

UK COMPETITIVE TELECOMMUNICATIONS ASSOCIATION

ECONOMIC ANALYSIS OF OFCOM'S LEASED LINES CHARGE CONTROL

Final Report

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1 EXECUTIVE SUMMARY

1.1 This report has been commissioned by the UK Competitive Telecommunications Association ("UKCTA") to consider the potential economic implications associated with Ofcom's recent Leased Lines Charge Control ("LLCC") proposals. Ofcom's Business Connectivity Market Review ("BCMR") identified that BT has significant market power ("SMP") in a number of retail and wholesale products in the business connectivity market. The remedies which it proposes to address BT's SMP in the leased lines market include a set of charge controls which include caps for tariff baskets, sub-baskets and sub-caps which limit the rate of tariff rebalancing for individual services.

1.2 This report examines two aspects of Ofcom's LLCC proposal. Firstly, it considers the economic implications of the structure of the charge control. Secondly, it addresses the potential effects of Ofcom's proposal not to implement a cost orientation obligation on BT.

Structure of charges

1.3 Ofcom proposes to set charge control baskets for the three year period ending 2015/16 for traditional interface ("TI") and for Ethernet services. Each basket includes various connection and rental services distinguished by bandwidth and geographic coverage.

1.4 The charge controls for the main tariff baskets are based on a standard RPI-X basis and are designed such that by the end of the three-year charge control period revenues for the relevant services will approach forecast costs, including a normal rate of return.

1.5 Within the baskets, certain services or groups of services are subject to sub-baskets or sub-caps.¹ These are not based on the costs of the associated services but instead place a supplementary restriction on the rate at which BT may change prices of products within the broader basket while meeting the overall cap.

1.6 Ofcom has defined broad charge control baskets for TI and Ethernet services. This provides flexibility to BT such that, in principle, it can seek to efficiently recover its fixed and common costs and respond to changes in market conditions. The allocative efficiency benefit of broad baskets will depend on several factors, including:

¹ Sub-baskets apply a constraint on the weighted average price of a group of services, while sub-caps apply a constraint on price changes for a single service.

- The extent of common costs for services within each basket;
- The degree of flexibility provided by the charge control structure;
- The accuracy of data on price sensitivity across services; and
- The extent to which increased flexibility is driven by strategic consideration unrelated to social welfare;

- 1.7 Ofcom has primarily focused on the benefit that pricing flexibility will provide to BT without examining in detail the extent to which this will lead to improvements in social welfare. For example, if BT does not have sufficient data to effectively focus price reductions on services with high price sensitivity at the market level, if some of the services within each tariff basket share few common costs, or if BT is able to focus relative price reductions on services which are either more competitive or which are used disproportionately by rivals, then the static efficiency benefits of pricing flexibility would likely be lower than Ofcom's estimates.
- 1.8 Turning to the impact of the charge control structure on dynamic efficiency, there are two pricing strategies which could in theory be open to BT. The first would be to distort relative prices to enhance its position in a wholesale market (i.e. a horizontal effect). This would be the case where its wholesale products compete directly with the wholesale products of alternative network providers. The second would be to distort relative prices to enhance its position in a related downstream market (i.e. a vertical effect).
- 1.9 A distortion in horizontal market competition (e.g. between potentially competing wholesale services) could arise if the tariff basket includes products and services in which the degree or prospect for competition differs. For example, if alternative operators have the option of developing a competing product to one of the products included within the charge control basket (whether in order to self-supply, or to sell as a competing wholesale input to third parties) then BT would have an incentive to keep prices lower than would otherwise be the case so as to dissuade the development of the rival product.
- 1.10 While it could be argued that an incentive to keep prices low in such a situation may simply reflect the emerging competitive conditions in the market (and hence does not lead to any economic harm) the set of trade-offs between margins and volumes that a commercial operator would normally face may be distorted by a broad tariff basket. In particular, the incumbent is 'insulated' from the lower margin it would face when

reducing prices, since it would be able to use the 'cap headroom' from any price reduction for the product in question toward setting higher prices for other products in the basket which face lower risks of substitution from alternative operators. In addition, whereas in a normal commercial scenario a price reduction on a competitive service would lead to gains to consumers, these would be offset (in aggregate terms) in the tariff basket scenario because the incumbent is able to recoup any lost revenues from other services.

- 1.11 While Ofcom considers that its sub-baskets and sub-caps may prevent such competitive distortions from emerging, these constrain only the rate at which BT can rebalance prices. They are not related to costs (whether forecast or actual) and so will not necessarily prevent charges from becoming excessive. Sub-caps by their nature would also not provide any protection against anti-competitively low pricing by BT.
- 1.12 Many of the sub-caps set by Ofcom are relatively 'loose' in that they provide large scope for BT to rebalance prices across services. For example, under an illustrative scenario for the Ethernet basket relative prices could change by 45% over the charge control period. Such scope for rebalancing could lead to significant distortions to CPs' make-or-buy decisions and the ability of rival operators to compete in the market.
- 1.13 Broad tariff baskets may also lead to distortions in downstream markets if BT's wholesale services are used in different proportions by internal and external customers, BT would face a financial incentive to increase the price of those inputs used to a greater extent by external customers. The extent to which higher input costs would be passed through by rival CPs to the retail market would depend on market circumstances, but BT's relative position in the retail market would be enhanced irrespective of the specific competitive response.
- 1.14 The use of broad baskets enhances the risk and magnitude of this distortion to competition in retail markets. This is because BT would be able to generate 'cap headroom' by reducing prices for which its retail business accounts for a proportionately high share of wholesale revenue, and use this headroom to fund increased prices for products used disproportionately by rivals (within any basket subcaps).
- 1.15 Ofcom considers that the relative degree to which services within the baskets are used by BT and its rivals are broadly consistent. However, there is a significant variation in the proportion of external revenue for wholesale inputs across bandwidth breaks and across the components of charging (e.g. connections and rentals) for each of the TI and Ethernet baskets. While Ofcom has sought to address this issue in one case (by setting a sub-cap

on BTL services equal to the cap for the Ethernet basket), it has not effectively addressed this risk more generally. For example, BT could also have an incentive to reduce the EAD price relative to WES to the disadvantage of competing CPs who have extensive WES estates, which, even where migration is possible, will take time to migrate. It could also increase prices for other services used disproportionately (or entirely) by rival CPs (such as BES and EBD). Ofcom does not appear to have considered options (such as a sub-basket for BES and EBD) which would address this concern while still providing BT with flexibility to encourage efficient migration. Recent examples from other regulated BT products such as number translation services demonstrate that its pricing behaviour is consistent with the incentives to use tariff basket flexibility to increase the price of less competitive services relative to those of more competitive services.

1.16 Ofcom should carry out a more detailed cost-benefit analysis in order to examine the risks that price rebalancing could impose in terms of each of the two competitive concerns identified above. It should then consider whether the benefits which it supposes would arise from increased pricing flexibility would outweigh the impact of any such competitive distortion.

1.17 To the extent that a more rigorous cost-benefit assessment confirms the materiality of the risks to competition, there are a number of possible solutions to address these concerns. Some of the possible options are listed below:

- *Narrowing of each tariff basket:* Ofcom could separate any services which have a greater propensity for horizontal competition or are used disproportionately by external operators from the main basket and including these in a separate basket.
- *Increasing the number of services to which sub-caps apply:* Individual sub-caps could be applied to a number of services for which BT would otherwise face a strategic incentive to increase prices (i.e. those which are not subject to horizontal competitive pressures and those which are used disproportionately by external operators).
- *Tightening of sub-basket price limits:* The pricing constraints applied to those services for which a sub-basket or sub-cap applies could be tightened so as to better approximate the constraints of an effectively competitive.

1.18 A fourth option would be to retain cost-orientation obligations for all services within the charge control baskets, the case for which is addressed below.

Cost orientation

- 1.19 A key feature of the LLCC consultation is the proposal not to impose a cost orientation obligation on BT in respect of either TI and Ethernet services. Ofcom did not consider that it would be necessary to impose cost orientation in order to provide adequate protection against excessive pricing.
- 1.20 The purpose of the cost orientation obligation in previous charge controls was to place a reasonable constraint on the degree of pricing flexibility afforded to BT so as to ensure that charges are neither excessively high nor unreasonably low. In the absence of the condition, the concern was that BT would be able to take advantage of its status as the SMP operator of the network to the disadvantage of customers and competition.
- 1.21 In practice, the extent to which the cost orientation obligation imposes a constraint on pricing depends on the definition of the cost ceiling and floors as well as the relationship between these thresholds and actual prices. The cost orientation obligation may be consistent with providing BT with significant pricing flexibility, reflecting the difference between the cost floors and ceilings.
- 1.22 A cost orientation obligation may assist in preventing excessive pricing, or distortions to competition arising from BT pricing below reasonable cost. It may also strike an appropriate balance between allocative efficiency and productive efficiency by ensuring prices are related to actual costs
- 1.23 Ofcom's charge control structure will allow BT to raise prices for services for which demand is less responsive. While in some cases this may be consistent with efficient outcomes, in others it may reflect a desire to load price increases onto services for which competition is least likely to develop, or which are disproportionately used by downstream rivals. Sub-baskets and sub-caps only provide a limit to the extent of rebalancing and do not ensure that charges are related to actual costs. Therefore, even if a charge control were to protect against an overall pattern of excessive pricing, it could fail to ensure that the interests of end users are protected.
- 1.24 For these reasons a cost orientation obligation may be required to prevent excessive pricing at the individual service level. The cost orientation obligation has proven to be effective in helping to put some constraints on prices for wholesale services in the past. For example, Ofcom has successfully carried out a number of investigations following disputes in relation to BT's compliance with its cost orientation obligations (including in relation to PPC and Ethernet overcharges). The PPC determination was upheld by the

Competition Appeal Tribunal and the Court of Appeal, while the Ethernet determinations remain at that draft stage, having been delayed to await the final outcome on PPCs at the Court of Appeal.

- 1.25 Ofcom has identified that risks of margin squeeze, predatory pricing and/or anticompetitive cross-subsidisation are of concern in both the TISBO and Ethernet market but does not impose any remedies which explicitly address these risks. A cost orientation obligation complements the charge control remedy in preventing BT from pricing below cost. Whereas the charge control remedy serves only to prevent BT's ability to price excessively at the aggregate level, it does not address BT's financial incentives or ability to set unfairly low prices for more competitive services or those which its own retail business uses disproportionately. Broad tariff baskets exacerbate this financial incentive by allowing BT to fully offset the lost margin suffered as a result of below-cost pricing by raising prices to a greater extent on other services in the basket.
- 1.26 A further distinction between the charge control remedy and the cost orientation condition is that the former is an *ex ante* remedy which takes account of forecast costs over the charge control period whereas the cost orientation condition applies to the relationship between actual prices and actual costs. This means that the test can enhance allocative efficiency by ensuring that BT takes account of any changes in actual costs which may arise over the course of the price control period. The cost orientation obligation would prevent prices from diverging from an appropriate range of while allowing BT to efficiently recover the common costs it actually incurs across services.
- 1.27 Ofcom considers that imposing a cost orientation obligation would be disproportionate because it would lead to increased regulatory uncertainty for rival communications providers. However, in fact, in the absence of a cost orientation obligation, rival CPs would face significant uncertainty over their input costs, since BT would be under no obligation to relate its individual charges to costs. Ofcom also considers that applying a cost orientation obligation instead of charge controls may enable BT to earn excess returns. However, the relevant conclusion to draw from this is not that the cost orientation should not be applied, but rather that a charge control would need to be imposed (potentially alongside a cost orientation obligation) in order to ensure returns are not excessive at the aggregate level.
- 1.28 Ofcom has failed to make a convincing case to support its decision not to impose a cost orientation condition in its LLCC proposals. The charge controls and sub-caps which it

has proposed may not offer sufficient protection against excessive pricing or anticompetitive pricing below costs for leased line services.

- 1.29 Furthermore, the particular justifications put forward by Ofcom to support its decision not to impose a cost orientation obligation as part of the 2012 LLCC (in contrast to its previous LLCCs) are not supported by any detailed evidence or analysis. In particular Ofcom does not consider the wider implications of such a significant change in the regulatory framework.

2 INTRODUCTION

- 2.1 Alixpartners UK LLP has been commissioned by the UK Competitive Telecommunications Association ("UKCTA") to consider the potential economic implications associated with Ofcom's recent Leased Lines Charge Control ("LLCC") proposals.
- 2.2 Ofcom's LLCC proposal have been developed following Ofcom's Business Connectivity Market Review ("BCMR"), in which Ofcom identified that BT has significant market power ("SMP") in a number of retail and wholesale products in the business connectivity market. The LLCC sets out proposed remedies to address the SMP. This includes a set of charge controls which include caps for tariff baskets, sub-baskets and sub-caps which limit the rate of tariff rebalancing for individual services.
- 2.3 The BCMR and LLCC address a large number of market and economic issues which this report does not seek to comment on. Rather, this report focuses on a small number of specific economic issues where Ofcom's analysis does not appear to be sufficiently robust or its conclusions have not been justified.
- 2.4 The structure of this report is set out below:
- Section 3 sets out a review of Ofcom's proposed charge control structure; and
 - Section 4 considers the potential implications of removing the cost orientation condition from the charge control.

3 STRUCTURE OF CHARGES

- 3.1 In its BCMR Consultation, Ofcom proposes that BT has SMP in a number of retail and wholesale leased lines markets. It proposes that the SMP conditions that should be imposed on BT to address its market power should include price controls in the form of either a charge control or a safeguard cap to address the risk of excessive pricing and pricing distortions.²
- 3.2 The remedies Ofcom proposes to impose to address BT's SMP in the relevant retail and wholesale leased lines markets are set out in detail in the LLCC proposals. Ofcom proposes to set two main charge control baskets, one for traditional interface ("TI") and the other for Ethernet services. Both would apply for a three year period ending 2015/16.³ Each basket includes various connection and rental services distinguished by bandwidth and geographic coverage.
- 3.3 The charge controls for the main tariff baskets are based on a standard RPI-X basis. The weighted average price change is designed such that by the end of the three-year charge control period revenues for the relevant services will approach forecast costs, including a normal rate of return. This is also referred to as a glide-path since, if revenues initially exceed costs, they will only gradually converge to costs over the course of the period.
- 3.4 Within the baskets, certain services or groups of services are subject to sub-baskets or sub-caps.⁴ The sub-baskets and sub-caps place a supplementary restriction on how BT may change prices of products within the broader basket while meeting the overall cap. In addition a series of 'safeguard' sub-caps apply to those individual services within the main TI and Ethernet baskets which are not subject to an explicit sub-basket or sub-cap. The main difference between the RPI-X control applied to the broader basket and the limits for sub-baskets or sub-caps is that the RPI-X control is designed to ensure revenues for the charge controlled services approach their costs over the period in question, whereas the limits applied for sub-baskets and sub-caps are designed only to limit the rate of change in prices over time without any specific reference to costs.

² Ofcom (2012), Business Connectivity Market Review, Consultation, 18 June, §1.35ff.

³ Ofcom Leased Lines Charge Control, Consultation, 5 July, §1.6.

⁴ Sub-baskets apply a constraint on the weighted average price of a group of services, while sub-caps apply a constraint on price changes for a single service.

3.5 In addition to the charge controls and sub-caps applied for TI and Ethernet services, Ofcom identifies a number of other services for which it proposes to impose a charge control⁵

3.6 This section examines the potential economic implications which may arise from the proposed charge control structure. In particular, it considers the potential impact of the charge control structure (and hence on BT's pricing flexibility) on static economic efficiency and on dynamic economic efficiency.

Impact on static economic efficiency

3.7 A standard outcome under a tariff basket with multiple services is that the firm would prefer to reduce prices for elastic services while increasing them for inelastic services. This is because applying price changes in this way leads to the greatest increase in revenue (or the least fall in revenue) for a given average change in prices. This incentive mirrors the Ramsey criteria for optimising recovery of common costs, where the objective is to raise prices above marginal costs so as to recover fixed and common costs with the smallest impact on output.

3.8 The overall impact on efficiency associated with the tariff basket for of charge control will depend on two issues:

- First, what is the extent of pricing flexibility that is available to the firm under the charge? and
- Second, what is the extent of any improvement in allocative efficiency that price rebalancing may deliver?

The extent of pricing flexibility under the charge control

3.9 The extent of pricing flexibility available to BT under the proposed charge controls depends on a number of factors. These include:

⁵ These include Excess Construction Charges, Accommodation Services, Alternative Interface services outside of the West, East and Central London Area ("WECLA"), and rental charges for Retail Analogue services. See Table 1.1, LLCC Consultation.

- *The breadth of services covered within each tariff basket:* the greater the range of services included within a tariff basket, the greater the scope for BT to rebalance prices while complying with the overall basket cap;
- *the extent to which services within baskets are substitutes:* the demand for services which are close substitutes will tend to be inter-related in the sense that a price increase for one product will lead to an increase in demand (all else equal) for its close substitute. In theory this would not affect BT's flexibility in meeting the overall cap since (as is the case for products which are not substitutes) a price reduction for one product could be offset by a price increase for another. However, if the products are substitutes, there may be practical limits on significant price rebalancing since BT may not be able to successfully push through significant price increases for one product if the price for a close substitute is declining rapidly.⁶
- *the presence and scope of sub-caps and other restrictions on pricing.* The degree of pricing flexibility provided for within the broad basket may be reduced by supplementary obligations in respect of particular services or groups of services. Typically these supplementary restrictions are imposed where there is a particular concern regarding the risk of excessive pricing for a given service or where the regulator wishes to control the rate at which price rebalancing between individual services may be implemented.
- *the method of determining revenue weights of services within the basket:* the way in which weights are determined for the purpose of calculating the average change in prices for services within the basket may affect BT's incentives for price rebalancing. The weights may be either based on prior year revenues or current year revenues. For price elastic products the weight on negative price changes will be greater if current year revenues are used. This is because the revenue of these products will increase while that of products for which prices are increased will fall. Current revenue weights would in this case lead to higher permitted average price increases for a given overall basket price limit than would be the case if prior year revenue weights are used. Conversely if all products are inelastic, the use of current year revenues would lead to more

⁶ It may be the case that such price rebalancing is designed to encourage migration to new services (in which case the drop in volumes for the service facing a price increase would be anticipated).

weight being placed on price increases. If however prices are increased on inelastic services but reduced on elastic services, then the revenue for each would increase and the net impact of using current year, rather than prior year revenue weights would be ambiguous. In particular, the impact would depend on the extent of elasticity/inelasticity for the various services. For example, if the services for which prices are reduced are very price elastic, more weight would be applied to the price reduction in the basket price limit calculation if current year revenue weights are used. This would allow other prices to be raised to a greater extent than in a scenario in which prior year revenue weights are used.

- 3.10 Ofcom has proposed broad baskets for each of the TI and Ethernet services reflecting the importance it has placed on the benefit of allowing BT to decide how best to recover common costs. In particular, both the TI and Ethernet baskets are broader than those implemented in the 2009 LLCC. The TI services basket will now incorporate ancillary services and equipment & infrastructure services; whereas the Ethernet services basket will now include ancillary services.
- 3.11 The degree of pricing flexibility associated with a tariff basket is a function of the number of separate services which are included in each basket. Each of the baskets covers a range of bandwidth breaks, covers various types of services including connections and rentals, and covers a wide geographic area (nationally in the case of low bandwidth TISBO; and nationally outside the WECLA in other respects).
- 3.12 This broad tariff basket structure allows BT to set the prices across each of the services within the basket in order to maximise its profit, subject to meeting the cap requirement. This could lead to improved static efficiency, to the extent that BT would be able to recover common costs across the set of geographic and product markets more efficiently than if all such prices were specified exactly by the regulator. This is because it could take account of changing cost and demand considerations over time (including the responsiveness of customers to price changes for different products) when deciding how to vary prices while meeting the cap.
- 3.13 The degree of pricing flexibility under the charge control is reduced by the sub-baskets and sub-caps within each of the TI and Ethernet tariff baskets. For example, in the TI basket, sub-caps apply to point of handover services (sub-basket of RPI-0%), RBS, Netstream 16 Longline and Siteconnect (sub-basket of RPI+3.25%), and Ancillary

services, equipment and infrastructure (sub-caps of RPI+3.25 for each charge). In the Ethernet basket, a sub-basket applies to interconnection services (RPI-12%). In addition, in each of the TI and Ethernet baskets, individual services are subject to limits on price rebalancing, with sub-caps of RPI+10 (in the case of TI services) and RPI-RPI (in the case of Ethernet services).

- 3.14 The impact of these sub-caps is to limit the extent of price rebalancing that BT can implement while complying with the overall basket caps. While in principle this might limit the static efficiency benefit that could arise from price-rebalancing, the sub-baskets and caps are designed to restrict the ability of BT to price excessively. This is addressed in more detail below in relation to the dynamic efficiency effects of the charge control.
- 3.15 Ofcom proposes to use prior year revenue weights for the services in the basket, consistent with its previous approach.⁷ It has chosen this approach to determining basket weights to improve certainty since the alternative, to use current year weights, would require BT to forecast volume changes and would make it more difficult to comply with the cap. While as noted above this may not have a significant impact on BT's ability to set prices in principle, it could lessen on incentives to reduce prices toward allocatively efficient levels.⁸

The extent of static efficiency benefits from pricing flexibility

- 3.16 The extent of any static efficiency benefit associated with a broader tariff basket depends on several factors. These include:
- the size of the common costs which need to be recovered across the services within the basket (since a higher proportion of common costs would indicate that mark-ups over short run marginal costs will be greater on average, and hence it is more important to target these uplifts to less sensitive areas of demand);
 - the extent to which demand elasticities vary across the services in question (since if price sensitivity is similar across all services in the tariff basket then

⁷ Ofcom LLCC Consultation, §4.115.

⁸ A separate point is that by basing weights on prior year revenue BT may be able to outperform the charge control assumptions if it can load price increases onto growing products. In principle Ofcom could however take this into account if it accurately forecasts underlying growth rates for different services.

price flexibility would not lead to any significant improvements in allocative efficiency);

- the degree of uncertainty in relation to the price sensitivity across products within the basket (since BT would need to have a good understanding of how price elasticities vary across services in order to use its flexibility to develop an efficient pricing structure); and
- the extent to which price flexibility leads to overall output growth (since BT may use its pricing flexibility strategically rather than to deliver improved social welfare, for example by focussing price reductions on more competitive services and those used primarily by external operator rather than on those which face high market-wide price sensitivity).

3.17 Ofcom has noted that BT faces significant common costs in relation to the products within the tariff baskets it has adopted and that a broad basket would enable BT to respond to changing cost and demand conditions. At the same time, it has not recognised that there may be significant common costs that relate to only a subset of services within its baskets. For example, to the extent that AI access common costs (which consist predominantly of access duct and fibre) are not shared with AI backhaul common costs (which consist predominantly of duct and fibre located between exchanges), this may suggest that the degree of pricing flexibility provided for within the tariff baskets exceeds that which may be necessary to enable common costs for groups of services to be efficiently recovered across those services.

3.18 Furthermore, Ofcom does not appear to have conducted any significant analysis of the other conditions highlighted above.

3.19 In relation to the second point, regarding variation in consumer price elasticities across products within the basket, it does not appear that Ofcom has explicitly addressed this issue other than to identify whether competitive conditions for products within the tariff baskets are similar.⁹ It does not appear to have assessed the potential significance of either the distinction between market and firm-level elasticities, the extent to which rebalancing may be driven by strategic factors as opposed to those driving increases in social welfare, or the extent to which the evidence suggests BT is able to develop an

⁹ Ofcom addresses the question of the similarity of competitive conditions in the context of the potential impact of the charge control structure on competition.

efficient pricing structure given the data available to it. To the extent that the above issues may be material, this would suggest that the extent of any benefits to consumer welfare associated with the degree of pricing flexibility under the proposed charge control are overstated.

Impact on dynamic efficiency

- 3.20 As Ofcom notes in its LLCC proposals, the impact of wider tariff baskets may have negative consequences for dynamic efficiency to the extent that BT is able to take strategic advantage of its pricing flexibility to the disadvantage of its rivals.¹⁰
- 3.21 There are two such pricing strategies which could in theory be open to BT where it has broad flexibility to set prices. The first would be to distort relative prices to enhance its position in a wholesale market (i.e. a horizontal effect). This would be the case where its wholesale products compete directly with the wholesale products of alternative network providers. The second would be to distort relative prices to enhance its position in a related downstream market (i.e. a vertical effect). These two effects are described below.

Distortions in horizontal markets

- 3.22 A distortion in horizontal market competition (e.g. between potentially competing wholesale services) could arise if the tariff basket includes products and services in which the degree or prospect for competition differs. For example, if alternative operators have the option of developing a competing product to one of the products included within the charge control basket (whether in order to self-supply, or to sell as a competing wholesale input to third parties) then BT would have an incentive to keep prices lower than would otherwise be the case so as to dissuade the development of the rival product.
- 3.23 While it could be argued that an incentive to keep prices low in such a situation may simply reflect the emerging competitive conditions in the market (and hence does not lead to any economic harm) it is useful to consider the role of the tariff basket in facilitating such an outcome. In a normal, unregulated market which is not subject to a tariff basket control, an incumbent will tend to price more keenly in the face of prospective competition for one of its products. In assessing its pricing strategy, it will trade off the gains from retaining volumes against the lost margin per unit that it would

¹⁰ Ofcom LLCC Consultation, §4.29.

face due to any reduction in price that it might impose. It may also consider the benefits associated with future returns from the more competitive product should it succeed in slowing down the rate of entry of rivals.

- 3.24 In a tariff basket context, however, the set of trade-offs is distorted relative to the normal commercial situation described above (i.e. in which the prices for separate services are not linked by a tariff basket). In particular, the incumbent is 'insulated' from the margin effect, since it would be able to use the 'cap headroom' from any price reduction for the product in question toward setting higher prices for other products in the basket which face lower risks of substitution from alternative operators (i.e. where it has greater market power). This means that the ability and the incentive to lower prices to retain volumes in the increasingly competitive market will exceed that in normal situations due to an artificial link between the pricing of different products in the tariff.
- 3.25 In addition, while in a standard framework where an incumbent reduces prices in response to increasing actual or perceived competition, the negative welfare impact of any restriction in the degree of competition in future is at least partly offset by the benefit that current consumers face due to the immediate price reduction imposed by the incumbent. However, in the broad tariff basket scenario, the corresponding benefit of lower short term consumer prices would not arise in aggregate. This is because the incumbent is able to recoup any revenues lost when targeting price reductions on more competitive products from other, less competitive, products. Therefore, the net welfare impact associated with targeted price reductions in the context of the broad tariff basket would be likely to be worse than in a standard commercial situation due to the fact that the longer-run loss of competition would not be offset by any gain to current consumers (at least in aggregate).¹¹
- 3.26 The economic impact of such an incentive to target price reductions on more competitive services in horizontal markets will depend on a number of factors. For example:
- *Breadth of the tariff basket:* The risk of horizontal market distortions will depend on the number of services within the basket and the variation in the scope for current or prospective substitution of BT's products. If barriers to entry are modest and the costs associated with entry by rival CPs are broadly in

¹¹ Of course, the consumers of the product for which the price is reduced will gain, but this will be offset by the increase in price faced by consumers of other products in the basket.

line with the costs associated with BT's wholesale product, then it is more likely that changes in the wholesale price for a given wholesale product would influence whether entry occurs or not. If however bypass opportunities are not realistic for any of the products within a tariff basket due to extensive barriers to entry, then it is unlikely that changes in relative prices would impact on future competitive pressure in the market for provision of leased line wholesale services.

- *The extent of price rebalancing permitted within the charging structure.* The greater the scope for rebalancing of prices across products within the tariff basket, the greater the risk of strategic pricing leading to reduced entry and increased prices for less competitive services. The extent to which Ofcom's proposed sub-caps address this concern is discussed further below.
- *The extent of duplication in fixed costs:* If targeted price reductions for potentially competitive products would dissuade alternative operators from investing in competing products, thereby avoiding some duplication of fixed costs, short run costs may be reduced. However, such reduced investment may also lead to a reduction in facilities-based competition and resultant lower incentives to reduce costs in future which would also need to be taken into account.

3.27 A useful example of the risks of rebalancing of charges in a different context is the case of Ofcom's review of fixed narrowband services wholesale markets.¹² One of the markets included in this review is Single Transit services, which is a relatively simple switching product used by alternative CPs to interconnect to each others' network. Ofcom found that there was scope for distortion to competition in the market, with a risk that BT would offer low prices on direct routes where volumes would otherwise justify bypass of the single transit service (for example in the case traffic between mobile CPs), while increasing prices on the large number of routes where investment to enable bypass

¹² Ofcom (2010), Review of the fixed narrowband services wholesale markets, Further statement on wholesale transit markets and remedies in the wholesale call termination market, 5 February.

would not be economically justified due to low volumes. Ofcom imposed a non-undue discrimination obligation to prevent BT from distorting prices in this way.¹³

The impact of sub-baskets and sub-caps in the charge control structure

- 3.28 Ofcom has applied a number of sub-baskets and sub-caps where it believes a further safeguard (beyond the tariff basket cap) is required to effectively control the prices of certain services.¹⁴ The impact of sub-baskets and sub-caps is to constrain the rate of price-rebalancing available to BT. However, given that sub-baskets and sub-caps are not linked to costs (whether *ex ante* forecast costs or actual costs), it is not clear that they would in fact meet the objective of preventing prices from becoming excessive in relation to costs (however defined). This may particularly be the case where the sub-baskets or sub-caps are relatively 'loose', that is, where the limits applied to the sub-caps allow for significant annual increases relative to the basket average.¹⁵
- 3.29 A further weakness in relying on sub-caps to address the risk of distortions to competition associated with broad tariff baskets is that they do not provide any constraint on below-cost pricing. An SMP operator may wish to reduce relative prices for more competitive services and the application of a sub-cap on those activities (which sets a maximum permitted charge, rather than a minimum charge) would not have any impact on this incentive. Depending of the 'looseness' of these sub-caps and the proportion of services for which the SMP operator is seeking to reduce and increase prices respectively, there may be significant scope to reduce prices for more competitive services while recovering additional charges across a broad set of less competitive services within the basket.
- 3.30 It is interesting to note that for both the TI and the Ethernet services, the sub-cap constraints are in many cases much less restrictive than the overall basket constraint. For example, the TI basket cap is RPI+3.25% whereas the sub-caps range from RPI-0% for point of handover sub-basket) to RPI+10% (for all other TI services not subject to a sub-cap). Similarly, the Ethernet basket cap of RPI-12% compares with the sub-cap for

¹³ An undue discrimination remedy was deemed to be sufficient in this case owing to the particular characteristics of the Single Transit product, including the fact that costs of service did not vary across operators. See Ofcom Review of fixed narrowband services wholesale markets, §5.31.

¹⁴ Ofcom LLCC Consultation, §5.23.

¹⁵ For example, in the Ethernet basket non-interconnection services are subject to a sub-cap of RPI-RPI, compared with the basket cap of RPI-12%.

services other than Interconnection services of RPI-RPI. This is consistent with the fact that the overall cap is designed to achieve a glide-path toward costs, whereas sub-cap constraints are determined in a rather arbitrary way. While clearly the sub-cap constraints on average need to be looser than the basket average (otherwise the sub-basket limits would always be binding and the tariff basket increase could not be achieved), over a three year period this could lead to very significant price rebalancing.

- 3.31 As an illustration the extent of rebalancing which might be achieved in the Ethernet basket under a set of assumptions may be calculated. For example, if inflation is assumed to be 3%, the weight of interconnection revenues within the Ethernet basket is low, all other services must meet an RPI-RPI sub-cap, and the overall average weighted price must fall by RPI-12% each year, by the end of the control period BT would be able to reduce prices for some services by up to 45% while retaining other flat (in nominal terms) and still comply with the tariff basket.¹⁶
- 3.32 This illustrative example suggests that if there were any services within the cap (other than interconnection services) which are less competitive than others, BT would have significant flexibility to change the pricing of these relative to more competitive services while still meeting the charge control conditions. Prices for more competitive activities could be reduced by much more than the overall average for the tariff basket, while those for less competitive activities could be increased in line with the maximum permitted under the individual sub-caps (in this case, by retaining flat nominal prices). Such scope for rebalancing could lead to significant distortions to CPs' make-or-buy decisions and the ability of rival operators to compete in the market.

¹⁶ For simplicity the illustration assumes that the revenue weights of the non-interconnection and the interconnection services remain constant over the period of the charge control. A more precise calculation would need to take account of any changes in revenue weights which arise from changes in volumes which may follow price changes. If the price sensitivity of the less competitive service is low and that of the more competitive service is not very high, then the weight associated with the less competitive service could increase. In such a case the operator would need to reduce prices by more than RPI-10% to offset the impact of the RPI+10% change for the less-competitive service. Conversely, if the weight of the more competitive services were to increase due to a substantial volume effect following the initial price reduction, then in future reductions of less than RPI-10% would be required.

Distortions in vertically related markets

- 3.33 A second form of competitive distortion which may arise due to broad tariff baskets relates to the vertical supply chain for leased line services. BT provides a number of wholesale products such as connections, access and backhaul capacity which are used by rival operators as inputs to enable them to offer retail services to business or residential customers. In many cases these same products are used by BT's retail business to provide competing retail services. In some cases (for example in relation to most Ethernet services) these are subject to an equivalence of inputs condition which requires BT to provide the inputs on similar terms to rivals as it does to its own retail operation.
- 3.34 Even in these cases it is likely that BT would have a strong preference for higher, rather than lower, wholesale prices. This is both because the increase in external revenue earned by BT from external sales of wholesale products, but also because increased wholesale input costs are likely to lead to an improvement in BT's position in the retail market. This is because BT's vertically integrated ownership structure will lead it to have different incentives in relation to pricing in the retail market relative to rival CPs. An increase in wholesale prices, even if faced equally by all operators including BT Retail, would be treated as a marginal cost by rival CPs but as an internal transfer (with no net impact at the group level) by BT.
- 3.35 However, an even more serious competition distortion may arise in relation to the pricing of services which are not used by BT's retail business at all (including certain interconnection services) or are sold by Openreach in different proportions to external customers as opposed to internally. For example, BT's RFS for 2010/11 demonstrates that the internal (i.e. from BT's retail operation) proportion of wholesale revenue varies from around 60% to around 85% for PPCs Circuits when taking account of different bandwidth capacity and the different requirements for local end, link and connection services.¹⁷
- 3.36 If services are used in different proportions by internal and external customers, BT would face a financial incentive to increase the price of those inputs used to a greater extent by external customers. The extent to which higher input costs would be passed through by rival CPs to the retail market would depend on market circumstances, but BT's relative position in the retail market would be enhanced irrespective of the specific competitive

¹⁷ Ofcom LLCC Consultation, Figure 5.4.

response. For example, if rivals were unable to pass through the increased costs, their incentives to invest to expand in the market would be reduced. Any increase in price in the retail market arising from pass-through of such costs would also benefit BT's retail operation. In this situation it would be able to either increase its own margin in the retail market (assuming these are not subject to a price cap, which is the case for most retail leased lines products excluding low bandwidth TI-based services), or increase its market share by raising its own retail price to a lesser extent than rivals.

- 3.37 The use of broad baskets enhances the risk and magnitude of this distortion to competition in retail markets. This is because BT would be able to generate 'cap headroom' by reducing prices for which its retail business accounts for a proportionately high share of wholesale revenue, and use this headroom to fund increased prices for products used disproportionately by rivals.
- 3.38 Ofcom appears to recognise this risk in principle.¹⁸ However, its conclusion that its charge control structure would not lead to such distortions in practice is not convincing. Ofcom considers that the relative degree to which services within the baskets are used by BT and its rivals are broadly consistent. However, the external proportion of revenue for the different bandwidth products ranges from 15% to 40%, even excluding the 140/155 Mbit/s product which has a much lower external share.¹⁹
- 3.39 The variation in the proportion of external revenue for wholesale inputs applies to at least two different aspects of the TI services. First, as noted above the reliance on internal wholesale inputs may vary across different bandwidth capacity bands. This might be driven by the extent of facilities-based competition (which could substitute for BT Wholesale inputs) as well as the extent of retail competition (which, if limited at any bandwidth, would restrict the potential for external sales).
- 3.40 For Ethernet services, similar issues apply. Ofcom considers that while the competitive conditions are not completely homogenous across bandwidth breaks for Ethernet services, there are some similarities in competitive conditions. These include similar market shares for Openreach (of 67% for below 1 Gbit/s and 59% for above 1 Gbit/s) and the presence of barriers to entry.²⁰ In respect of the potential for distortions in the

¹⁸ Ofcom LLCC Consultation, §4.29.

¹⁹ This is simply the inverse of the figures quoted by Ofcom in §5.32 of the LLCC Consultation.

²⁰ Ofcom LLCC Consultation, Table 6.3

vertical supply chain, Ofcom notes that external sales account for 38% of low-bandwidth Ethernet wholesale sales, and that it expects this to fall slightly by 2015/16. It compares this to the 17% of external sales for high bandwidth, which it expects will grow by 2015/16.²¹

- 3.41 As in the example of TI services, Ofcom's analysis does not lend sufficient comfort that its broad tariff basket will not lead to competitive distortions. In particular, the proportion of external sales is currently much higher (by a factor of over 2) for low as opposed to high-bandwidth inputs. In addition, the structure of charges for the various connection and rental services within each bandwidth should also be taken into account. The evidence presented in relation to TI services suggests that the proportion of external sales varies significantly as between the components of each bandwidth, and it may be expected that the same would apply in relation to Ethernet services. To the extent that this is the case, BT would be able to target price increases to the components of Ethernet services (whether connection, mainlink or local end rentals) upon which its rivals depend disproportionately.
- 3.42 Ofcom does appear in some cases to recognise the risk associated with the differential use of inputs by BT and by rival CPs. For example, in relation to the BTL product, which is an interconnect product used only by rival CPs, it has applied a sub-cap equal to the overall basket cap of RPI-12²².
- 3.43 On the other hand, for BES products (which are also used only by rival CPs) Ofcom has considered that it would be inappropriate to set a sub-basket cap, since it considers that this might restrict Openreach's ability to incentivise migration from legacy products (including BES) to efficient modern services such as EAD and EBD. It therefore proposes only to apply a safeguard sub-cap of RPI-RPI for these (and any other Ethernet services aside from BTL). However, as noted above, over a period of 3 years the difference between the basket cap (RPI-12%) and the safeguard cap (RPI-RPI) may be very significant, particularly since BT could reduce the price of more competitive services by more than 12% per annum in real terms (and would indeed need to do so to create cap headroom so as to price up to the safeguard cap for BES). Ofcom does not appear to have considered alternatives which would address the concern that BT will face financial incentives to increase prices for services used disproportionately (or entirely) by

²¹ Ofcom LLCC Consultation, footnote 189.

²² Ofcom LLCC Consultation §6.46

rival CPs (such as BES and EBD) while still providing BT with flexibility to encourage efficient migration. For example, it could include BES and EBD within a separate sub-basket within the broader Ethernet basket. It is also of note that WES legacy products are taken by rival CPs in greater proportion than BT compared with EAD equivalent products (although BT is the majority consumer in both cases). Therefore BT could have an incentive to reduce the EAD price relative to WES to the disadvantage of competing CPs who have extensive WES estates, which, even where migration is possible, will take time to migrate.

- 3.44 A further example is that BT has strong market power in regional trunk services which it might (in the absence of remedies) seek to leverage into adjacent TISBO markets.²³ While inclusion of both regional trunk and adjacent TISBO services within a broad tariff basket could potentially prevent excessive pricing at the aggregate basket level, it could still allow BT to rebalance prices to either raise prices for regional trunk (while reducing prices for potentially more competitive TISBO services).
- 3.45 An example from the number translation services market suggests that the conceptual concerns described above may be relevant in practice. In its 2011 Statement on Wholesale Charge for Number Translation Services and Premium Rate Services²⁴, Ofcom set a joint price control across two products (Freephone and chargeable NTS calls) of RPI+1.25%, subject to a safeguard constraint that BT's retention charge for Freephone calls was to exceed that for chargeable calls. These services had previously been subject to separate charge controls. BT's response to this new pricing flexibility was to raise the price for chargeable calls above the overall basket cap of 1.25% (while still remaining compliant with the basket and safeguard caps). This pricing behaviour is consistent with the incentives for the incumbent to use tariff basket flexibility to increase the price of a less competitive service relative to that of a more competitive service.
- 3.46 As an illustration of the potential impact that flexibility to rebalance the structure of charges across components may have, consider the hypothetical scenario where BT and an external CP use inputs in the proportions described in Table 1. For each bandwidth, volumes have been normalised to ensure that both BT and the external CP use one "local end". In addition, BT uses 4 "links" and 1 unit of "trunk", whereas the external CP uses

²³ Ofcom BCMR Consultation, §10.20.

²⁴ Ofcom (2011), Wholesale Charge for Number Translation Services and Premium Rate Services, Statement, 20 July.

these two in inverse proportion, i.e., 1 link and 4 units of trunk. Both operators use the same proportions of inputs for the 2 Mbit/s product. For the 140/155 Mbit/s product, BT's product is more intensive in the use of trunk relative to link than the external CP's product.²⁵

Table 1: Hypothetical scenario of rebalancing, illustrative volumes

	BT			External		
	Local end	Link	Trunk	Local end	Link	Trunk
64 kbit/s	1	4	1	1	1	4
2 Mbit/s	1	3	3	1	3	3
140/155 Mbit/s	1	1	4	1	4	1

3.47 The usage of inputs described in Table 1 indicates that BT uses link components more intensely for 64 kbit/s than the external CP, whereas the opposite is true for the 140/155 Mbit/s product. This suggests that BT may have an incentive to charge a relatively low price for links used in the 64kbit/s product and a relatively high price for the links used in the 140/155kbit/s product.

3.48 To illustrate this, consider the prices in Table 2. These were set according to the criterion that, if BT uses links more intensely than the external CP, their price should be lower, and vice versa.

Table 2: Hypothetical scenario of rebalancing, illustrative prices (in £)

	Local end	Link	Trunk
64 kbit/s	0.10	0.30	0.60
2 Mbit/s	0.10	0.45	0.45
140/155 Mbit/s	0.10	0.60	0.30

3.49 Multiplying prices by volumes yields the total input cost for a given bandwidth for BT and the external CP. The resulting figures are listed in Table 3. It shows that, by setting prices inversely to the intensity in which it uses an input compared to external suppliers, BT is able to keep the amount it spends on inputs at or below the level of spend by external CPs. This puts upward pressure on external CPs' prices, as their revenue will

²⁵ The different intensities of usage of inputs might be due to differences in customer profiles served by the external CPs, because CPs use their own network infrastructure as an input to the leased line product, or a combination of the two.

need to cover the expenditure on inputs.²⁶ In essence, the example shows how BT might be able to raise its competitors' costs and keep its own costs below that of its competitor.

Table 3: Hypothetical scenario of rebalancing, spend on inputs per local link

	BT	External
64 kbit/s	£1.90	£2.80
2 Mbit/s	£2.80	£2.80
140/155 Mbit/s	£1.90	£2.80

Conclusions on tariff basket design

3.50 In conclusion, Ofcom has put a significant amount of weight on the benefits to BT of pricing flexibility to enable it to choose how best to recover common costs across a range of services within each of the broad TI and Ethernet baskets. However, in spite of recognising the risk of distortion to competition in principle, in practice it has relied heavily on the assumption that competitive conditions across the services within the basket are sufficiently similar to avoid such distortions. However, it is clear that two types of risk to competition will emerge from the application of broad baskets.

- First, in horizontal markets, Ofcom has not addressed BT's incentive to target price increases on those services where rivals are less likely to enter.
- Second, in vertical markets, Ofcom has not addressed BT's incentive to target price reductions on services used disproportionately by rivals, whether in relation to bandwidth breaks or the connection/rental structure of charges.

3.51 Ofcom's limited attempts to address these issues using sub-caps are likely to do no more than mitigate the full extent of BT's incentive, while leaving it ample flexibility to act on the incentives above. Therefore, as a starting point, Ofcom should carry out a more detailed cost-benefit analysis in order to examine the risks that price rebalancing could impose in terms of each of the two competitive concerns identified above. It should then consider whether the benefits which it supposes would arise from increased pricing flexibility would outweigh the impact of any such competitive distortion.

²⁶ Note that external CPs might also be using their own infrastructure, which will add to their input costs.

3.52 To the extent that a more rigorous cost-benefit assessment confirms the materiality of the risks to competition, there are a number of possible solutions to address these concerns. Some of the possible options are listed below:

- *Narrowing of each tariff basket:* Ofcom could separate any services which have a greater propensity for horizontal competition or are used disproportionately by external operators from the main basket and including these in a separate basket. This would ensure that such services are provided on a cost-reflective basis. While this would require Ofcom to take a view on the appropriate proportion of common costs to be allocated to each basket, this is in any event a common regulatory issue and users of leased lines services would face less uncertainty over prices over the charge control.
- *Increasing the number of services to which sub-caps apply:* Alternatively, within the context of the proposed tariff baskets, individual sub-caps could be applied to a number of services for which BT would otherwise face a strategic incentive to increase prices (i.e. those which are not subject to horizontal competitive pressures and those which are used disproportionately by external operators). This would ensure that the design of the sub-baskets and caps is more clearly linked to potential competition distortions while limiting the regulatory burden on Ofcom to derive specific cost allocation proposals for common costs.
- *Tightening of sub-basket price limits:* The pricing constraints applied to those services for which a sub-basket or sub-cap applies could be tightened so as to better approximate the constraints of an effectively competitive. This approach could of course be implemented alongside the extension of services to which sub-caps apply. The precise limits to be adopted are inevitably subject to some regulatory discretion, particularly as sub-caps (unlike tariff baskets) are not explicitly related to costs. Ofcom should however be more rigorous in estimating the degree to which price changes adopted by BT can disadvantage rival CPs and apply tighter sub-caps where the risks to competitive distortions are greatest.

3.53 A fourth option would be to retain cost-orientation obligations for all services within the charge control. This would reduce (though not necessarily eliminate) the risk that the broad tariff baskets will enable price rebalancing to the detriment of competition. This

option could be adopted alongside each of the previous options. It is addressed in more detail in the section below.

4 COST ORIENTATION

4.1 A key feature of the LLCC consultation is the proposal to remove BT's cost orientation obligation in respect of either TI and Ethernet services. Ofcom initially explained in the BCMR that it did not consider that it would be necessary to impose cost orientation in order to provide adequate protection against excessive pricing²⁷.

4.2 Ofcom expanded on its reasons for removing the cost orientation condition in its LLCC,²⁸ in which it explains that it would be disproportionate to continue to impose the cost orientation obligation because:

- **The charge control structure, including the tariff basket, sub-baskets and sub-caps, would address excessive pricing:** For example, in relation to Ethernet services, Ofcom considers that overall prices are constrained by the basket of RPI-12%; that specific services for which Ofcom considers there to be a risk (including interconnection services and on each ancillary and equipment and infrastructure charge) are addressed by sub-baskets and caps; and that the sub-cap of RPI-RPI on all other services would restrict BT's ability to increase any given charge too quickly.
- **Charge controls would provide greater certainty to stakeholders than cost orientation:** Ofcom considers that cost orientation would provide less certainty than charge controls. Whereas the level of X for the charge control is known in advance (since it is based on cost forecasts), the relevant costs for a cost orientation test are known only with a lag. Furthermore, given various changes in the market (including overall growth and a relative shift from lower to higher capacity circuit) and Ofcom's proposal to reallocate some costs from TI to Ethernet, it considers that the relevant cost orientation levels (the distributed stand-alone cost ("DSAC") ceiling and the distributed long run incremental cost ("DLRIC") floor) will be more difficult to estimate in future.²⁹

²⁷ Ofcom BCMR Consultation, §10.117ff.

²⁸ Ofcom LLCC Consultation, §6.110ff.

²⁹ Ofcom currently uses the DSAC and DLRIC as first order tests for the cost ceilings and floors to apply to individual services. When applying the cost orientation test in recent pricing disputes Ofcom's framework allowed for a degree of judgment rather than relying mechanistically on the actual price relative to the DSAC

- **Impact on BT returns:** BT may earn too high a return if subject only to a cost orientation test, since the DSAC ceiling is, for most services within the Ethernet basket, significantly above current price levels.

4.3 In order to address Ofcom's case for the removal of the cost orientation obligation, it is useful to first set out how the obligation provides additional (and complementary) protection to the potential abuse of SMP in the pricing of services relative to the imposition of charge controls.

How cost orientation differs from charge controls

4.4 Ofcom has previously imposed a cost orientation obligation (known as the 'Basis of Charges' obligation) in charge controls including the 2009 LLCC.³⁰ In resolving previous overcharging disputes, Ofcom has applied the DSAC as a first-order test of whether BT has complied with its cost orientation condition.³¹

4.5 The purpose of the cost orientation obligation in previous charge controls was to place a reasonable constraint on the degree of pricing flexibility afforded to BT so as to ensure that charges are neither excessively high nor unreasonably low. In the absence of the condition, the concern was that BT would be able to take advantage of its status as the SMP operator of the network to the disadvantage of customers and competition.

4.6 In practice, the extent to which the cost orientation obligation imposes a constraint on pricing depends on the definition of the cost ceiling and floors as well as the relationship between these thresholds and actual prices.³² In addition, a cost orientation obligation

level. It recognised that there may be instances where a temporary or non-material breach of DSAC may not warrant an adverse finding. Ofcom is currently consulting on its approach to applying the cost orientation test.

³⁰ Ofcom LLCC 2009 Statement, §3.112.

³¹ See for example Ofcom (2009), Determination to resolve disputes between each of Cable & Wireless, THUS, Global Crossing, Verizon, Virgin Media and COLT and BT regarding BT's charges for partial private circuits, Determinations and Explanatory Statements ("Ofcom PPCs determination"), 14 October. Note that a review of the methodology Ofcom has adopted when implementing decisions in relation to the cost orientation obligation, including its use of DSAC as the appropriate cost ceiling and DLRIC as the appropriate cost floor, is beyond the scope of this note.

³² Alternatively the DSAC ceiling may be compared with the price which would arise from a fully allocated cost approach. In the recent Ethernet dispute between each of Sky, Talk Talk, Virgin Media and BT, Ofcom found the range for the ratio of DSAC to FAC for various Ethernet charges in 2009/10 was 106% in the case of BES

may be consistent with providing BT with significant pricing flexibility. For example, Ofcom's determination in the Ethernet pricing dispute between BT and each of Sky, Talk Talk and Virgin Media in February 2012 found that the range between the first order tests for the cost floors and ceilings for Ethernet services were typically over 200%, and were as high as 470% (in the case of Main Link prices per km).³³

- 4.7 The complementary role of the cost orientation condition has previously been recognised by Ofcom, as set out in the 2009 LLCC statement:

*Charge controls and cost orientation obligations are complementary in that the former restricts BT's pricing flexibility at a basket level whilst the latter ensures that BT sets its individual prices within some reasonable bounds.*³⁴

*The charge control and cost orientation conditions are intended to operate in a complementary way. The charge control condition, which applies to "an aggregate of charges", allows flexibility to vary relative prices, but within limits set by the "basis of charges" condition (e.g. cost orientation condition) which applies to each charge. The inclusion of trunk services in the same basket as TISBO services in the new charge controls is therefore consistent with both obligations. It will allow BT to respond to changes in demand and cost conditions by varying relative prices of trunk and TISBO services, but BT will be prevented from setting an unreasonable charge for any trunk or TISBO service by the basis of charges obligation.*³⁵

- 4.8 There are several economic reasons for retaining a cost orientation condition alongside a charge control:

- First, to prevent excessive pricing;

100 rental and 302% in the case of mainlink. See Ofcom (2012), Ethernet 1 dispute draft determinations, Table 11.8.

²⁹ Ofcom (2012), Draft Determinations to resolve disputes between each of Sky, TalkTalk and Virgin Media and BT regarding BT's charges for Ethernet services, Draft Determinations and Explanatory Statement, 9 February ("Ofcom Ethernet services 1 determination"), Table 11.8

³⁴ Ofcom LLCC 2009 Statement, §4.14.

³⁵ Ofcom LLCC 2009 Statement, §4.25.

- Second, to prevent distortions to competition arising from BT pricing below reasonable cost to the detriment of direct rivals in horizontal wholesale markets and downstream rivals in the retail market; and
- Third, to strike an appropriate balance between allocative efficiency and productive efficiency by ensuring prices are related to actual costs.

Preventing excessive pricing

4.9 The extent to which the charge control structure limits the risk of excessive pricing depends on how it has been designed. In cases where the charge control basket has been narrowly defined, a complementary cost orientation obligation may not be required to address the risk of excessive pricing at the individual service level. This was in fact Ofcom's conclusion in relation to the wholesale ISDN30 charge control:

We are not proposing to impose a cost orientation obligation on core wholesale ISDN30 services. This is because we consider that the low number of services in the charge control baskets and the presence of safe-guard caps where appropriate, together with the requirements for charges to be fair and reasonable and not unduly discriminatory, will be more effective at constraining the level of prices.³⁶ (emphasis added)

4.10 Ofcom considers that its proposed LLCC charge controls would prevent BT from charging excessively. Leaving aside the impact of the glide path (which allows for systematic above-cost pricing in the early years of a charge control), it is the case that in aggregate the charge control is designed to prevent BT from abusing its SMP in various leased lines markets. A charge control is therefore an appropriate means of addressing BT's overall market power, and a cost orientation obligation in itself would not be sufficient to prevent excessive pricing at the aggregate level.³⁷

4.11 However, as noted in the previous section, Ofcom's charge control structure provides BT with ample opportunity to raise some prices much more quickly than others, reflecting the broad scope of the services included within the basket and the number of charge components (including connection and rental charges) for each. In particular, BT would

³⁶ Ofcom (2011), Price controls for wholesale ISDN30 services, Consultation on the form and level of price controls on Openreach wholesale ISDN30 services, 1 April.

³⁷ This assumes that the DSACs would not be adjusted to ensure that common costs are not over-recovered.

tend to raise prices for which demand is less responsive. While in some cases this may be consistent with efficient outcomes, in others it may reflect a desire to load price increases onto services for which competition is least likely to develop, or which are disproportionately used by downstream rivals. As noted in the previous section, sub-baskets and sub-caps only provide a limit to the extent of rebalancing and do not ensure that charges are related to actual costs.

- 4.12 Given that these are services for which BT has been found to have SMP, it is clear that there would not in general be adequate opportunities for users of these services to mitigate such excessive prices through switching to alternative services. Therefore, even if a charge control were to protect against an overall pattern of excessive pricing, it could fail to ensure that the interests of end users are protected.
- 4.13 For these reasons a cost orientation condition may be required to prevent excessive pricing at the individual service level. In the LLCC Consultation Ofcom limits its discussion of excessive pricing to the aggregate set of services within each tariff basket. However, Ofcom has previously described the rationale for the cost orientation obligation as being required to ensure that, within the basket, “*charges for individual services are not set at excessively high or anti-competitively low levels.*”³⁸ Similarly, the CAT, in its judgement relating to PPC overcharges, considered that “*the whole point of Condition H3.1 [the cost orientation obligation] was to prevent BT from using its significant market power to maintain prices at an excessively high level.*”³⁹
- 4.14 The cost orientation obligation has proven to be effective in helping to ensure prices for wholesale services have not been excessive in the past. For example, Ofcom has successfully carried out a number of investigations following disputes in relation to BT's compliance with its cost orientation obligations (including in relation to PPC and Ethernet overcharges).⁴⁰ The PPC determination was upheld by the Competition Appeal

³⁸ Ofcom (2008) Business Connectivity Market Review, Statement and Consultation, 8 December, Table 8.11.

³⁹ Competition Appeal Tribunal (2011), Judgment in British Telecommunications plc v Office of Communications (Partial Private Circuits) ([2011] CAT 5), 22 March, §323.

⁴⁰ See for example Ofcom (2012), Draft Determinations to resolve disputes between each of Sky, TalkTalk and Virgin Media and BT regarding BT's charges for Ethernet services, Draft Determinations and Explanatory Statement, 9 February (“Ofcom Ethernet services 1 determination”).

Tribunal⁴¹ and the Court of Appeal⁴², while the Ethernet determinations remain at that draft stage, having been delayed to await the final outcome on PPCs at the Court of Appeal.

- 4.15 Irrespective of how the term excessive pricing is defined, it is clear that the notion of a cost ceiling designed to prevent an operator with SMP from raising prices beyond reasonable bounds is complementary to the control of aggregate prices using a tariff basket.

Preventing anti-competitive low pricing

- 4.16 In its BCMR, Ofcom has identified that risks of margin squeeze, predatory pricing and/or anticompetitive cross-subsidisation are of concern in both the TISBO and Ethernet markets.⁴³ However, it does not impose any remedies which explicitly address these risks.

- 4.17 A cost orientation obligation complements the charge control remedy in preventing BT from pricing below cost. The relationship between the use of broad tariff caps and BT's ability to distort competition in horizontal and vertical markets was set out in detail in Section 2 above.

- 4.18 The critical point to highlight from that analysis is that the charge control remedy serves only to prevent BT's ability to price excessively at the aggregate level (allowing for a pricing flexibility for individual charges). It does not prevent unfairly low prices from being imposed, or address BT's financial incentives to price excessively low for more competitive services or those which its own retail business uses disproportionately. As described in the previous analysis, the use of broad tariff baskets exacerbates this financial incentive by allowing BT to fully offset the lost margin suffered as a result of below-cost pricing by raising prices to a greater extent on other services in the basket.

Achieving a balance between allocative efficiency and productive efficiency

- 4.19 A further distinction between the charge control remedy and the cost orientation condition is that the former is an *ex ante* remedy which takes account of forecast costs

⁴¹ Competition Appeal Tribunal (2011), Judgment in British Telecommunications plc v Office of Communications (Partial Private Circuits) ([2011] CAT 5), 22 March.

⁴² Court of Appeal (2012), Approved Judgment, Case C3/2011/1683, July 27.

⁴³ Ofcom BCMR Consultation § 10.12 and § 11.16.

over the charge control period. The cost orientation condition, on the other hand, applies to the relationship between actual prices and actual costs. This means that the test can enhance allocative efficiency by ensuring that BT take account of any changes in actual costs which may arise over the course of the price control period. In particular the cost orientation obligation would prevent prices from diverging from an appropriate range of costs based on the calculation of floors and ceilings. The obligation would nevertheless allow BT to recover the common costs it actually incurs to a greater extent from those services which are more able to bear them.

4.20 One of the potential disadvantages from a regulatory framework which ties prices too closely to costs would be if this were to reduce cost minimisation incentives and hence productive efficiency. For example, Ofcom has chosen the RPI-X form of price control over the alternative rate of return approach for this reason. If cost orientation, through its reliance on comparisons of prices to actual costs, were to undermine this incentive property this could provide some justification for its removal.

4.21 However, a cost orientation obligation would not in fact have a negative impact on cost minimisation incentives. This is because the cost orientation obligation does not affect BT's ability to increase profits by reducing actual costs. This point can be illustrated by three examples of efficiency savings in which BT reduces costs for a given product.

- Example 1: a reduction in a direct cost of a product, prices for which are at the top end of the cost orientation range. In this case, it is true that BT would be required to reduce the price for the product in question, since if it were not to do so it would risk breaching the cost orientation obligation (since the previous price, if unchanged, would now be greater than the DSAC). However, under the tariff basket, the price reduction that BT would need to implement to maintain compliance with the cost orientation obligation would provide it with tariff basket headroom. It would therefore be able to recover any reduction in revenues by increasing prices across one or more other services in the tariff basket.
- Example 2: a reduction in a direct product cost, prices for which are below the top end of the cost orientation range (both before and after the cost reduction). In this case, BT would not need to reduce prices for the product in question, and so the standard incentive to reduce costs would continue to apply.

- Example 3: a reduction in a common cost. A reduction in a common cost will result in a lower set of DSACs for the products to which the cost applies. If prices for these products are not below the revised DSACs they would need to be reduced to comply with the cost orientation condition. However, even if this is the case, BT would be able to increase prices for other products which are set below their DSACs-in exactly the same way as described in the first example above.

4.22 The arguments above show that cost orientation can address excess pricing and below-cost pricing concerns which a charge control would not address. Furthermore the potential competitive distortions which could arise if BT acts on its financial incentives given the proposed structure of control suggest that Ofcom cannot rely on the argument that imposing a cost orientation obligation would be disproportionate since its proposed charge control structure addresses the risk of excessive pricing.

4.23 Neither do other remedies already in place prevent these competitive distortions. For example, BT's Equivalence of Inputs undertakings ensure that wholesale inputs are made available to external operators on the same basis (including both prices and other terms) as are provided to itself. However, this does nothing to address BT's financial incentives to load costs disproportionately onto less competitive services and those used disproportionately by external operators.

Ofcom's other arguments against the retention of the cost orientation obligation

4.24 Ofcom considers that imposing a cost orientation obligation would be disproportionate because it would lead to increased regulatory uncertainty for rival communications providers and might allow BT to earn excess returns.⁴⁴

4.25 Ofcom's conclusions compare a situation in which only charge controls are imposed with one in which only cost orientation is imposed. This is the wrong comparison to make. Instead Ofcom should consider whether the imposition of cost orientation enhances regulatory certainty and assists in preventing BT from making excess returns. Recast in this more appropriate light then Ofcom's justifications fall away.

⁴⁴ Ofcom LLCC Consultation, §6.113.

- 4.26 For example, in the absence of a cost orientation obligation, rival CPs would face significant uncertainty over their input costs, since BT would be under no obligation to relate its individual charges to costs.
- 4.27 Furthermore, Ofcom's argument does not consider that the objective of the cost orientation obligation is not to address aggregate returns but rather to ensure that a reasonable limit is placed on BT's pricing flexibility. Nevertheless, if it were applied to all services and if ceilings were set at an appropriate level, a cost orientation obligation would be expected to prevent excessive returns. This is because the cost orientation condition would enable recovery (but not over-recovery) of all common costs across the relevant range of services.
- 4.28 The cost orientation obligation tends only to be applied in respect of services for which the incumbent has SMP which requires the imposition of regulatory remedies to address. Depending on the degree of recovery from other (unregulated) services a cost orientation obligation on regulated services would not necessarily prevent over-recovery. However, the relevant conclusion to draw from this is not that the cost orientation should not be applied, but rather that a charge control would need to be imposed (potentially alongside a cost orientation obligation) in order to ensure returns are not excessive at the aggregate level.
- 4.29 In addition to question of whether a cost orientation obligation should be imposed to ensure BT's pricing flexibility for tariff basket services is reasonably bounded, two further questions arise on in relation to Ofcom's proposals. The first is whether cost orientation should be imposed in relation to services which are within the markets to which the charge controls apply, but not included in the set of services to which charge controls apply. Ofcom considers that there is no case for implementing a cost orientation obligation for the services concerned.⁴⁵
- 4.30 In relation to one such service, wholesale high bandwidth WDM MISBO services outside the WECLA and the Hull area, Ofcom considers that the proposed charge control on a substitute service (single service Ethernet MISBO services) would constrain BT's pricing.⁴⁶ However, one concern which could arise during the charge control period is the removal of services. In particular, should the substitute charge controlled service be

⁴⁵ Ofcom LLCC Consultation, §2.29 ff.

⁴⁶ Ofcom LLCC Consultation, §2.34.

removed from BT's wholesale offering, one of Ofcom's main justifications for not imposing a cost orientation obligation on high bandwidth WDM MISBO services outside WECLA and the Hull area would no longer remain valid. In this situation Ofcom would need to reassess its decision.

- 4.31 A second related issue is whether BT's reporting obligations should be reduced in the event that a cost orientation obligation is not imposed under the leased lines charge control. While it could be argued that the production of information specifically designed to enable BT to demonstrate compliance with a cost orientation obligation would no longer be worthwhile in the absence of such an obligation, BT's ongoing reporting requirements should at least enable the industry to effectively enforce those remedies (such as charge controls) which Ofcom does impose.

Conclusions on cost orientation

- 4.32 Ofcom has failed to make a convincing case to support its decision not to impose a cost orientation condition in its LLCC proposals. The charge controls and sub-caps which it has proposed may not offer sufficient protection against excessive pricing or anticompetitive pricing below costs for leased line services. Ofcom's justifications appear to rely on two implicit assumptions: first, that the only objective of the cost orientation condition is to address excessive pricing; and second, that the cost orientation condition would mainly substitute for, rather than complement, the charge control.
- 4.33 Neither of these assumptions is valid. A cost orientation condition may complement a charge control by setting a relevant ceiling on prices of a single service or group of services at a level consistent with competitive outcomes. Removal of the cost orientation test may lead to the risk of distortions to competition in situations where individual prices are set above the appropriate ceiling (e.g. DSAC) or below the appropriate floor (e.g. DLRIC). This would be particularly important under conditions where services within the leased lines market are used in different proportions as between BT's retail business and alternative communications operators (as discussed in detail in Section 3).
- 4.34 Furthermore, the particular justifications put forward by Ofcom to support its decision not to impose a cost orientation obligation as part of the 2012 LLCC (in contrast to its previous LLCCs) are not supported by any detailed evidence or analysis. In particular Ofcom does not consider the wider implications of such a significant change in the regulatory framework.

- 4.35 Finally, the principle of regulatory consistency would suggest continuing to adopt a cost orientation obligation (in line with previous leased lines charge control reviews) unless there is a compelling case not to do so. Given the analysis set out above, no such case has been made.