

Response by BT to

ERG draft Common Position

On

Geographic Aspects of Market Analysis (definition and remedies)

ERG (08) 20rev1

CONTENTS

Executive Summary

- I On The Principles Of Defining Geographic Markets
- **II** Assessing The Homogeneity Of Competitive Conditions
- III Local Geographic Markets Or Differentiated Remedies?

References

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BT welcomes comments on this response which should be addressed to $\underline{paul.2.richards@bt.com}$

Executive Summary

BT welcomes this Consultation by the ERG¹ which is both timely and important. BT strongly supports NRAs taking a much more pro-active assessment of the geographic dimension of economic markets and tailoring remedies more accurately to competitive conditions.

BT considers that the true economic markets for telecoms have always been highly geographic in that, absent implicit or explicit universal service obligations, the competitive price levels for telecom access services would be highly variable by geography. Further, geographic variation in access costs for NGA and NGN technologies will arise and the access component of total costs will tend to increase, making geographic cost variation more critical. Variation in costs is one component in determining geographic markets. The other side is price variation and the extent of geographic averaging which operators choose to do on cost grounds such that price-cost margins are also linked, even if they are not the same.

The ERG raises some challenging issues of the underlying economic methodology which in the traditional approach has two stages, first using the Hypothetic Monopoly Test (HMT) prior to the second stage of the market power assessment. The ERG flow diagram has an approach conflating market boundary analysis with market power assessment, and which effectively reverses the order of the traditional analysis.

BT has some concerns that the ERG has not adequately addressed some of the possible implications of this approach and in particular whether the focus of analysis should be price levels or alternatively price-cost margins and which should determine whether areas be grouped together². It is not clear what the ERG is proposing here.

BT is also concerned that unless there is a well thought out methodology, different NRAs will use different approaches and there will be a serious loss of harmonisation throughout the EU. This could undermine the provision of pan-EU services in particular.

BT believes that the ERG has not given adequate recognition to the huge implications of *divergence* in product offerings and competitive forces for the provision of services to mass market on the one hand, and to businesses and governmental organisations on the other. In the case of the latter, BT would place particular attention to the provision of services to multi-site businesses. BT prefers a granular 'bottom-up' assessment of markets in which much more attention is given to the nature of the relevant customers and product bundles they are consuming, *simultaneously* with the areas in which the customers are supplied.

BT recognises that expanding the number of markets and associated remedies will involve increasing complexity of analysis and implementation. This is an unavoidable necessity of the process of managing competition, which will always initially be focussed on particular areas of the country, and indeed particular customer groups. Relaxation of regulation is nevertheless still appropriate in those areas where competition is adequate to protect consumers. It is therefore well worthwhile for geographic analysis to be an integral part of market reviews.

BT agrees that it may be appropriate to vary remedies geographically such as where there is SMP but potential competition. BT does not agree that a national market should be defined however where there are areas which are distinct with no SMP, given that NRAs are obliged to impose at least one remedy in a regulated market.

¹ The Consultation Document is referred to subsequently as simply the 'ERG' with page numbers in []. ² To put in perspective, the HMT assumes a homogenous group of customers with the same willingness to pay and whom live in areas of common costs of supply. When these assumptions are relaxed when assessing conditions of competition, it is not longer straightforward to relate the derived market boundaries to the HMT itself.

I On The Principles Of Defining Geographic Markets

Economic Methodology

- 1. The ERG suggests the following:
 - (i) The HMT is of limited practical use for defining market boundaries given the likely immobility of consumers and producers to shift production in response to a price rise but it can be used as a preliminary device to ascertain the case for a subnational market (ERG Flow diagram first stage).
 - (ii) Uniform pricing cannot be treated as a 'binding constraint' if in practice the incumbent operator 'chooses' to price differentially.
 - (iii) It therefore makes sense to focus attention on a direct market power assessment by taking a range of indicators usually associated with an SMP analysis to determine whether or not 'conditions of competition are sufficiently homogenous' to support aggregation across different areas.
- 2. BT has the following observations to make on these three related points along with two additional issues concerning Greenfield site assumptions and indirect pricing constraints.

(i) The use of the HMT

- 3. While BT agrees that a direct market power assessment may give the same outcome in terms of final remedies as the two-stage process, this is not readily apparent. We do not consider that the HMT is superfluous for two reasons. First, it assists in the clarification of the relevant issues which need to be answered even as a 'thought experiment'³. Second, it should directly help identify uneconomic customers/areas who should be excluded from the market analysis altogether.
- 4. BT accepts that the two stage approach incorporating the HMT is problematic in that the test is only conceptually comparatively straightforward to apply to a homogenous group of customers whose willingness to pay (price elasticity) and costs of provision are uniform⁴. Relaxation of either or both of those assumptions raises a number of unresolved questions of methodology which have not been fully researched⁵.
- 5. In any case, it is not at all evident to BT that application of the HMT would imply what the ERG [9] suggests, namely 'thousands or tens of thousands of markets'. If the ERG means that the ideal set of monopolist prices would vary such to equate to first degree price discrimination, this might be correct. But in practice even a monopolist would neither have the information to do this nor would it likely be cost effective to do so. These are pricing constraints which are 'endogenous' to the marketplace and

³ Briglauer [2007] makes the point well noting that statistical implementation of the HMT is comparatively rare and '(Therefore) a proper understanding of the conceptual framework is of particular importance because this makes clear what the individual factors determining the outcome of the HMT are'.

⁴ The essential mathematics of the multi-product case are set out by Dobbs [2006].

⁵ Two such issues are the following. First, if a Hypothetical Monopolist faced different customer groups with varying willingness to pay, to what extent would price discrimination be practiced. Second, if costs of provision varied, how would this affect competitive and monopolistic price levels. There are no clear ways in which market boundaries can be unambiguously established when the question is posed on precisely how would a hypothetical monopolist would price in practice. It then becomes a heuristic exercise to review how the marketplace itself is evolving in terms of pricing and forms of spatial and packaging discrimination. While the HMT addresses a benchmark of a 10% price variation from the competitive level, when the other features of pricing discrimination are considered it is not at all obvious what benchmark to apply. Discrimination may be defined in many different ways including prices, price-cost margins and so forth.

will necessarily limit the total number of economic markets, under monopoly and competition.

- 6. The HMT as a methodology has merit in particular because it emphasises that the determination of the market boundary involves *three* dimensions which really need to be considered *simultaneously*:
 - The type of customer e.g. business or residential.
 - The nature of the product being consumed.
 - The location of the customer(s) being served.
- 7. BT elaborates on the implications of this observation below; in summary it implies that ideally market boundaries should be built up starting from comparatively small groups of customers based on the product sets which they tend to buy.
- 8. The current somewhat 'top down' approach which is suggested in the ERG Flowchart has various drawbacks:
 - It gives the impression that telecom markets are more likely than not to be 'national' whereas even absent competition, the cost variations in supply suggest that this is not the case as equilibrium competitive prices will vary geographically⁶.
 - It is likely to include uneconomic customers/areas in a relevant market even though they should be excluded altogether⁷.
 - It provides no clear guidance as to whether the distinguishing feature of different areas relates to differences in the absolute price level for the market as a whole or to the price-cost margins which operators are likely to experience.
- 9. Another problem with a 'top down' approach which involves sequential analysis is that the conclusions may not be robust to alternative hypotheses of the most appropriate combinations of products, customer groups and geographic areas to adopt. It is widely recognised that there are circumstances in which different combinations of customers and products can be aggregated into markets and although the methodology of the HMT is based on the *smallest possible aggregations*, there is not a standardised measurement of 'size' will show definitively which aggregation is the '*smallest*' possible⁸.
- 10. In summary, BT is concerned that the ERG is unclear what it understands to be the link between the markets found from using the HMT at the preliminary stage ('top down') and the 'bottom-up' approach of assessing the nature of competition of determining whether markets are local or national. It is not obvious that the resulting market boundaries will indeed be the same⁹.

⁶ Confusingly the ERG [9] gives the impression that the mere presence of a national price might be a good enough ground for not undertaking a detailed analysis whereas on page 14 (final two paragraphs) this is then rejected. On page 11 the ERG seems to advocate a large number of localised markets.

⁷ It should be noted that in the 2008 broadband market review, Ofcom did not check whether or not BT had market power where it was the monopoly supplier. The point is that it effectively applied the HMT using assumed uniform retail prices rather than 'competitive prices' which in less dense areas would be in excess of observed nationally averaged prices The critical sales loss calculations were undertaken at the national level alone; see Annex 8 of the November 2007 Consultation. This underlines the problem associated with sequential analysis of market boundaries i.e. of taking a top down rather than a bottom up approach.

⁸ Size could be measured in terms of profits, consumer surplus, costs or revenues for example.

⁹ Indeed the ERG [9] talks about comparing the 'result' based on both price levels and price-cost differences but is silent about precisely what is being compared.

- (ii) Uniform tariffs and pricing constraints
- 11. The ERG [14] notes that incumbent operators may 'voluntarily' set uniform tariffs; the inverted commas presumably suggesting that some form of coercion is actually the case and which is not in keeping with Greenfield site assumptions.
- 12. BT agrees with the ERG that the presence of uniform pricing does not by itself imply a national market for three reasons.
- 13. Firstly, BT strongly supports the ERG in attributing very considerable caution to prior supposition of a national tariff from an SMP assessment which requires uniform tariffs, as this introduces circularity of argument with the presumption of a national market absent detailed analysis of the counterfactual that markets are not national.
- 14. Secondly, a true Greenfield site analysis would further require the assessment of markets absent any prevailing universal service obligation (especially as NRAs have discretion as to whether or not to impose such obligations based on what the competitive market would be assumed to supply). This is elaborated on below.
- 15. This is needed as proper application of the HMT requires that uneconomic customers/areas which are supplied from explicit or implicit universal service obligations are excluded from each and every economic market for which a market boundary assessment is made. To emphasise, these customers do not feature in any economic market whatsoever.
- 16. Thirdly, many markets particularly at the retail level will feature product differentiation and prices need to be adjusted accordingly. Whether or not prices are uniform is uninformative of the specific nature of competition in any particular area; a more accurate reflection of market power at the wholesale level may arise from consideration of trends in prices, customer numbers, and revenue shares at the associated retail level.
- 17. BT suggests that the ERG in its guidelines should invite NRAs to distinguish clearly between exogenous pricing constraints which have been formally or informally imposed on operators and those which are endogenous to the very nature of supply.
- 18. In this way, the impact of linking local areas can be assessed for those pricing constraints which are intrinsic to the technology of the network and where the costs of unbundling are greater than any associated benefits from offer national services. The uniform pricing constraint which is imposed either under the USD or as a device by regulators to encourage 'cream-skimming' entry both should play no direct part in geographic market boundary determinations.
 - (iv) Need for proper Greenfield site analysis
- 19. The HMT postulates an analysis based on price sensitivity of demand to an increase in price above the competitive price level. It has long been recognised that observed prices may not be at the competitive level for a variety of reasons. One reason is that firms may be exercising market power. This is not the only source of potential difference between observed and competitive prices.
- 20. The ERG [14] correctly identifies that the prior imposition of SMP is not an appropriate reason for assuming that markets are national. However, the ERG does not seem to acknowledge that imposition of Universal Service Obligations (USO) is also an inappropriate basis for determining that markets are national.

- 21. Indeed, it is now clear that NRAs have the option not to impose any USO obligations at all but to make a prior assessment as to whether, absent such obligations, services would be supplied in a competitive market. In other words, NRAs (potentially at least) have to undertake a 'thought experiment' akin to the HMT i.e. to postulate what the competitive price level would be absent regulation.
- 22. Depending upon this analysis NRAs have powers to impose specific obligations on undertakings to supply consumers certain services of specified quality and price and where the latter may include a uniform pricing obligation. Annex 1 reproduces some text from a recent Ofcom Determination on this issue.
- 23. Within the USD, Art 4.1 and Art 9.3 set out powers of NRAs to ensure that retail access can be provided at a nationally uniform price; the latest proposals for the revision of this Directive make explicit that this also encompasses provision of PATS service.
- 24. Given the interplay and substitutability across a wide range of access services within the portfolio of telecoms operators, and in particular the linkage between the use of leased lines for PSTN access and broadband access for leased lines the implications of externally imposed national tariffing have been profound for many years. This has arisen from a mixture of explicit but often implicit regulatory obligations.
- 25. One consequence has been a high degree of internal 'cross subsidy', most typically in access across customers and areas, thereby facilitating 'cream-skimming' competition. Indeed, regulators have been frequently aware of this as a deliberate strategy to artificially encourage entry in the hope of stimulating long-term dynamic efficiency from higher innovation.
- 26. Competition has therefore developed in a geographically piecemeal fashion for two reasons:
 - Entrant operators have come in where access density is greatest to achieve low unit costs.
 - The same entrants are attracted where prices are to some extent at least artificially high from the internal cross-subsidy identified above.
- 27. The fact that an operator may be given a USO to supply uneconomic customers/areas, should not in anyway contribute to a subsequent finding of SMP at either national or local level for any area including those customers. To recall the basic principle of the HMT, it consists of the *smallest possible* combination of customers/products for which the SSNIP test is passed. ¹⁰ By definition such customers/areas fail to pass the SSNIP test ¹¹.
- 28. These factors point to the necessity of taking a bottom-up approach to the assessment of the geographic nature of market boundaries:
 - Postulating the feasible competitive price level across a form of 'representative' hypothetical monopoly network on an area by area basis for the relevant bundle of services for the customers being considered.
 - Evaluating whether willingness to pay in these areas is enough to encourage positive competitive supply.

¹⁰ See Dobbs[2006], Richards [2007].

¹¹ The single product test is not passed as there is no competitive price at which positive demand exists. This is the basis for universal service obligations where the competitive price is either at a level where there is no demand or beyond the level of 'affordability'.

- Aggregate customers/areas accordingly where the competitive price levels and price-cost margins are sufficiently linked.
- (v) Indirect pricing constraints and observed competition
- 29. The ERG appears to endorse the view that it is appropriate to include cable networks at the stage of market definition. It would be helpful for clarification on this point given that it has been a source of very considerable controversy. In particular, it would be useful if the ERG were to state what the necessary and sufficient conditions are to include cable services in the relevant market or only at the stage of SMP. A related issue is self-supply which the ERG does not address.
- 30. Indeed, the assessment of indirect pricing constraints appears to link in with the assessment of geographic boundaries and the link between market boundaries and market power, as Schwartz [2007] notes '.. The answer to this question relates to a conflation between market definition and market analysis which can hardly be avoided in the case of wholesale broadband access markets' ¹².
- 31. It is certainly arguable that the different approaches to handling indirect pricing constraints in broadband market boundary analyses has not resulted in incorrect decisions by NRAs as to whether or not to impose remedies. Indeed, the Commission has not vetoed any NRAs who included cable at the stage of market boundary analysis rather than the SMP stage of *potential* competition. However, this is no small matter and has been the basis of considerable analytic difficulties with widespread differences in approach between NRAs¹³.
- 32. BT recognises that this is an extremely difficult issue and that further research is required. Nevertheless, it would be helpful if the ERG was to give further thought to this matter in the finalisation of its proposals on the assessment of geographic markets.

BT's views on the Product and Customer Dimensions

(i) The Product

33. The ERG contains little if any discussion of the interaction between product or customer definition and geographic market definition other than commenting that:

- The issue is not relevant for mobile operators [Footnote 4, 9].
- There may be network-component specific features [11] when viewed at the wholesale level.
- An issue may just be relevant to mass market consumers [13].

34. The first observation pushes for markets at the national level according to the ERG, whereas the second might mean extremely narrow markets – 'In this case a group of MDFs/street cabinets may also be a relevant geographic unit'. It is unclear whether these passing references have generality or are specific to the point. The suggestion of street cabinets being distinct markets appears to go against the suggestion of the ERG [9] that multiple markets are unmanageable.

¹² Schwartz [2007] also notes that Ofcom in 2006 argued for a distinction between market boundary and market power assessment when replying to a consultation input (the BIG response) but suggests that this distinction is not supportable.

¹³ It is further relevant to understand how such conditions are defined for local markets; Schwartz [2007] for example considers the mathematics of direct and indirect constraints noting that markets should start out not as national but on a 'certain area'. This would support the application of prices, costs and elasticities calculated at the local level in line with the principles of the HMT. It is not at all apparent however that any NRAs have done this.

- 35. In BT's view there are two basic issues which need to be addressed which the ERG does not recognise:
 - That the product actually consumed at the retail level for both consumers and businesses is usually a bundle. For mass market consumers it is increasingly a bundled product of three or four services such as PSTN, mobile voice, broadband Internet and TV. The nature of access networks and particularly both cable and high performance copper e.g. ADSL2+ means that the availability of such bundles is highly geographic in many countries.
 - The consequential commercial pressures at the wholesale level will likely also be very different geographically depending precisely on the costs of supply from the networks and the take-up of services themselves.
- 36. The ERG [16] only brings in the issue of product differentiation at the stage of market power assessment to decide which indicators of competition may be most appropriate. BT suggests that this should be done at the start.

(ii) The Customers

- 37. As for the product specification, the ERG gives little recognition that the link between customer groups may be quite different to different geographic areas for relevant market boundaries. The ERG makes only indirect references to customer groups e.g. ERG [13] where a distinction is drawn between suppliers for mass market and 'niche' players.
- 38. BT suggests that the nature of the 'product' is of critical importance to any competitive assessment given that networks vary geographically in their ability to offer services and so the relevant customer group will also be geographically-defined. This suggests that the first step on the demand side in a proper market based assessment where geography is important, is not in fact the geographical dimension, but actually the requirements of customers at the downstream retail level.
- 39. A further reason why a more careful analysis of downstream markets is needed comes from the clear evidence of increasing *divergence* between the product requirements of mass markets and businesses (Richards [2007]). Even where alternative networks offer services in competition to the incumbent, this may meet the requirements of one group of customers but not another for example on quality of service and service configuration.
- 40. The primacy of customer requirements along with the associated supply-side analysis of the costs of networks to supply these services should form the essential building blocks of a competitive assessment of geographic variation in market conditions. Such an approach to market assessment has long been propounded by for example by Larouche [2000].
- 41. BT believes that in most countries there is an important distinction to be made between mass market and corporate VPN services, a distinction which the ERG recognises [15]. For the latter, the decision to supply access services will be determined not only by the specific costs of access, but also by the costs of other network components which may not be apparent from a superficial investigation. It is therefore quite reasonable to suppose that corporates might be in a (physically) broader geographic market than consumers.
- 42. To take a specific example where initial consideration of the scope of a network service will not necessarily be a good guide to the relevant market when the other dimensions of market (customer group and product bundle) are considered, the ERG

- [9] suggests that mobile services are provided (and priced) nationally, so they must be in a national market. BT can propose two alternatives in which the relevant market boundaries respectively are sub-national and supra-national but which include mobile services.
- 43. A growing proportion of mass market consumers in the UK as well as many other countries, purchase mobile services integrated with other services including broadband, PSTN and TV. Such bundles of services have very strong geographic dimensions and which are quite definitely not provided nationally.
- 44. At the other extreme, BT suggests that there is a strong case for a market which extends beyond national boundaries. Many multi-national corporates desire functionality for pan-European services integrating fixed and mobile services; the fact that there is a market demand for such services but currently they are not being provided is an indicator of a failure of regulation partly from the omission of a pan-EU business market.
- 45. Such considerations suggest that to determine whether there is a geographic dimension to wholesale markets, the linkages between 'downstream' and 'upstream' will be important. For example, the presence of a high degree of retail geographic variation in service availability and pricing are likely to be strong indicators of equivalent pressures at the wholesale level for variation in prices. Such pressures may be necessary to indicate separate geographic markets but, as discussed above, may not be sufficient as the Commission has noted because the areas may still be sufficiently linked together from (endogenous) pricing constraints.

BT's Preferred Methodology For Determining Geographic Markets

- 46. BT believes that proper application of the principles of the HMT requires the competitive price level to be assessed at an appropriate geographic level. Localised variation in access costs has always existed but has been largely tacitly ignored in order to facilitate universal service objectives. Not only will equilibrium prices absent regulatory obligations to achieve social or other objectives differ by area, so will the strength of competition and the price-cost margins which suppliers might expect to achieve.
- 47. The starting presumption of such analysis should be that markets are not national but rather localised. BT suggests that the geographic element of (primarily) wholesale network components should follow the underlying principles of true market definition originally espoused by Larouche [2000, 2002] and which follow case law
- 48. .Annex 2 presents an alternative order of analysis which comprises three initial stages running consecutively:
 - A demand-side analysis which forms a preliminary view on an appropriate customer segmentation based on the packages of services being consumed and observed in the marketplace.
 - A supply side analysis which assesses the nature of the networks supplying these services and the fundamental features of their costs and geographic coverage.
 - A regulatory assessment which identifies the scope of exogenous constraints on network operators and the key features of restriction which need to be discarded in any market boundary assessment.

II Assessing The Homogeneity Of Competitive Conditions

The Choice of geographic unit

- 49. The ERG [10] essentially offers two options for choice of unit which respectively are administrative boundaries or a network component such as an exchange area; the latter might be described as a supply-side boundary. In principle, a demand-side boundary might also be appropriate such as customers taking bundles of services on the grounds that competition will be concentrated in certain customer groups ¹⁴. There could however be significant difficulties with verifying a customer-defined market boundary and arguably an administrative unit is neutral between demand and supply-side boundaries..
- 50. BT agrees with the ERG that it is likely there will be no unique solution which will score highest on all aspects and some judgement will likely be needed to evaluate the trade-offs between economic principles, practical feasibility and stability over time.
- 51. One point worth bearing in mind is that it is desirable to have a solution which can be robust to introducing a geographic dimension across a number of different wholesale access products. This is important for a number of reasons: (a) for practical reasons a multiplicity of different geographic boundaries across a large number of products will be very hard to manage; (b) systems of monitoring and accounting separation would be hard to maintain with huge variations in geographic boundaries; and (c) there is a degree of substitution across different access products and if remedies differ markedly between them because of boundary discrepancies, there could be artificial switching as a consequence.

Criteria

The Number of Suppliers

- 52. The ERG suggests that the number of suppliers may be an indicator of competitive conditions. This was a somewhat problematic issue in the recent UK broadband market review. The Commission expressed some doubts on the use of this criteria given that case law does not form a basis for determining whether a or not market is competitive based on a given number of suppliers i.e. there is no 'bright line test' in case law.
- 53. BT believes that this criterion does make some sense in an economic framework for assessing market power and is also compatible with an interpretation of the HMT, namely that if monopoly market power is not shown to prevail then additional 'products' can be added until such market power is demonstrable. Conversely, it is less likely that market power is present the greater the number of competitors, *ceteris paribus*¹⁵.
- 54. BT believes that the number of suppliers is a sensible 'filtering' criterion which ought to be supplemented with other evidence such as price-cost margins and trends in prices. In other words, it is not a definitive criterion but one which usefully supplements other evidence just as market shares are usually not definitive of the presence of market power. Economic theory suggests that low market shares means that market power will not usually be held but a comparatively high market share does not imply that there is market power.

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¹⁴ This might also align with a type of price discrimination.

¹⁵ The presence of a single operator does not however necessarily imply market power as willingness to pay may be restrict the ability of the supplier to price above the competitive level in any case.

Market shares

55. It will often be difficult to calculate any meaningful shares at the wholesale layer in the absence of common units of capacity across different networks¹⁶. This is another reason for looking at the downstream level as a meaningful proxy for the implicit competitive pressures upstream. It will likely be necessary to calculate revenue values given the product differentiation across the serving platforms and the presence of bundles of services.

Price and price differences

- 56. BT considers that this is a pivotal indicator of competition but the ERG does not bring out the issues cogently in a way which provides good guidance. As context, some observations follow on the relationship between the HMT and market power assessments and subsequently consideration is given to the issues which the ERG identifies under this criterion.
- 57. The fact that market boundary analysis and market power assessment becomes conflated at the stage of geographic assessment is not in BT's view problematic in itself but unless the linkage between the two is transparent and understood, different methodologies may be used in different Member States.
- 58. The HMT is essentially a market power assessment which looks at the ability of one supplier to raise a given price-cost margin both assessed at the competitive level. The SMP market power assessment in effect does the reverse it looks at whether attained margins have implied the exercise of market power by one or several in the case of joint dominance suppliers. Costs and prices are observed values for the market power assessment. Given that the competitive prices and costs are not definitively observable anyway, the distinction between the market boundary and market power evaluations is not absolute.
- 59. In fact, price-cost margins enter into both the HMT and market power assessments (such as the Lerner index) and indeed into direct measures of market power such as an output restriction test (Dobbs and Richards [2005])¹⁷.
- 60. The ERG [14] identifies four sets of issues under this criteria:
 - The implications of uniform pricing.
 - The fact that variations in prices might reflect variations in underlying costs.
 - The possibility that an incumbent operator has already exercised price discriminating market power so observed prices do not represent competitive prices.
 - The suggestion that any sort of wholesale prices (monopoly or competitive) might not be observable and it may be useful to look at retail prices.
- 61. On the issue of uniform pricing, BT has made comments above that it is absolutely essential to distinguish between exogenous sources of constraint (SMP/ USD / informal) and endogenous constraints (costs of discrimination / competitive pressure).

¹⁶ Even bandwidth capacity is unlikely to be directly comparable across networks as usage will depend on contention ratios and the like.

¹⁷ While the HMT in principle applies to a 'monopolist', such a scenario only really applies where there is little or no product variation. Where suppliers are not selling a homogenous service, the test of a 10% price increase in reality is equivalent to asking whether that supplier can raise price above the competitive level. The precise relationship between costs and the competitive price will depend on the nature of competition in the market – something which the HMT abstracts from in both single and multi-product cases.

It is only the latter source of constraint which is relevant when considering market boundaries determinations.

- 62. The ERG does not elaborate on the matter of whether prices reflect costs and how this should link in either with the assessment based on the HMT or at the stage of assessment of market power.
- 63. The Commission 18 has argued:
 - 'Regional competitors can indeed exercise a competitive pressure reaching beyond the area in which they present when the potential SMP operator applies uniform tariffs and the regional competitor is too large to ignore. Moreover, there should be evidence that the pressure for regional price differences comes from customers and competitors and is not merely reflecting differences in the underlying costs.' (emphasis added)
- 64. It is not clear to BT whether the ERG is recommending that NRAs calculate price-cost margins when conducting the preliminary HMT exercise at the national level and if these margins are at the retail (downstream) level or at the wholesale (upstream) level or indeed both. Nor is it obvious if the same or different calculations should be undertaken at the localised level.
- 65. BT suggests that where the evidence indicates that *both* the (localised) market competitive price levels *and* price-cost margins are different and trending differently, this should form *prima facie* evidence of differences in market boundaries and competitive conditions.¹⁹ Trends in price-cost margins may be difficult to pin down and changes purely in price levels of given packages of services may provide a better guide²⁰.
- 66. However, as the Commission notes, prices and price-cost margins could vary in ways that are purely reflective of cost variations rather than the strength of competitive pressures. For example, a discriminating monopolist would still take into account costs in different areas of the country when setting monopoly prices and market power could be held throughout, despite differences in the absolute level of prices.
- 67. There therefore also needs to be some assessment of the degree to which different areas are linked together, absent all of the exogenous constraints for uniform prices ²¹.
- 68. BT suggests that there is no *a priori* relationship between price-cost margin and the degree of linkage; the former depends on the strength of competition and the latter on

SEC(2007) 1483. ¹⁹ The question of the degree of difference remains; for market boundaries the benchmark is of a 10% price increase and this was also taken by the Commission [2007] op. cit as the benchmark for a bundle to be regarded as a separate 'product' from its constituents. There are no commonly established standards for SMP.

²⁰ This may still be difficult to do even at the retail level and so some evidence of changes in prices of different packages by area as Ofcom prepared in the broadband market review may be at least indicative of changes in price cost margins and competitive pressure.

²¹ Such an assessment does not need to take into account the strength of competition where the HMT is concerned but as the ERG notes, given a set of market boundaries, using observed prices (where available) risks the assessment based on 'cellophane' or 'reverse cellophane' fallacies. Given that many suppliers will be forward-pricing dynamically, the likelihood of the latter may well be greater than the former, see Dobbs and Richards [2004]. Looking at trends in prices or price-cost margins may be a more reliable indicator of competitive pressures.

¹⁸ Commission Staff Working Document Explanatory Note accompanying the Commission Recommendation on relevant product and service markets etc. Second edition C(2007) 5406 SEC(2007) 1483.

- endogenous pricing/supply constraints. If however the linkage is very weak, it would suggest that the areas should constitute separate markets. Within these markets one or other supplier may be found to have market power.
- 69. As an example, in the UK broadband market review, Ofcom found there to be three economic markets (outside Hull) and BT had market power in two of them²². Additionally, Ofcom imposed identical remedies in those two markets. However, the conditions of competition meant that they were not sufficiently linked to be a single market due to uneven presence of different suppliers in those areas. This would imply that the competitive price cost margins and the competitive price levels would be significantly different from each other if served by a hypothetical monopolist.

Other criteria

70. The ERG almost as an incidental makes reference to customers and differences between customer groups. BT considers that this is a pivotal factor underlying geographic markets as discussed above.

Areas to be aggregated

71. BT agrees in principle with the ERG that there is the potential for multiple outcomes depending on the order of the criteria applied. The ERG [16] suggests that using the number of suppliers may be a good first order criterion under conditions of homogeneity of supply.

Changes over time

72. BT broadly concurs with the ERG's views here.

III Local Geographic Markets Or Differentiated Remedies?

- 73. BT has some concerns over breaking the established link between consistency in the identification of economic markets, market power and remedies. The ERG suggestion of varying remedies by area could imply regulating differentially based on implicitly determined varying levels of market power. BT considers this may not be justified if the differences are very large such that the market boundaries are clearly not correct.
- 74. BT is not opposed to varying the remedies according to market power but certainly it would be inappropriate to regulate an area which was actually effectively competitive but artificially retained within an unchanging 'national' market.
- 75. A compromise solution which BT favours is the approach taken by Ofcom in the broadband market review which was to identify three geographic areas in the UK (outside Hull) and for two of them, to apply the same remedies. The distinction gave a signal to the marketplace that one of these markets contained exchanges which were prospectively competitive and more likely to be declared competitive in a subsequent market review. However at the time of review, both areas passed the SMP threshold²³.
- 76. Consistency in methodology is important for broader reasons and BT considers that the issue of defining geographic boundaries does need to be addressed; simply ignoring the issue under the guise of retaining a national market and varying the remedies is not a wise option. The interplay between regulatory markets and

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²² Note Footnote 5 above.

²³ This observation is made without prejudice to BT's view that Ofcom failed to establish that BT had market power where it was the monopoly provider.

- competition law investigations should not be overlooked in this regard, especially where the NRA has concurrent powers as an NCA, or where the consultation processes between NRAs and NCAs are particularly intertwined.
- 77. Incumbent operators in particular already face considerable challenges understanding the requirements of issues such as margin squeeze under both regulatory regimes, and will face yet further problems if there is ambiguity as to whether or not the sector regulatory market boundaries are compatible or not with competition law.

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Ofcom Text On The Rules Of Implementation Of Universal Service²⁴

- 5.36 However, the USD does not deal explicitly with a situation where the defined minimum set of basic services is already available throughout the territory to all end-users at the determined quality and an affordable price under normal market conditions. In those circumstances, there would be no need to impose universal service obligations, nor consequently any need to designate a universal service operator, because the 'result' that the USD aims for has already been achieved.
- 5.37 The previous EC regulatory framework made this point clearly.⁴⁸ The USD contains some references (such as in the 4th recital and Article 1(1)⁴⁹) to normal market conditions that we think suggest that the new framework remains unchanged in this regard.
- 5.38 Furthermore, the European Commission's view appears to be that no universal service obligations (or designations) are necessary where the provision of the basic set of (universal) services is already being ensured by normal market conditions. For example, in its 11th Implementation Report⁵⁰, the Commission reports:

"Designation

If the basic set of services currently within the scope of universal service referred to above is not being provided under normal commercial conditions at an affordable price, Member States may choose to designate one or more undertakings to provide them in all or parts of the national territory. The Member States may also designate different undertakings to provide different elements of the universal service. In doing so, they must ensure that the designation mechanism is efficient, objective, transparent and non-discriminatory and that no undertaking is a priori excluded from the process. The mechanism is thus left to the discretion of the Member States. In the majority of cases the details are either enshrined in national law or in each call for tender. [page 58]

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Other approaches

Some Member States have decided not to designate a universal service operator on the basis that provision of the service is ensured by normal market conditions. This is the case in Luxembourg and in Germany. Others have taken one or more of the elements out of the set of universal service obligations. For example, Italy does not impose the obligation to provide a directory and a directory enquiry service on a specific undertaking as it considers that there are different services on offer in terms of availability, quality and at an affordable price. for the 'access at a fixed location' element. [page 60]"

Footnotes

48 The first paragraph of Article 4 of the Revised Voice Telephony Directive (98/10/EC), which dealt with the financing schemes of universal services, provided: "Where the services set out in this Chapter cannot be commercially provided on the basis of conditions laid down by the Member State, Member States may set up universal service funding schemes for the shared financing of those services, in conformity with Community law and, in particular, with Directive 97/33/EC on Interconnection." (Emphasis added)

49 See, in particular, "...The aim is to ensure the availability throughout the Community of good quality publicly available services through effective competition and choice and to deal with circumstances in which the *needs of end-users are not satisfactorily met by the market...*". 50 Volume I of Annex to the Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions European Electronic Communications Regulation and Markets 2005 (11th Report), COM(2006)68 final, Brussels, 20.2.2006;

²⁴ Resolution of price disputes concerning supply of certain directory information by BT to The Number and Conduit Enterprises, Ofcom, 10th March 2008.

 $\frac{http://europa.eu.int/information_society/policy/ecomm/doc/implementation_enforcement/annual reports/11 threport/sec_2006_193-vol1.pdf$

Demand side analysis

Review of customer segmentation by area distinguishing mass market and businesses including multi-site

Supply-side analysis

Review of network functionality, reach and cost structures

Regulatory analysis

Identification and quantification of exogenous pricing and supply constraints

Preliminary analysis of likely markets

Determine choice of unit of aggregation

Exclusion of uneconomic areas/customers

Customer/product bundle segmentations

Indicative market competitive price levels

Evaluation of endogenous pricing constraints by customer and area

Analysis of localised trends

Calibration of market retail and wholesale prices Calibration of market price-cost margins Assessment of cross-area linkages

SMP assessment

Trends in revenue shares
Trends in entry and exit
Imposition of remedies where appropriate