INTRODUCTION

1. The Director has conducted two investigations examining whether BT is infringing section 18 of the Competition Act 1998 ("the Act") in relation to the pricing of its DSL wholesale products.

2. This statement publishes the Director’s findings in relation to the first of these investigations, and part of his findings in relation to the second. The remainder of the second investigation is continuing.

3. For the reasons set out below, the Director has decided to close the first investigation and part of the second investigation with findings that there has been no infringement of section 18.

The Investigations

4. The first investigation is an own-initiative investigation opened by the Director on 29 August 2001 to examine whether BT’s revised connection and rental prices for its DataStream Home and DataStream Office products (launched on 9 October 2001) constituted predatory pricing or a cross subsidy.

5. The second investigation is an investigation opened by the Director on 5 October 2001 in response to a complaint by Bulldog Communications Ltd ("Bulldog"). Bulldog alleged that BT’s connection and rental prices for each of the variants of its IPStream, DataStream and VideoStream range of products constituted predatory pricing.

6. Part of Bulldog’s complaint alleged that the special offers on the connection prices of IPStream 500 and DataStream Home between 1 October 2001 and 31 December 2001 constituted predatory pricing. In this case the Director considers that the special offers were consistent with legitimate commercial practice aimed at stimulating demand. Given the duration of only 3 months, the Director does not consider that the special offers themselves had a material effect on competition. But he agreed with Bulldog that BT’s DSL pricing (and the question of whether it might be anti-competitive) required further investigation.
7. Given that both the own-initiative investigation and Bulldog’s complaint concerned anti-competitive pricing, and given that both investigations concerned some of the same products, the Director considered it appropriate to consider the two together.

8. The Director has completed his investigation into the prices of the IPStream and DataStream products. BT has this week informed the Director that it is considering notifying new pricing for VideoStream. The Director will wish to examine whether any new pricing is anti-competitive before completing his investigation. His investigation into the VideoStream product is therefore continuing. In the interests of introducing as much market certainty as possible, the Director has decided to publish his findings on the IPStream and DataStream products now, rather than delaying publication until he has reached a final view on VideoStream.

9. The Director’s findings in relation to IPStream and DataStream are without prejudice to the ongoing investigation into VideoStream, and should not be taken to be indicative of the likely outcome in relation to that product.

The Chapter II Prohibition

10. Chapter II, section 18(1) of the Act prohibits conduct in a market by one or more undertakings which amounts to an abuse of a dominant position, if it might affect trade within the United Kingdom ("the Chapter II Prohibition").

11. Section 18(2)(a) of the Act explains that conduct may amount to an abuse if it consists of “directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions”.

Predatory Pricing and Cross Subsidy

Predatory Pricing

12. The Director’s own-initiative investigation and Bulldog’s complaint queried whether BT might be engaging in predatory pricing.

13. Predatory pricing is a strategy whereby an undertaking deliberately incurs short-term losses so as to eliminate a competitor and be able to charge excessive prices in the future. While customers and/or consumers may benefit in the short-term from lower prices, the long-term weakening of competition may lead to higher prices, reduced quality and reduced choice. In this case, the competitors that might be eliminated are nascent local loop unbundling operators, including those that might use line sharing ("LLU Operators").

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1 The Director has indicated his provisional views concerning some of the relevant markets in this sector in his 21 December 2001 consultation document, Consultation on draft Direction to resolve a dispute between BT, Energis and Thus concerning xDSL interconnection at the ATM switch.

15. The Guideline explains that, in order to determine whether an undertaking is engaging in predatory pricing, the Director will examine whether:

(i) it has provided the service in question below cost;  
(ii) it has demonstrated an intention to engage in predatory pricing; and  
(iii) it would be feasible for the undertaking to raise prices in the future in order to recover its losses.

16. As the provision of telecommunications services is characterised by high levels of capital costs, the Director is of the view that the appropriate cost base against which prices should generally be assessed is the long run incremental cost measure ("LRIC"). LRIC takes into account the total long run costs (both capital and operating costs) of supplying a specified additional unit of output (the increment). For the Director to examine whether an undertaking is covering LRIC is consistent with the approach set out in the EC Access Notice, which recognises that cost structures in network industries tend to be different from most other industries and that a straightforward application of the test established by the European Court of Justice in *AKZO Chemie BV v Commission* (using average variable cost as the cost floor) is inappropriate.

17. If a dominant undertaking can be shown to be pricing below LRIC, the Director would presume that it is intending to engage in predatory pricing. If it can be shown to be pricing above LRIC, but below average total cost, it may be engaging in predatory pricing, but there would be no presumption. In such circumstances, the Director would consider whether there was any other evidence indicating that the undertaking was intending to eliminate a competitor.

**Cross Subsidy**

18. The Director was of the view that the circumstances of the cases might additionally or alternatively indicate that a cross-subsidy is taking place. Accordingly, the Director has also considered whether BT’s pricing may constitute an unfair (ie anti-competitive) cross-subsidy.

19. A cross-subsidy occurs where an undertaking uses revenues from one market to subsidise losses in another market. Where the undertaking uses revenues

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2 OFT 417, March 2000, para 7.13 et seq  
3 This may involve the application of a combinatorial test where relevant. See paragraph 22 below for further detail on the combinatorial test.  
4 OJ 98/C 265/02  
5 [1993] 5 CMLR 215  
6 See the Competition Act guideline *Assessment of Individual Agreements and Conduct*, OFT 414, September 1999, para 4.12 et seq.
from a market in which it is dominant, this may amount to a breach of the Chapter II Prohibition.

20. In this case, the concern would be that a dominant undertaking might operate a cross subsidy for the IPStream and DataStream products to deter market entry by LLU Operators.

21. As with its approach to predatory pricing, Oftel’s approach to cases of alleged cross subsidy is outlined in the Competition Act Guideline, *The Application of the Competition Act in the Telecommunications Sector.*

22. In assessing whether there is a cross-subsidy in operation, the Director will consider whether the revenue over the lifetime of a service would exceed the LRIC, including the cost of capital. If the revenue generated by the service exceeds the LRIC, the service will be sustainable in the long term and will not be in receipt of a cross-subsidy. Where there is a group of services sharing common costs, a combinatorial test can be applied to examine whether the services between them cover the LRIC of the combination. If they covered these costs, this would indicate that the group of services was not being cross-subsidised by other services.

23. In assessing whether the revenue from providing a new service would exceed its LRIC, it can be useful to perform a discounted cash flow analysis. This is a forward-looking analysis of the incremental cash flows that are expected to arise from a service. The analysis may provide evidence of an abuse of a dominant position where, for example, it reveals that a dominant undertaking’s business case was based on unjustified or implausible assumptions.

24. The Director considers that engaging in predatory pricing and/or operating an unfair cross subsidy will typically be an example of imposing unfair selling prices for the purposes of section 18(1)(a) of the Act.

**The Products**

25. The investigations concern variants of BT’s DSL wholesale products IPStream, DataStream and VideoStream, which are typically purchased by operators and service providers (“SPs”), and large corporations. SPs purchase the end-to-end wholesale products as the basis for their retail offerings. The products all allow broadband traffic to be delivered over BT’s network between an end-user and a specific location, usually an SP’s premises.

26. This statement is only concerned with the IPStream and DataStream series of products. IPStream has different variants, some of which are more suitable for typical ‘residential’ users, the others being more suitable for typical

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7 OFT 417, March 2000, para 7.20 et seq
8 See OFT 417, March 2000, para 7.11 for more detail on the combinatorial test.
‘business’ users.\textsuperscript{9} A list of the IPStream variants is at Annex B. All variants are delivered over an IP-based data network. The IPStream business product is available at three download bandwidths, 500kbit/s, 1000kbit/s and 2000kbit/s. The IPStream residential products are available at a 500kbit/s download bandwidth, and a ‘self-install’ version is also available, removing the need for an engineer visit to connect the end-user.

27. DataStream also has ‘residential’ and ‘business’ versions, which are delivered over an ATM-based data network. DataStream does not deliver traffic to an IP network for transit in the way that IPStream does. SPs may add their own IP layer if they wish, so as to generate a product that approximates to IPStream. A list of the DataStream variants is at Annex B. As with IPStream, the residential version is available at 500kbit/s download speed, while the business versions are available with download bandwidths of 500kbit/s, 1000kbit/s and 2000kbit/s. From the end of April, BT proposes to withdraw its engineer-installed option and make all of these products available on a ‘self-install’ only basis.

28. In February 2002, BT announced substantial price cuts to its IPStream and DataStream prices, which are intended to take effect on 1 April 2002 and 29 April 2002 respectively.\textsuperscript{10}

ALLEGED ABUSE

29. The Director has investigated whether the alleged abuse (that BT is engaging or has engaged in predatory pricing) is occurring or has occurred in relation to any of the IPStream and/or DataStream products. The Director has also examined whether any cross-subsidy may be operating in relation to IPStream and/or DataStream.

30. An understanding of the LRICs of the IPStream and DataStream products is central to both of these tests.

Pricing Below Cost (The Cost Floor Indicators)

31. In order to inform his analysis of whether BT has priced or is pricing IPStream and/or DataStream below cost, the Director has calculated his best estimates of the LRIC to BT of supplying each of the IPStream and DataStream products (“the Cost Floors”), given the information currently available to him.

32. In order to identify the Cost Floors, the Director has drawn upon two sources; a bottom-up cost model developed for OfTEL by independent consultants and data provided by BT. An account of the methodology used to identify the Cost Floors is set out in Annex A.

\textsuperscript{9} Typically, the Director expects that wholesale products more suitable for business users will have lower contention ratios (i.e. higher speed and quality) and have a modem that enables multiple users to be connected.

\textsuperscript{10} BT notified the new pricing on 26 February 2002. Details of this notification can be found at http://www.serviceview.bt.com/list/notifs/26-02-2002/
33. First, the Director commissioned Analysys (an independent firm of telecommunications consultants) to construct a cash flow based LRIC cost model for Ofetl’s use. Analysys constructed this model using publicly available cost and price information, combined with its own forecasts and estimates where appropriate.

34. The Director augmented the Analysys base model with confidential DSL cost and demand information and forecasts provided to him by BT. The Director used this information as some of the parameter inputs in the model. He also analysed the model’s outputs and conducted a series of sensitivity analyses in relation to the model’s key inputs. This process allowed the Director to calculate estimates of the LRIC to BT of providing each of the IPStream and DataStream products given the information available to him.

35. The Director also requested and received information from BT concerning the financial analyses of the various IPStream and DataStream variants. In this way, he was able to cross-reference BT’s financial analyses of its IPStream and DataStream services with his own cost model. The Director also considered unsolicited submissions made by Bulldog and another operator concerning these calculations. After completing this analysis, the Director arrived at a range of figures that represent the Cost Floors of the IPStream and DataStream products, to the best of his knowledge and belief. Because confidential BT information was used to help generate the Cost Floors, the Director is not in a position to publish them.

36. Having compared the IPStream and DataStream Cost Floors to BT’s original and latest prices for the IPStream and DataStream products, the Director does not believe that BT has priced or is now pricing any of the IPStream or DataStream variants below the relevant Cost Floors (ie LRIC).

Evidence of an Intention to Engage in Predatory Pricing

37. As explained at paragraph 17 above, there are certain limited circumstances in which it may be possible for a dominant undertaking to price above LRIC, but still engage in predatory pricing. The question will to a large extent turn on whether the Director finds persuasive evidence that the undertaking in question intended to eliminate a competitor.

38. In July 2001, the Director was concerned about the DataStream Home and Office prices, some of which were cut by up to 50% during the trial period. The Director’s concern was sufficient for him to consider it necessary to open an own-initiative investigation, and formally request information from BT using his powers under section 26 of the Act. The Director asked detailed questions about the development of the DataStream Home and Office products, and how and why the pricing of the product had developed over time. Having analysed this information, the Director made further information requests to satisfy himself that he had all the relevant information available to him.
39. The Director examined this information in detail, to consider whether BT had demonstrated an intention to engage in predatory pricing. The Director considered in particular whether the changes to the pricing of the DataStream Home and Office products were made with the intent of driving out competition from LLU Operators using or intending to use the local loop unbundling process to deliver DSL services over unbundled loops.

40. The Director found evidence that BT was aware of the competitive threat posed by the LLU Operators, and was keen to ensure that its pricing remained competitive. However, having conducted a thorough investigation using his powers under the Act, the Director found no evidence that BT deliberately priced its products in such a way as to drive out existing or potential competition. The Director is accordingly satisfied that BT did not demonstrate an intention to engage in predation in relation to DataStream.

41. The Director did not have the same initial concerns about the IPStream price cuts, but has considered the issue as part of his investigation into Bulldog’s complaint.

42. The Director is not of the view that any of the IPStream price cuts demonstrate an intention to engage in predatory pricing. BT announced a £5 cut to the rental prices of IPStream in September 2001, and announced more recent price cuts in February 2002. These price cuts appear to the Director to have been aimed primarily at stimulating demand. It also appears to the Director that BT was trying to ensure that its SP customers could offer a retail product at a price that was more competitive with the equivalent products offered by the cable companies. The Director has also taken into consideration the fact that the price cuts were made across the IPStream products, and were not targeted at a particular product variant. The Director usually expects targeted price cuts to be more consistent with predation than across-the-board price cuts.11

Cross Subsidy

43. As discussed above, the Director does not believe that IPStream and DataStream are priced below LRIC. The Director is also satisfied that there is sufficient combined margin in the aggregate of these products to allow for full recovery of the relevant common costs of supplying the services. The Director therefore considers that the relevant combinatorial tests are satisfied.

11 See the Competition Act guideline Assessment of Individual Agreements and Conduct, OFT 414, September 1999, at para 4.18.
CONCLUSION: NON-INFRINGEMENT

44. Having considered the information available to him, and having calculated his estimates of the Cost Floors, the Director believes that BT’s IPStream and DataStream products are not priced below LRIC.

45. The Director also investigated whether BT’s behaviour revealed an intention to engage in predatory pricing or otherwise exclude competition, but found no evidence that this was the case.

46. The Director has also investigated whether any unfair cross-subsidy may be operating in relation to IPStream and/or DataStream. Having already set out his belief that IPStream and DataStream are not priced below LRIC, the Director is also satisfied that the products pass the combinatorial test (ie combined revenue is not lower than the LRIC of the combination). Accordingly, the Director does not consider that any unfair cross-subsidy is in operation.

47. Since he is satisfied that BT’s conduct would not infringe the Chapter II Prohibition, the Director (using broadly the same approach as he adopted in his investigation into wholesale DSL terms and conditions[12]) does not consider it necessary to reach any conclusions on the relevant markets and whether BT might be dominant in them.

48. Based on the facts and information currently before him, and for the reasons set out above, the Director has concluded that the pricing of BT’s IPStream and DataStream wholesale products (both the pricing announced in September 2001 and the pricing recently announced in February 2002) does not infringe the Chapter II Prohibition.

49. The Director is continuing to investigate whether the pricing of VideoStream infringes the Chapter II Prohibition, and will publish his findings in due course.

[12] The Director’s decision in this case is published on the OFT’s Competition Act Public Register at: http://www.oft.gov.uk/Business/Competition+Act/Decisions/BT’s+terms+and+conditions+for+wholesale+DSL+products.htm
Annex A

METHODOLOGY TO CALCULATE THE COST FLOOR ESTIMATES FOR BT’s IPSTREAM AND DATASTREAM SERVICES

Derivation of Oftel’s Cost Floor Estimates

A1 The Director has employed two methods to assist his calculation of the cost floor estimates:

- He commissioned Analysys (an independent firm of telecommunications consultants) to construct a bottom-up, cash flow based, DSL LRIC cost model for Oftel’s use;

- He requested and received out-turn and forecast cost, demand and financial information from BT regarding the various IPStream and DataStream product variants. He was thus able to cross-reference BT’s financial analyses with the DSL LRIC model’s outputs.

Information Sources

A2 In addition to the two information sources set out above, the Director also considered submissions made by Bulldog and another operator concerning these calculations.

A3 The primary external source was the DSL LRIC cost model. Analysys included within the construct of the model publicly available cost and price information and combined this with their own forecasts and estimates where appropriate. The Director was then able to augment the Analysys model with some confidential DSL cost and forecast volume information provided to him by BT, which he used to inform the choice of certain parameter values in the model.

A4 At the completion of this two-stranded approach to the analysis, the Director arrived at a range of figures that, to the best of his knowledge and belief, given the information currently available to him, represent the cost floors of the various IPStream and DataStream services.

The DSL LRIC Cost Model

A5 The appropriate set of cost floors to inform an assessment of whether BT’s IPStream and DataStream prices are anti-competitive are those represented by the LRIC to BT of providing the relevant services. The reasons for this are set out in paragraphs 12 to 24 of the main text above.
The DSL cost model derives estimates of the costs of each particular service variant offered by BT including both engineer-install and self-install services. It considers individual service variant demand forecasts over a 30-year period (and allows the inclusion of a perpetuity). Network design algorithms provide capacity requirement estimates to meet the forecast demands. Cash flow costs of both capital and operating expenditure are modelled in each year for each network element’s required capacity (including the cost of asset replacement at the end of their assumed lifetimes). There are 35 distinct network elements which are separately modelled and for each there are operating expenditure cost trends and capital expenditure cost trends through the application of modern equivalent asset (“MEA”) assumptions. The relevant cash flow costs are discounted by BT’s regulated cost of capital, 10.8% (derived from the nominal rate of 13.5% and removing inflation at 2.4%). In order to derive cost figures that are directly comparable with BT’s rental charges, (the present value of) connection charges within BT’s tariff structure are subtracted from the (present value of) costs.

The particular scenarios used by Oftel to calculate the base case cost floor figures are set out in Table 1. Further explanation is set out below.

**Table 1: Base case scenarios in DSL LRIC cost model – IPStream and DataStream**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Base case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevant increments</td>
<td>IPStream group of services as the increment and separately the DataStream group of services as the increment. The combination of the IPStream and DataStream groups of services as the increment for the combinatorial test.</td>
</tr>
<tr>
<td>LLU Shared access costs assumed</td>
<td>Line share charge (£53 rental pa; £117 connection).</td>
</tr>
<tr>
<td>Service and Element Costing Analysis</td>
<td>Constant service costing results were considered as the primary model output but constant element costing results were also taken into account.</td>
</tr>
<tr>
<td>Time period and cost recovery profile</td>
<td>Options relating to both of the following were considered:-</td>
</tr>
<tr>
<td></td>
<td>• 5 years, untilted annuity;</td>
</tr>
<tr>
<td></td>
<td>• 10, 15 or 30 years with a tilt (which front-loads cost recovery).</td>
</tr>
</tbody>
</table>

**Increment**

In principle, the correct increment for the predation test would be the particular service variant under examination rather than the group of services of each type: IPStream and DataStream. Since there are likely to be economies of scope among the IPStream services, the use of the group of IPStream services as the increment is likely to overstate the true per service incremental cost floor. But such a further disaggregated approach to the increments would have introduced significant additional complexity into the model.
An analysis was undertaken to decide whether BT was recovering not only the incremental cost of IPStream from IPStream services and DataStream from DataStream services, but also that revenue from the combination of IPStream and DataStream covered the combinatorial incremental cost of these two taken together. The model is able to generate such combinatorial cost floors.

**Shared access**

The Director believes it is appropriate to use the line sharing charges (and other relevant LLU charges) as transfer charges to build up BT’s DSL costs. Otherwise, an equally or more efficient line sharing operator would be unable to compete with BT.

**Service and Element Costing**

The model produces results on both an ‘element costing’ and ‘service costing’ basis. The service costing analysis operates by collecting the cash flow expenditures relevant to each service and converting them into annual cost figures using an annuity (tilted or untilted), given the assumed period of cost recovery. The element costing analysis operates by collecting cash flow expenditures relevant to each network element and converting them into annual cost figures using an annuity, given the period of cost recovery. The costs of the services are then derived by applying routing factors (the usage of each network element in each service in each year). The two methods yield the same costs in aggregate. But the element costing method treats the services’ costs as declining (in real terms) over this period in line with improving network efficiencies (arising from the ability to improve routing factors over time). These two sets of outputs were analysed for completeness.

**Cost recovery profile and time period**

A simple ‘flat’ annuity approach can be used to annualise cash flows in the DSL cost model. The Director believes this is an acceptable approach, provided the time period for cost recovery is not too long. The Director has chosen a 5-year cost recovery period as a base case. Over this period (or fewer years) a flat annuity may not be unreasonable.

When considering cost recovery over a longer period of time, a flat annuity would be more problematic. This is because over time input costs are expected to fall, especially the prices of the MEAs. If an incumbent attempted to recover its costs using a flat annuity, it would fail to do so in a competitive market. Its prices in future years would be undercut by new entrants, who would be purchasing the cheaper MEAs in those future years.

In his consultation on xDSL interconnection, the Director sets out his view that there are a variety of potential sources of future competitive pressure and

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13 Consultation on draft Direction to resolve a dispute between BT, Energis and Thus concerning xDSL interconnection at the ATM switch, 21 December 2001.
their existence should be reflected in the analysis of the indicative cost floors. Consequently, for cost recovery periods in excess of 5 years, the Director has used a tilted annuity which brings forward cost recovery (and so would enable the incumbent to recover its costs whilst competing with future new entrants).

Audit of the Model’s Algorithms and Inputs

A15 Towards the end of the cost modelling process the Director asked Analysys to audit the model’s algorithms to ensure that it was functioning as required. The audit confirmed that the model was functioning properly.

A16 The Director also asked Analysys to audit Oftel’s base case and the results from the key sensitivity tests. It concluded that the model had been applied appropriately given the inputs and assumptions specified by Oftel.

A17 The Director carried out simple cross-checks with BT’s financial analyses.

Sensitivity Analyses

A18 The Director undertook numerous sensitivity tests around his base case with each key assumption, cost and volume input being significantly varied to test the robustness of the results. This process was able to take into account the potential effects of possible areas of both over- and under-estimation of costs within the base case’s results.

A19 The main areas tested were: shared access costs; DSLAM costs; backhaul costs; network transmission costs; sales and administration costs and DSL customer volumes.
**BT’s IPStream Products**

‘Residential’ products (single user)

- IPStream 500: engineer install
- IPStream Home 500: self install

‘Business’ products (multi-user)

- IPStream S 500: engineer install
- IPStream S 1000 engineer install
- IPStream S 2000 engineer install
- IPStream Office 500 self install
- IPStream Office 1000 self install
- IPStream Office 2000 self install

**BT’s DataStream Products**

‘Residential’ products (single user)

- DataStream Home 500 self-install

‘Business’ products (multi-user)

- DataStream Office 500 self-install
- DataStream Office 1000 self-install
- DataStream Office 2000 self-install