

Annex 1**ECONOMIC ASSESSMENT OF RETAIL MARKETS AND CALL ORIGINATION****I. INTRODUCTION**

1. We provide below detailed commentary on the economic aspects of Sections 3 and 5 of Ofcom's Consultation Document, which directly or indirectly have a bearing on the SMP assessment of call origination.
2. Separately, we requested that: (i) Dotecon undertake a high level analysis of the approach that Ofcom has taken to retail market boundary assessments; and (ii) Copenhagen Economics review Ofcom's approach to SMP assessment and remedies for call origination. Their reports are attached to our submission.
3. There are some common themes across both our response and our consultants' reports. Essentially we are arguing that Ofcom is failing to find sources of price-based substitution because of: (i) a limited perspective of how and why substitution is taking place, arising from a narrow approach to assessing relevant market boundaries; (ii) over-reliance on a survey which particularly for businesses cannot hope to capture generic choices of communications provision; and (iii) absence of adequate attention to the likely low threshold for a SSNIP test to be unprofitable.
4. Section II below makes some brief observations on Ofcom's Section 3 (Retail developments) which need to be read in conjunction with our answers to the corresponding Ofcom Questions. Section III below deals with the more complex matter of indirect constraints in Ofcom's Section 5, where we make observations on the underlying application of the HMT as well as the specific conclusions which Ofcom has drawn primarily around the Jigsaw survey.

II. SECTION 3: MARKET DEVELOPMENTS IN RETAIL SERVICES IN THE UK

5. We recognise some of the very broad description of retail trends provided by Ofcom in Section 3. We note in particular that:
 - BT has lost share in both consumer and business markets [Table 3.1 and Table 3.2].
 - There is continued downward pressure on both the nominal and retail prices of calls and associated services [Figure 3.1 and Figure 3.2].
 - Wholesale regulation has continued to support retail regulation with rapidly growing footprint of LLU for consumers. [3.25-3.27]
 - Bundling of services by consumers in particular is increasing [Figure 3.3].
6. However we do not agree with Ofcom's primary conclusion on these trends, which appears to be that the competitive position remains unchanged:
 - 'the level of competition for retail narrowband services has not decreased' [3.17 and 3.38];
 - 'both the business and residential fixed narrowband calls markets ... have remained competitive since 2009'.

7. If the evidence from the consumer side is that CPs are increasingly able to differentiate their services based on LLU [3.37] and that BT has continued to lose market share, then the obvious conclusion that can be drawn is that retail competition *has increased*, not that it has not decreased or just 'remained competitive'.
8. This is of course just treating all the statistics purely within a narrow market definition. As discussed below, we do not agree with what Ofcom has proposed on this matter, nor necessarily with the selective opinions of specific CPs which Ofcom chooses to quote in this summary section.
9. There are some additional specific observations we wish to make on this section.
10. First, we do not agree that the presentation of the consumer bundles [Figure 3.3] is a helpful or accurate description of purchasing patterns and for example the 57% shown here is different to the equivalent figure in Ofcom's own Jigsaw survey which shows 65%¹. BT conducts extensive research which shows 76% of consumers taking a bundle.
11. With respect to the comments on wholesale remedies by EE and CWW at [3.34], we do not see that this is evidenced from the statistics themselves. Whilst there is proper discussion of the role of full LLU in enhancing mainly residential consumer choice, we do not see an equivalent discussion or analysis of direct access networks for businesses and consider this a general weakness of this Consultation. We also have concerns on the putative market share Ofcom attributes to BT for the 'market' as a whole, aggregating both consumers and businesses, as we do not consider that the underlying statistics are particularly reliable.

III. SECTION 5: WHOLESALE CALL ORIGINATION

Direct Constraints

12. We understand Ofcom's analysis of direct constraints [5.22] on mobile networks notwithstanding our concerns on the very high degree of concentration now evident on the UK networks and that regulated access to these networks should be considered.
13. For the reasons we develop below, we do not share Ofcom's [5.23] perception that neither unmanaged VoIP for consumers, nor managed services for businesses (in particular SIP-based offers), constitute direct constraints on BT and fixed access networks more generally. The fact that there are, for example, costs of switching is not by itself a reason for a substitute to be ineffective. The relevant test is whether the (discounted) cost of the investment itself is worthwhile and whether a hypothetical price rise in narrowband services would be unprofitable because it would speed up migration to these substitutes.

¹ We understand that there are definitional aspects which explain much of this gap. The Ofcom Technology Tracker reports that 16% of consumers do not have a landline so the population is different to the Jigsaw survey. If the number who get a landline as part of their bundle as a proportion of all with a landline we estimate the equivalent statistic to be 61%. We are giving further consideration to this matter.

14. In the analysis of indirect constraints, we profoundly disagree with Ofcom's interpretation of the role of substitute forms of communication to fixed calls for the principal reasons set out below.

Indirect Constraints

15. Our assessment of the strength of indirect constraints – both individually and collectively - differs from that of Ofcom. To appreciate the nature of these differences we adopt the following approach in our response below:
- The first part sets out our views on the issues pertaining to the SSNIP test both in a vertical context (such as bundling of calls with lines) and in a horizontal context (calls with other products such as broadband or TV services). Additionally, we consider the interaction between product and geographic markets which formed an important part of our submission in the Call for Inputs (CfI).
 - The second part looks at the implicit assumptions made by Ofcom on the competitive price levels absent regulation (known as the modified Greenfield site approach). We find that Ofcom has in a number of instances made highly restrictive Greenfield site assumptions and drawn conclusions which are not self-evidently reasonable.
 - The third part then looks at the specific methodology and candidates identified by Ofcom as potential substitutes for fixed voice as part of a wider product and geographic market. We provide comments on the specific text in Section 5.

Part I. Issues to do with the SSNIP test

16. The two principal issues (there are others as well) which we think are most relevant in this market review are the following:
- For consumers, the focal product at the retail level is the bundle of services comprising access line, calls and broadband. It is then extremely difficult to ascertain the competitive price level for individual components within the bundle and any survey which asks customers to make conjectures on the components will be seriously compromised². On the other hand, supply and competition is predominantly geographically focused and follows the pattern of competition which prevails in the WBA market.
 - For businesses, the issue is one of dynamic substitution to other forms of communication in particular VoIP (and managed solutions such as SIP-based service) and mobile. We agree with Ofcom that the decision to move to alternatives may be influenced by a range of factors, where such technologies offer a range of services based on common access. There is a huge range of options open to businesses and surveys are not a good means of understanding the nature of the commercial dynamics.
17. We do not consider that Ofcom has recognised the severe technical limitations of drawing conclusions from this test even at the level of a 'conceptual tool'. We describe below five related issues which in our view cast doubt on the conclusions that Ofcom has drawn even at this stage of market boundaries.

² Put another way, there is 100% waterbed between the components in the bundle.

(i) Ordering of product customer and geography

18. In this market review, Ofcom takes a traditional approach of looking at product substitutes and then subsequently for geographic boundaries *given* the conclusions already drawn at previous stages.
19. The issue of the interaction between customers, geography and substitute product sets was explored intensively in the 2012 BCMR Consultation. BT and its advisors argued that:
 - Ofcom in adopting a strict sequential ordering would likely miss key areas of competitiveness especially if no subsequent cross-checking of definitions was undertaken.
 - The same economic markets defined by product and geography would be unlikely to be appropriate for each and every service in the range of services being considered.
 - There is in any case no absolute requirement for the ordering procedure to always start at the product level; the OFT for example has argued that there are circumstances in which the geographic dimension should be considered first.
20. To take one example of this phenomenon. Ofcom [5.83] includes consumers and businesses on the grounds of the identical nature of the costs even though elsewhere [5.120] Ofcom effectively draws a distinction between the sets of suppliers to the two groups arguing that there is comparatively little overlap in provision. This by itself suggests that there is an interaction between the dimensions of markets which should be taken account of at the stage of market power. Ofcom has not done this.
21. Our position is that the SSNIP test has to be appropriately tailored to the real choices which customers have in front of them and this will require careful disaggregation. At the minimum this would imply that consumers be split into those who buy “solus” voice (and not either broadband or pay TV) and those who buy bundles. Conditions of competition are highly geographically focused for the latter group, showing there is an important geographic dimension to the relevant focal product set. For businesses, there is probably an even more compelling case for a much wider breakdown of potential candidate groups.
22. The essential difficulty is that many customers have choices which change over time. Dotecon provided a substantial Paper on this matter in the CFI and we do not see that Ofcom has given it adequate consideration. At any one point in time, a SSNIP test will not identify these choices at a sufficiently granular or disaggregated level to see that separate economic markets are plausible and that price-based substitution is in fact taking place.
23. It is especially telling that there is little to no forward-look in Ofcom’s review either of the economic markets or within the SMP assessments. In the 2009 Statement, Ofcom [6.53] stated that from the perspective of fixed services, mobile was ‘just outside the market’. As discussed below, the indicators which Ofcom used to come to this conclusion have generally moved in the direction in which mobile should be *closer* or *in* the market for fixed, yet the conclusion of this review appears to be that it is moving further away.

24. In fact, the only logical conclusion one can draw from Ofcom's approach is that each and every means of communication - fixed voice, mobile voice, VoIP of all descriptions, email, text messaging etc – all are in separate and distinct product markets, and will likely always be so.

(ii) A vertical chain of supply (complementarity in demand) with a dilution effect

25. The SSNIP test is strictly one of comparing goods which are substitutes in a model of single product comparisons³. The use of the SSNIP test becomes more problematic when this is extended to include consideration of services which are bundled but complementary to each other. Briglauer⁴ sets out the related issues of bundling and complementarity as follows:

'The practice of bundling and the issue of complementary products does not change the principles of market definition. However, it increases the number of products and combinations between bundles and stand-alone products. One has to identify which products are offered on a stand-alone basis and which ones are offered only within a bundle. Complementarities within bundled products that are only offered as a bundle then become irrelevant (because they are considered as a single candidate product subject to the HMT routine); complementarities between an initial set of products (M) and a (stand alone or another bundled) candidate product will by definition lead to different markets (because the candidate product meets different, albeit complementary demand). Furthermore, because complementary wholesale services are naturally derived from retail demand, market definition based on complementarities could lead to broad clusters alongside the whole value chain (suppressing potentially highly different competitive market constellations).' (emphasis added)⁵

26. In the Cfl, we showed that in fact forced bundling of lines with calls is now industry-wide⁶ and Ofcom [5.27 (b)] confirms this position. There is strong *prima facie* evidence therefore that in commercial practice, it is a combined and single market. As Briglauer points out, then the HMT should be applied to the combination of these and not the individual components and we should be looking at conditions of competition in a much broader fashion. This approach would have taken the impact of bundling as a very important factor which most definitely *should* have guided Ofcom's [5.82] analysis.

27. As we discuss below, in the context of the Jigsaw survey and Ofcom's approach, principles of the HMT are only partially adhered to. For example, residential consumers were provided with a choice of switching supplier which is not in keeping with the HMT. For businesses, the Jigsaw Survey and Ofcom more generally look at the issue of an increase in the call

³ Dobbs I. 2006. Int. J. of the Economics of Business, Vol. 13, No. 1, February 2006, pp. 83–109.

⁴ Briglauer, W. Conceptual problems with the hypothetical monopolist test in ex-ante regulation of communications under the new regulatory framework. Journal of Competition Law & Economics, 4(2) December 2007. Footnotes are omitted from this extract.

⁵ This would be

⁶ Tables 5 and 6 of our 20th September 2012 submission.

origination component *alone* and trace this down to the retail level to see the impact to alternative means of communication⁷.

28. It seems to us that the relevant question which this test is actually addressing, is whether or not the bundle at the retail level should be 'unpicked' into its constituent parts of access and calls and not one of substitution of the means of communication itself and this is how BEREC describes the test⁸.
29. The BEREC study further notes that the impact of retail bundling at the wholesale level is not unambiguous. Briglauer also suggested :
 94. Once a NRA has defined the retail market as a bundled market, it may also be necessary to analyse the impact at wholesale level. It may be the case that bundling increases competition at both the retail and wholesale levels, whereas under different circumstances, bundling could restrict competition. Given this, it may be appropriate for NRAs to define a bundled market at the wholesale level, or potentially to explore other mechanisms to impose regulation, if needed, on the individual components of the bundle at the wholesale level.
 115. The effect of bundling on the assessment of differences in competitive conditions is likely to vary depending on the nature of the underlying constraints under consideration.
 116. On the one hand, wholesale obligations defined on the basis of standalone services could prevent competition from growing at retail level. Operators could demand a wider range of services, included in the bundle defined at retail level. On the other hand it could dilute, under certain conditions, indirect constraints considered in geographical market definition (see a more detailed discussion in the Annex).
30. We see a strong parallel here with the controversy surrounding the assessment of indirect constraints from self-supply. In a separate report, BEREC⁹ noted that - '...a number of NRAs have put into question the adequacy of such a test to assess indirect constraints'.
31. It is well known that there is a more fundamental problem with applying the HMT in a vertical chain; this test will *inevitably* find market power for *arbitrarily* small portions of the value chain as our external advisor Professor Dobbs has frequently advised Ofcom as far back as the Freeserve case.
32. Our position therefore is as follows. It is reasonable to conclude that for the vast majority of customers, access and calls are in the same (retail) market and this is the relevant benchmark to use, irrespective of how these components are being defined for other regulatory purposes. The relevant SSNIP test then is to the combination of these services (their combined value) to assess whether other functionally equivalent combinations are substitutes at the retail level. This suggests that the price of calls for mobiles should be

⁷ We are not at all clear why Jigsaw adopted quite different approaches between consumers and businesses.

⁸ BEREC report on impact of bundled offers in retail and wholesale market definition December 2010.

⁹ BEREC Report on self-supply, March 2010.

compared to the combination of access and calls across the fixed network, as access is not separately charged for in the mobile sector¹⁰.

33. The impact of the rise in call origination in Ofcom's approach [5.29, 5.33, 5.118] becomes even further 'diluted' through the effect of (horizontal) bundling with other services such as broadband.

34. In summary, and in our view, the SSNIP test becomes increasingly unclear in application from a combination of:

- The arbitrariness of the amount of the value chain that is being assessed at any one point in time as discussed above.
- The extent to which services at the retail level are bundled so any increase in price is spread across an increasingly wider retail package base price.
- The high level of aggregation of customers and geography discussed above.

35. We do not consider that Ofcom has given sufficient attention to these fundamental underlying issues which indicate that strong conclusions are unlikely to be possible in these circumstances.

(iii) The ability of customers and/or CPs to absorb price increases

36. When strong dilution effects are applied, the implied price increases for consumers or margin impacts for CPs may appear very small. Ofcom [5.28] effectively suggests that CPs can absorb margin thus further diluting any actual increase in the retail price. We do not consider that this can ever be an appropriate assumption to make. The SSNIP test assumes that prices are at their competitive levels so no additional margin absorption is possible.

(iv) Switching costs and generic migration

37. In a number of instances Ofcom [5.46, 5.68, 5.115, 5.120] relies on barriers to switching from sunk investment costs either by consumers or by suppliers. The HMT has a comparatively short time frame specifically to limit (unknown) supply-side entry which involves risk hence a presumed absence of new additional sunk costs. No such presumption is made on the demand side or by consumers.

38. We feel that Ofcom is taking a highly restrictive view of product replacement and the impact of price. Firms generally have investment cycles and at any particular point in time, a cohort of these will contemplate switching their equipment. They are not all going to respond instantly to a hypothetical price rise but by the same token, for those that are contemplating a change, the incremental costs of that change are already taken into account in the investment decision. Ofcom however is treating all firms as at a common base line having to justify a change based purely on the SSNIP price rise. The real question is therefore whether or not the price rise speeds up the underlying migration to other technologies, not whether they are going to act as substitutes or not. The Jigsaw survey is not at all a sufficient or adequate approach to tease out these issues.

¹⁰ This abstracts from the issue of bundling with inclusive minutes on both networks.

(v) Absence of Critical Sales Loss (CSL) benchmarks

39. Throughout much of Section 5, Ofcom [5.42, 5.44, 5.46, 5.51, 5.64, 5.89 5.90, 5.91] makes judgemental comments on the 'materiality' of the level of prices or proportions of consumers potentially affected by price changes from the SSNIP or in a modified Greenfield site context. What is surprising is that Ofcom makes no reference to the necessary critical sales loss or critical price increases which are being presumed for this value chain. As we discussed in the Cfl, these values are established and in other market reviews such as WBA, Ofcom has made extensive use of this procedure especially on the basis of surveys of potential reaction to price changes.
40. The CSL values are in fact frequently very low for industries which have high fixed costs, which makes a hypothetical price increase highly problematic¹¹. Taking the base of zero marginal costs, it only takes a 10% switch for this to be unprofitable. Many of the results in the Jigsaw survey appear to meet this threshold.

Part 2. Treatment of Greenfield site assumptions

41. We set out below a number of examples where we consider that Ofcom cannot substantiate the conclusions drawn in the analysis of Indirect demand constraints.

(i) Consumers would have to give up the entire bundle and ability to make fixed voice calls

42. Ofcom [5.29] appears to assume that CPs would not market calls at all and consumers would have to give up the entire service for there to be an effective constraint. There is no logical basis for this assumption and it is not at all clear why Ofcom comes to such a drastic conclusion at this stage of the analysis even prior to the consideration of the extent of likely substitution to mobile or VoIP. Further, Ofcom appears to treat the bundle as being immutable yet this is patently not the case.

(ii) Retail access line and switch to mobile

43. Ofcom [5.45] cites what is a very logical scenario (line for broadband alone and calls provided across other means such as mobile) to be not relevant because of a trend factor and a dilution effect. However, Ofcom does not establish what would happen to this trend absent regulation on BT, and what commercial strategies CPs would adopt in that eventuality. Indeed, there is evidence that mobile operators do indeed target such consumers with propositions like this even with regulation present on the incumbent to provide wholesale call origination.
44. Ofcom's [5.46] subsequent discussion of relative price comparisons is purely judgemental and says nothing about the price structures which might prevail absent regulation. It is not at all apparent what relevance switching costs have as switching with bundles occurs regularly in any case and whilst a 10% increase in the price of calls (or whatever price rise is postulated) may not cause an immediate reaction by consumers, once the minimum

¹¹ We also believe that Ofcom's NGN model has a high degree of capacity modularity and generally low responsiveness of underlying costs to plausible variations in output indicating a high degree of cost fixity overall.

contract period has lapsed the impact would be felt by the CP at that stage. Ofcom is imposing restrictive conditions of no underlying relevance here.

(iii) Perceptions of call prices out of package

45. Beyond the fact that Ofcom [5.49] looks at a minority of call types, it is also relevant to consider the potential impact within this review period of the substantial changes which Ofcom itself is proposing for non-geographic numbers. Whilst we understand that some aspects of the NGN review are still outstanding, the changes for example to 080 (mandatorily priced at zero at the retail level) and the move to the Access and Service charge model – can all be expected to have a major change in customer experience and perceptions of relative prices. The 56% of consumers for whom price is an issue therefore is a *majority* which will be affected by changes already known in the industry.
46. Further, Ofcom [5.51 and Footnote 106] actually refers to its own research on NGNs but does not consider the implications in a Greenfield site context. Regarding mobile quality, a forward look may affect any consumer concern in the period 2013-2016 with the sale of 800MHz spectrum which is a regulatory development which should be taken as presumed in the Greenfield scenario.

(iv) Price of calls within package and constraint of VoIP

47. Similar to the assumptions made for mobile, Ofcom [5.62] assumes that, absent regulation, CPs would continue to offer calls for ‘free’. Indirect constraints from VoIP could therefore be stronger than the current Brownfield market.

(iv) Quality standards and VoIP

48. Ofcom [5.63] cites issues of quality limiting switching. These non-price factors – to the extent that any are actually material, which Ofcom has not established – would be areas of strategic improvement for CPs none of which are actually technical barriers. CPs in other countries have not found these to be barriers and for example IP voice is widely prevalent in France. Whether consumers actually know they are on managed VoIP or not is not in itself clear.
49. Ofcom’s [5.64] overall assessment of VoIP therefore cites two factors which are either not applicable at all in a Greenfield site scenario or much weaker than Ofcom is supposing.

Part 3. The strength of indirect constraints from specific substitutes

Pass-through to retail prices [5.27-5.33]

50. We note that the estimate of consumers purchasing a bundle [5.27] is heavily affected by precise definitions and as discussed above Ofcom’s estimate of 57% compares with 65% in the Jigsaw Survey and BT’s own research has a higher value still at around 76%. We are currently examining the sources of these differences but believe that Ofcom is generally understating the proportion of the relevant base (those with landlines) who purchase multiple services from the same supplier.

51. We do not consider that Ofcom [5.28] has any basis for asserting that changes in wholesale prices will not feed through to changes at the retail level on the basis of comparative costs of the bundle versus individual elements. This is no more than a re-statement of the presumption that in competitive markets CPs can absorb margin. It has to be stressed that this is an illusionary assumption and one that can be applied in perpetuity to all elements of a value chain in turn such that at no point will retail prices ever change. In practice we have every reason to believe that CPs would react to changing wholesale prices by altering the structure of the bundle in terms of the number of free minutes for example. As consumers use up their allowances they will switch to other devices.

Mobile

52. The scope of Ofcom's assessment of retail substitution appears to have significantly narrowed in this review compared to previous reviews in which a variety of factors were examined including the fixed-mobile price premium; customer perceptions of prices and price differences; a consideration of on-net versus off-net calling patterns and so forth. Although there is some reference to some of these factors, they are not given much weight.
53. In the Cfl we pointed out that the price premium has now evaporated altogether and that in particular forward looking with termination moving to pLRIC, one could expect further changes in the structure of call packages.
54. For the reasons set out above, we do not accept Ofcom's [5.35] starting point that the assessment of a price rise in a component of a bundle is the relevant question to be posing in the first instance. However we note that in fact for consumers, Jigsaw *did* actually pose this question (Question 9) and although it is not clear whether consumers thought this meant just lines and calls or all services, nevertheless this was a sensible starting point. Against this however, and again for reasons which are not clear, Jigsaw gave customers the opportunity to switch landline supplier which not only is different to the question put to businesses, also likely gave a misleading impression to consumers.
55. Ofcom [5.39-5.40] then merely quotes statistics on what the majority of customers would do if there was a price rise as if this was the relevant benchmark when in fact it is not. The correct assessment is the percentage who would enter the CSL calculation. In this case what is noteworthy is not that 72% would never give up their landline - but that 28% potentially *would* give up their land line¹². There is no breakdown of this 28% and whether for example they are more concentrated in voice only households or in younger age cohorts who would happily switch to a mobile solution for broadband for example. It is a very high percentage and well above a CSL.
56. Looking at the responses to Question Q6c (B) – 'I would never give up my landline calls package' – what is remarkable is that only 42% strongly agreed with this proposition and 18% only slightly so. If that is indeed correct, it shows a very *high* degree of customer

¹² In fact we consider that Ofcom implicitly misquotes the Jigsaw Survey as only 55% agreed strongly with this proposition and 17% only slightly so which suggests that they are in fact highly marginal as to whether they gave up the line or not.

ambivalence to calls packages across fixed lines; emphatically we *cannot* say as Ofcom deduces that 60% would *never* give up their landlines calls package.

57. That according to Ofcom [5.42], mobile access will not be considered a substitute for fixed access for the majority of customers in this review is unexceptional; it is clear that if Ofcom's statistics on mobile-only households is correct then this must be valid in terms of 'average' behaviour. That however is not the relevant test which is on marginal changes. Even here, it is not clear how to interpret the Jigsaw results as prior to the hypothetical price increase 10% of consumers say they would give up landline access (Figure 22 – those who disagree strongly with the proposition) yet after a 10% price increase there is still only 10% who would give up their landline (Figure 30).
58. The Jigsaw survey (Figure 30) in fact displays a very high degree of potential switching behaviour by consumers across a very wide degree of substitutes and totally in line with the description of consumer choice set out by Dotecon in our response to the CfI. Apparently 25% of consumers say they are certain or very likely to switch some calls to mobile. An unknown cohort of consumers are fairly *likely* to do so as well but the magnitude cannot be seen as the results are (confusingly) aggregated with those fairly *unlikely* to switch. Suppose however that this cohort is split 50:50; then on the basis of how Ofcom has chosen to present the Jigsaw results which aggregate agree strongly with agree slightly – arguably something like 40% would be tempted to switch.
59. This is not the picture that Ofcom paints in the Consultation, rather the precise opposite. Ofcom further conflates the survey by then discussing switching behaviour [5.43 and Footnote 98]. This has no bearing whatsoever on reaction to price increases at the market level but rather is more an indicator of the satisfaction with current suppliers ie an indicator of a healthy competitive retail marketplace.
60. The option of giving up the landline for calls but retaining for broadband is discounted by Ofcom [5.45]. Given that calls are largely force bundled with lines this is unexceptional. The issue however as discussed above is that the packages with free call minutes will not be indifferent to the price of the wholesale inputs as discussed above. Customers are increasingly aware of their minutes of traffic and options across their networks and will use them accordingly as Ofcom [Figure 5.1] notes.
61. In spite of the fact that a significant minority (33%) *do* rationalise choice on the basis of price rather than the 67% who do *not* as Ofcom [5.51] quotes, the overall conclusion is still that the critical price increase is either unknown or that the majority of consumers are not exposed to the price increase – Ofcom [5.53]. In fact making assumptions about the underlying level of economies of scale, it is directly possible in making a simple SSNIP to establish the critical price increase¹³.

¹³ Dobbs I.M., 2006, Defining Markets for Ex Ante Regulation Using the Hypothetical Monopoly Test. International Journal of the Economics of Business, 13(1), 83-109.

62. The Jigsaw survey shows a high degree of potential switching following a hypothetical price increase of the relevant focal product.
63. In summary, our position on the three factors which Ofcom [5.53] identifies here are as follows:
- a) the relevance of the price when choosing the method to make calls. That a significant number of consumers choose for non-price reasons has no bearing on the assessment of a response to a price change. Consumers will be making trade-offs between price and non-price factors and the SSNIP test looks at this; the test even at the conceptual level does not detract from this and nor has any Commission Guidance suggested otherwise.
 - b) retail call prices may have to increase very significantly to trigger switching to mobile. It is not at all clear why Ofcom makes this statement or what basis there is for it. Nor is it possible to infer what 'very significantly' means. As such it is merely a statement of belief and not evidenced-based. The limited evidence which Ofcom [5.51 and Footnote 106] quotes on price differences with fixed networks relates to NTS calls which are minuscule from mobiles and not at all representative of the types of calls which are directly substitutable with fixed line based calls.
 - c) the majority of customers are unlikely to be exposed to individual call price changes. If this is referring to the practice of bundling calls with lines and broadband, then it is an argument that the definition of the focal product be drawn differently. We would accept this and in the Cfl called for Ofcom to consider a separate consumer classification of broadband and voice-only customers. The consequences of this approach would be to define different geographic markets for these two groups and undertake the SMP assessment accordingly. For the voice-only customers who would be exposed to a price change based on lines plus calls, the relevant test would be based on this package and the critical loss include those who would switch to mobile-only solutions.
64. That there may be different relevant markets is in effect actually confirmed by Ofcom's [5.52] own discussion. Ofcom however suggests that price discrimination might be used in a harmful fashion. The reasoning here is unclear however. If Ofcom [Footnote 108], is postulating that *all* fixed CPs acted together in concert then this sounds like a co-ordination which would be likely illegal. If Ofcom is suggesting that a *hypothetical monopolist* might do this then it undermines the basis of the Jigsaw survey and the practice of taking *current* prices as the relevant competitive level on which to base a price increase.
65. In practice, we consider it would be next to impossible for any fixed operator to be able to target price increases to rural customers who were less able to switch to mobile. The vast bulk of rural customers can receive mobile service and were BT to attempt to apply punitive charges the reaction would be extremely negative for our public image.
66. If however what is really being said is that Ofcom has some underlying concerns that deregulation might result in certain customers being disadvantaged, then in our view it ought to be raised at the stage of competition concerns or remedies. BT in the Cfl response made clear that if Ofcom had concerns for particular minority groups of consumers we

would be very open to see how they can be accommodated but that they should not act as a block on deregulation where it is fully justified.

67. As noted above, we have a number of concerns regarding the way in which Jigsaw asked businesses to respond to price increases. Whilst it is appropriate for the SSNIP questions to explicitly rule out direct switching to equivalent providers, it is not self-evident why the same questions of overall price increases of line plus calls were not posed as was done with consumers.

68. Turning to the specifics of mobile, it is telling to read in the Jigsaw Report that:

Mobile phones have become a commonplace alternative to fixed lines among all sizes and types of companies. Most businesses (64%) use mobiles (incidence rises to 96% in companies with 250 or more employees) and they now account for a quarter (25%) of all calls from the office. .

69. The decline in fixed minutes from businesses has if anything been even sharper than for consumers and the parallel has traditionally been to an increase in equivalent minutes across mobile networks as we discussed in our response to the Cfl. Many businesses have given up fixed line access altogether and this is not restricted to sole traders; BT is aware of much larger organisations who are substituting access and calls capability for all-mobile solutions.

70. The Jigsaw survey for businesses differs from consumers in that the hypothetical question is based solely around calls (Q11a) and not the equivalent of the land line bill (Q9). Ofcom [5.55] then deduces something on switching at the level of the fixed line itself and quotes a low percentage of 6% saying they would cease service. This does not seem to be a fair assessment. If the relevant focal product for a firm is access plus calls, then as with consumers, the relevant SSNIP should have been on the combined service and the likely response much greater.

71. We can see no objective basis for Ofcom's [5.57] conclusions either for businesses or [5.58] overall. Nor can we now see whether Ofcom considers that mobile remains 'just outside the market' as in 2009 or how Ofcom considers its position has changed in the last three years.

VoIP

72. We believe that the usage statistics quoted by Ofcom [5.60] are reasonable. Given the huge growth in use of VoIP (managed and un-managed) we find it hard to see how Ofcom [5.61] can possibly describe this as implying only *potential* substitution. Indeed our own assessment taking a forward look as we submitted in the Cfl, there is likely substantial further switching which is already strongly price driven.

73. Ofcom therefore treats VoIP as only a potential substitute even though actual substitution is substantial and already happening. The relevant question then is whether or not the price rise of the HMT would affect the rate of substitution itself.

74. For consumers, Ofcom [5.62] again assumes a static bundle following an increase in call price which as we have discussed above is not reasonable. The extent to which fixed operators provide inclusive calls and encourage use of the fixed network is itself price constrained by the ability of a large proportion of consumers to switch easily to other forms of communication.
75. In our view, Ofcom [5.63] makes a series of wholly unsubstantiated assertions on the difficulties of using VoIP and in any case it is self-evident that broadband quality must be sufficient for so many consumers to use an unmanaged service.
76. We consider that the issue of non-price factors [5.64] is by itself irrelevant to the outcome of a SSNIP test as discussed above, which is a response to a price change holding other factors constant.
77. We find Ofcom's [5.68] analysis of business consumers and the use of managed VoIP hard to fathom. The fact that switching to a VoIP solution (Ofcom is not clear what type of solution it has in mind) is not costless is by itself not relevant as we discussed above. Businesses will examine whether over a relevant period (perhaps over four years or so) and given a level of current and likely prices, it is worthwhile to invest and use different forms of communication. The SSNIP test then should examine whether the incentive for this investment is sufficiently strong in the more limited time period of the test itself to make the volume drop unprofitable. The Jigsaw survey does not attempt to examine this in any degree of granularity at all. As it stands, it is hard to imagine why any business customer would want to switch if Ofcom's conjectures had any merit. The simple fact remains that businesses are migrating for price-driven motives and that this will continue into the future.

Text and email

78. It is clear that in fact a majority of consumers do perceive that texts are a viable option to making a call and our position regarding constraints of bundled minutes above applies here too. The barriers Ofcom [5.73] identifies are of course not new.

Different retail bundles

79. We are very surprised by Ofcom's dismissal of the substantial and detailed analysis which we submitted in the Cfl. Indeed, we are not even sure that Ofcom [5.79] refers to our submission, as for some reason the name of the respondent is redacted; certainly apart from some commercially sensitive numbers there was nothing in our submission which was intended to be hidden from public view – quite the contrary.
80. We invited Copenhagen Economics to review our submission in the light of Ofcom's response and their report is attached.
81. Further, we cannot comprehend how Ofcom [5.80] can argue that the trend is not 'sufficiently advanced for there to be a distinct market at the retail level'. Ofcom's [5.80] statistic of only 22% of households would suggest the precise contrary if in fact almost 80% of consumers are *not* purchasing the products separately.

82. Ofcom's [5.81] second line of argument is around the supposed reliance of CPs on SMPF and that a 'significant proportion of all retail LLU lines are still SMPF lines'. There are two points we wish to make on this. The first is that about 75% of all SMPF lines are in fact internal BT consumption and this is a regulatory construct; we simply use our network facilities to compete against MPF and cable based operators. It is not a distinct network from other forms of access and external purchasing of SMPF is steadily declining. The second point to make is that Ofcom effectively departs from modified Greenfield site assumptions here by asserting dependency rather than demonstrating it. Ofcom does not address whether, absent regulation, BT would still be incentivised to supply SMPF and call origination to third parties.
83. Consequently we profoundly disagree with Ofcom's [5.82] conclusion that bundling is not of material relevance. The same issues arise for businesses across a wider range of access technologies and bundled solutions.

Residential and business

84. Ofcom [5.83] asserts these are equivalent as far as call origination is concerned but later Ofcom [5.120] seems to draw a distinction between the serving networks of the two sets of customers. We therefore consider that Ofcom's conclusions are not robust to the way in which the market boundaries have been done – this is the matter of the ordering of analysis discussed above.

Geographic markets

85. Ofcom's [5.88-5.93] analysis appears to be a recapitulation of the points made under retail bundles. Additional specific comments we wish to make include the following:
- Consumer preferences. That consumers may have an underlying preference to purchase services separately says nothing about the ability of CPs to persuade them to take a bundle. On the contrary this is precisely the nature of competition between firms and in particular the targeting of marginal customers with for example special offers for 'new' customers with particular characteristics. The Jigsaw survey (Figure 18) found only 5% of customers choosing to purchase lines and calls separately and Ofcom does not quote relevant statistic at Footnote 142 to back up its assertion. There is no evidence of any materiality here.
 - Continued use of SMPF. As we have noted Ofcom's assertion of a 30% share is grossly misleading as it includes BT self-supply. In any case, SMPF can offer voice services across IP and consumers can use their mobile if they so choose as a complementary alternative.
 - Sub-national coverage. The gist of Ofcom's argument appears to be that as LLU rollout is not national, LLU CPs are still reliant on BT for call origination in the parts they have not extended to. The only conclusion on this line of reasoning is that if LLU *was* completely national, the geographic market would be the current one and no sub-national market would be possible. Given that there is a rump of exchanges (which are high in number but low in terms of served end customers) Ofcom is effectively ruling out geographic markets for all time. This flies in the face of common sense let alone proper economic assessment. In any case, elsewhere, Ofcom [A12.102] concedes that – 'While we accept that today only BT has a network with national coverage, other major fixed CPs have

close to full national coverage'. In the WBA market review, Ofcom has accepted that there is variation in competitive conditions outside the areas where only BT has footprint with a designation of market 2 (prospectively fully competitive) versus market 3 (fully competitive).

86. Ofcom [5.90] then adopts an assertion of dependency of LLU operators and other CPs even in the areas in which they are present. This appears to be more of a direct assessment of market power than an assessment of geographic boundaries. Either way, and noting the strong links between the two stages, it is no more than an assertion that anybody who wants to offer a service based on a currently regulated product is then apparently entitled to it on an indefinite basis; on this basis all they have to do to ensure regulated supply is to state this on their website - Ofcom [Footnote 145]. At the minimum this is not consistent with a thorough analysis based on Greenfield site assumptions.
87. Ofcom [5.90 and 5.91] provide no evidence for the material proportion [5.90] or material number of customers [5.91] allegedly reliant on BT, nor whether absent regulation, BT would still have an incentive to supply these operators and their customers.
88. We therefore emphatically reject Ofcom's [5.92] conclusions here and call for a distinction between solus voice customers and those taking a bundle with the market power assessment being conducted on geographic lines. We also request that a comparable exercise be undertaken by Ofcom for businesses and supply of direct access from own networks as well as regulated access products (of all description) from BT. The relevant focal products for businesses would generally include voice and data and conditions of competition broadly follow the patterns and methodology we proposed in the BCMR.

Market power assessment

89. We cannot discern any substantive evidence or argumentation in this section beyond what has already been presented in the assessment of market boundaries and so our position remains the same that Ofcom has not shown that the market is confined narrowly in the way that is presented.
90. That Ofcom takes *no* account of *any* impact on BT from *any* additional potential substitute is most surprising, especially if back in 2009 for example mobile was 'just outside the market' in which case there must have been some price constraint three years ago yet the volume of fixed minutes has continued to fall away.
91. We note that there is no forward look of BT shares of call origination in Ofcom's analysis¹⁴. Nor is there any forward look for alleged reliance on BT for customers taking bundles but based on SMPF and calls separately. SMPF has been declining by around 0.5m per annum consistently and currently BT has 24.9m copper lines of which 8.8m are LLU, split 6.4m full

¹⁴ We also have some concerns on the calculation of the estimated share of BT in call origination which we now understand is not based on the Quarterly Market Indicators. We feel that the 67% figure is in excess of what we would expect based on other data. We hope to pursue this matter in due course with Ofcom to facilitate a better understanding of what admittedly is a very difficult area of data compilation.

LLU and 2.4 SMPF¹⁵. By the end of the review period it would be reasonable to suppose that the volume of SMPF will have fallen to a very low number indeed.

92. Ofcom [5.114] cites reliance of LLU operators on BT for call origination in the areas in which they have actually unbundled. This is misleading as for the vast majority of such calls, they will be residual customers likely on CPS and probably the majority are solus voice and declining rapidly in numbers as we pointed out in the Cfl. Our comments on the parallel discussion at Ofcom [5.89] are set out above.
93. With respect to Ofcom's [5.118] discussion on the constraints from bundling, we note that again Ofcom chooses not to look at the majority market and customers (WBA and markets 2 and 3) and the high proportion of consumers taking a bundle (65% according to Jigsaw) - but rather the absence of a constraint from the minority areas and consumers who do not take a bundle and where there is competitive footprint. Ofcom's discussion here resembles a thought experiment of a market boundary and not a market power test in any case and the former is tainted with a 'dilution' effect to negate the reality of effective competition for the majority of consumers in the vast bulk of the UK.
94. We therefore reject Ofcom's [5.119] conclusions with respect to consumers and also point out that for businesses, Ofcom [5.120] make no assessment of the size of direct access networks capable of supporting businesses for the relevant package of services which they will consume in addition to the capability to serve businesses with WLA products from BT. There is no substantive analysis of competition for business consumers even within the fixed sector let alone the nature of competition across other networks such as mobile.

Competition concerns

95. We comment on the two principal areas of concern which Ofcom [5.133] identifies noting that separately Ofcom [5.52, 5.119] also raised concerns regarding discrimination.

Refusal to supply

96. Ofcom [5.135] cites a share of 25% of call origination minutes sold through CPS. We assume that Ofcom is including Wholesale Calls in this figure and as Ofcom is well aware, BT has specific contract provisions with large CPs, who are in competition at the retail level to BT to supply call origination. These contracts make a refusal to supply altogether impossible in some circumstances and for other contracts the time period extends beyond the market review in any case. We have also made clear that we value our partners from the provision of Wholesale Calls which includes call origination as a channel to market particularly for SMEs and would want them to remain in the value chain. A refusal to supply would accentuate moves to other networks such as Virgin Media or to all-mobile solutions.
97. Ofcom does not consider the incentives on BT not to refuse service in terms of reputational damage nor cites any precedent. We re-iterate our basic message that if Ofcom has concerns over minority or residual consumers or CPs allegedly reliant on BT for call

¹⁵ http://www.btplc.com/Sharesandperformance/Quarterlyresults/PDFdownloads/q313_KPIs.pdf

origination then we would be most prepared to find solutions to meet those concerns but that cannot be a reason not to deregulate when it is fully justifiable. We believe that there are of the order of 0.8m external WLR lines which do not have associated SMPF and this corresponds to about 2% of households (some lines will be for businesses) and will likely decline over time.

Increase in prices

98. Ofcom [5.138] raises two concerns respectively regarding the absolute level of the price of call origination and then [5.140] only a minority of customers (16%) are specifically highlighted. Just as external SMPF is falling, so in fact is WLR, and our internal forecast for end-year RSS for basic external WLR is 3.1m lines in 2012/13 falling to 1.6m in 2015/16. The absence of a forward-look by Ofcom in this area is most apparent.
99. Ofcom appears to characterise discrimination as a feature which is universally bad; this is not a position which most economists would accept – some elements of discrimination which are not obviously linked to cost differences inevitably arise in competitive markets especially where there are high sunk and fixed costs. The Report by Copenhagen Economics addresses this matter.