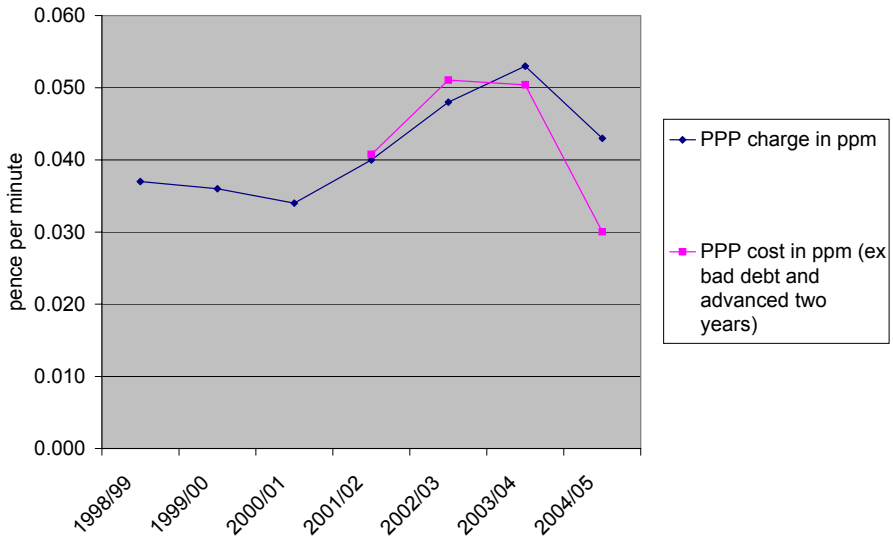
- PPP unit costs, with bad debt excluded and the cost shifted by two years to remove the time lag between setting prices and knowing the corresponding costs.

We can see that there is a strong correlation, suggesting that BT's charges for PPP reasonably reflect PPP costs as calculated by BT.

Figure 5.2 Analysis of OCP concerns on PPP charging

Concern expressed	*Valid?*	*Comment*
PPP charges are not recovered in a way which reflects cost drivers	Yes	Need to change cost recovery mechanism
PPP charges discriminate in favour of service based OCPs and against those with most infrastructure investment	Yes	Need to change cost recovery mechanism
BT RSB does not bear its full share of PPP charges	Depends	See text of Section 5.4 for an analysis
PPP charges are rising at 20% pa and interconnect prices falling more slowly than expected	No	PPP charge fell 20% in 2004/05
Movements in PPP charges do not reflect movements in PPP costs	No	BT's charges appear to reflect costs when time lags are taken into account
BT double recovery of PPP costs eg on FRIACO	No	Unlikely. Product development costs of FRIACO recovered via PPP.
BT has recovered bad debt through PPP	No	BT has allocated bad debt to PPP but not recovered it

Figure 5.3 The relationship between PPP costs and charges



Based on fully allocated unit costs

PPP charges do not reflect PPP cost drivers

The larger OCPs are concerned that the current method of charging, in which the same PPP charge per minute is added to each interconnect service price, does not reflect the cost generated by each OCP. They argue that the cost of PPP activities are more a function of the number of OCPs to whom BT provides interconnect. At the same time a new operator generates more costs than a mature operator. So a large, mature operator may generate less in the way of PPP costs than a small new operator but pays the bulk of the PPP charges.

Our analysis of cost drivers, as set out in Section 4 supports this argument. So we make suggestions for changes which would address this concern in Section 5.4. There are of course other policy consideration to take into account when deciding on charging mechanisms. For example a charge per OCP rather than a charge per minute would increase the costs of market entry. This was an important consideration when Oftel originally established the current PPP charging mechanism.

PPP charges discriminate in favour of service based competition

Some OCPs argue that PPP charges discriminate in favour of service-based rivals to BT and against infrastructure based rivals. The PPP charge per minute is the same for all interconnect services. So, for a service-based rival using double tandem call origination and call termination, PPP represents only 7% of the

interconnect bill while, for an infrastructure-based rival who uses only local call origination and call termination, PPP represents 22% of its interconnect bill

This argument is undoubtedly valid. A decision on whether to change the charging method will depend upon the extent to which Ofcom wishes to encourage infrastructure rather than service based competition.

BT is recovering bad debt through PPP charges

BT has recovered bad debt generated by the failure of some OCPs from those that remain. Yet the remaining OCPs have not generated any of these costs

We agreed that BT should not recover bad debt through PPP charges and have made recommendations to excluded it from the definition PPP. BT has itself excluded bad debt from PPP since 2002/03. At the same time the evidence of Figure 5.3 indicates that BT did not attempt to recover bad debt through PPP charges in previous years. Figure 5.3 shows that, after allowing for time lag effects, BT has recovered only its PPP costs net of bad debt through PPP charges.

BT recovers PPP costs twice

BT may be recovering costs via PPP charges that it has already recovered in other ways. For example one OCP is concerned that BT is recovering the cost of developing FRIACO both through product charges and through PPP charges

The way in which the BT AS system works means that it is virtually impossible for costs to be attributed to more than one product or component. If BT attempted such an attribution the accounts would not reconcile. So, in setting regulated prices, double recovery is unlikely. Regulated prices are based on costs which are not double counted. For example the costs of developing FRIACO were all attributed to the PPP cost pool and recovered through PPP charges. So these costs were excluded from the cost base from which the price of the FRIACO product was built up before the PPP charge component was added into the final price.

Of course it is still possible for BT to double recover on customised development of products for specific OCPs – once as part of the general PPP charge, and again as an OCP specific charge. Such charges are relatively rare. BT is required, on grounds of non discrimination, to make products it developed for one OCP available to all. In these cases it attributes the product development costs for narrowband interconnect products to the PPP cost pool. But to avoid double recovery when BT does make an OCP specific charge we recommend a definition of PPP in which the costs associated with such a charge are excluded from the PPP cost pool.

5.4 What PPP charges should BT RSB pay?

One particularly important concern raised by the OCPs is that BT RSB is not paying PPP charges which reflect the PPP costs which BT Retail generates. Our analysis, set out in Section 4.4 indicates that:

- there is no causal link between the PPP cost which BT Retail generates and the PPP charges which BT RSB pays
- BT Retail currently causes 6% of PPP costs but BT RSB pays in transfer charges more than 25% of the PPP revenues earned by BT Network.

In our view this is not a satisfactory method of charging for PPP. There are a range of possible alternatives. We put forward two for consideration:

Option 1: OCP only PPP costs and charges. Under this option the PPP costs generated by BT Retail are excluded from the PPP cost pool and costs are recovered from the OCPs alone. This option is the logical result of applying a ***cost causality*** argument i.e. those who cause the costs pay them. Such an approach would, for example, deal neatly with the Surfport problem identified in Chapter 3. BT would exclude the PPP like costs associated with Surfport from the PPP cost pool. But it would also exclude any PPP component from the price it charges to BT RSB for Surfport

Option 2: equivalence of PPP charges. In a recent report *"Reaping the Telecoms Dividend"*[26] Cable & Wireless has argued that, if the UK economy is the reap the full benefits which telecommunications can bring over the next twenty years, then there is a need to regulate it in a different way. Cable & Wireless argues for ***equivalence*** in the treatment of BT Retail Systems Business and OCPs by BT Network. Under this equivalence concept BT might:

- include all of BT Retail's cost from PPP-like activities in the PPP cost pool
- recover PPP cost from all operators, including BT RSB, in proportion to some measure of their size.

In deciding which option to choose Ofcom will need to consider which policy principles it wishes to apply.

5.5 Future charging of PPP

Our analysis so far leads us to make a number of suggestions to Ofcom as it decides on how BT might best recover PPP costs in future. In formulating these ideas we are conscious of the need for practical suggestions which do not lead to excessive transaction costs so that the cost of collecting the charges starts to rival the revenue from the charges. At the same time it is clear that, in a number of ways, the current charging mechanisms are not economically efficient.

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[26] *Reaping the Telecoms Dividend*, Spectrum and Indepen, published by Cable and Wireless, January 2004

Idea 1: remove service centre costs from PPP and recover them through transaction charges per interconnect circuit order. It is clear, from our analysis in Chapter 4, that the cost drivers of the service centres are very different from those from other PPP activities. At the same time it is practical to recover these costs through a charge per interconnect circuit which is simple to collect and which accurately reflects costs. Such a charge per circuit would not entirely reflect costs in that:

- it would include an element of the cost of fault reporting and tracking which are primarily a function of the number of interconnect circuits in use. Ofcom might therefore want to consider recovery of these costs from the interconnect rental price
- it would not make sense to recover the costs from cessations, only from new orders and rearrangements.

Nevertheless a charge per interconnect order would reflect costs much more accurately than the current charging mechanism. Removing service centre costs from PPP would reduce the PPP costs pool by nearly 40%.

Idea 2: remove BT Retail costs from PPP and recover the remaining costs from OCPs alone. This idea simply reflects the arguments in Section 5.4. If it is to be implemented then it also makes sense to require BT to provide, within its regulated financial statements, a calculation of the costs of the PPP-like activities generated by BT Retail. Publishing such a cost calculation would provide the OCPs with greater cost transparency. OCPs would be able to compare the size of their own PPP costs with those of BT Retail and to track changes in these two costs over time.

Idea 3: put PPP in a price basket of its own. It is clearly important that BT is given incentives to deliver PPP activities as efficiently as possible. Some kind of price control mechanism is the obvious solution. But the current price cap on PPP raises problems. It controls prices for a mix of items:

- PPP activities, where costs are very largely people generated, and
- the supply of interconnect circuits, where costs are largely dependent on the price/performance of network equipment.

Given this mix of very different cost structures it is difficult for Ofcom to set a price cap which is appropriate for PPP.

Idea 4: recover remaining PPP cost from OCPs in a manner which more closely reflects cost causality. The analysis of Chapter 4 suggests that such a charging mechanism should include:

- a charge per OCP. Our qualitative analysis suggests that the number of OCPs served by BT is the most important driver of PPP costs, once service centre costs are excluded (Idea 1). But there are difficulties. We raise in Section 4.3 the issue of how stable a charge per OCP would prove. Given the way prices for PPP are set within a basket, it is likely that BT will average over time the larger fluctuations in cost and provide price stability in this way

- a charge which reflects the complexity of the OCP account. Again our qualitative analysis suggests that large OCPs, OCPs which purchase a wide range of narrowband interconnect products, and OCPs with large numbers of points of interconnect, generate greater PPP costs than others. There is no one obvious measure of account complexity. But perhaps the simplest way to reflect this complexity is to continue to recover a proportion of PPP costs through the volume of interconnect traffic generated by each OCP. If Ofcom decides to continue to use a volume related charging mechanism to recover some proportion of PPP costs then it will need to consider the form of that charge. The current charge, which is the same for local and double tandem call termination, undoubtedly tilts competition in favour of OCPs with relatively little infrastructure investment and against infrastructure based entrants. One way to remove this distortion is to charge a constant proportion of the interconnect service price instead of adding a constant per minute charge to all interconnect service minutes.

6 Conclusions and recommendations

The following section sets out our conclusions drawn from our review of BT's PPP costs and charges. Our recommendations are set out five broad areas:

6.1 The definition of PPP

There was no detailed definition of the activities which comprised PPP in 1999/00. Accordingly it has not been possible to examine BT's PPP costs against such a definition as required in the terms of reference for this project.

Providing bad debt is excluded, the working definition used by BT[27] in calculating its PPP costs is a reasonable one. It is consistent with the definition used by the industry-wide Incremental Cost Working Group in 1997. And it is also consistent with the definition set out in BT's DAM.

We recommend that Ofcom specify and publish a detailed and precise definition of PPP for the future. We propose that BT's working definition is used as the starting point for this new, more precise definition but that it is amended to:

- exclude the cost of OCP bad debt from PPP
- exclude from PPP any direct expenditure on marketing by Wholesale Markets, given that narrowband interconnect products are not actively promoted by BT
- define PPP so as to explicitly exclude activities which result in one off charges to specific OCPs.

6.2 BT's calculation of its PPP costs

We have reviewed the way in which BT has calculated the costs of PPP for the financial years 1999/00 to 2002/03 using its AS system. We have reached the following conclusions.

The DAM that has been used to make these calculations has changed in two important respects over the period:

- in 1999/00 and 2000/01 the PPP-like activities for private circuits were excluded from PG512A. From 2001/02 onwards these costs were included in this plant group category
- up until 2001/02 bad debt associated with narrowband interconnect products was allocated to the PPP cost pool. From 2002/03 onwards BT allocated bad debt to individual narrowband interconnect products instead

The change in the treatment of bad debt has lead to major fluctuations in PPP costs. It is worthwhile noting that PPP costs for 2001/02 were not restated in BT's 2002/03 Regulatory Financial Statement to reflect this change

[27] As set out in Section 2.1

The survey used to determine what proportion of the costs of Wholesale Markets to attribute to PPP is an important determinant of the size of the PPP cost pool. There are no details available on the method used in the initial survey in 2001/02. However we understand that the initial survey approach was crude in nature and it is uncertain how reliable the results were. Since then, BT has made considerable efforts to improve the survey and the 2002/03 survey was considerably more rigorous in its approach. It is also clear that BT has put significant effort into improving and documenting the 2003/04 survey for audit purposes. We believe that, with these improvements, a survey approach offers a satisfactory method for estimating PPP costs. But, given the central role of the survey in determining PPP costs, we hope that BT's auditors will review it in detail in their examination of the 2003/04 accounts.

Our examination of PPP and PG512A costs by SFR sector over the last four years has highlighted four mis-attributions of costs to the PPP cost pool:

- the costs of provision and installation were overstated by about £1 million in 2002//03
- direct marketing costs to promote broadband were, erroneously, included in PPP costs in 2002/03. This overstated PPP costs by just over £5 million
- the treatment of the PPP like costs in the supply of Surfport lead to an overstatement. Depending on whether Surfport should be partially or wholly excluded from PPP costs this leads to an overstatement of between £1 million and £2 million in 2002/03
- the £1.8m costs of the service provider network in 2001/02 was wrongly attributed to PPP.

Subject to the items identified above, we believe that BT allocated costs to narrowband interconnect PPP in accordance with the DAM and that the method used does not appear unreasonable.

6.3 Cost drivers

Based on a qualitative analysis of the cost drivers of PPP we conclude that:

- the cost drivers for PPP are a complex mix of variables which includes the number of operators, the number of new products, the number of existing products, the number of interconnect circuit orders, the number of points of interconnect, and the number of interconnect minutes
- current PPP costs are recovered through a charge per interconnect minute. Such cost recovery does not follow the principle of cost causation. The volume of interconnect minutes is a relatively minor driver of PPP costs
- the cost drivers for service centre activities are very different from those for other PPP activities. There is a direct relationship between service centre cost and orders for interconnect service circuits. So it makes sense to consider separating out service centre activity costs from other PPP costs and charging for them on a per order basis
- if we do this then the main cost driver which is left is the number of OCPs
- complexity of OCP accounts also drives PPP costs although the relationship between OCP interconnection revenues and PPP costs is weak.

When we try to correlate PPP costs with possible cost drivers using a quantitative approach, we find that PPP minutes, interconnect circuits and interconnect orders are better predictors of PPP costs than the number of customers. This presents a dilemma. On the one hand our qualitative analysis suggests that the number of OCP accounts are the primary driver of PPP costs. On the other hand the correlation between PPP costs and the number of OCP accounts is poor. This poor correlation suggests that a charge per OCP to recover PPP costs could lead to unstable charges.

6.4 OCP concerns

Many of the OCPs worries about PPP costs and charges are misplaced. But this is not surprising given the lack of information in the public domain on PPP. We therefore recommend that Ofcom should take steps to require BT to publish more information on PPP. Ofcom might require BT to provide:

- more granular information on PPP cost
- additional information in the DAM which sets out the nature and contents of the PPP costs. In particular, a summary of the allocation processes applied, together with more details on the survey, would assist the reader's understanding of how the costs are derived. However there is a risk that too much detail may actually obscure the overall transparency of the system.
- an estimate of the costs of PPP-like activities which BT Retail generates in using narrowband interconnect products.

Having investigated the various other OCPs concerns on ***PPP costs*** we reach the following conclusions:

- the substantial fluctuations in PPP costs reflect one off events rather than the fact that the PPP cost pool is used as a dumping ground for costs which cannot be allocated elsewhere;
- there is a significant pressure on BT to reduce PPP costs. But the current price control mechanism for exerting this pressure could be improved. We suggest that Ofcom should consider taking PPP charges out of the current interconnect specific basket and creating a PPP only basket;
- PPP costs are not double counted and it is highly unlikely that PPP charges involve double recovery;
- the costs of departments such as regulatory affairs and legal services are not loaded onto PPP. Less than 1% of the cost of these departments were attributed to PPP in 2002/03;

The OCPs also have concerns about ***PPP charges***. On these we reached the following conclusions:

- the current PPP charge mechanism does not reflect the main underlying cost drivers. Moreover it distorts competition in favour of OCPs who make little infrastructure investment against those which do

- changes in PPP charges are broadly cost oriented, once bad debt is excluded form the PPP cost pool and allowance is made for the 18 month lag between BT setting its PPP charge for a given year and knowing its PPP costs for that year
- BT has not tried to recover bad debt through PPP charges.

One particularly important concern raised by the OCPs is that BT RSB is not paying PPP charges which reflect the PPP costs which BT Retail generates. Our analysis indicates that:

- there is no causal link between the PPP cost which BT Retail generates and the PPP charges which BT RSB pays
- BT Retail currently causes 6% of PPP costs but BT RSB pays in transfer charges more than 25% of the PPP revenues earned by BT Network.

6.5 Cost recovery issues

BT's PPP charge fell below its regulatory floor (the distributed LRIC) in 2000/01 and 2001/02. There is also a possibility that the PPP charge will exceed BT's regulatory ceiling (the distributed stand alone cost) in 2003/04. These breaches result largely from the time lag between BT setting the PPP charge and knowing its costs.

The current mechanism by which BT RSB pays toward PPP is unsatisfactory. There is no causal link between payments made and costs caused. We therefore recommend that Ofcom consider alternative approaches. There are many options. We put forward two for consideration:

- exclude the PPP costs generated by BT Retail from the PPP cost pool and recover the remaining costs from the OCPs alone. This option is based on application of the ***cost causality*** principle
- require BT Network to treat BT RSB and OCPs on an ***equivalent*** basis. Under this equivalence concept, proposed by Cable & Wireless, BT would include all of BT Retail's cost from PPP-like activities in the PPP cost pool and recover PPP cost from all operators, including BT Retail, in proportion to their size.

In deciding on how BT might best recover its PPP costs in future we suggest that Ofcom consider the following ideas:

- remove service centre costs from PPP and recover them through transaction charges per interconnect circuit order. A charge per interconnect order would reflect costs much more accurately than the current charging mechanism for this portion of PPP costs
- put PPP in a price basket of its own. The current price cap on PPP raises problems. It controls prices for both PPP activities, where costs are very largely people generated, and the supply of interconnect circuits, where costs are largely dependent on the price/performance of network equipment. Given this mix of very different cost structures it is difficult for Ofcom to set a price cap which is appropriate for PPP
- recover remaining PPP cost from OCPs in a manner which more closely reflects cost causality. Given the cost drivers this might consist of charge per OCP and a volume based charge to reflect the complexity of each OCP account.