BT's Response To Oftel's Consultation Document

"Review of the Wholesale Broadband Access Market"

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PUBLIC VERSION

BT would welcome comments on this response. Comments should be addressed to Paul Richards at PP 202, Holborn Centre, 120 Holborn, London, EC1N 2TE; by telephone 020 7492 8340 or by email to **paul.2.richards@bt.com**

This response is available electronically at http://www.btplc.com/responses.

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EXECUTIVE SUMMARY

1. BT is wholeheartedly committed to the development of broadband services in the UK. BT will continue to promote and develop a wide variety of both retail and wholesale services. Other infrastructure providers, and in particular the cable companies, are also investing heavily in this marketplace.

2. Oftel's Market Review and its consequences have an important bearing on the continuing drive for Broadband Britain.

3. Oftel's proposed market definition for wholesale broadband access to be limited to asymmetric services only and above 256kbit/s is, in BT's view, insufficiently justified. In addition to its being at variance from the European Commission's Recommendation this narrow definition is not supported on the basis of factual analysis; survey data; economic theory; market analysis; and econometric modelling.

4. BT's analysis demonstrates, for example, that there are clear economic linkages between retail unmetered narrowband, midband and broadband Internet access services.

5. Even were Oftel's definition to be supported, BT believes that the heavy reliance upon historic and projected market shares is insufficient for a robust finding of Significant Market Power. There is actual and potential competition at wholesale and retail levels from many sources, both in conveyance and origination. Competitive entry is possible even in access through the cable companies and local loop unbundling/line sharing. Competitors choosing not to make use of this because they want to use more 'asset-lite' approaches is not an *a priori* argument that SMP exists.

6. This competitive position in the developing broadband market is important in considering not only the existence of SMP, but also whether Oftel's proposed remedies would enhance or reduce investment incentives and potential benefits for consumers.

7. The proposed application of all the obligations provided for in Articles 9 to 13 of the Access and Interconnection Directive seems disproportionate and at variance with the stated purpose of the new regulatory framework.

8. Although some of the proposed obligations are already established and accepted by BT as good customer practice, two proposals cause specific concern. These are the Margin Squeeze Test and the requirement to provide Network Access on 'reasonable request'.

9. BT is of the view that margin squeeze issues should be dealt with under competition law. The operation of the existing margin squeeze test has already caused significant uncertainty across the industry and the proposed new form of the test with the additional sensitivities will increase this. Even were such a test to be appropriate, it should be specifically limited in scope and not extend to the retail (ISP) level and have clearly established and transparent rules, so that all industry players have a degree of certainty as to whether price changes are compliant. To do otherwise would add confusion and delay the benefits of pricing initiatives to the market.

10. The primacy given to 'individual' third party requests in Oftel's Network Access proposed remedy would have major cost and efficiency implications and inhibit the development of a

coherent commercially viable portfolio of broadband services to the benefit of both consumers and competition. BT supports the development of industry-wide prioritisation as better suited to enabling maximum broadband benefit, rather than the encouragement of a series of potentially unconnected and conflicting individual requests.

11. BT would suggest that there should be a joint examination with Oftel and other interested parties of alternatives to the remedy proposals and believes that it should be possible to improve significantly on what has been suggested.

SECTION A: OVERVIEW

STRUCTURE OF RESPONSE

1. The broadband Market Review presents a uniquely complex set of economic, legal, commercial and technical issues, requiring careful consideration. BT is appreciative of the extended time which has been given for consultation, but believes that the breadth of the issues raised deserve opportunity for further detailed discussions to enable the industry to discuss the responses to Oftel's proposals.

2. BT has drawn upon external expertise from a number of individuals/organisations in coming to its views[1]. As well as providing a critique of the Review, we invited the experts to make recommendations with alternative approaches to the issues under consideration.

3. BT is submitting a separate legally privileged paper to Oftel which considers whether Oftel has met the necessary criteria under the Framework Directive in analysing the relevant market and thereby justifying the *ex ante* regulation being proposed. Our comments on remedies are without prejudice to this position.

4. In this submission, we use the terms 'nascent', 'dynamic' and 'innovative' in an economic sense similar to the way Oftel uses these terms. We believe that they are synonymous with the description of a 'newly emerging market' which appears in the Directives and the New Regulatory Framework (NRF)[2]. The term 'market' itself can be used in a strict sense of conforming to the Hypothetical Monopoly Test (HMT) or with a less specific and broader association to a 'marketplace'; the associated text makes clear which is being implied.

5. This submission is structured as follows:
   - The Overview provides a synopsis of the key themes of retail market boundaries, market power, remedies and impact assessment. The last of these considers the meaning of 'bitstream access' and the issues involved in linking technical and market concepts.
   - The Section on Market Boundaries concentrates on the key issue of retail Internet access services. It also summarises the technical and economic parameters which affect the parallel wholesale markets. Two Annexes respectively cover demand-side and supply-side issues at the retail and wholesale levels.
   - The Section on Market Power reviews the criteria proposed by Oftel for SMP designation in broadband origination and conveyance.
   - The Section on Remedies discusses the detailed implications of the draft Conditions in the Review.

[1] Conversely, BT may not always share the conclusions and views of the independent experts.
[2] The NRF in turn encompasses both the Directives, the Commission Recommendation and Guidelines.

RESPONSE OVERVIEW

KEY ISSUE 1: THE RETAIL INTERNET ACCESS BOUNDARY

BT POSITION: There Is Not A Separate Economic Market For Internet Access Above 256kbit/s

6. Oftel proposes a very distinct 'break-point' at 300kbit/s for a market boundary between narrowband Internet access (which is further split into metered and unmetered services), and what is now defined as broadband. For Internet access, there are a number of reasonably plausible market boundaries and BT believes that midband services and unmetered narrowband services would need to be added to broadband Internet services to define a relevant and meaningful economic market.

7. In coming to this position, BT has undertaken the following exercises:
   - An examination of the conceptual basis of the Hypothetical Monopolist Test (HMT) as applied to (retail) Internet access services.
   - Two independent assessments of the interpretation of all the survey evidence on consumers' attitudes to Internet services.
   - A review of the views of independent analysts on broadband services.
   - A technical evaluation of the performance of Internet-based applications to variations in delivered bandwidth.
   - Econometric analysis of the price responsiveness of broadband services.
   - An assessment of the calculations used in the HMT which underpins the conclusion of separate markets.

8. Our key conclusions respectively in these areas are the following:
   - Oftel has stretched the application of the HMT beyond its established capability and has not recognised some significant limitations to the conclusions being drawn in the Review.
   - Both the evidence and prior reasoning supports the likelihood that consumers will be prepared to move between a range of Internet services following price increases and not necessarily to those which are most contiguous in terms of bandwidth. This would tend to bind all these services into a chain of substitution, although such chains themselves may not be unique and precise market boundaries will vary upon the starting point.
   - Oftel's regular quarterly surveys are probably generally designed to the standard needed to meet the requirements for admissible evidence under the Appeals facilities of the Competition Act. However, the survey evidence used in this case is insufficient to draw the conclusions of separate markets and would in our view, not meet the specific requirements of the Competition Appeals Tribunal (CAT).
   - The evidence to date from a wide variety of sources is that the take-up of broadband is highly sensitive to relative prices compared with narrowband services.

- There is no technical reason to suppose a performance 'break point' of 300kbit/s and the design of most of the broadband applications quoted by Oftel have been engineered to work across the bandwidth range as a whole.

9. BT has concerns as to how Oftel is treating evidence which is contrary to the hypothesis of separate markets; in some instances market scenarios are being asserted, but equally plausible alternatives are not being given the same weight and the regulatory implications of this is very significant.

KEY ISSUE 2: BT HAS MARKET POWER IN BROADBAND ORIGINATION AND CONVEYANCE

BT POSITION: The Case For Market Power Is Not Proven.

10. Oftel relies to a large extent on historic and projected (retail) market shares to deduce equivalent market power over wholesale inputs and associated markets. It is also argued that in spite of mandatory unbundling of all essential inputs, the economic impact of first mover advantage and economies of scale and scope make competitive entry unviable.

11. BT has undertaken the following detailed analysis:

    - Sensitivity testing of market shares to alternative product and geographic definitions of market boundaries.
    - A review of relevant case law on the use of market shares under the circumstances of nascent market evolution.
    - Third party presence at our ATM core nodes
    - Consideration of other indicators of market power including profitability and potential entry.

12. Our key conclusions respectively in these areas are the following:

    - The inclusion of a wider range of Internet access products (even just those of mid-band products which have historically been marketed as 'broadband') would significantly reduce BT's market share.
    - The conditions of competition vary widely throughout the UK and it is not reasonable to assert a national market only based on BT's averaged tariffs.
    - There are no substantive sources of economies of scale and scope which BT's competitors either cannot match, or which prevent them from competing in the marketplace.
    - The relevant case law quoted by Oftel is not comparable with the current situation for a number of reasons, including the dynamic and nascent nature of broadband services.

13. In the context of broadband conveyance, Oftel accepts that there was no information on which to base a market power evaluation and so used originating shares as conveyance shares. BT has compiled information of presence of third parties at or close to our ATM nodes, and from this evidence and actual experience of how conveyance is currently being supplied, it is very clear that BT cannot be attributed market power beyond the first ATM node in core conveyance.

14. In summary, BT believes that Oftel's analysis of market power is not reliable especially as the initial market boundary itself is too narrow. Oftel's assessment of indicators of market power is partial and not robust to alternative market boundary definitions.

KEY ISSUE 3: REMEDIES

BT POSITION: BT Has Serious Concerns Regarding The Range And Scope Of Remedies And Particularly The Margin Squeeze And Treatment Of Access Obligations

15. Our response to the remedies are grouped thematically into the following:

- Publication and standards. Includes publication of a reference offer; notification of terms and conditions; publication of Key Performance Indicators (KPI); provision of technical information.
- Service Offerings. Includes availability of service (BT to meet all reasonable requests); the roll-over of the ATM Direction (with amended text on virtual circuits); provision of new access (Statement of Requirements procedure).
- Pricing and non-discrimination. Includes LRIC plus versus retail-minus; not to discriminate unduly and accounting separation.

16. BT has not been able to evaluate how the remedies will interact with each other as the portfolio of broadband services expands and changes over time. The comments below are therefore to be regarded as provisional.

Publication and Standards

17. BT does not foresee difficulties in publishing and notifying terms and conditions. BT is pleased to note that its services at the IP layer will be outside the direct requirements and limitations of the remedies. BT is concerned that a wide range of QoS indicators could be expensive and not cost-effective.

Service Offerings

18. Absent SMP designation, BT would wish to offer third parties a wide range of broadband products in a manner which is technically feasible, commercially viable, and meeting a wide range of customer needs. However, Oftel's proposals assume that each individual request can be assessed in isolation from other requests and that BT can plan its portfolio on a piecemeal basis. In BT's view, this seriously underestimates the complexity of the situation and the capability of BT (which in turn is reliant on equipment manufacturers) to do this.

19. The ATM Direction, now re-defined to include Virtual Circuit capability within the Virtual Path, will require a very high degree of co-ordination of third party requirements for the origination of asymmetric broadband traffic. It is readily apparent that there are significant technical limitations of DSLAMs to process originating traffic to multiple requirements. Consequently, BT would wish to be able to consider multiple requests jointly and to consult with industry on technical standards through established frameworks.

20. An alternative to the SoR proposals should be possible and involve industry in an acceptable framework. The development of broadband services is quite different to that of PSTN at this early stage of the technology.

21. The ATM Direction has a requirement for different classes of service which relate to downstream markets which are outside the Market Review itself. BT does not believe that

Oftel has undertaken an appropriate market analysis to justify the imposition of the added functionality services. The structure of BT's current broadband portfolio will not be compatible with the introduction of these services in their current form.

22. We are however pleased by the statement in the Review that Oftel will consider carefully to requests for services which may not be associated with market power downstream and may not be mandated at the wholesale level.

Pricing and Non-Discrimination.

23. BT has major commercial and regulatory concerns with these proposals which we believe to be unworkable in practice. The uncertainty in setting LRIC prices is not mitigated to any degree from undertaking sensitivity testing in the margin squeeze test. The provision of the Added Functionality services will compound these difficulties even if this is not the intention.

24. BT believes that Oftel has not demonstrated the insufficiency of competition law to deal with margin squeeze abuse. BT also has concerns about lack of due process; BT could be found in breach of obligations and subject to fines when it is not in a position to know in advance whether it is compliant.

25. BT's position on the margin squeeze test is as follows. Firstly, the scope of the margin squeeze test should be strictly limited to the provision of network services and not extend down to Internet access or other similar retail services to end-users, where Oftel has powers under the Competition Act to investigate any alleged abuses. Secondly, the relevant costs for the downstream elements should be the lower of BT's own forward-looking avoidable costs or those of third parties. Thirdly, there have to be clear parameters and a template for the margin squeeze tests to permit objectivity, transparency and predictability. Fourthly, such tests should be undertaken when prices or market conditions are deemed to change to a substantive degree and not on a continuous basis. Fifthly, the scope of the upstream and downstream services need to be set at an appropriate level of aggregation and not at all possible intermediate levels.

26. Regarding the general provision of non-discrimination and the rebuttable presumption that variations in conditions have a material impact on competition, BT would refer to its previous submissions to the Access and Interconnection Guidelines. In particular, the evidentiary burden on BT should not be set at an impossibly high level.

KEY ISSUE 4: ASSESSMENT OF THE IMPACT OF THE PROPOSALS

BT POSITION: Oftel Has Not Undertaken A Full Assessment Of The Impact Of The Remedies

27. BT believes that Oftel does not give adequate recognition to the underlying commercial risks of provision of network services under the retail minus formula. In offering third parties access services in this way, BT is granting significant options benefits for them to delay their own investments until demand is proven. In conjunction with forward pricing at the retail level, this results in a much higher level of systematic risk on BT. It also undermines the effectiveness of loop unbundling and infrastructure competition in general.

28. In the Access and Interconnection Directive Guidelines, Oftel proposed a very thorough framework for assessing alternatives to access proposals (Regulatory Options Appraisal Exercise). In this Consultation, BT can see no such assessment. Further, the formula of retail minus means that all parties can replicate whatever BT does downstream which goes beyond the requirements of the Directives and Guidelines.

29. Generally speaking, most broadband applications, both current applications and those proposed as potential applications, are capable of being delivered to the end user in a number of different ways, and not always using broadband access. The association of broadband applications and the means by which they are delivered to the end user is complex and there is currently no evidence of a 'killer application' that might direct the demands for network input services.

30. BT's sees no parallel between the regulatory framework of wholesale markets with the narrowband environment. The remedies proposed here, are however, much closer in design to the narrowband 'model' and if mandated, will have the effect of imposing a structure on the broadband industry. BT believes that this will not be an efficient outcome.

BRIEF ANSWERS TO OFTEL QUESTIONS

CHAPTER 2 – MARKET DEFINITION

Question 2.1: Do you agree with the market definitions?

31. BT believes that Oftel's market definitions are too narrowly focused on BT's products.

    At the retail level, BT believes there is a price constraining effect of a significantly wider range of products for broadband Internet access above 256kbit/s, particularly unmetered narrowband services and 'midband' Internet access services. Consequently we place these services in the same economic market.

    At the wholesale level, BT considers that the upstream market boundaries follow protocols i.e. SDH/PDH/leased lines and ATM VC, rather than symmetric versus asymmetric or contended versus uncontended, and further, there is a significant geographic aspect to such boundaries.

Question 2.2: Is there evidence that might support alternative market definitions?

32. BT presents substantive independent evidence for the price constraining effect of narrowband Internet access service on broadband, sufficient to bring them into the same economic market, both now and forward looking for at least two years.

    Preliminary econometric analysis of real market data suggests an own price self elasticity for broadband Internet access of at least (-) 2 and this was Oftel's upper bound for suggesting that broadband Internet access is not a separate economic market. This high degree of sensitivity is supported by many other sources of information and the opinions of key market participants.

    BT's wholesale market boundaries are set by reference to the ability to switch from the supply-side and this is determined by underlying technological features and the actual infrastructure in place (including its location) to do so.

CHAPTER 3 - MARKET POWER ASSESSMENT

Question 3.1: Do you agree with the SMP criteria used?

33. We believe that the criteria themselves are adequate if used in a correct fashion. However, in this instance the key indicators have been examined separately rather than jointly and too much weight given to market shares.

Question 3.2: Do you agree on the assessment of SMP?

34. We believe that SMP for BT is not proven and for example a wider market boundary including narrowband services would undermine the case for market power in broadband services.

Question 3.3: Do you have any comments on future developments that might affect these assessments?

35. Competition will intensify for both origination and conveyance services as broadband volumes grow. Any first mover advantage which BT may have had will be quickly lost as newer technologies come on stream and third parties act jointly in exercising countervailing buying power to displace BT in the provision of broadband services.

CHAPTER 4 - PROPOSED REMEDIES

Question 4.1: Do you agree that in general terms, *ex ante* regulation is justified in the markets in this review where SMP is proposed?

36. Given the extent of competition, the nascent and innovative nature of the marketplace, and BT's proactive wholesale product offers, BT considers that *ex ante* regulation is not justified and in some ways is counterproductive.

Question 4.2: Do you agree that a requirement on BT and Kingston to meet all reasonable requests for Network Access on reasonable request should be imposed on the markets proposed?

37. Unless 'reasonable' is taken to include an assessment of industry consensus on technical specification and a view on the track record of the requesting party, BT finds this requirement is likely to promote disputes and unnecessary development and regulatory costs.

Question 4.3: Do you agree that retail minus pricing is the appropriate pricing rule? If so, do you consider that BT's actual costs or an estimate of an efficient entrant's costs should be used as the basis for calculating the 'minus'? If the latter, how should these be assessed ?

38. BT has significant concern about the retail minus pricing rule when applied as an *ex ante* margin squeeze test. BT has found the practice to date unsatisfactory and the complexity of the margin squeeze scenarios will increase significantly if applied to 'additional functionality' services.

Question 4.4: Do you agree that a requirement not to unduly discriminate should be imposed on BT and Kingston in the markets proposed?

39. BT believes that there are circumstances where a certain level of contractual freedom is both pro-competitive and in the best interests for end user welfare.

Question 4.5: Do you agree a requirement to publish a reference offer should be imposed on BT and Kingston in the markets proposed?

40. Given that BT voluntarily publishes basic contractual, pricing, and technical aspects of its wholesale broadband services and that BT believes that a certain level of contractual freedom is both pro-competitive and in the best interests for end user welfare, BT believes that the imposition of this *ex ante* remedy as inappropriate.

Question 4.6: Do you have any views on what a reference offer should contain?

41. See answer to question 4.5.

Question 4.7 : Do you agree that changes to terms and conditions should be notified 28 days?

42. BT voluntarily includes a notification period in its wholesale contracts and BT sees the imposition of this *ex ante* remedy as inappropriate.

Question 4.8: Do you agree that a requirement to notify technical information should be imposed on BT and Kingston in the markets proposed?

43. BT voluntarily publishes technical information on its services, both retail and wholesale, and BT sees the imposition of this *ex ante* remedy as inappropriate.

Question 4.9: Do you agree that 90 days is a reasonable period for notification of new or changed technical information in the markets proposed? in advance?

44. Notwithstanding BT's position on *ex ante* regulation, BT proposes that 28 days is appropriate where the technical specification is to agreed international or de facto industry standards. 90 days should only apply to non-standard interfacing.

Question 4.10: Do you agree that a requirement to consult on interfaces is no longer appropriate?

45. BT agrees that the imposition of such a remedy is not appropriate.

Question 4.11: Do you agree that a requirement to publish a set of KPIs, subject to the detail being agreed after consultation, should be imposed on BT in the markets proposed?

46. In most circumstances, BT voluntarily publishes QoS information of its services and given this, BT sees the imposition of this *ex ante* remedy is inappropriate

Question 4.12: Do you have any views on the key areas where KPIs might be required in the markets proposed?

47. Under a presumption of SMP, BT believes that such a remedy should be limited to demonstrating non-discrimination.

Question 4.13 Do stakeholders agree that there are problems with the SOR process in the symmetric broadband origination markets? What evidence is there to support this?

48. Whether in the context of a presumption of SMP or not, BT believes that it is in the end users, service providers, and its own interests, that the industry achieves a reasonable consensus on the scope and technical specification of asymmetric broadband origination services. The current SoR process runs counter to achieving such a consensus.

Question 4.14 Do stakeholders agree with the outline proposals set out above for regulation of the SOR process?

49. Under a presumption of SMP, BT believes that the SoR process needs to incorporate mechanisms which allow for wider industry consultation of technical specification.

Question 4.15: Do you agree that accounting separation requirements should be imposed in the markets proposed?

50. Under a presumption of SMP, BT will be making a full response on accounting separation in the Financial Reporting consultation. Specific to wholesale broadband origination, BT has concerns about the level of granularity at which accounting separation is applied.

Question 4.16 Do you agree that BT should be obliged to provide ATM interconnection as described in the Direction at Annex B?

51. BT already offers, or has under development, the services covering the scope of this Direction and therefore finds its imposition unnecessary. Moreover, BT notes that there is no market analysis to cover the 'additional functionality' and some of the technical requirements are inconsistent or unclear.

Question 4.17: Do you agree that the margin squeeze test is an appropriate way to set interconnection charges?

52. BT does not accept the specific *ex ante* requirement to comply with a margin squeeze, and the experience to date shows that the test is unworkable.

Question 4.18: Do you agree there is currently no case to impose (a) requirement similar to the ATM interconnection direction on Kingston?

53. BT commercially launched DSL ATM access services some years ago as DataStream and the DSL ATM Direction added to the features supplied. BT is of the view that Kingston should be given a period of time to offer voluntarily services given demonstrable demand, before intervening.

SECTION B: MARKET DEFINITION

BACKGROUND

54. Oftel has raised a number of complex issues on market boundaries regarding Internet access not only in the context of broadband service but also in previous Reviews:
    - The Review of fixed narrowband retail markets, Sections 3.23-3.57.
    - The Review of the fixed narrowband wholesale exchange line, call origination and transit markets Sections 4.32-4.62.
    - The Review of the wholesale unmetered narrowband Internet termination market, Sections 2.4-2.46.

55. The Reviews tend to define markets narrowly around BT's own service and pricing structures e.g. PAYG and unmetered Internet access. We believe that this is not compatible with the Commission Recommendation or Guidelines on the correct approach to market boundary assessments.

56. Consequently, Oftel has departed significantly in a number of ways from the Commission Recommendation, for example in separating metered from unmetered services, and in adopting a different bandwidth boundary for broadband. BT does not believe that this is justifiable.

57. Our main concerns are that:
    - Contrary to our understanding of standard procedure, Oftel is not giving consideration to equally plausible alternative market boundaries and the consequential impact of these alternatives in the market power assessments.
    - Oftel is not recognising the conceptual limitations to the manner in which it has used the HMT and that the conclusions being drawn are not necessarily compatible with underlying assumptions.

58. Regarding the first point, our position is that the notion of a distinct break point in bandwidth between 'narrowband' and 'broadband' services at 256kbit/s is only one possible boundary but not necessarily the most plausible one[3].

59. Oftel states (2.25) that there was no substantive change in market boundaries between Market Reviews because there were no services being offered commercially in the range of 128kbit/s and 256kbit/s for Internet access. However, when broadband was previously considered in the June 2002 ATM Direction, Oftel maintained that 128kbit/s was the appropriate line of demarcation (ATM Direction paragraph E.12). There was no reference to higher bandwidth being necessary for the Internet applications which are now being deemed to be critical in the current assessment of market boundaries. Consequently, BT feels that the market boundaries have been changed since last year.

60. We examine below the arguments and evidence which Oftel puts forward for the market boundary. Our position, as set out in our submission to Oftel in the dial-IP termination

[3] From the discussion in the Review, it appears to BT that Oftel is actually designating 300kbit/s as the real boundary and not 256kbit/s.

Review (answer to Question 2.2), is that broadband defined above 256kbit/s is not a separate economic market from other unmetered services. We believe that there are likely to be a number of chains of substitution which bind different services into the same economic market (as indeed Oftel does with respect to business and residential users). We accept that these markets may be difficult to identify in practice.

61. BT feels that the second issue – Oftel's use of the HMT – raises a number of complications including:

    - The nascent nature of Internet services limits the scope of the HMT significantly more than Oftel recognises.
    - The application of the HMT to services with non-linear prices is outside the scope of established economic theory.
    - The implications of price discrimination between different classes of consumers.

62. Our response below broadly follows the discussion in the Review itself. We do not deal here with the issue of the Additional Functionality services where BT has been mandated to provide services where there is no consideration as to whether the requirements of the AID have been met[4].

63. We agree with Oftel (2.58) that the competitive constraint of mobile Internet access is not likely to be relevant over the period covered by this Review although this position may change very quickly in the future. We also agree with Oftel that it makes sense to consider residential and business customers together (2.49).

64. The first section considers the retail service from which wholesale broadband Internet access services are derived. We look at the economic underpinning of the delineation of market boundaries and the evidence from surveys on customers' willingness to pay a premium for higher bandwidth and/or the ability to access different Internet based end-use applications. We consider the evidence and arguments for alternative market boundaries and specifically whether or not there is a 'break-point' at 256kbit/s.

65. The following section widens the assessment of the nature of broadband 'origination' services to look at the relationship between symmetric and asymmetric services, ADSL and SDSL, and contended and uncontended services. BT believes that the Review fails to address adequately the nature of the technologies and services and consequently we have no clear understanding of what, in Oftel's view, constitutes 'bitstream access'. This issue is also important when considering the scope of the margin squeeze test and remedies in general.

66. The final section answers the specific Questions on market boundaries in the Review.

[4] That is whether the necessary requirements for access have been met for these Services. It is not adequate to argue that because BT allegedly holds market power in 'broadband origination', any form of access service is needed.

RETAIL INTERNET ACCESS SERVICES

The Application of the HMT test

67. Oftel has applied the concept of the HMT to a wide range of circumstances including: different customer classes; different forms of tariff structures; and different services. These are sometimes combined, for example, comparing the substitution by customers with two access lines for a single line with broadband as an alternative.

68. Oftel generally concludes from looking at, *inter alia*, absolute price differences, the subjective assessment of willingness to pay and other variables, that groups of services tend not to be substitutable with each other. The consequence of this approach is to define narrow markets with market power based on market shares, and thereby attribute BT with market power.

69. BT has difficulties with this approach:

- The application of certain key factors (cost-price margins and revenue shares) which guide the HMT, has been disregarded in the narrowband consultations.
- It is not recognised that the HMT is being applied in a context where there is already some price discrimination[5] in the marketplace. The HMT is not developed as a concept to handle these situations.

70. The Report attached by Dr I Dobbs contains a detailed appraisal of Oftel's approach to market boundary definitions. His summary is as follows:

> *'Oftel has recently categorised retail internet services into Broadband and Narrowband, with the latter further broken between the unmetered (fixed fee) service and the metered ('pay-as-you go') service. This paper sets out a methodological approach to the assessment of market boundaries and market power and discusses some of the conceptual and practical issues that arise when there are differentiated services and also differentiated tariff structures for each type of service. In relation to internet services, it is concluded (i) that Oftel's preliminary separation of Broadband and Narrowband services, and the boundary between them, currently set at 256kbit/s, has not been substantiated and is unlikely to be robust, and (ii) that even with these groupings, the assessments made have not been substantiated.'*

71. The key points which BT would like to stress from this study are the following:

- The proliferation of equivalent tariff ***structures*** across the bandwidth chain makes it highly likely that there are chains of substitution.
- It is likely that these chains of substitution could overlap with each other i.e. some services could be common to a number of chains which have different start and end points[6].

[5] Non-linear prices and different prices for residential and businesses are examples of price discrimination.

[6] Put differently, the market boundaries are likely to be highly dependent on the starting point of the analysis and different combinations of services may pass the HMT. The starting point of market boundaries is recognised in the OFT Guidelines on Market Definition.

- A reasonable starting proposition on market boundaries is that all PAYG services are in the same economic market and all unmetered services in a separate economic market.
- BT believes that Oftel has 'stretched' the applicability of the HMT into situations which the test was not designed to cope with.
- The process of examining market boundaries should be directly interlinked with an assessment of appropriate regulation. BT feels that this has not been adequately addressed in the Review.

Oftel's Use Of Survey Information To Guide Market Analysis

72. Oftel makes extensive use of survey information to guide its reasoning on consumer attitudes to:
    - The features of broadband and narrowband Internet services e.g. always-on.
    - The importance of applications ostensibly only available to broadband users.
    - Consumers' responsiveness to price changes.

73. In the UK, appeals against decisions taken pursuant to Articles 15 and 16 of the Framework Directive can be made on the merits to the UK Competition Appeal Tribunal (CAT). In turn, this body will have regard to the rules it has established in its decisions so far on the reliability and the appropriate weight to be attached to survey and other evidence used in support.

74. Given the importance attached by Oftel, for the purposes of market definition, to the results of the various customer surveys, it is important to note that in the *Aberdeen Journals* case, the CCAT was very cautious about such evidence[7]:

> *'Survey data, if any, may be inconclusive because of the hypothetical nature of the question (see OFT 403, §3.6) or the difficulty of obtaining sufficiently informed responses. In addition, the particular market circumstances may themselves create their own dynamics. For example, a product which might not appear, in the abstract, to be directly substitutable for another product, may turn out on closer examination to be in fact a significant competitor because of the particular circumstances of the local market at the time in question.'*

75. The courts have long held[8] that if any evidential value is to be attached to a survey: (a) the interviewees must be selected so as to represent a relevant cross-section of the public, (b) the size must be statistically significant, (c) it must be conducted fairly, (d) all the surveys carried out must be disclosed including the number carried out, how they were conducted, and the totality of the persons involved, (e) the totality of the answers given must be disclosed and made available to the defendant, (f) the questions must not be leading nor should they lead the person answering into a field of speculation he would never have embarked upon had the question not been put, (h) the exact answers and not some abbreviated form must be recorded, (i) the instructions to the interviewers as to how to carry out the survey must be disclosed and

[7] *Aberdeen Journals LTF. V DGFT,* CCAT, 19 March 2002 at para. 102.
[8] See e.g. the observations of Whitford J in *Imperial Group Plc v Philip Morris Ltd* [1984] RPC 293, Whitford J and the Court of Appeal in *Scott Ltd v Nice-Pak Products Ltd* [1989] FSR 100.

(j) where the answers are coded for computer input, the coding instructions must be disclosed.

76. Because of the weight attached by Oftel to the survey information, BT commissioned two experts in the field (Millward Brown and Professor Martin Collins) to:
    - Review the survey work which Oftel relied upon in drawing their conclusions.
    - Make an assessment of the robustness of those conclusions given the background to the Review itself.

77. BT would like to stress that while both sets of investigators had access to factual information either in the public domain or research commissioned by BT, they: worked independently of each other; had slightly different terms of reference; and were not privy to each other's Reports to BT.

78. The Executive Summary from Millward Brown is shown as Figure B.1 and Professor Martin Collins' conclusions are as follows:

> *'In this review of Oftel's use of survey data in the review of the wholesale broadband access market, I will suggest that the use is cautious but still not fully recognisant of the inherent limitations of survey research; and that different interpretations of the survey data are reasonable.*
>
> *My overall impression is of research that has been used with reasonable care but has been stretched. Views expressed by current users are being used to forecast future behaviour and, hence, to make decisions which might be made better in the near future with the benefit of more information about actual changes in a new and rapidly developing market. Other key decisions implied by the Review seem not to be guided by the research at all.'*

79. BT has concluded that the survey evidence would most likely not meet CAT standards:
    - The critical survey is of a very small size with wider sampling error than quoted. Millward Brown suggest that a sample of at least four times the size used by Oftel would be needed as a first step.
    - The results of the survey are open to very different interpretations. Professor Collins points out that there are many potential sources of bias in all types of surveys. In this particular context, they become significantly amplified by the relative immaturity of broadband services and consumers inexperience of the potential benefits of broadband Internet access.

FIGURE B.1

EXECUTIVE SUMMARY (Millward Brown)

In our professional opinion, Oftel's survey research does not represent a convincing basis for concluding that narrowband and broadband internet access should necessarily be regarded as separate economic markets for consumers in either the residential or business markets.

Specific shortcomings are as follows:

- The conclusion is based largely on the results of a single relatively small survey with a sample of 250 current broadband users, though most of the analysis restricts that sample to just 191 users of broadband above 128Kb. We believe Oftel place too much reliance on the results of this single survey.

- In addition, the scale and design of this survey is such that, in regards to being 'representative' and 'statistically significant', we believe it fails to meet the CAT standards relating to the use of survey data.

- Oftel focus their argument on the apparent unresponsiveness of current broadband users to rises on the price of broadband. However, given the rapidly expanding nature of the consumer broadband market, we believe any forward looking assessment of the likely nature of the market needs to consider the views of those who do not yet subscribe, but who are likely to make up a major part of the market over the review period and there is as yet no evidence for this.

- Further, we believe there is significant evidence to indicate that narrowband users are much more sensitive to the price of broadband than those who have taken it so far.

- Oftel's SSNIP tests imply that consumers are less price sensitive than business users with regard to broadband, which is at odds with other research suggesting that business users are likely to be less sensitive to price.

- Research conducted on behalf of BT looking at likelihood of taking broadband suggests that consumer demand for broadband is more price elastic than is indicated by Oftel's SSNIP test among current users.

- There is very little survey evidence to support Oftel's assertion that users will place increasing value on the content and applications that are made possible by broadband. When users are asked about the benefits of broadband, speed noticeably dominates even the relatively obvious benefits of being always on and being able to use the phone while surfing the net; mentions of content are very few and far between.

- Finally, we believe that the term 'broadband' is likely to be understood in different ways by Oftel and consumers (influenced by marketing from the industry). Specifically, we believe consumers fail to appreciate that Oftel regard digital access products up to 256Kb as narrowband, and would probably regard these as 'broadband'. This raises further questions about the extent to which the available survey research can be used in support of Oftel's position.

Interpretation Of Survey Evidence On Functionality Differences/Attitudes To Bandwidth

80. The Report by Millward Brown contains a detailed comparison of the market research undertaken by Oftel and BT. We have also examined in some detail the market research from other independent sources including in the USA, with which we believe it is possible to draw some reasonable parallels.

81. Considerable market research in the USA has been completed concerning the reasons for taking a broadband access service and the general consensus is that the initial driver behind broadband adoption is speed. Simultaneous use of the telephone line, together with the Internet, and the always-on functionality - are key supporting factors, but these tend to be heavily dominated by speed.

82. Millward Brown review the UK surveys on this topic and suggest that the results are partly dependent on the survey design and, for example, whether the interviewees are given a pre-selected list of attributes or can respond in their own words. Again, the general conclusion is that speed (bandwidth) and ability to use the phone along with Internet access are the most important factors supporting take-up of broadband, while 'always on' and the ability to make use of wider applications are generally less critical.

83. Further, they argue that there is no clear evidence that when having taken broadband Internet access service, the 'value and perceived benefits of these two later features' ('always on' and new applications) become much more evident to the customer than Oftel proposes. The users of broadband having taken the service appear to appreciate the added features in line with their reasons for taking the service in the first place.

84. For example, some research by Forrester[9] also reviews key reasons for adopting broadband. From a sample base of 154 actual broadband users, the key answers provided were: speed i.e. bandwidth, keeping the phone line free, and the always-on functionality. The issue of new applications, which focuses upon the download of games/music/videos, is only ranked fourth.

85. Having reviewed a number of surveys, Millward Brown conclude on this matter:

> *'Based on this, we suggest there is very little evidence that internet users, or even broadband users, regard broadband as giving them access to anything very different to conventional narrowband. It is more as if they think of broadband as giving them more of the same. While speed dominates even the quite widely acknowledged benefits of being always on and being able to used the phone and access the internet at the same time, the paucity content-related benefits that even users of broadband mention when asked to describe broadband is quite striking.'*

86. If it were the case that the different applications which Oftel cites as critical for the market boundary were the determining factor, then we would expect a disproportionate willingness to pay for higher bandwidth much greater than the increase in bandwidth itself. This does not appear to be the case; rather customers are using Internet access for the same sorts of applications as before and looking at the trade-off between bandwidth and price in those terms. The implication is that the price of bandwidth is likely to be the key determining

[9] Internet access: Europe, Forrester July 2002.

factor in taking a broadband service and not the ability to use Internet access for other features.

87. In summary, all the evidence indicates that consumers look to the value of higher speed to the Internet with the facility to make simultaneous phone calls as the primary drivers of take-up and the users of broadband feel more or less the same. There is some variation in the benefit of 'always-on' functionality but this is not a particularly key factor nor does it feature very strongly in the Review. The case for different applications is not shown.

Analysts Views On Applications As A Driver For Broadband

88. As discussed below, the practice of the Courts has taken into account the views of industry participants as to relevant market boundaries. BT feels that it is reasonable to review the opinions of third parties on the issue of whether broadband take-up will be driven by new applications of superior performance to existing applications. Oftel attaches great importance to the former as a key driver for reduced end-user price sensitivity over the review period and quotes (2.32) the Strategy Policy Research (SPR) study[10] in support.

89. In BT's view, the SPR Report does not lend credence to Oftel's position but rather the contrary – there is no evidence of an applications-led bandwagon effect and it would appear to be proving difficult to get one rolling.

90. SPR suggest a number of applications associated with broadband may result in a 'broadband bandwagon' effect taking place within the market, much as there was with colour televisions and mobile phones. The Report focussed upon five key applications that could be responsible for aiding the bandwagon effect:

- Advanced web pages.
- Downloading of music.
- Downloading of video entertainment programming.
- Two-way video communications.
- Online gaming.

91. The Report concludes that although there is potential for each of the identified items on the list to become killer applications, there are significant issues that need to be resolved for this to take place. These include the general acceptance of killer applications by the market suppliers and users and the means allowing these applications to be exploited. Hence:

> *'Current "standalone" applications do not as yet appear to have sufficed to produce a virtuous dynamic feedback process between increased broadband subscribership and development of attractive new broadband applications, i.e. "to get the broadband bandwagon rolling."'*
>
> *'Definition and enforcement of property (i.e. resource) rights are widely recognised as necessary pre-conditions for efficient operation of a market economy. Resolution of the difficult issues in this area has been very slow to materialize, partially because each of the main factions has perceived some advantage in delay. There is, we believe, increasingly widespread consensus that improved content is key for driving*

[10] Propelling the Broadband Bandwagon; Strategic Policy Research; 4th September 2002.

broadband demand. Without meaningful progress on the intellectual property rights front, the "killer applications" necessary to drive rapid broadband take-up and dynamic feedback will be slow to materialize.' (emphasis added)

92. It is not clear to BT on what basis Oftel has assumed that over the Review period (up to two years), that these issues will be resolved. Consequently, BT has reviewed the opinions of other market analysts concerning these new applications for broadband which is set out at Annex I.

93. BT's interpretation of the current position of the possibility of one or more 'killer applications' is as follows:

- The only country demonstrating a 'killer application' is South Korea in the form of online gaming. However this situation is unlikely to be repeated in other countries due to cultural and behavioural differences.
- On the basis of actual usage of broadband services, file sharing could be seen as a killer application, but the legal issues highlighted by the SPR report have not been resolved. It is far from evident that file sharing when paid for legally will be associated with a willingness to pay which would separate broadband and narrowband as separate economic markets.
- Beyond this, analysts are not all in agreement in their interpretation what a 'killer application' will actually mean in practice given the absence of one to date. Some analysts appear to link new applications with a more general propensity to take broadband services but not necessarily with a (disproportionately) higher willingness to pay for higher bandwidth.

94. In summary, there is no evidence available to suggest that the market has developed to an 'applications driven' marketplace since the publication of the SPR paper in September 2002 and nor, as far as BT can tell, do mainstream analysts predict as much for the Review period. Although broadband prices have dropped, the killer applications listed in that report are not yet driving broadband demand.

95. This means that broadband Internet access does not have unique characteristics which indicate that it has to be sold in competition with other services providing consumers with similar functionality. There remains a trade-off between bandwidth and price but this does not imply separate economic markets, rather the reverse.

A Technical Appraisal Of Break-Points In Broadband Services

96. In this section, we review the specific physical characteristics of delivering different applications across the Internet and the relationship of supply-side factors to performance as perceived by end-users.

97. Oftel proposes that a 256kbit/s boundary is justified for the following reason:

> *'2.22 The Director currently considers that a speed distinction of greater than 256kbit/s for broadband internet access services captures the relevant demand side distinction for UK broadband internet access services. This is because the higher speeds of broadband internet access allow different existing and future content to be delivered which is not available at a reasonable quality on*

narrowband internet access. An example of such a service is the delivery of streaming video which allows video clips to be viewed over the internet such as real time news and sports coverage, movie trailers etc.'

98. The 'reasonable quality' argument seems to suggest that streaming video and the like are not possible at speeds below 256kbit/s and the other important and unique applications likewise only become possible at higher bandwidths.

99. At Annex II we provide a detailed examination of the capability of ADSL to support a wide range of applications and with particular attention to the 'killer applications' mentioned by Oftel. This elaborates on the analysis which we submitted to Oftel in January 2003.

100. BT's view is that there is no starting point for bandwidth to delineate broadband services as a separate market but rather there is a continuum of services. The conclusion from the technical assessment is that Internet-based applications fall into three groups:

- Applications which have a smooth relationship of performance with bandwidth (including almost every new application).
- Broadcast TV and domestic video where the established quality benchmark requires currently at least 2Mbit/s and the digital TV and DVDs are moving quality expectations upwards, not downwards.
- PSTN where the combination of speech quality, delay, signalling based features e.g. 1471, and the ability to support other services such and fax and dial access, are all assumed to be part of the service.

101. In our assessment, possible breaks occur where the broadband access can support PSTN ~64kbit/s symmetric with low delay, and also at greater than 2Mbit/s downstream which can support broadcast quality TV/video. There is no reason to suppose a break at 128, 256, or even 500kbit/s.

102. Further, the distinction between symmetric and asymmetric services is critical in some new applications. For example, videoconferencing relies on symmetric capacity and this is determined by the available upstream capacity in an asymmetric service (greater than 256kbit/s). Given that the Market Review is concerned with asymmetric origination, the relevance of applications to the Review which deals with asymmetric services is therefore not shown where those services rely on a symmetric service.

103. New applications are unlikely to change this situation in the future as application developers are strongly motivated to construct the applications with a smooth relationship between performance and bandwidth in order to make the application available to the widest market. Indeed, the breaks identified above only arise from accommodating legacy applications.

Views Of Individual Participants In The Sector

104. The CAT in *Aberdeen Journals*, stated that in defining markets, the Tribunal attaches particular significance to how the undertakings under investigation have considered the market.

105. In this context, we consider it reasonable to extend such canvassing to the end-users themselves as well as suppliers of services such as BT. Oftel's research does not appear to be include direct questioning of consumers on this matter. Millward Brown note that the term 'broadband' may be understood differently by Oftel and consumers, and that consumers probably do not perceive critical distinctions between specific bit rates of bandwidth.

106. Millward Brown also suggest that Oftel's surveys are ambiguously phrased and not well designed to elicit consumer reaction to hypothetical questions in this area. More likely than not, most consumers will be strongly influenced by the marketing of broadband and for example, would include the ntl 128kbit/s service as broadband.

107. Professor Collins, in reviewing the evidence on price sensitivity, comes to a similar conclusion, believing that consumers perceive a continuum in Internet access and no distinct boundary.

108. If indeed consumers believe that the 128kbit/s service is also 'broadband', such views could hardly be deemed unreasonable given that Oftel publishes statistics and issues press releases which do the same as reproduced in Figure B.2. Oftel explicitly notes that broadband includes the 128kbit/s service ('in line with statistics on broadband connections compiled in other countries') and these numbers have been quoted in public by Government ministers.

109. Further, the Director General has on several occasions in public made reference to the impact of unmetered narrowband services being an inhibitor of the take-up of broadband services suggesting he believes that they are in the same economic market.

110. ***[omitted]***

111. ***[omitted]***

112. ***[omitted]***

113. ***[omitted]***

114. In summary, the views of all the key industry participants is that there is a high price sensitivity for bandwidth. BT was obliged to act on unrealistically high wholesale prices from the direct and indirect competitive constraints of narrowband services and the offerings of cable companies.

Survey Evidence On Price Sensitivity To Bandwidth

114. The actual operation of the HMT test by Oftel (Annex C) requires estimates of own and cross price elasticities, as well as revenue shares and price-cost margins. Oftel undertakes a 'single product' test and finds that on the basis of survey evidence on willingness to pay, it is ambiguous whether residential customers are in a separate economic market or not and business customers do not form a separate economic market[11]. However they are presumed to become linked to residential customers over the course of the Review in a 'chain of substitution'.

[11] It should be noted that had Oftel estimated any plausible values of cross-price elasticities, for example for adjacent services such as midband and more critically for unmetered narrowband services, the HMT would most almost certainly be passed for the reasons Dr Dobbs outlines in his Report.

115. BT would like to draw Oftel's attention to the interpretation of the survey information on willingness to pay. It appears to BT, that Oftel may not have fully considered the implications of the research. Our view is that it is not supportive of the proposition that price sensitivity will decline over the Review period.

Figure B.2

Two million sign up for broadband Ref: 29/03
Date: 22 May 2003

The UK now has two million broadband connections, Oftel has announced today.

David Edmonds, Director General of Telecommunications, said:

> *"The UK now has two million broadband connections, with new connections running at 35,000 each week.*
>
> *"Oftel research shows that many broadband connections are people upgrading from narrowband, as they recognise the benefits of fast, always on Internet access.*
>
> *"It took two years to reach one million connections, but only seven months to reach two million, as increased competition and lower prices have boosted connection rates.*
>
> *"Oftel's creation of one of the most competitive broadband markets in Europe means consumers are benefiting from increased choice and lower prices. Broadband services can be accessed over DSL, cable networks, fixed wireless and satellite with over 100 ISPs offering broadband services to consumers."*

Notes to editors
1. Oftel collects information from network operators on the number of broadband connections. In line with statistics on broadband connections compiled in other countries, these include connections at speeds of 128 kbit/s and above.

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116. Putting to one side the issue of sampling error in the surveys, Professor Collins notes that the survey relating to narrowband access suggests:

> *'a relatively uncommitted group which sees internet access provision as a continuum from no access through to broadband. They also suggest considerable price resistance'.*

117. Regarding the results of price reaction by broadband users to a price increase (on which the test is based), he argues that:

> *'Most noticeably, very few broadband users admitted that they did not know how they would react to price changes. It is hardly surprising that these relatively early adopters of broadband access – who presumably have, and had, higher demands of internet access – are more able to say how they would react to price changes and more likely to say they would stick with what they have. But they still seem to see the range of internet access products as a continuum from no access, through metered and unmetered narrowband, to their adopted product of broadband.'*

118. Looking forward, Professor Collins also notes that:

> *'The Director believes that improvements in the functionality of broadband internet access will serve to 'lock in' users and reduce price elasticity.*
>
> *Oftel's own research does not seem to inform this view. Research commissioned by BT does not seem to support it. The latter suggests that, whilst increased functionality would be welcomed by broadband users, their willingness to pay for it would be limited. There seems to be a marked price barrier at £30 per month – roughly the hypothesised 10% price increase over the price paid by the average current user. And we should be reminded that this is among the group of early adopters. If the Director is right in forecasting far greater uptake of broadband access within the review period, there seems little justification in applying even this relatively pessimistic view of the acceptance of higher prices to those who follow, who may well be more price sensitive'.*

119. Millward Brown also argue that the price elasticity of narrowband users is rather higher than Oftel supposes.

120. More critically, there are just as good reasons for supposing that the own price elasticity (which will be dominated by cross-price volume movements) may actually increase for broadband users in the future and not decline. This is because the class of customers who switch into broadband are likely to be more price sensitive than the early adopters who valued broadband for its additional functionality.

121. A fairly high price sensitivity still appears to prevail in the USA according to recent research[12]. Bearing in mind that in terms of broadband Internet penetration, the UK lags the USA by about the order of the Review period, the parallel is probably reasonable.

[12] US Broadband Household Projections: Tier Services & Pricing to Drive Demand; Jupiter Research; 3rd February 2003.

122. In summary, while it would be unwise to draw any sharp parallels or lessons for the UK from this latter comparison, nevertheless it is indicative that one should not imagine that price sensitivity will necessarily reduce or decline over the short to medium term. This is also the implication of the UK survey research.

123. The UK appears to be relatively unique in this regard and unmetered Internet narrowband access is a feature in relatively few countries. (As noted above, the prevalence of comparable price structures across the bandwidth range will tend to increase cross price elasticities and chains of substitution.)

Econometric Modelling Of Broadband Services

124. BT has sponsored some research into econometric modelling on traffic volumes by an external advisor – Professor John Nankervis and his report is attached. **BT would like to stress that this Report has only just been produced and we have not had opportunity to fully consider its implications and findings**.

125. The Report illustrates the ways in which it is possible to model price effects taking account of other factors which impact on underlying growth such as broadband awareness, and adoption of new technologies. The concept of a price elasticity also needs to be interpreted in the context of the circumstances at a specific point in time and the time period over which it is assumed to impact.

126. The evidence from both the UK and the USA would support a reasonably high own price elasticity of demand for ADSL broadband services[13] greater than (minus) two. BT believes that a similar price elasticity is evident for cable services but absence of major price changes precludes statistical estimation of that parameter.

127. ***[omitted]***

128. ***[omitted]***

129. ***[omitted]***

130. ***[omitted]***

131. ***[omitted]***

132. BT believes that along with the other sources of information discussed above, these trends provide compelling evidence that broadband services are inextricably linked to the take-up of midband and unmetered narrowband services.

133. ***[omitted]***

[13] Note that over this period all such services would have been above 256kbit/s.

134. Secondly, the take-up of broadband services over copper is largely from specific customer cohorts taking fully or partially unmetered services (for example evening and weekend Surftime products) and the price trade-off between the two is important[14].

135. Thirdly, the growth of midband products is just as visible as for broadband services. This is indicative that the nature of the substitution is a continuum and not a break-point. All the survey evidence examined above is fully compatible with this view.

136. Fourthly, the price sensitivity from the econometric modelling – while still only indicative and provisional - is also indicative of strong price impacts and again confirming all the survey evidence that consumers are highly price sensitive to the different packages on offer.

137. Fifthly, applying the 'single product' SSNIP test to the key parameters of importance, namely price elasticity and price-cost margins shows that (taking business and residential services together) that broadband services are unambiguously not an economic market[15].

Summary of BT's Position On Retail Internet Access

138. The evidence from: survey information; market analysts views; the views of the participants such as BT; market trends; technical assessments; economic theory; and econometric modelling, are all mutually fully compatible and reinforcing. BT believes that they demonstrate clearly that in the UK, there is no separate economic market for broadband Internet access defined according to bandwidth.

WHOLESALE MARKET BOUNDARIES

The Approach To Defining Upstream Markets

139. Oftel uses a methodology for deriving upstream markets from the identification of the corresponding retail market to derive three wholesale component markets of origination, conveyance, and termination.

140. BT considers that this methodology may be applicable in an environment of PSTN services but is not valid for broadband services which are a good deal more complex. In turn this complexity is partly defined from technical sources and partly from downstream market conditions.

141. This sub-section is structured as follows. The first part discusses the drivers behind the different ways of sourcing upstream supply. (This is written in a generally non-technical manner.) The second part offers some specific comments on issues arising from Oftel's analysis of upstream markets. The third part describes BT's approach to defining upstream markets and the conclusions from our analysis.

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[14] The econometric evidence on own-price elasticity discussed above is in effect a cross-price elasticity with unmetered narrowband services as a very high proportion of those migrating come from the unmetered narrowband service.

[15] This can be seen from noting that the critical loss estimates which Oftel uses in Annex C can be re-interpreted as critical elasticities. BT confirms that 58% would be an upper bound for a LRIC value of marginal cost and certainly too high for an HMT over 2 years. In these circumstances the critical elasticity is –1.92. The estimates of elasticity from modelling and other sources are higher than this and BT believes that the test is 'failed' by a wide margin. (While the price elasticity estimates for the ADSL products are not market elasticities, we believe that these will be close in practice.)

142. As context, BT believes that the upstream supply for broadband is complex and driven by two prime factors:

- Wholesale broadband access is capable of supporting many different applications, each of which has several means of delivery and not just DSL based broadband access which is the subject of this review.
- There are several ways in which network functionality can be provided and so the boundaries of competitive products (network services) are hard to establish.

Many-To-Many Relationships

143. In the previous discussion on the retail market for broadband Internet access, BT suggested that retail services delivered using DSL were sufficiently price constrained by both services delivered using cable modems and also using PSTN dial access to be in the same economic market. In effect the Internet access package of applications are capable of being delivered to the end user by at least three upstream delivery channels.

144. This is just one illustration of the many to many relationship between applications and access delivery mechanisms. Annex II concludes that there is effectively no significant application, at least now or apparent in the near future, for which broadband access is uniquely placed. This means that broadband access will be price constrained by established delivery platforms both electronic and otherwise.

Aspects of Product Differentiation

145. Oftel's assessment of upstream markets assumes a well defined chain of network inputs, as follows:

- Copper pair (offered by BT as LLU wholesale product).
- Copper pair ADSL bandwidth (offered by BT as line sharing wholesale product).
- DSLAM, backhaul transmission and first ATM node (offered by BT as DataStream type A service).
- ATM national network and trunk transmission (offered by BT as DataStream type B service).
- BRAS, IP router network and trunk transmission network (offered by BT as IPStream).
- IP router network, Internet peering, server hosting, portal and content service (included in BT's retail Internet service offers).

146. However, this chain of network input is not unique. The following are examples of this:

- In exchanges with strong IPStream demand, it is more efficient to terminate the DSLAM directly on the BRAS. In this case IPStream is not directly incremental DataStream.
- Internet access service can be delivered using SDSL using the full Copper pair bandwidth and packaged with PSTN using a voice over DSL (VoDSL) service instead of the baseband PSTN service. In this case the DSL service is not exclusively for Internet access nor is it built on a line sharing input.

- Similarly to PSTN, both SDSL and ADSL can be used to carry more complex packages of applications covering leased lines service and video service as well.
- Even now, IP and/or Ethernet DSLAMs are available which eliminate the ATM protocol altogether.

147. In our assessment, the following are the dimensions (which essentially are independent of each other), by which network functionality is built up in the transport aspect of broadband i.e. this does not consider addition of service surround capabilities or content value:

- Layers up the protocol stack.
- Levels of consolidation in the physical network.
- Intra application/Class of Service (CoS) switching and multiplexing. In this case all the multiplexed entities have the same basic class of service characteristics
- Inter application/CoS switching and multiplexing which may also involve service packaging. This is more complicated than the previous dimension as the different applications have different class of service characteristics.

148. These factors facilitate a wide variety of possible vertical chains of upstream supply. It appears to BT that Oftel's analysis assumes one particular way in which these dimensions are put together, but in our perspective many already exist and even more are possible.

149. However, this complexity in upstream supply is fully consistent with the nascent nature of the marketplace where service providers and network operators are testing and evaluating a wide variety of supply options in the marketplace. Over time, a smaller number of supply options is likely to emerge as preferred; however, only time will tell which these are.

Specific Comments On Oftel's Analysis Of Upstream Markets

150. In this sub-section, we make some specific comments at the more technical level concerning issues raised in Oftel's analysis of upstream boundaries. The technicality is important in defining the upstream market boundaries as discussed in more detail in Annex III.

Symmetric v Asymmetric, Contended v Uncontended, and ADSL v SDSL

151. BT's technical analysis suggests that: the factors of symmetric and asymmetric origination; contended and uncontended origination; and ADSL and SDSL, are all fully independent of each of other. A full range of 'pick and mix' between these is software-configurable on the current generation of DSLAM.

The Technical Interpretation of Asymmetric Broadband Origination

152. The implication of the Review is that the mandatory broadband origination service is an ATM virtual channel (VC) service. But neither the DSL bit pipe nor the ATM virtual path (VP) are carried end-to-end and therefore do not define the end-to-end service. But they separately and independently can place bandwidth constraints on the way ATM VCs are multiplexed together which can affect the resulting quality of service of the ATM VCs.

The Linkage With Other Downstream Markets

153. Oftel suggests that SDSL and ADSL form different markets based on different LLU input costs. BT believes that this does not take into account the full set of linkages with

downstream services. For example, SDSL is capable of supporting multiple lines of PSTN service directly.

154. PSTN services are linked with Broadband Internet service in at least three ways, all of which have a price constraining affect on broadband:

- Retail Internet dial access service is price constraining on retail broadband Internet access and thus in turn constrain wholesale inputs.
- The delivery of PSTN and DSL based broadband use the same copper pair and share the input costs of it (broadband Internet in fact being attributed only the marginal cost over PSTN) and there are conditions of some joint supply inputs.
- Upstream products such as DataStream can be used to deliver an independent PSTN service.

155. In addition to PSTN, leased lines and IP and data service also have complex linkages to broadband services in similar way to those of PSTN.

156. In the Leased Line Market Review, Oftel placed symmetric uncontended and symmetric contended origination services in the same economic markets primarily on the basis that there is 'no major cost or barrier' to supply side switching. However, contended services cannot be implemented using SDH protocol layers as these support fixed rate bit pipes. If uncontended service is implemented using a constant bit rate (CBR) ATM VC, this would be the case. But the overwhelming majority of leased lines are provided using an SDH virtual container or a PDH path. Switching from these to deliver a contended service requires the installation ATM network functionality. BT believes that the cost implications of this supply-side switching require further consideration.

157. BT also believes that there is a strong linkage between all ATM-based broadband origination services i.e. contended or uncontended, carried on ADSL or SDSL, symmetric or asymmetric in geographies where equipment deployment allows supply side switching. Whether or not ATM based origination services and SDH based origination services are in the same economic market depends on the existence of a demand side substitutability as supply-side switching is likely to be more costly than Oftel suggest.

The Relationship Between Class Of Service at the VC and VP Layers

158. Oftel's proposed requirement under the roll-forward of the ATM direction suggests that the Additional Functionality allows service providers independently to specify quality of service at the ATM VC and ATM VP layers. This specification is not straightforward to understand in technically terms and depending upon what is required, may not be technically feasible.

BT's Analysis Of Wholesale Market Boundaries

159. BT believes that analysis of upstream markets requires capturing the price constraining effects from all downstream products, any products further upstream (from which a competitor can move downstream), and parallel products (value chains) which are linked either upstream or downstream of the services or market being considered.

160. BT's analysis starts by noting that supply side switching by simple reconfiguration of DSLAMs is very likely to place some wholesale products in the same economic market:

- Supply side switching between symmetric and asymmetric origination service (i.e. at the ATM VC layer) and also between contented and uncontended within the configurable envelope of the DSL path is quite sufficiently straightforward to link these services into a single economic market.
- Supply side switching of the DSL path characteristics depends on the configurable capabilities of the installed DSLAM and the characteristics of the particular metallic path facility (MPF) to the customer premises. Both are geographically/location dependent.
- Within BT's network most of the deployed DSLAMs to date cannot be configured to SDSL but can have their ADSL configured to different bit rates up to the maximum that the MPF is capable of supporting. New DSLAM (2nd generation) are capable of being configure to either ADSL or SDSL. There is a further limitation in that the DLSAM only supports a finite number of configuration options.

161. The reconfiguration capability is dependent on the geographic roll-out of DSLAMs; not just of BT but also of LLU operators. This geographic dependency on the ability to supply side switch, makes these upstream markets geographically differentiated.

162. This supply switching means that economic markets cannot be smaller than:

- All ATM based broadband origination services which fit with either ADSL or SDSL bandwidth envelopes in the geographic areas where either BT or an LLU operator has deployed 2nd generation DSLAMs or equivalent.
- All ATM based broadband origination services which fit with the ADSL envelopes in the geographic areas where either BT or an LLU operator has deployed 1st generation DSLAMs or equivalent.

163. Note that these two markets overlap but are not congruent. Further analysis is needed to decide whether the upstream economic markets are larger than this in terms of products and geography. Where supply side switching is not possible through simple configuration of the DSLAM, the market definition analysis depends on whether:

- The demand side switching characteristics.
- The willingness of suppliers to invest in new technology.

164. Analysis of these two effects is considerably more complex. From the analysis carried out as part of this response and covered elsewhere, BT believes that demand side switching places ATM based broadband origination services oriented towards retail Internet access services in the same economic market as cable modem origination (which is internal supply with CATV companies) and narrowband Internet origination services. The former is in agreement with Oftel's analysis while the latter differs.

165. BT has not been able to carry out a full analysis on whether PSTN 'origination services' and PPCs are in the same economic market as ATM based origination services, and oriented toward the same retail markets as these upstream products. However, BT believes that they are sufficiently price constraining on ATM based broadband origination services in order to be considered in the same economic market.

166. In contrast to Oftel's assumption in the leased line market review, switching uncontended symmetric service to a contended service symmetric service is not straightforward as this involves switching from an SDH and/or PDH protocol to an ATM protocol which would normally involve substantial investment.

167. In conclusion, BT considers that the upstream market boundaries follow protocol i.e. SDH/PDH/leased lines and ATM VC rather than contended versus uncontended. There is a significant geographic aspect to such boundaries based on the infrastructure already in place.

OFTEL's QUESTIONS

Chapter 2 – Market definition

Question 2.1: Do you agree with the market definition?

168. We believe that broadband retail services above 256kbit/s are not in a separate economic market and it would be necessary at the minimum to add midband and narrowband unmetered services to them. At the wholesale level, we propose different boundaries which follow protocols. We are not clear what Oftel is defining as bitstream access in the context of the Commission Recommendation.

Question 2.2: Is there evidence that might support alternative market definition?

169. In this submission BT has provided a thorough review of a wide range of sources of information. We believe that collectively they represent a compelling case for our view on market boundaries. In particular, the cross-price elasticity between broadband and narrowband services (primarily unmetered narrowband service) would point to the former being price constrained by the latter. The converse may not be true i.e. unmetered narrowband services may be a separate market but we are unable to confirm this.

SECTION C: MARKET POWER ASSESSMENT

BACKGROUND

170. In the Review, Oftel invites comment on the SMP criteria used to determine whether market power exists in the relevant markets over the Review period. BT's position is that these criteria need to be applied in a manner which recognises the nascent and dynamic nature of the marketplace. In practice, this implies that the criteria need to be used with considerable caution and importantly, they need to be employed in a fashion which reflects the inter-relationships of pricing, market share, and other competitive indicators such as capacity of rivals to meet demand.

171. Oftel's Market Review Guidelines state (2.2):

> *'Also, in accordance with standard competition analysis, flexibility in application of the criteria is necessary between markets, in terms of the criteria used and the weightings applied. Not all criteria will necessarily be obviously relevant, although each market review will explain the selection of criteria.'*

172. BT would have appreciated fuller discussion on the choice of criteria in this instance. For both broadband origination and conveyance, it appears to BT that market shares (current and prospective) are given most weight and greatly dominate consideration of other factors. However, market shares in the circumstances of new product innovation are a poor indicator of market power. Our comments on the full range of indicators of market power are set out below and in our Legal submission.

INDICATORS OF MARKET POWER

Pricing And Profitability

173. Oftel limits the relevance of 'pricing and profitability' to a single sentence in Annex C on the basis that there is no evidence for excessive prices at wholesale or retail levels. This is in contrast for example to the narrowband retail and mobile market reviews which examined profitability in considerable detail.

174. As discussed earlier in this submission, the nature of profitability and price levels are at the heart of the identification of market boundaries. In turn, this is linked to the dimension of market power, albeit of a hypothetical monopolist. However, the basic presumption of profitability is the essence of market power; profitability is clearly an economic necessity for market power to exist.

175. Oftel has not suggested that BT is, or would be capable of a programme of dynamic predation in its wholesale prices. The discussion in the Review on sunk costs, for example, is linked to the expected level of prices *ex post* entry, but BT's forward pricing strategy is not described as a deterring influence on competitive entry as abusive in itself.

176. BT maintains that Oftel cannot attribute market power to either BT or the cable operators or any combination of wholesale suppliers (under the presumption of collective dominance) in the absence of clear and compelling evidence that the supply of the services constituting the broadband market, have a track record of profitability.

177. BT's legal submission discusses in some detail the nature of retail competition for broadband services and especially between copper and cable Internet access. The discussion under market boundaries above noted that BT faced significant pressure from ISPs to reduce wholesale prices. These ISPs are also requiring BT to tender for the provision of the wholesale services against other network operators on an end-to-end basis and we anticipate that this pressure will intensify over the review period.

Barriers To Entry And Expansion

178. BT agrees that building large scale residential focussed access networks is expensive and time consuming (3.33). We also agree that there is a copper network which is capable of providing broadband services, although the reference to 29m lines (3.34) is misleading as it includes households outside the capability of what Oftel describes as broadband.

179. However, we suggest that the related issues of sunk costs and the potential for *ex post* entry lowering prices, needs to be evaluated in the specific context. Whether the expenditure of a given sum of money constitutes a barrier to entry needs to be evaluated against the relevant lifetime revenues.

180. Sunk costs are ambiguous in terms of their relationship to market power. To the extent that sunk costs deter entry due to anticipation that additional capacity will lower prices *ex post*, they also lower the relevant price-cost margin and make it more difficult for the first operator to exercise market power over that sunk network itself.

181. BT is pleased to note that Oftel accepts that there are first mover disadvantages (3.38). Indeed, the ability to displace first movers is an essential dynamic of competitive markets. This should not be limited to consideration of DSLAMs – there are also opportunities for network bypass avoiding BT's conveyance networks and services altogether. This is in addition to the possibilities of entrants to purchase either regulated or commercially available conveyance services from BT (acknowledged by Oftel (3.39)).

182. We examine the potential for LLU operators to displace BT below; our position is that BT is already price constrained by potential competition and under competition in the marketplace[16]. We do accept that broadband technologies other than cable or DSL will probably have an impact outside the review period but this could happen quite quickly e.g. with 3G.

183. Regarding the barrier to entry to provide conveyance, BT accepts that presence or proximity to the ATM nodes would be needed for an operator not originating its own traffic. However, we do not agree that it is necessary to have presence at all BT's ATM switches and in any case, there already is a high presence at these nodes.

[16] It is a good example of the sorts of supply-side pressures which BT set out to Oftel in the Supply-Side Paper

Economies Of Scale And Scope

184. Similar considerations apply to Oftel's assessment of economies of scale and scope. These are equally available to competitors to BT, both at DSLAMs, in backhaul, and in core conveyance. ISPs such as AOL and Freeserve are capable of exercising significant countervailing buying power to enable third party network operators to achieve similar economies to BT. This has been a very visible feature of competition in the marketplace for all Internet access services.

185. BT does not see the relevance of duct infrastructure (3.45) as a source of competitive advantage given the requirement to offer line sharing. Where backhaul and core conveyance (3.69) are concerned, our position is as outlined elsewhere – our competitors can and do achieve economies of scale and scope across services both in and outside the markets covered by the Reviews as a whole.

Countervailing Buyer Power

186. For the reasons set out above, BT does not agree with Oftel's argument regarding the inability of third parties to exercise countervailing buyer power. On the contrary, there is vibrant countervailing buying power. For example, the cable companies are active in sourcing traffic over BT's network and acting on behalf of third parties. They too are capable of utilising their own access and core networks to displace BT.

Easy Or Privileged Access To Capital Markets/Financial Resources

187. BT is concerned that this indicator is being applied in a very broad fashion in all the market reviews and we have some difficulties in appreciating the economic underpinning in this particular context (3.66). If the finance markets are competitive and efficient – and the recent report to Oftel and the OFT endorsed this position – then access to finance is not a relevant factor.

188. Easy access to the capital markets does not necessarily give an organisation any more market power than its competitors, although an ability to raise funds easily and cheaply may enable its total costs to be lower than those of its competitors. As Oftel points out elsewhere, other telecommunications companies have undertaken substantial financial restructuring that may give them considerable advantages over BT in some markets, especially where network assets have been written down in their books. This means that although their access to capital markets may still be constrained, their financial structure may enable these companies to compete effectively[17].

189. In summary, BT does not agree that lower borrowing premiums 'is a potentially important advantage for BT'.

Market Shares At The National Level

190. BT has reviewed the evidence on past and projected trends in market shares presented by Oftel at 3.10-3.32. We broadly concur with the historic numbers but believe that:

[17] Of course, different companies that operate with different gearing levels may have debt with different credit ratings. This is not the same thing as suggesting that a higher credit rating is 'better' (3.71). Bond ratings depend not only on the firm's inherent status, but also on its financial structure. As a firm increases its gearing, its bond ratings would be expected to fall.

- The inclusion of other services such as the 128kbit/s service alters this picture.
- The position at the local level is very different to that presented by Oftel.
- The historic and projected shares would not support a finding of dominance.
- Such a conclusion would be significantly reinforced by consideration of the related indicators of market power as discussed above.

191. ***[omitted]***

192. ***[omitted]***

193. ***[omitted]***

194. ***[omitted]***

195. ***[omitted]***

196. ***[omitted]***.

197. ***[omitted]***

Case Law On Market Shares As An Indicator Of Market Power

198. BT's separate legal submission examines the case law in detail but the following observations can be made at this stage.

199. OFTEL (3.17) says:

> *"The Competition Act guidelines and a European Court of Justice ruling states [sic] that dominance can be presumed in the absence of evidence to the contrary if an undertaking has a market share persistently above 50% (Case C-62/86,* AKZO Chemie BV v. Commission*, [1993] 5 CMLR 215)".*

200. First, *AKZO* and other European Court of Justice decisions establish that where (i) a 'very high' market share, (ii) is held for some time[18], and (iii) without holders of much smaller market shares being able to rapidly meet the demand from those who would like to break away from the undertaking which has the largest market share, that a very high market share on its own is evidence of the existence of a dominant position.

201. However, the Court or NRA cannot, having uncovered very high market shares, conclude on that basis alone that an undertaking holds a dominant position and ignore market evidence which rebuts that initial presumption. Thus, the European Commission's Guidelines, at paragraph 78, state:

> *"The existence of a dominant position cannot be established on the sole basis of large market shares. ... the existence of high market shares simply means that the operator concerned might be in a dominant position. Therefore, NRAs should undertake a thorough and overall analysis of the economic*

[18] 3 years in *AKZO*, 5 years in *Hoffmann-La Roche*

characteristics of the relevant market before coming to a conclusion as to the existence of significant market power".

202. The European Court of Justice in *Hoffmann-La Roche*, having established shares of over 70% in a number of vitamins markets, then considered whether the pricing conduct of Roche on those markets rebutted the preliminary indication of dominance before concluding finally that Roche was dominant. In the UK, the Competition Appeal Tribunal has adopted the same approach. In *Napp*, the Tribunal stated that very high market shares give rise to a presumption of dominance which can be rebutted if there are 'countervailing indications' (paragraphs 110 and 111 of the judgement).

203. Secondly, because the competitive conditions and the structure of supply and demand vary significantly between different markets, it is essential to consider all the relevant economic characteristics in addition to market shares before reaching a conclusion on market power[19]. A very high market share in a nascent and dynamic sector with falling prices such as broadband has a lower evidential value when assessing dominance than a very high share in an established market like that for organic peroxides in *AKZO*, or for vitamins in *Hoffmann-La Roche*, where the main supplier was able even during periods of economic downturn to maintain its profitability.

204. Thirdly, the test consistently applied by the relevant case law to establish dominance under Article 82 is: a position of economic strength which allows an undertaking to prevent the maintenance of effective competition on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately its consumers.

205. In *Michelin*, the Court said (at paragraphs 30 and 31 of the decision) that the various criteria and evidence relied upon by the parties regarding the existence of a dominant position had to be examined in the light of this test. If the evidence does not show the necessary independence, there can be no dominance. Oftel's Review does not examine all the relevant market evidence to assess the degree of BT's independence as required by the case law. Statements about existing and anticipated market share are not sufficient to meet the case law's requirements.

206. Fourthly, the high market share would need to be maintained for 'some time' in which capacity limitations by competitors enable it to have 'a position of strength which makes it an unavoidable trading partner and which, because of this alone, secures for it, at the very least during relatively long periods that freedom of action which is the special feature of a dominant position'[20].

207. Fifthly, the fierce competitive conditions between BT and cable operators and the experience of fluctuating market shares over the last two years is diametrically opposite to the standard cases in which market conditions have been relatively static.

[19] See the ECJ in Case 322/81, *Michelin v Commission*, [1983] ECR 3461, paragraph 37
[20] Cases quoted by the Commission in the Guidelines footnote 79.

The Issue Of National Tariffs

208. Oftel (2.84) derives a national market from the indirect evidence that BT has national tariffs[21]. The presence of national tariffs would not by themselves be anything more than indicative that there could be a national market. (In fact here Oftel is supposing a geographical chain of demand-side impacts linking cable franchises and the rest of the country together[22].)

209. A market definition based on BT's pricing behaviour, which could change at any time, is clearly not robust. The definition does not recognise that conditions of choice and competition are not homogenous throughout the country and geographic substitutability of services is not possible in fixed networks.

Potential Entry Using LLU

210. Oftel limits the relevance of LLU on the following grounds:

> *'3.33 There are significant sunk costs for new operators seeking to offer asymmetric broadband origination services using both ADSL or cable modem technologies. These include the substantial sunk costs associated with building a local access network, enabling network elements to support broadband traffic (e.g. DSLAMs) and building further network from the DSLAM to the core network, i.e. the backhaul element. Building network infrastructure is very costly, time consuming and is difficult for new entrants to replicate.'*

211. Oftel suggests that the following sunk costs constitute barriers to entry:

- The local access element.
- Network elements which enable broadband traffic (for example the DSLAM).
- The backhaul element from the DSLAM to the core network.

212. We review each of these specific elements in turn.

213. ***[omitted]***

214. ***[omitted]***

215. ***[omitted]***

216. ***[omitted]***

217. ***[omitted]***

218. ***[omitted]***

219. ***[omitted]***

[21] With the exception of the Exchange Active Programme.
[22] The relationship of tariffs to geographical boundaries is a complex issue as Oftel noted in the Open Access debate. There are many pressures for BT to have national tariffs.

220. ***[omitted]***

221. ***[omitted]***

222. **The DSLAM**. BT enjoys no advantages in its procurement of DSLAMs which are available on normal commercial terms from a number of manufacturers. If the cost of DSLAMs is considered a barrier to entry, then it must be conceded that BT faces the same barrier as its competitors. Moreover, BT is still depreciating legacy DSLAMs (Gen I), which are more expensive, less efficient and offer less functionality than both the Gen II DSLAMs and mini-DSLAMs now available to entrants.

223. **Backhaul**. As noted by Oftel (para. 3.39), cost-based backhaul is ubiquitously available to operators; in practice, BT can be said to have unbundled the backhaul as well as the local loop. There is therefore no need for operators to sink costs in building their own backhaul, and this element cannot be said to constitute a barrier to entry.

COMPETITION IN CORE CONVEYANCE

224. BT agrees that third parties have capability of conveying traffic independently of the provision origination services. This is closely analogous to the narrowband market where operators interconnect to BT's switched network at the DLE and DMSU (or equivalent trunk switch) level to convey narrowband traffic. In fact, narrowband internet dial up is now a significant portion of this interconnect traffic.

225. ***[omitted]***

226. ***[omitted]***

227. ***[omitted]***

228. ***[omitted]***.

229. ***[omitted]***

230. ***[omitted]***

231. ***[omitted]***

232. In summary, BT believes that actual and potential competition for core conveyance is substantial and given that Oftel was not able to quantify or measure even the relevant market shares of the different operators (especially including cable), that SMP in conveyance is not demonstrated.

OFTEL's QUESTIONS

Question: Do you agree with the SMP criteria used?

233. We appreciate the need to review a wide selection of criteria. In this instance we believe that they have been looked at independently from each other and not considered in the round and are insufficient. Had a different approach been taken compatible with case law, much

less emphasis would be placed on market shares. Particular issues we would like to emphasise are competitive conditions in the cable franchise areas. The Commission Guidelines emphasises that case law defines dominance from the ability to lower output without incurring significant losses. BT does not believe the evidence demonstrates this. We refer to our separate legal submission.

Question: Do you agree on the assessment of SMP?

234. We consider that SMP has not been demonstrated in either origination or conveyance. BT would particularly wish to emphasise the matter of market boundaries in this regard; full consideration of the SMP criteria should encompass the price constraining impact of a much wider group of retail services including midband and unmetered narrowband Internet services.

Question: Do you have any comments on future developments that might affect these assessments?

235. We re-iterate our position that the nascent and dynamic nature of the marketplace makes an SMP designation unreliable. We anticipate that as broadband volumes grow over the next few years, the competition for both origination and conveyance will intensify.

SECTION D: REMEDIES

BACKGROUND

236. The comments in this Section should be read in the context of the following:

- BT has already offered an attractive package of wholesale products which are enabling a full diversity of retail product offering. BT is also proactively continuing the development of these products.
- Our general position is that, given the particular circumstances in the UK with both effective competition from cable companies and BT's proactive stance in the wholesale marketplace, the costs of *ex ante* regulation as proposed by Oftel, will outweigh the benefits. This especially applies to the margin squeeze test and the requirement to deal with individual requests for access services.
- BT of its own volition would want to offer some of the solutions as good business practice in the absence of regulation, albeit not in necessarily the same fashion as proposed by Oftel. These include technical standards and Key Performance Indicators (KPIs).
- Oftel's Review does not set out any market analysis justifying the Additional Functionality services.

237. We are also concerned as to the assessment of the 'no undue discrimination' requirement. As discussed below, a level of contractual freedom with wholesale customers can have pro-competitive features especially where service innovation is concerned. Such developments are part of normal commercial development and third party service providers quite legitimately seek a measure of service differentiation from each other. While some of the service differentiation can be achieved fully within the network functionality over which the third party has total control, some aspects can be related to the wholesale bitstream access service supplied by BT.

238. There are situations where a third party service provider seeks a contract from BT where it does not want the same commercial terms and conditions to be available to other service providers so it can gain First Mover Advantage (FMA)[23]. Examples include:

- Where a new application requires a significant development investment, for example roll-out to remote rural exchanges, the service provider is likely to want to negotiate an arrangement whereby they can recover their development costs ahead of competitive entry.
- Where a service provider seeks bespoke contractual terms and conditions including reductions for committed minimum volumes.

239. An alternative way to differentiate when there is full publication of terms and conditions is that service providers are then motivated to seek technical service differentiation. However, in order to respond to a service provider with a technical differentiation, other service providers may well require a level of network re-engineering which will inevitably take time. This tendency towards technical differentiation is forcing BT to consider a variety of options which is expensive and inefficient both in terms of development expenditure and

[23] BT submitted comments to Oftel on this matter in the context of the AID Guidelines in July 2002.

network investment. We do not oppose all forms of technical differentiation but this is something which needs to be dealt with on commercial merit.

240. Further, services providers submit their different technical solutions to BT through the SoR process and there is an incentive to formulate these SoRs in such a way as to maximise the re-engineering required by other service providers should they wish to make use of the same bitstream access capability.

241. Consequently, BT believes it is in the best economic interests of the industry itself to try to reach a consensus on the technical specification of wholesale bitstream access. A reasonably stable technical specification will allow a full diversity of applications to be developed and other investors in access infrastructure to make their investments without the unreasonable expectation of substantial re-engineering costs for each new application.

242. In this regard, BT cannot deduce from the Review any clear definition of what Oftel proposes to regulate. BT notes the following from the Review:

- The scope is not clear from the market definition of 'asymmetric broadband origination service' as this does not discuss the separate key aspects of protocol layer, physical network consolidation, same service multiplexing and switching, and multiple service multiplexing and switching (this is discussed in more detail in Annex III) which are all central to defining the market scope and boundaries.
- The roll forward of the ATM Direction mandates that BT provides 'Additional Functionality service' which has no relationship to the retail market analysis, the functionality being inapplicable to broadband Internet access but applicable to other retail products such as PSTN, leased lines, and video services.
- Paragraph 4.140 reads 'One of the results of these proposals is that the current regulatory obligations with which BT complies in respect of its intermediate services such as IPStream will be removed'. While this is welcomed, its exact application depends upon the resolution of the other issues identified above.

243. Further, the definition of the scope of regulation is central to all the other remedies such as requirement to notify terms and conditions, notify technical information, requests for new access, and the requirement not to unduly discriminate. If the scope is not clear, frequent and continuous disputes are bound to arise, which, at minimum, are costly and delay development of service.

244. BT agrees that defining the scope of fair regulation is not straightforward. This is a result of the nascent and innovative nature of the marketplace and given that BT is proactively developing wholesale solutions in conjunction with industry, the imposition of *ex ante* remedies is counterproductive. On this point, BT is also concerned that it is facing an obligation breach which exposes it to potential fines, but without any manner in which it can determine whether it is compliant.

245. In the discussion that follows, BT has grouped its comments on the proposed Remedies thematically as follows:

- Publication and standards. This includes the Reference Offer, notification on technical standards, notification of terms and conditions and KPIs. The general

conclusion here is that BT would wish to notify standards and supply quality of service information in any case.

- Service Development. This includes the ATM Direction roll-over and the generic requirement to meet all reasonable requests for access. Our main position is that it is not possible to handle multiple requests on an individual basis and some degree of co-ordination is needed.
- Discrimination and the margin squeeze. BT has major objections to the application of the margin squeeze test. In practice the pricing of broadband services may require discriminatory pricing over time and across different users of the broadband platform. Our comments on accounting separation are included here.

246. The relevant Oftel questions are also grouped appropriately with the text elaborating on the brief answers contained at the start of this response. Annex IV covers the issue of the Margin Squeeze test in detail, along with a report commissioned by BT from CASE Associates.

Question 4.1: Do you agree that in general terms, *ex ante* regulation is justified in the markets where SMP is proposed?

247. Of its own volition BT, would want to offer some of the proposed *ex ante* solutions as good business practice. Oftel has not discussed in the Review an environment based on *ex post* regulation based on competition law on the presumption that *ex ante* is the only effective way of establishing competitive markets and that competition is central to securing the best deal for the consumer.

248. As discussed throughout this response, BT's view is that given BT is proactively developing wholesale solutions in conjunctions with the industry, *ex ante* regulation of the type proposed by Oftel in this nascent and innovative marketplace will do more harm than good when measured against the ultimate goal of end user welfare.

PUBLICATION AND STANDARDS

Requirement To Publish a Reference Offer (Condition EA3)

Question 4.5: Do you agree that a requirement to publish a reference offer should be imposed on BT and Kingston in the markets proposed?

Question 4.6: Do you have views on what a reference offer should contain?

249. While BT favours publishing the details of a widely available service, it does not agree with the imposition of all embracing *ex ante* regulation, particularly for contractual and commercial terms.

250. BT perceives that it is in its own interests to ensure that its retail customers, CPE vendors, and wholesale customers have sufficient technical information to make full and effective use of its service. This published information covers basic contractual terms, conditions, and pricing information, and the technical specification of the service.

251. As discussed above, BT's concern is that there may well arise circumstances where a service provider reasonably and legitimately seeks a contract which has variations from the

basic published information, particularly in the terms, conditions and pricing. BT would like to explore with Oftel whether suitable reporting arrangements could be put in place to facilitate this.

252. As regards the technical aspects of published information about services, generally speaking BT makes available all technical interface specifications for its services irrespective of regulatory obligations. These are lodged in the public domain as supplier information notes (SINs) and service provider information notes (SPINs) and within the Contracts such as the broadband specific contracts.

Requirement To Publish Technical Information (Condition EA6)

Question 4.8: Do you agree that a requirement to notify technical information should be imposed on BT and Kingston in the markets proposed?

253. As noted above, BT considers that it is in its own commercial interests to publish the technical interface information relating to its services, both for retail and wholesale services. Therefore, BT does not believe it is necessary for Oftel to mandate this through *ex ante* regulation.

Question 4.9: Do you agree that 90 days is a reasonable period for notification of new or changed technical information in the markets proposed?

254. Notwithstanding BT's position on *ex ante* regulation, there are a number of scenarios that could be considered within the context of 'new or changed technical information'. Whilst 90 days is consistent with current BT licence Condition 15 on interface notification periods, the obligation needs to be considered from the viewpoint of what is the minimum necessary to allow an efficient operator to effect changes in its network.

255. The telecommunications market has changed markedly over the past decade. Telecommunication suppliers must now operate in a global market. Equally, the time to market for telecommunications services has been significantly reduced which puts increased pressure on network operators to use equipment that is readily available on the global market, i.e. to use equipment designed to international or industry standards.

256. In light of this, BT proposes that the minimum necessary notification period should be 28 days where the equipment is designed to international or industry standards and that 90 days should only apply in the rare cases where non-standard equipment is used. Changing the obligation in this manner is consistent with Article 17.2 of the Framework Directive that requires Member States to encourage the use of standardised equipment and specifications.

257. Whilst this proposal is potentially already feasible within the proposed SMP Condition EA6.1 by the inclusion of the words 'Save where the Director consents otherwise...'. BT proposes that this Condition is reworded to reflect specifically the different notification periods applicable to standardised and non-standardised specifications as this would reflect the minimum necessary obligation, the requirements of the Framework Directive Article 17.2, and remove unnecessary processes in managing notification of technical information.

258. As BT has highlighted in responses to previous consultations relating to notification period for technical information, we believe that the UK has had excessive notification periods compared to the rest of Europe. Whilst we acknowledge that the notification periods

have been reduced by Oftel as a result of these previous consultations, notification periods in other European countries remain much shorter than 90 days. Article 7.2 of the Framework Directive requires that National Regulatory Authorities shall co-operate with each other and with the Commission in a transparent manner to ensure consistent application of the Directives.

Question 4.10: Do you agree that a requirement to consult on interfaces is no longer appropriate?

259. BT agrees that the imposition of such a remedy is not appropriate.

Transparency As To Quality Of Service (Condition EA5)

Question 4.11: Do you agree that a requirement to publish a set of KPIs, subject to the detail being agreed after consultation, should be imposed on BT in the markets proposed?

Question 4.12: Do you have any views on the areas where KPIs might be required in the markets proposed?

260. In most circumstances, BT finds it is in its own commercial interests to publish quality of service information for its services. Again, notwithstanding BT's position on *ex ante* regulation, BT offers comments on the practicalities of this particular remedy.

261. The Oftel proposal is at this stage very broad, with the potential for a very wide set of KPI reporting requirements upon BT in future. BT is committed to improving service levels on both retail and wholesale products. However, service level reporting can involve very complex and labour intensive work and BT would suggest that regulatory intervention is only imposed if co-operative industry discussion has not provided the desired outcome in a reasonable timescale. Any regulatory analysis should take into account the costs and benefits involved.

262. Furthermore, the scope of any such regulatory requirement should be limited to the requirement to show non-discrimination, in line with the motivation for KPI requirements set out by Oftel in the Review which relates solely to transparency and non-discrimination.

263. BT supports the point made by Oftel that it would be impractical to presume that identical processes and systems should be used for services provided to other operators as for those employed for BT's own services. It follows that in some cases the specific performance measures cannot be precisely the same. In such cases, the costs of changing the relevant operational processes in such a way as to enable identical measures may well be disproportionately high, compared to any benefits that might arise from the reporting. We suggest therefore that KPIs should be 'equivalent' rather than 'the same' as a general requirement.

Requirement To Notify Prices, Terms And Conditions (Condition EA4)

Question 4.7: Do you agree that changes to terms and conditions should be notified 28 days in advance.

264. BT voluntarily includes a notice period within its broadband contracts as this is part of normal business practice. With or without a presumption of SMP, BT sees the imposition of this *ex ante* remedy as unnecessary.

265. As discussed in the introduction, BT's concern is that there may well arise circumstances where a service provider reasonably and legitimately seeks a contract which has variations from the basic published information, particularly in the terms, conditions and pricing. Even in these circumstances, BT would normally expect a notice period to apply to any contract changes.

SERVICE DEVELOPMENT

Requirement To Provide Network Access On Reasonable Request (Condition EA1)

Question 4.2: Do you agree that a requirement on BT and Kingston to meet all reasonable requests for Network Access on reasonable request should be imposed on the markets proposed?

266. BT has particular concerns about the effect such a remedy will have in the nascent and innovative broadband market. As was noted above, BT is concerned that this remedy, along with the associated SoR process, will work against achieving economics of scale and scope essential to the ultimately profitability of wholesale broadband access services.

267. BT is particularly concerned that the scope of asymmetric broadband origination is not meaningfully defined, and hence the scope of what may come under this remedy is unclear.

268. In a context of a presumption of SMP, BT is prepared to negotiate reasonable requests in accordance with the Access and Interconnection Directive with a view to meeting such requests. BT wishes, however, to re-iterate its stance that the strict conditions for access need to be proven under the requirements of the NRF which includes an assessment of the benefits to downstream users i.e. consumers[24].

269. There are a number of critical factors to consider in how access requests are handled and the key issues are highlighted below.

270. Demand has to be demonstrable. Given that BT may have to commit significant resource to meeting requests, it is not unreasonable that such a request is supported by a proper business proposal and in some cases a share of the risk of failure. We believe our position here is in accordance with Oftel's in its AID Guidelines. In general, reasonable requests will need to be negotiated such that the impact on the BT network can be evaluated as well as the underlying commercial viability. Experience of regulatory intervention over the past year has provided real examples in the Broadband area where BT has been mandated to implement a

[24] We note that Oftel in the AID Guidelines made consumer welfare the principal goal of regulation. This does not encompass intermediate users of access services and we refer to the submission by CASE Associates on this matter.

product in a short period of time, only to see that product sit on the shelf for many months afterwards.

271. Request prioritisation. BT has a finite development resource to meet reasonable requests and considers it would be beneficial for the majority if the industry were to prioritise its requirements so that resource could be pointed to the important ones. The current 'scatter gun' approach is costly for BT, inefficient for the industry and does not serve end-users interests. Much better co-ordination is necessary.

272. Finite technical resource. There are some critical capacity limitations within the broadband network and using up such resource for one operator may sterilise that facility for everybody else, including other potential broadband solutions. BT would consider it reasonable to object to proposals that disproportionately restrict the capability of the network as a whole.

273. Timescales. The timescales for offering a new feature depend on numerous factors such as technical complexity, dependence on external suppliers, efficient deployment with software drops etc. To dictate any form of mandatory 'fits-all' fixed period to offer a service would be unreasonable and impractical.

274. Illustrating the difficulties created by this remedy, BT has recently had two significant requests for new service. In order to meet either of these requests, BT has to undertake development, particularly of the support systems (each estimated at over £1.5M), as well as substantial network equipment upgrade (each estimated at over £10M).

275. While both of these requests are reasonably closely related, they are not sufficiently close to generate significant overlap in either development costs or network equipment upgrade costs. Just as significant, is that all support systems development must be fitted within a regular release schedule, and given developments BT is already committed to, the timetable for meeting one of the developments is longer than desired by the requesting party, let alone both sets of requests. It is difficult to see how in the proposed SoR process and requirement to meet 'reasonable' requests for access, BT could progress these product developments simultaneously. BT would also suggest that part of the interpretation of 'reasonableness' should consider the context of the track record of the requesting party.

276. Given the economies of scale and scope associated with broadband access technologies, BT believes that it is in everyone's ultimate interests to achieve a reasonable industry consensus on the scope of asymmetric broadband origination and the technical specification of services covering this scope. BT hopes that achieving such a consensus is also Oftel's goal.

<u>Requests For New Network Access</u> (Condition EA7)

Question 4.13: Do stakeholders agree that there are problems with the SoR process in the asymmetric broadband origination markets? What evidence is there to support this?

277. Whether in the context a presumption of SMP or not, BT believes that it is in the end users, service providers, and its own interests that the industry achieves a reasonable consensus on the scope and technical specification of asymmetric broadband origination services.

278. There are several UK industry mechanisms as well as international standardisation bodies which assist in achieving this consensus and BT believes that the Oftel sponsored bodies in the UK have a strong track record in this area.

279. BT is very concerned to ensure that any SoR process mandated under a presumption of SMP will not adversely affect the work of these bodies and is keen to discuss with Oftel on how they can be integrated into any SoR process.

280. BT has identified a number of options in this regard. One possibility is that any SoR process should include within it, the provision that the SoR may be submitted to the relevant industry forum. In this case, the wider industry discussion would follow the filing of an SoR with BT.

281. As with BT's response to the leased lines Market Review, BT does not consider that specific regulation of the SoR process is appropriate. We believe that the very short timescales proposed in the Review will not be adequate to allow proper consideration of new requirements and that these limitations are likely to lead to disputes in situations where more considered discussion of the new requirement would be more productive. More detailed comments on the proposals are outlined below. In making these comments, we would like to emphasise that we are nevertheless willing to consider amendments to the current process, but feel that this is best done through discussion of specific concerns.

282. The amount of time and effort required to consider any new requirement will depend on the complexity of the issue and the clarity of the original request. A problem with any prescriptive SoR timescales is the need to take into account the time that is reasonably required to consider the more complex cases, particularly in the case of broadband, which is nascent and innovative, and whether technical aspects of an SoR fit with a wider industry consensus. We do not believe that the current proposal provides a practicable framework for dealing with the range of requests we receive. Specific concerns are outlined below.

Acknowledgement

283. The current contractual response time is 5 working days. We consider that this timeframe is reasonable and do not think there would be significant benefits in reducing the timeframe by 1 day.

1st Written Response

284. Oftel proposes that BT should respond in writing to the request within 20 working days. Given the complexity of some issues, particularly in the case of broadband where many requests imply technical innovation, this timeframe may not allow sufficient time for a meaningful first response. At this point, BT believes there needs to be a mechanism for engaging a wider industry discussion where significant technical development and/or new technical interface specification is involved, including performance parameters.

2nd Response No Feasibility Required.

285. Oftel proposes that where a Feasibility Study is not required, terms and conditions are offered within 20 working days of the request. Given the earlier stages outlined above, this allows around 10 working days to define the product, including any necessary supporting process, and produce a new contract, or contract variation, and prices for the product. Again, we are concerned that this timeframe may not be practical for the more complex SoRs. Our

view is that the current practice of seeking to agree a development timetable with the requestor based on the requirements of the product concerned, is a more practicable approach.

2nd Response Feasibility Required.

286. Here we have further concerns, as the proposed timescale is only extended by 20 working days where a feasibility study is required. We do not consider that this will allow sufficient time for a feasibility study in the case of more complex SoRs.

Requests Not Sufficiently Defined

287. The proposed process does not explain how the timescales would be affected in those cases where the original SoR submitted does not contain enough information to understand the basic requirement.

Complex Requests

288. We recognise that less complex cases can be accommodated in shorter timescales than the current contractual limit. The difficulty is in agreeing a workable definition of 'less complex' and we would welcome discussion on this point. We would be concerned about reducing the current maximum timescales, but BT could consider reducing the average response times. We could also provide Oftel and the other industry players with regular reports on our performance in this area.

289. Subject to our concerns about complex requests for access, our initial proposals for average response times, with all responses being subject to the existing maximum timescales are as follows:

Acknowledgement	5 working days from Request
1st Response	15 working days from the Acknowledgement BT gives written response - More information required (SoR will not proceed into the 2nd phase of analysis until the information is received) - Need to consider further - Reject for given reasons
2nd Response	35 working days from the Acknowledgement Reject as a Regulatory requirement Accept as a Regulatory requirement and agree a timetable for development (this may involve further technical Feasibility work) Reject as a commercial development Accept as a possible commercial development and propose a timetable for further activities including future go/no go decision points.

Question 4.14: Do stakeholders agree with the outline proposals set out above for the regulation of the SoR process?

290. In a context of a presumption on SMP, BT supports the view that there should be an SoR process; however, the proposed process appears to have many gaps and it is perceived it will lead to a stream of disputes over the operation of the process, particularly where the interpretation of 'reasonable' is concerned. See discussion on the SoR process above.

ATM Direction Roll-Over (specific Direction under EA1)

Question 4.16: Do you agree that BT should be obliged to provide ATM interconnection as described in the Direction at Annex B?

291. BT currently offers, or has active trials, of the product set described within the Published and proposed ATM Direction and believes it is inappropriate to implement the proposed Direction going forward.

292. Broadband is evolving at a significant pace and the product set is constantly being enhanced. Publishing a static set of rules such as in the ATM Direction will, over time, have minimal impact and can stifle innovation and commercial choice in the meantime. For example, BT already allows its customer to select their own fill within a VP, yet the ATM Direction (existing and proposed) only allows a maximum of 32 or 150 EUDPs on a single VP. Leaving aside the Margin Squeeze issue which is discussed elsewhere, there is no merit in maintaining the technical part of the Direction as the services are already exceeded or will be exceeded in time.

293. In addition, difficulties arise as the Direction seeks to define technical details in an inappropriate context. Two illustrative points are the following:

- The additional functionality implies that service providers can independently request the class of service of ATM VPs and their constituent ATM VCs. This is not technically possible.
- Although BT meets the VP size requirements of its customers, the clause 'scalable VPs' requires BT to offer VPs to size that includes infinity bandwidth where compliance is not technically feasible. If Oftel is going to set such requirements then it should also set reasonably practical maximum limits.

Question 4.17: Do you agree that a specific *ex ante* requirement to comply with a margin squeeze test is an appropriate way to set and police interconnection charges?

294. BT does not agree with the specific *ex ante* requirement to comply with a margin squeeze, and the experience to date shows that the test as currently implemented is arbitrary and unworkable. This is discussed below in the section on retail minus price regulation where we consider alternatives.

Question 4.18: Do you agree there is no similar case to impose requirement similar to the ATM interconnection direction on Kingston?

295. BT commercially launched DSL ATM access services some years ago as DataStream and the DSL ATM Direction added to the features supplied. BT is of the view that Kingston should be given a period of time to voluntarily provide services given demonstrable demand, before intervening.

PRICING AND NON-DISCRIMINATION

LRIC Plus and Retail Minus (specific direction under EA1)

Question 4.3: Do you agree that retail minus is the appropriate pricing rule? If so do you consider that BT's actual costs or an estimate of an efficient entrant's costs should be used as the basis for calculating the "minus"? If the later, how should this be assessed?

Independent Review

296. BT invited CASE Associates to review the legal and economic issues which underpin the proposals and their report is attached. In summary, they conclude that:

- Oftel has failed to demonstrate the inadequacy of Competition Law to handle this type of issue and thus is not compliant with the Directives and the Commission Guidelines.
- The test as proposed is flawed in approach, it does not have clear implementation and will be associated with high margins of error and compliance costs.

297. CASE Associates show that the conditions in the broadband market do not satisfy those for an effective price squeeze. This is because ADSL services provided by BT face competition from other services at the retail level. The Framework Directive requires that retail competition be assessed first, and that proposed obligations be assessed in terms of whether they promote retail competition. This has not been done.

BT's Analysis

298. BT presents its own analysis on the margin squeeze at Annex IV and a summary is reproduced below. Our position, is that at the ISP level, Oftel can deal with alleged margin squeezes under Competition Law. Furthermore, the marketplace is vibrant with many third parties taking DataStream services and competing downstream with all sorts of innovative offers. There is no track record or evidence that BT's competitors have been unable to enter, and indeed smaller entrants have entered and been successful. BT's scale and ubiquity have not prevented entry.

299. The impact of Oftel's approach has not been assessed fully in terms of the ROA which Oftel itself has set out as an (essential) part of any regulatory assessment. There are significant tradeoffs in terms of the mix of infrastructure and service competition which in BT's view have not been fully considered.

300. Our position in summary, is that the proposals for pricing based on margin squeeze:

- Do not appear to be consistent with case law or a reasonable interpretation of how competition law might be applied to such a situation and the proposals extend beyond the legitimate scope of *ex ante* regulation as envisaged in the Directives.
- Are unlikely to satisfy conditions of economic efficiency both because of an inappropriate conceptual framework and also the high element of uncertainty in the application of the test will disincentivise innovation in products and networks.
- Will be even more difficult to apply in practice than the current regime given the requirement on BT to extend the range of asymmetric origination services with new functionalities.

Alternatives To The Margin Squeeze Test

301. The following are the possibilities which BT has been able to identify under the presumption of an SMP designation:

- No price control but a general obligation not to discriminate unduly.
- A limited application of the margin squeeze test, subject to much more precise parameters and a template with periodic rather than continuous monitoring. All ISP services would be excluded and dealt with under the Competition Act.
- ***[omitted]***
- ***[omitted]***

302. In light of the strong competition in the UK, BT's preferred position is the first option above. We do not believe that a margin squeeze test should be applied *ex ante*.

303. In the absence of margin squeeze tests, BT would propose that Oftel handles complaints under the Competition Act. BT would like to explore these alternatives with Oftel to find a way forward from the current unacceptable system.

304. ***[omitted]***

305. BT does not see how sensitivity testing can be judged in the absence of a better appreciation of how Oftel proposes to operate the test. This also applies to our position regarding the level of aggregation of services, noting that the test is concerned with markets and not individual services.

Requirement Not To Unduly Discriminate (Condition EA2)

Question 4.4: Do you agree that a requirement not to unduly discriminate should be imposed on BT and Kingston in the markets proposed?

BT does not believe the case for dominance has been proved and so in principle we do not agree with this obligation.

Legal Interpretation Of Discrimination

306. BT agrees with Oftel that discrimination requires assessment of an extent of the effects-based impact and that it must be material to be deemed undue. Competition law does not contain a per se rule against discrimination. Professor Whish[25], for example, states that EC competition law contains an assessment of appreciability – 'In order to come within Article 81 or 82 there must be an appreciable effect both on inter-state trade and on competition'.

307. The OFT[26] states that in their interpretation of the UK Competition Act, which is required to be consistent with EC law, 'Price discrimination, and discrimination more generally, may be an abuse under the Chapter II prohibition. Whether it is an abuse depends on the effect of any discrimination on the market'.

308. The EC Commission has developed the concept of 'objective justification' to distinguish abusive conduct from that which is pursued as a matter of legitimate commercial policy. For

[25] Competition law, fourth edition, page 117.
[26] OFT 'Competition Act'. Assessment of Individual Agreements and Conduct', page 7.

example, quantity discounts are considered to be objectively justified by cost savings (cf. Commission Decision (89/22/EEC) BPB Industries OJ [1989] L 10/50, par. 644).

Economic Assessment Of Discrimination

309. In our submission to the Oftel consultation on Guidelines for the application of the AID in 2002, BT suggested that interpretation of discrimination (which for example includes a price squeeze) in an innovative framework has to be treated with great caution because discrimination can have pro-competitive and pro-innovative impacts:

> *'It has already been fairly widely recognised that in markets with extensive economies of scale and scope, there is an issue regarding how such firms should recover their common/fixed costs. Furthermore, in Schumpeterian competition, firms need to do better than this – they need to earn positive quasi-rents in order that there be some positive ex ante expected return to the investment in innovation. Price discrimination is an essential tool by which firms can address the cost recovery problem.*
>
> *The above analysis has indicated that firms in Schumpeterian competition will wish to, or through competitive pressure will be forced to, implement a dynamic price strategy, a form of intertemporal 'price discrimination'. In addition, they can be expected to pursue atemporal price discrimination. Second and third degree price discrimination may of course induce short term welfare losses (although the extent to which this is true is largely an empirical matter). However, such price discrimination may be essential if the life cycle quasi-rent earned by the firm is to pay off the initial expenditure.*
>
> *In innovative markets therefore, the issues that arise with regard to price discrimination at a single point in time are essentially the same as those that arise from inter-temporal price discrimination (penetration pricing, skimming pricing). Because the incentive to innovate is inextricably linked to the types of price policy the firm is then allowed to pursue, restrictions on atemporal price discrimination, in like fashion to restrictions on inter-temporal price discrimination, may have adverse consequences for the incentive to innovate, and this in turn can translate into adverse long term consequences for consumer welfare. Of course, even in non-innovative markets, the welfare consequences of atemporal price discrimination are theoretically ambiguous and hence require a case by case empirical assessment.'*

310. Similar sentiments are also expressed in OFT 414 (paragraph 3.8) and OFT 417 (7.27). Further, even where exclusion happens, it is argued in OFT 417 that this is not necessarily abusive as such.

311. Price discrimination can enable the innovator to earn monopoly quasi-rents which are essential to innovation itself. The fact that a supplier might fail a price squeeze test (in which the imputed input price is assumed to be equivalent to that taken by third parties) is not by itself proof of exclusion or of exclusionary intent. This is true even if the third parties are competing in the same downstream market as the integrated supplier, as product differentiation will imply differing profit margins and willingness to pay at both retail and wholesale levels. BT would hope that Oftel will consider this as a relevant factor by which to assess 'overall economic benefit gained from discrimination' (Oftel AID Guidelines 3.11).

312. The Review, however, appears to take a very narrow view as to the grounds for permissible discrimination and which are not at all helpful in the context of the provision of broadband services. For example, cost differences are regarded as acceptable (as in the AID Guidelines (3.8). However, the notion of costs is not explained in sufficient detail to be a workable concept. In practice, given the high degree of common costs in the provision of broadband services (Annex III), a high element of market-related pricing is essential. This in turn will require considerable judgement on the part of BT.

Burden Of Proof

313. In turn, we cannot always be expected to be able to anticipate the competitive impact of different pricing structures on downstream markets. There is an issue of evidentiary standards and burden of proof which needs to be understood.

314. BT re-iterates its position with respect to a number of issues including volume discounting, first mover advantage and exclusivity all of which should normally be permissible in the circumstances of innovative services. Temporary market power is not a problem which requires *ex ante* regulation and the scope of the remedies should only be where competition law will not suffice.

Accounting Separation

Question 4.15: Do you agree that accounting separation requirements should be imposed in the markets proposed?

315. Oftel notes that the processes of cost accounting and accounting separation are complex and are therefore subject to a separate consultation. In the Review, Oftel has made various proposals on cost accounting and accounting separation. These are supplemented by the more detailed proposals of the Financial Reporting consultation.

316. In the time available between publication of the Financial Reporting consultation and the submission of this response, it has not been possible for BT to consider fully the comments made in the Review given the context of the detail set out in the separate Financial Reporting consultation.

317. Our substantive response to Oftel's financial reporting proposals will be made in our response to the Financial Reporting consultation. However, we would make the following preliminary observation in respect of Oftel's proposals as set out in the Review:

318. Oftel is proposing the imposition of accounting separation obligations in markets covered by its review (4.106), to enable Oftel to monitor obligations as to undue discrimination. In 4.116, Oftel argues that non-discrimination should apply on a service or product basis, and that monitoring should not be carried out only at the market level. BT has significant concerns as to the level of granularity for product reporting. This would also be disproportionate with respect to the nature of the issue in hand, as discussed by CASE Associates in their Report on the operation of the margin squeeze.

CONTENTS TO ANNEXES

ANNEX I

ANALYSTS ATTITUDES TO BROADBAND APPLICATIONS

This Annex sets out the views of industry analysts to the importance of advanced broadband applications as a driver of broadband take-up. It looks at web pages, file sharing, two way video communications and on-line gaming.

Web Pages

1. BT is not aware of any analysts suggesting that advanced web pages by themselves or necessarily in conjunction with other applications will be a significant factor driving both broadband usage and a willingness to pay a premium for bandwidth. As discussed below in Annex III in the technical assessment of applications, most web pages are not set up for broadband in any case and this situation is unlikely to change in the medium term.

File Sharing.

2. This covers both music and video downloads and was reviewed by Jupiter Research[27] as to whether it could be 'broadband's first killer application'. File sharing is fuelling broadband growth in Europe and in our Interim Submission of January 2003, we noted that it was a minority of broadband users who were responsible for using a disproportionate amount of bandwidth capacity in the network. We also noted that a number of companies – BT included – are attempting to promote the legitimate use of broadband access for streaming music and video. As yet, this is still a relatively small market.

3. Jupiter point out that file sharing is causing a burden on all broadband service provider networks:

> *'More advanced Internet countries have a higher proportion of file sharers.'*
>
> *'One European backbone owner said between 40 and 50% of total network traffic is from file sharing. In the US this is probably closer to 60%.'*
>
> *'By the end of 2003 data limits will be the rule not the exception.'*

4. Jupiter indicate that solutions such as usage charges are liable to be placed in order to restrict such usage therefore questioning the long term viability of this 'killer application'.

5. The view of file sharing being a potential killer application for broadband is supported by Frost & Sullivan[28]. They state that point-to-point file sharing without paying a royalty to

[27] European Broadband Access: Managing Subscriber Growth Under Pressure of File Sharing; Jupiter Research; 23rd January 2003.
[28] Competitive Assessment of Satellites vis-à-vis Terrestrial-based Broadband Technologies; Frost & Sullivan; 28th October 2002.

the artist is the killer application the market has been waiting for. Napster was of course closed down, and Legg Mason Wood Walker[29] quote another industry analyst as saying:

> *'Napster was the closest thing that we have seen to a killer application (for broadband access).'*

6. BT has already pointed out that there are acute concerns within the industry regarding IPR and while clearly not all end-users are engaging in illegal practices, certainly a significant proportion are openly or inadvertently breaking the law. It is interesting to note that in the USA there are continued efforts by the content owners to use litigation to limit the loss of revenue from file sharing – Figure I.1

Two-Way Video Communications

7. There are some suggestions that videoconferencing, as suggested by SPR and Oftel, will become a key application. Legg Mason Wood Walker, suggest that: -

> *"The full promise of the broadband revolution has yet to be experienced. We believe that videoconferencing increasingly will be seen as the killer application within broadband communications……create[ing] the critical mass of users needed for this already fast-growing technology to explode."*

8. This statement was made a year ago and BT is not aware that there has been any significant development in video conferencing which would support what Oftel proposes. It does not seem to be identified by analysts at the moment as the real 'killer application'. Note that two-way video conferencing is a symmetric and not asymmetric service.

Online Gaming

9. Online gaming has sometimes been cited as one of the killer applications for broadband. However, the reality is that currently this is only the case in South Korea and there is no evidence that it will extend in a similar fashion to other countries over the Review period. The circumstances in Korea appear to be both cultural and not transferable to other countries. The government has heavily supported the rollout of broadband this has been coupled to a general 'fondness for multiplayer online games'. What has effectively happened in South Korea is that online gamers have moved out of Internet cafes and in to their homes to access these games30.

10. The online gaming market clearly does have potential to develop in other countries. Growth may occur as a result of next generation games consoles, which are scheduled for arrival in 2005. Although many of the current generation machines are broadband-enabled, their operation has not been linked to broadband. The factor responsible for driving the development of broadband may not just be the online gaming element:

[29] Reflections on Broadband Summit; Legg Mason Wood Walker; 30th April 2003.
[30] Global Broadband Landscape: Learning Lessons from Broadband; Jupiter Research; 27th March 2003.

"The first wave of broadband users were the technology-savvy users, but we are looking at the next wave of customers who are the more convenience users with less technology know-how, and we hope we can help them through their concerns about connectivity and sharing. We have been pleased with the results of our home networking service so far." John Ellis, Broadband Strategy, Earthlink.31

[31] Broadband Markets; Informa Group; 2nd August 2002.

Figure I.1

MUSIC LABELS HUNT NET 'PIRATES'

The US record industry is planning to sue people who swap music over the internet.

- Starting on Thursday, the Recording Industry Association of America (RIAA) says, it will gather evidence against users of "peer-to-peer" software such as Kazaa, and file $150,000 (£90,000) lawsuits against them.

Record companies believe song-swapping is costing them sales"

The RIAA says its sales have been hit hard by the software, which allows users to swap music, films, and other files over the internet.

But the president of one peer-to-peer site blasted the RIAA threat as counter-productive.

"When you start suing all your customers, it's not going to leave a good taste in their mouths,"

Wayne Rosso, of Grokster, told BBC News Online.

"They're out of their minds," he said.

We're going to begin taking names and preparing lawsuits"

Cary Sherman,
RIAA

- The RIAA - whose members include AOL Time Warner, Vivendi Universal, Sony, Bertelsmann and EMI - says it will target the heaviest users of song-swapping services.

Its president, Cary Sherman, said:

"We're going to begin taking names and preparing lawsuits against peer-to-peer network users who are illegally making available a substantial number of music files to millions of other computer users."

File-swappers trade an estimated 2.6 billion songs, movies and other files a month, the industry says.

The move raises the stakes substantially in the long-running battle over file-swapping.

Most previous lawsuits have targeted websites such as Napster, the industry pioneer that was shut down by legal action.

Record companies have also planted dummy files masquerading as popular tracks to try to deter song-swappers.

COURT RULING

A recent court ruling makes it easier to track down copyright violators through their internet providers, and last month four college students agreed to pay damages after being sued by the RIAA.

Mr Sherman said he expected lawsuits asking for damages of $150,000 for each copyright violation to be filed in six to eight weeks.

"We're going to fight back using every means at our disposal"

Wayne Rosso,
Grokster

Computer users who wished to avoid legal action should change the settings on their software to block access to their hard drives, or uninstall the software completely, Mr Sherman said.

The organisation hit a snag last month when a judge ruled two networks, Grokster and Morpheus, should not be shut down because they do not control what is traded on their systems.

Grokster's Mr Rosso says that court loss is the reason the RIAA has turned its attention to individuals.

"They're upset that we beat them in court," he told BBC News Online.

COMMERCIAL OPPORTUNITIES

Supporters of song-swap networks say they are an easy way for music fans to discover new artists - but record companies liken the practice to shoplifting.

Mr Rosso says there are many ways to make money from file-swapping.

"Licence it, sell waivers to downloaders, tax CD burners, tax software-ripping programmes," he said.

He said Grokster would be happy to sell licenses to download music, but that none of the record companies would discuss it with his firm.

And he said Grokster would resist the RIAA's latest move.

"We're going to fight back using every means at our disposal," he said.

11. Even if these consoles do arrive in 2005, it will take some time for their adoption and application over the Internet. It seems to BT that this again is way outside the Review period.

12. Other analysts are of the opinion that while there is acknowledgement that no killer application exists for broadband, that there are elements that have come close to being that 'killer application' but without a mechanism for extracting willingness to pay as in file transfer. This view suggests that we may never see killer applications above and beyond the standalone example that we have in online gaming, which is apparent in South Korea.

13. Yankee research[32] suggests that European broadband users and narrowband users see e-mail as the most important application (81% and 65% respectively) and that:

'If there is a killer application, then e-mail is as close as it gets.'

14. The Review does not propose that email is an appropriate application which would support separate economic markets between narrowband and broadband services.

[32] Long-time European Internet Users Are First in Line for Broadband; Yankee; 8th May 2003.

ANNEX 4

THE MARGIN SQUEEZE TEST

BASIS FOR A MARGIN SQUEEZE

Definition Of A Margin Squeeze

1. BT has reviewed the following sources of evidence and discussion on margin squeeze:
European Competition case law.
The Directives.
The Commission Access Notice.
The statements of the OFT and OFTEL in OFT 414 and 417.
The views of independent experts[33].

2. For the purposes of this submission, we take as a working assumption the following definition[34] of a margin squeeze:

> *'A price or margin squeeze occurs when an upstream monopolist charges a wholesale price for an essential input and/or reduces its retail price so that efficient downstream firms cannot make a normal profit. It is has the effect of foreclosing the downstream market to efficient rivals, and therefore reduces long-term sustainable competition'.*

3. This definition is broadly consistent with OFT 417:

> *'7.26 Where a vertically integrated undertaking is dominant in an upstream market and supplies a key input to undertakings that compete with it in a downstream market, there is scope for it to abuse its dominance in the upstream market….. The effect would be to reduce the gross margin available to its competitors, which might well make them unprofitable'.*

4. There are however some differences between these definitions:
Upstream monopoly versus dominance.
Essential input rather than key input.
Inability to make a 'normal profit' and foreclosure thus limiting competition, versus reduction in 'gross margin and possibility of 'unprofitability'.

5. BT acknowledges that OFT 417 is for guidance only. However the comparison made with an alternative source does show that the concept of margin squeeze is at the current point in time not clearly defined in either economic or legal terms.

6. It is notable that OFT 414 'Assessment of Individual Agreements and Conduct', does not even mention margin squeeze and OFT 417 'The Application in the Telecommunications Sector' (7.26) quotes no case law or legal basis for margin squeeze either.

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[33] In particular see 'Price Squeezes, Foreclosure and Competition Law Principles and Guidelines' Crocioni and Veljanovski, Journal of Network Economics, 2003 and 'Remedies under EU Regulation of the Communications Sector' Independent study prepared for ETNO, June 2003.
[34] ETNO Report op. cit.

7. In our response to the AID draft Guidelines, BT suggested (paragraphs 36-40) that there is some dispute as to whether a margin squeeze exists independently of other abuses on the basis of case law. The CFI in Case T-5/97, Industrie des Poudres Sphériques v Commission ([2000] ECR II-3755) implied that a price squeeze did not exist independently of separate abuses of discrimination or excessive pricing at the upstream stage or predatory pricing at the downstream stage.

8. If margin squeeze **is** a distinct abuse from some combination of other abuses, then it seems to be a 'soft' combination of high and/or discriminatory pricing at the upstream level, combined with low/predatory pricing at the downstream level. The suggestion in the literature cited, is that the presence of vertical integration means that some combination of these practices **might** be regarded as abusive, when they would not be in the absence of vertical integration.

9. It is not however self-evident that from a purely economic perspective that such an outcome is likely. A recent review[35] has concluded the following:

> *'Finally, under no regulation (both the wholesale prices and the retail prices are free) foreclosure becomes an additional source of concern, yet price squeeze tests either do not constrain the incumbent's behaviour, or, if they do, lead to additional efficiency losses.'*

10. The conclusion of this study is that foreclosure should be detectable using the standard potential abuses of dominant position. It is also argued that if the allegation is of predation, it is necessary to aggregate the services to the level of the relevant market depending upon the specific regulatory environment.

11. In **summary**, the notion of margin squeeze is not well developed and case law deals with raw materials rather than networks which face competition[36]. Margin squeeze under competition law involves specific intent to harm competitors and is not treated as just as an artefact of two sets of prices.

Economic Conditions For A Margin Squeeze To Be Possible

12. In its review of the legal and economic literature, CASE Associates identify the following conditions which are necessary for a margin squeeze:

[35] Price squeezes in a regulatory environment, by Bouckaert and Verboven, CEPR No. 3824, April 2003.
[36] The Commission has also recently investigated a number of margin squeeze cases in the telecommunications sector.

Figure D.1

Necessary Conditions For A Margin Squeeze

Condition 1 – Super-SMP/dominance on upstream market.
The vertically integrated undertaking must have dominance (SMP). It would seem that the level of dominance must be that approaching a complete monopoly or super dominance. However, the determination of dominance must be based on a competitive assessment of competition at the retail level as made clear in the Framework Directive (see below on essentiality). Attempts to see SMP on the upstream market as sufficient for a price squeeze deploying the leveraged market power argument found in Tetra Pak II are insufficient. If the downstream market is competitive, or there are close substitutes for the downstream product which uses the input, then the conditions do not exist for an effective price squeeze.

Condition 2 - Downstream market not effectively competitive.
The downstream market must not be effectively competitive. However, a wholesale price squeeze does not require the operator to have SMP on the downstream market whereas a retail price squeeze does.

Condition 3 - Vertical Integration.
The firm allegedly administering the price squeeze must be vertically integrated or have control over the essential upstream input and be active on the downstream market as well.

Condition 4 - Upstream input must be essential.
The "essentially" condition must exist at two levels simultaneously:

C4.1 - Essential to downstream competitors.
This has two related facets. First, there must not be inputs that are close substitutes for the essential input supplied by the vertically integrated firm. Second, the input must be "essential" in the downstream production process in the technical sense of being a strict complement to other inputs or used in fixed proportions.

C4.2 - Essential to downstream competition.
The input must also be essential for downstream competition (as opposed to production). That is, where the relevant product market is wider than the downstream product requiring the input in question, it is unlikely that a price squeeze can be effective.

Condition 5 - Unprofitable downstream margins.
The alleged price squeeze must have the likely effect of foreclosing the downstream market to equally or more efficient competitors by making them unprofitable.

Condition 6 - A price squeeze must be of sufficiently long duration to have an exclusionary effect.

13. The precise economic conditions in which a margin squeeze is feasible are complex and CASE summarise their view as follows:

Figure D.2

Access Price Controls & Price Squeeze

Obligations / Squeeze	Retail Minus	Cost based	Non-discrimination
Wholesale -Discriminatory	Prevented	Prevented	Prevented
Wholesale Non-discriminatory (High input prices.)	Prevented	Prevented	Feasible
Retail	Prevented	Feasible	Feasible

14. A wholesale discriminatory squeeze takes place when the input is sold at a discriminatory price to the competitor. A wholesale non-discriminatory squeeze takes place when the price of the input is the same as the competitor but it is deliberately set at such a high level that the competitor cannot be profitable. A retail price squeeze takes place when given the level of input prices, the retail competitor cannot compete.

15. The table shows the feasible combinations of regulation and margin squeeze; it does not however demonstrate that these outcomes are likely or necessarily economically inefficient. In the case of broadband services, BT believes that the necessary conditions (paragraph 15) for a margin squeeze are not met:

Condition 1.

BT does not have Super-SMP/dominance in the upstream market even assuming that broadband Internet access as defined by OFTEL is a separate economic market. There are alternative sources for all the network components to supply downstream markets.

Condition 2.

The downstream market is effectively competitive and all the upstream components are available at non-discriminatory charges.

Condition 3.

While BT is vertically integrated we do not control an essential input.

Condition 4.

As with Condition 1, BT is only one supplier of inputs. Unaffiliated ISPs can –and do – make offers to cable companies for access and for other infrastructure providers to offer services over BT's copper loops.

Condition 5.

There is no evidence of actual foreclosure downstream and there are competitors to BT in the marketplace in practice.

Condition 6.

The marketplace is highly dynamic and there is no possibility of BT running a margin squeeze for a sustained length of time even if it wanted to do so.

16. In **summary**, BT believes that the necessary conditions for margin squeeze are not met for broadband services in the UK. OFTEL accepts that the cable companies have a high proportion of retail customers and they are able to offer equivalent access to third parties if they choose to do so[37].

Identification Of Margin Squeeze In Practice

17. The EC Access Notice contains two possible definitions of how to recognise a margin squeeze in practice:
    - Test 1:
      'The dominant company's own downstream operations could not trade profitably on the basis of the upstream price charged to its competitors by the upstream operating arm of the dominant company'.
    - Test 2:
      'The margin between the price charged to competitors on the downstream market (including the dominant company's own downstream operations, if any) for access and the price which the network operator charges in the downstream market is insufficient to allow a reasonably efficient service provider in the downstream market to obtain a normal profit (unless the dominant company can show that its downstream operation is exceptionally efficient)'.

18. OFT 417 proposes that the first of these tests is the more appropriate one, and in practice this has usually been OFTEL's approach. However, there are a great many conceptual and practical issues which need resolution including whether both Tests need to be passed; the measures of costs and prices to be applied etc.

19. There does not appear to be a commonly accepted methodology here. In terms of principles, Crocioni and Veljanovski[38] suggest that lower bounds of avoidable/incremental costs are employed to ensure that the tests for economic efficiency are not violated. This issue is now examined.

MEETING THE OBJECTIVES OF THE MARGIN SQUEEZE TEST

Context

20. This section considers the economic efficiency properties relating to the test and the associated discussion in the review:
    - Pricing methodology 4.38-4.55.
    - The pricing rule 4.13-4.137.
    - Annex B with associated Annexes 1, 2 and 3.

[37] In the Review 3.12 Oftel states that "cable operators do not sell wholesale services". Ovum (February 2003) published a report on ntl's wholesale strategy indicating that it does have a wholesale strategy; there is no reason why this could not include broadband services.
[38] Op. cit.

21. BT notes that OFTEL sets out at Condition EA1.2 (page 98) and Annex B (G) 3-4 (page 115) the general requirements that pricing for Network Access is 'on fair and reasonable terms, conditions and charges'. Specifically the 'Basic Services' which underpin the 'Relevant Services' as covered by (Review) Annex 1 (page 119) are governed by the margin squeeze test while the charges for Additional Functionality (Annex 3 page 121) will be governed by the general requirement for 'fair and reasonableness' to the extent they are not used for Internet access.

22. BT is however not entirely clear in this regard. As discussed elsewhere, OFTEL provided no market assessment for the Additional Functionality services and specifically the alternative ATM service classes. It is not self-evident to BT that these cannot 'provide or permit the provision' of Broadband Internet Access and on the contrary indeed it seems highly likely that they can do so. Further, OFTEL appears (4.45) to interpret a requirement to price 'fairly and reasonably' as implying no margin squeeze downstream in **any** relevant market but this is not explicit in the Review or the September 2002 OFTEL Guidelines. The latter indicates (3.24 c) that new or innovative services will either have a margin squeeze test imposed (retail minus) or possibly no price control at all.

23. As discussed below, BT believes that the Additional Functionality services would inevitably be caught by margin squeeze tests even in the circumstances in which BT itself was not relying directly on such wholesale services to offer downstream services. This is because: firstly, it will be impossible in practice to distinguish the costing and pricing of Basic and Additional Services which are supplied over common platforms; and secondly, because downstream there will be bundles of 'relevant services' which will include Internet access along with other applications and these could be considered as 'relevant revenue' in the test itself. If BT is mandated to provide a wholesale service without an equivalent retail service i.e. it does not use the service for its own purposes, there is no basis for the margin squeeze test.

The Pricing Rule And Entry Incentives

24. OFTEL sets out (4.38-4.41) the arguments against regulated LRIC pricing. Essentially this condenses to difficulties in determining a fair price when there is potential for increased competition from other access infrastructures, the immaturity of the market and so forth. (In passing, BT finds it inconsistent that OFTEL can make such claims at this stage when the market power assessment is regarded as sufficiently robust to impose SMP obligations on BT at all.) On the other hand, it is then claimed (4.42) that retail minus will incentivise downstream competition and upstream investment.

25. BT is of the view that the Review does not consider the economic efficiency properties of the retail minus formula and in particular does not recognise the critical role of options benefits which are accentuated from the combination of retail forward pricing to build new markets and the retail minus formula.

26. BT submitted detailed argumentation to OFTEL in our Interim Submission of February 2003. Other access infrastructure providers also had very firm views on the downsides of

the retail minus formula in the context of the public consultation on the AID Guidelines. BT would urge OFTEL to reconsider this issue[39].

27. Regarding the two options which OFTEL proposes for treating costs (4.47), BT has the following observations:

The underlying objective is to ensure that entry is efficient. OFTEL seems to infer that economies of scope and the like, which are 'historic', are somehow objectionable and might by themselves 'deter legitimate entry'. This is not a relevant consideration if the focus is on consumer benefit.

The conceptually correct basis of calculation of the test is one that it should be the lower of either the incumbent or the entrant's costs[40].

OFTEL's Guide To The Margin Squeeze Test

28. We comment in the response to Question 4.3 on some of the key parameters which OFTEL discusses at section 4.134-4.137 and Appendix 1 gives a more detailed discussion.

APPENDIX 1 Treatment of Parameters in the Margin Squeeze test

[omitted]

APPENDIX 2 BT's experience with the margin squeeze test

[omitted]

[39] OFTEL does identify first mover disadvantages (3.38) but does not point out that it is uncertainty in the rate of technical progress and the like which is as important as the rate itself.

[40] Crocioni and Veljanovski, op. cit.

EXTERNAL REPORTS COMMISSIONED BY BT

1. Dr I Dobbs. Internet Services: market definition, chains of substitution and price discrimination.

2. Millward Brown. Willingness to pay for Broadband. **[omitted]**

3. Professor Martin Collins. Oftel review of the Wholesale Broadband Access Market: Use of Survey Data.

4. Dr J Nankervis. Econometric Modelling Of Retail Broadband Demand. **[omitted]**

5. CASE Associates. Oftel's Margin Squeeze Proposals. A Review & Assessment.

Note. These Reports reflect the views of the authors and are not necessarily shared by BT.

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