COMPETITION
ECONOMISTS
GROUP

Memorandum

To:	Everything Everywhere
From:	Paul Reynolds, CEG Europe
Date:	4 September 2013
Subject:	Assessing the glide path for the removal of pricing distortions

1. Ofcom published a consultation on new charge controls for Local Loop Unbundling (LLU) and Wholesale Line Rental (WLR) services on 11 July 2013 ('the Consultation'). Ofcom identified several elements of current charges that it believes should be removed over the period of the next charge control. In particular, these are the price adjustments for Test Access Matrices (TAMs), line lengths and directories as well as replacing the current approach to the recovery of Bulk Migration charges (I refer to these four collectively as 'the four distortions'). Ofcom has proposed that the cost of directories should be removed in a one-off change at the start of the new charge controls, while the other three distortions should only gradually be removed over the period of the new controls.

2. EE Ltd (EE) has requested that I provide my expert economic assessment of the appropriate period over which the four distortions should be removed on the basis of Ofcom's statutory duties under the Communications Act 2003 ('the Act').[1] In summary, I find that there is a strong case for the removal of all four distortions at the start of the new control period and that doing so would not materially raise perceived regulatory risks of future investment in the UK telecoms sector.

1 The case for moving to competitively neutral pricing

3. In this section, I summarise the case (which Ofcom accepts) for the removal of the four distortions that are incorporated in British Telecommunications plc's (BT's) current charges for LLU and WLR services and assess the likely significance of the benefits of doing so. In the following section, I examine whether it would be desirable to obtain these benefits immediately by removing the distortions at the start of the new charge control or to instead only gradually remove them. In section 2, I focus on Ofcom's key argument for removing three of the distortions only gradually according

[1] My credentials are set out in the Annex.

to a glide path, which is that this approach would provide greater regulatory certainty.[2]

4. Section 88 of the Act requires that Ofcom must set significant market power (SMP) pricing conditions that promote efficiency, sustainable competition and the greatest possible benefit for end-users. Section 4(6) sets out the European Community requirement for Ofcom to carry out its functions in a manner which, so far as practical, does not favour particular forms of networks, services and facilities over other forms nor favour particular means of providing such networks, services and facilities over other means. The case for removing these distortions can be assessed in terms of these key relevant duties of Ofcom.

1.1 Promoting efficiency

5. Ultimately efficiency is concerned with maximising overall welfare. There are three aspects of efficiency: allocative, productive and dynamic. To the extent that there is tension between these aspects then a judgment would need to be made as to the relative strengths of the effects so as to determine which particular approach would best promote overall efficiency.

6. Allocative efficiency is promoted by prices reflecting the (opportunity) cost of providing each product. As Ofcom notes this will generally require prices being set to recover incremental costs. To the extent that prices are also required to recover common costs involved in the supply of the products, then contributions to common cost recovery should be determined taking into account the relative elasticities of the services and that the greater that any one price is raised above the incremental cost of the service the greater will be the welfare loss. To the extent that the final services supplied using Metallic Path Facility (MPF) and Shared Metallic Path Facillity (SMPF) LLU inputs are similar, then the elasticities of demand of the services can also be expected to be similar so that it will be efficient for the services to have similar mark-ups for the recovery of common costs.

7. Allocative efficiency will be promoted by removal of each of the four distortions:

- Charges since 2004 have required SMPF services to partly recover the costs of TAMs even though TAMs are only used in the supply of MPF lines. Ofcom reports that the TAMs adjustment accounted for £3.92 of the difference between MPF and WLR+SMPF charges in 2013/14 – a significant component of the overall extent to which the difference in the current charges for these services exceed the difference in the Long Run Incremental Cost (LRIC) of supplying the services (I refer to this as the ‘LRIC differential’). As such, the current charges are likely to distort the allocation of resources at the margin, with too many MPF lines and too few SMPF services. While Ofcom believes the allocative efficiency

[2] As summarised in paragraphs 3.149-3.150 of the Consultation.

benefits of removing the TAMs price adjustment would be relatively minor, Ofcom's reasoning overlooks two key points.[3] First, allocative efficiency is not only harmed by charges being less than the cost of the resources used. In fact, it is harmed at an exponentially rising rate the more that individual prices are raised above incremental cost. Given that the demand elasticities for MPF and SMPF lines can be expected to be similar, allocative efficiency will be better promoted by balanced common cost recovery across these services rather than recovering substantially more common costs from one. Second, what matters for allocative efficiency are distortions to the overall allocation of resources (such as between SMPF and MPF lines because of non-cost-reflective prices) rather than only whether or not additional TAM costs are triggered.

- In 2005, Ofcom applied a line length adjustment based on the expectation that MPF lines would be shorter on average than WLR lines, which would tend to reduce their relative cost. However, evidence from BT shows no material difference in average line lengths. Further, Ofcom now recognises that it is inefficient for charges for an individual customer to vary because of the line length adjustment as that customer's distance from the exchange and/or cabinet is not affected by whether they are served by WLR or MPF. To ensure customers are able to make decisions that better reflect the relative costs of the services, allocative efficiency will be promoted by the removal of the line length adjustment.
- While Ofcom currently requires WLR prices (but not MPF prices or cable prices) to contribute to BT's costs in providing printed directories, there is no cost-justification for this difference. BT currently supplies virtually all premises with directories (including those supplied with MPF and cable lines) and Ofcom notes (¶3.107) that this is likely to reflect BT's own commercial interest in generating revenue from classified advertisements. As the cost of supplying printed directories is not caused by whether or not WLR is provided, it is inefficient for this cost to be recovered in WLR charges. The risk to allocative efficiency from demand being distorted is made greater by this cost being included in WLR charges but not in the charges for substitute products.
- Ofcom also notes that the current approach of including Bulk Migration charges in their respective MPF and SMPF baskets risks leading to distorted pricing of Bulk Migration charges (away from their incremental costs) and distortions to other prices in the baskets. Allocative efficiency would instead be better promoted by, as Ofcom proposes, aligning Bulk Migration charges to a volume weighted average of their LRIC.

3 See the CC Determination 2013 ¶7.128(a) which sets out Ofcom's reasoning that allocative efficiency effects will be relatively minor because MPF charges were not less than the cost of the resources used and additional TAM costs were unlikely to be triggered.

8. As noted above, Ofcom's proposals to remove the four distortions all promote allocative efficiency by better aligning prices with incremental costs. In doing so, the proposals will also promote productive efficiency. In particular, the removal of the distortions will help minimise the economy-wide costs of production by making communications providers (CPs) (including BT[4]) face prices for inputs that better reflect the costs of supplying each input. This will promote the choice of input that actually requires the least cost to supply. Ofcom recognises this benefit in the Consultation (¶3.16):

> *For productive efficiency, the relative prices of MPF and WLR/WLR+SMPF should give CPs an incentive to choose the wholesale service that minimises the total costs of providing downstream voice and broadband services. To ensure that the cost-minimising choice between these alternative wholesale inputs is made, the price differentials between (i) MPF and WLR and (ii) between MPF and WLR+SMPF should be equal to the absolute difference in their incremental costs.*

9. Dynamic efficiency requires firms to have the incentives to invest and innovate in a way that maximises welfare *over time*. Promoting *efficient competition* is also an important way in which dynamic efficiency is supported (however, I discuss this aspect specifically in relation to sustainable competition below).

10. Dynamic efficiency will be undermined to the extent that firms face prices that do not reflect costs. Ofcom argued to the Competition Commission (CC)[5] that the fact that they have signalled that they would remove particular price adjustments in the future will protect dynamic efficiency, as CPs would base investment decisions on expected longer term prices. The validity of this argument depends on the length of time signalled for removal of the adjustment. The longer the period over which an inefficient price adjustment is signalled to be retained, the less likely the signalling would promote dynamic efficiency. In particular, a CP will base its investment decision on the total expected return to the investments – several years of distorted prices still have the potential to distort investment decisions at the margin.

11. Ofcom also argues that regulatory stability over time is another important aspect of dynamic efficiency. As this is Ofcom's key argument for the delayed removal of three of the four adjustments, I consider this in detail in Section 2.

12. In summary, Ofcom found that both allocative and productive efficiency considerations supported the immediate removal of all of the four price adjustments,

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4 Reducing the extent to which prices exceed incremental costs (such as by removing the charge for directories from WLR prices) can also be expected to provide a greater discipline on BT's costs in supplying the access services.

5 See the CC Determination ¶7.128(c).

whereas Ofcom considered that there were dynamic efficiency effects acting in different directions.

1.2 Sustainable competition

13. A second important duty of Ofcom is to promote sustainable competition. Competition is desirable as an important means of promoting overall welfare. However, it is competition on the merits that fulfils this role and that requires firms to compete based on their respective capabilities. In this regard, the promotion of sustainable competition will be promoted by regulation that is neutral as between different firms and technologies. In particular, this can enable customers to shift demand to the firms that provide the offers that deliver the greatest value for the costs involved and thereby to deliver higher overall welfare. To be able to achieve this outcome, it is also important that there are no undue cost or process barriers to switching, so that customers are able to switch readily - as Ofcom noted in 2012: "*Competitive communication markets are more likely to work well for consumers when it is quick and easy to switch between providers*."[6]

14. Regulation that leads to price differentials between services that do not reflect cost differentials is not technologically neutral and will undermine the extent to which competition raises welfare.[7] In 2009, Ofcom recognised the importance of competitively neutral regulation, although Ofcom inconsistently[8] thought that this should only apply in the long term:

> *We remain of the view that sustainable and effective competition requires that – in the long term – entrants must be able to compete without special protection. This suggests that prices should be set in the longer term to cover efficiently incurred costs, and that relative prices should not distort the choices among products made by CPs.*[9]

15. BEREC has recognised the importance of competitively neutral access charges. BEREC's Common Position on Best Practice in remedies on the market for wholesale (physical) network infrastructure access at a fixed location (principle 46) states:

6 Ofcom, A consultation on proposals to change the processes for switching fixed voice and broadband providers on the Openreach copper network, 2012, ¶1.

7 I note that the CC seems to have taken an approach of simply asking whether or not there is competition (see the Determination ¶7.129). However, this ignores the fact that it is ultimately competition on the merits that brings overall benefits.

8 It is inconsistent for Ofcom to argue for customers to have the ability to switch quickly and yet for Ofcom to want to delay changes to efficient prices that are key drivers of switching and integral to the welfare-maximising benefits of competition.

9 A new pricing framework for Openreach, May 2009, ¶4.97.

It is important that the access price sends the right economic signal, i.e. is that the price is competitively (and technologically) neutral. This will best be achieved with cost oriented access seeking to mimic the outcome of a competitive market where the equilibrium price reflects the cost of efficient service provision.

16. It is the case that Ofcom had introduced the TAMs adjustment in 2004 under the belief that it would foster new entrants.[10] However, the CC understood that Ofcom was no longer supporting retention of the adjustment in the current LLU charge control on the basis of its original arguments, but rather on the view that removing the adjustment over too short a timeframe would undermine regulatory stability.[11] Ofcom's Consultation states (¶3.87): "*As LLU competition has matured, the case for the adjustment to promote competition (one aspect of dynamic efficiency) has become less strong and hence we have placed more weight on setting charges which give incentives to minimise costs (productive efficiency)*." While this statement by Ofcom might be interpreted as Ofcom still considering that the price adjustment has some effect in creating greater investment in LLU than otherwise, Ofcom later states (¶3.150) that it believes investment decisions are long-term decisions that will be based on signals about future prices. Accordingly, if Ofcom believes that the adjustment will not be having a negative effect on dynamic efficiency then it should also believe that it is not creating additional stimulus to LLU competitors.

17. An indication of the impact of Ofcom moving immediately to remove all four distortions can be gained by Table A6.1 of the Consultation.[12] This shows that the current difference between WLR+SMPF charges and MPF charges in 2013-14 would have been £6.15 lower (i.e. MPF rental charges being only £13.86 lower than the rental charges faced by WLR+SMPF based operators, compared with £20.01 lower currently) had Ofcom not applied its adjustments in relation to TAMs, printed directories, line length and evoTAMs. Changes in relative prices of this magnitude can be expected to have a material impact on competitive dynamics between different retail competitors.

18. The proposed change in the approach to bulk migration charges can also be expected to significantly move the market towards competition on the merits at the wholesale level. The current bulk migration charges act as a significant barrier to competitors to BT by substantially raising the cost of switching of the end-user customer bases of downstream wholesale CPs between BT and other LLU based CPs. Table 4.18 of the Consultation shows that Ofcom's proposals can be expected to reduce bulk migration

10 This is discussed in the Consultation (¶3.84).

11 CC Determination 2013 ¶7.119.

12 These differences are calculated with respect to the March 2012 Statement estimates and so may differ somewhat from Ofcom's new estimates.

charges by around a third, but this reduction will only be fully achieved by the end of 2017, leaving the regulatory-created high barriers to switching in place until then.

1.3 Overall benefits to end-users

19. Ofcom's third major duty in setting price controls is to promote the greatest possible benefits for end-users. In the current context, this objective will be achieved through pricing that promotes overall efficiency and competition on the merits.

20. This analysis indicates that there are clear benefits to allocative and productive efficiency as well as in promoting competition on the merits from the immediate removal of the four distortions. Accordingly, unless there is good evidence on the costs from an immediate removal of the distortions that are sufficient to outweigh these benefits then all four distortions should be removed at the start of the new controls. I turn now to consider Ofcom's justification for a glide path in relation to removing three of the distortions.

2 Ofcom's arguments for a glide path

21. In explaining its reasoning for the adoption of a glide path, Ofcom first notes (¶3.144) that "*The main benefit of this approach* [i.e. the use of a glide path] *is that it has greater incentives for efficiency improvement as it allows the firm to retain the benefits of cost reductions made under a previous charge control for longer.*" It should be noted that this benefit relates to encouraging the firm whose services are regulated to develop innovative cost savings. However, this benefit will not be relevant to every pricing issue. For example, it is not relevant where an item has been wrongly included in a regulated cost stack (such as the inclusion of directory costs in the WLR cost stack). Indeed, by forcing BT's competitors to help fund the cost of a service that BT would provide anyway, the current approach to directory costs may weaken BT's incentives to minimise its costs in supplying directories. Incentives for cost innovation are also not relevant to removing distortions to the allocations of costs between MPF and WLR+SMPF services as the overall ability of the regulated firm to retain the benefits of cost reductions under the charge control will remain unchanged.

22. While ex ante setting of price caps is a well-established means by which to induce firms to develop innovative cost savings, this rationale does not apply to the retention of regulatory-created price distortions. Ofcom correctly recognises this in relation to the removal of the cost of directories from WLR charges (¶3.118):

> *However, for the directory costs in the WLR charge, we do not consider that the dynamic efficiency consideration is as important as it might usually be because the decision at hand is concerned with where printed directory costs are recovered (in particular whether this should be from regulated charges), not how quickly cost reducing efficiencies feed through to regulated prices for Openreach customers. We recognise that removing the costs immediately*

leads to a more sudden change, but given that we now consider that these costs should not be in the regulated WLR charge, we consider that an immediate reduction in the WLR charge would be more appropriate.

23. However, it is unclear as to why Ofcom has not applied the same reasoning in relation to the timing of the removal of the other distortions: none of these are related to feeding through cost efficiencies and Ofcom has decided that all of them should (by the end of the charge control period) be removed.

24. Ofcom's rationale for delaying the removal of the other distortions is (¶3.149):

We consider a stable and predictable regulatory framework will benefit consumers by providing CPs with good investment incentives. In general, we consider that glide paths, involving gradual adjustment of prices, are more consistent with a stable and predictable regulatory regime.

25. It is the case that if a regulator were to make large and inexplicable changes in its approach then investors would be likely to require higher expected returns to invest in that industry compared with one with a more stable regulatory approach. On the other hand, retaining regulation which is no longer efficient carries a loss to welfare which increases the longer the regulation is retained. This tension can best be resolved by a regulator following a consistent and transparent regulatory framework in which the precise level and nature of the regulation is changed as appropriate as market conditions change. One danger of delaying the pass-through of a more appropriate allocation of costs into prices is if costs rose above current charges then firms might cease supply of the service. On the other hand, if factors external to the firm lead to underlying costs falling significantly below current charges then demand would be inefficiently suppressed until charges are adjusted. Accordingly, price stability should be distinguished from, and accorded much less weight, than stability in the overall regulatory *framework*.

26. The best approach to balancing efficiency and the desire to minimise regulatory risk can be considered with respect to each of the distortions.

2.1 Regulatory stability and the TAMs adjustment

27. The TAMs adjustment was introduced, rightly or wrongly, in 2004 to help establish effective competition. At the time, best practice regulation would have also set out under what circumstances that adjustment would be removed in the future.[13] Ofcom did indicate in the 2004 Statement that it may revise its TAMs pricing approach in

13 Indeed, the best way in which Ofcom can reduce regulatory risk in relation to future investment is for Ofcom to be more explicit as to how it expects future regulatory changes to be made. To simply apply a protracted phase-out period for regulation that it has already announced as obsolete is unlikely to have any material impact on perceptions of regulatory risk while it does create significant welfare losses.

the future particularly once there is a separate testing charge for shared access.[14] However, the CC did not consider these indications sufficiently explicit as to the timing of the removal of the adjustment.

28. Notwithstanding the absence of an explicit statement about the timing of the removal of the TAMs adjustment in 2004, removing the adjustment now is unlikely to raise the perceived general regulatory risk of the UK telecoms sector. First, all players should recognise that the rationale for the adjustment has already ceased to apply. By the start of the 2014 charge control it will have been 10 years after the original policy was introduced and in which the LLU players have become well established.

29. In addition, Ofcom announced in 2009 that the reason it was "*setting a price path to move charges to CCA FAC over a four year period*" was that:

> *In terms of static efficiency, we consider distortions to competition to be an important issue. We consider that setting charge so that the differential between MPF and WLR+SMPF is based on the difference in LRIC would remove these distortions. We consider that setting charges based on CCA FAC is broadly consistent with doing this.*[15]

30. Ofcom itself has recognised the importance of the signals it gave in 2009:

> *Ofcom said that investments in MPF was taking place based on the same expectations for several years after the introduction of the Price Adjustment, and so 'people were making investments up to 2009 on the basis of what we had said previously about the relative prices of these different inputs.*[16]

31. Accordingly, CPs were made aware in 2009 of Ofcom's intention to align charges with the LRIC differential (or a proxy of it) by 2012/13. Removing the TAMs adjustment at the start of the new charge controls beginning in 2014 would be much more consistent with the reasoning Ofcom presented in 2009 than to keep some element of the adjustment in place throughout an extended further 3 year period all the way to 2017. In 2009, Openreach estimated the payback period for MPF investment as around 4 years.[17] Accordingly, MPF investments made prior to Ofcom's 2009 statement would already have been recovered if charges are aligned with LRIC differentials in 2014. There is little reason to extend the harm to competition and allocative and productive efficiency from prolonging the implementation of the efficient structure of charges already flagged by Ofcom in 2009.

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14 See paragraphs 9.83 and 9.85 of Ofcom, Review of the wholesale local access market, 16 December 2004.

15 A new pricing framework for Openreach, May 2009, ¶A4.100-A4.101.

16 CC Determination 2013 ¶7.140.

17 Openreach, Response to "A new pricing framework for Openreach". 6 March 2009, Figure 6.

32. Moreover, future investment can best be encouraged by Ofcom being more explicit as to how it expects future regulatory changes to be made, such as under what circumstances particular measures would be removed or introduced.[18] Doing so will provide much greater regulatory certainty than for Ofcom to be seen to only remove an accepted obsolete or inappropriate regulatory adjustment gradually over some unspecified period. Ofcom's approach of poorly specified inertia not only fails to provide much regulatory certainty but also has the potential to create significant welfare losses through the retention of inefficient regulation over many years.

33. Ofcom's concern with the overall LRIC differential over time also suggests that Ofcom is targeting price stability as if that is important for investment. However, the retention of some nominal price level is not necessary for an industry to attract high levels of investment. Rather, to support future investment, Ofcom should avoid making unexpected and inexplicable dramatic changes in its regulatory approach. Ofcom's desire to align prices with the LRIC differential has been long heralded (since at least 2009) and the removal of the TAMs adjustment is readily explained by the maturity of the LLU competitors making it obsolete. It defies credibility to argue that it is necessary for a TAMs adjustment to continue in new charge controls commencing in 2014 because otherwise potential future investors in the UK telecoms sector will be deterred by Ofcom gaining a reputation as a wild and capricious regulator.

2.2 Regulatory stability and the line length adjustment

34. Ofcom states (¶3.103) that a line length adjustment is no longer justified on the grounds that evidence available since 2012 shows no material difference in average line lengths between WLR and MPF services and, even if there were, there would be no difference for lines to a specific customer's premises. The line length adjustment does not alter the pool of costs to be recovered by BT but only their allocation between different services. Accordingly, applying a glide path in relation to the removal of the adjustment is not justified by any effect on the regulated firm. Rather the line length adjustment reflects the earlier expected differences in the costs of supplying the two services. As this cost difference has not applied since at least 2012, it is efficient for the price adjustment to be removed as soon as practical to reflect this.[19] Further, Ofcom can either signal to future investors, particularly CPs, that as the underlying cost of supplying access services change it will:

[18] For example, the Government in seeking to limit regulations that are unnecessary or out of date is introducing review clauses in regulation (to examine whether they are still required) and 7 year sunset clauses (https://www.gov.uk/government/policies/reducing-the-impact-of-regulation-on-business). The Government does not have a policy that regulation found to be outdated should only gradually be phased out.

[19] Had the information been made available earlier, there are good reasons to believe that the line length adjustment would have been removed as part of the current controls.

- Seek to reflect that change in costs in charges as soon as practical (subject to allowing regulated firms an opportunity to earn a reasonable return on cost saving innovations); or
- Deliberately decide to delay changing charges and thereby create the potential for long periods in which prices depart from costs.

35. As in competitive markets, efficient investment will be best promoted where investment decisions take into account the actual wholesale input costs. Ofcom's approach instead seems to reject the efficiency of competitive markets and believe that the regulator should encourage price-stickiness even when there are few direct costs to changing prices. Ofcom's approach risks distorting the allocation of investment at the margin away from the investment pattern that would result were investment instead to reflect the overall returns to the economy from each investment.

2.3 Regulatory stability and bulk migration charges

36. Ofcom is proposing to change from regulating bulk migration charges as part of a general basket to regulating them under specific controls for each of MPF and SMPF bulk migrations to remedy inadvertent distortions. Again, this change is concerned with the allocation of Openreach's costs rather than the pool of costs to be recovered and hence should not raise the perceived risk of investment for regulated firms. In this case, the aim is to end distortions to the current structure of prices. The reasons for the immediate removal of the line length adjustment also apply in support of an immediate change to specific controls for bulk migration charges. However, there are additional reasons that support the immediate introduction of specific controls for bulk migration charges:

- As Ofcom notes (¶4.101) low migration charges promote competition by reducing the costs to CPs (and customers) from switching providers; and
- Any change in bulk migration charges will only apply to new migrations and hence will not create windfall gains or losses to CPs from services that they have already acquired.

37. Ofcom's approach to bulk migration charges will provide signals to future investors, and to the regulated firm in relation to the consequences of its future behaviour. If Ofcom were to apply a glide path it would signal that even where distorted prices come about inadvertently or as a result of deliberate behaviour by the regulated firm adversely impacting competition, Ofcom will retain that distortion into the future. In doing so, Ofcom increases the risks that the distortion will influence decisions and lead to inefficiencies. Alternatively, the immediate removal of the distortion would signal to the regulated firm to be cautious about seeking to create or take advantage of such distortions because Ofcom will seek to remedy the distortion as soon as practical. An analogous choice to Ofcom's is for a tax authority to choose either (i) to

allow inadvertent tax avoidance loopholes to exist for a prolonged period (because of a mistaken view tax law stability should be the overriding consideration) or (ii) speedily remedy any identified loophole. The UK Government notes that "*it is prepared to announce immediate changes to the law to prevent tax loss from avoidance*".[20]

3 Conclusion

38. Ofcom states (¶3.146) that:

> *"We might make one-off changes if there are strong allocative efficiency or competition arguments for bringing prices into line with cost before the end of the control period. However, in assessing possible one-off adjustments, we would need to balance this against alternative (and potentially more proportionate) regulatory approaches."*

39. Ofcom is right that it needs to determine the speed of the adjustment based on an assessment of the relative benefits and costs of a faster versus a slower adjustment.

40. In common with Ofcom, I find that sustainable competition, productive and allocative efficiency would be promoted by the immediate removal of the distortions (although I disagree with Ofcom that the potential gains in allocative efficiency are relatively limited because I believe that the current charges can be expected to be distorting overall resource allocation). My main difference with Ofcom's view is that I believe that, when examined in detail, future investment can best be promoted through Ofcom providing more information as to how future regulatory changes will be made rather than by retaining inefficient and out-dated distortions. I consider that Ofcom's reasons for the immediate removal of the directories cost apply equally to why the other distortions should also be removed in a one-off adjustment. In addition, the immediate change to the approach to bulk migration charges will also signal to regulated firms that they should not seek to game regulation to disadvantage their competitors.

41. The removal of <u>all four</u> distortions at the start of the new controls would mean that consumers are able to benefit fully from the resulting welfare gains in each year of the new controls. A gradual phase-out of the distortions would mean that a proportion of these potential welfare gains are instead lost forever and hence overall consumer benefits from the gradual phase-out will be lower than from an immediate adjustment.

[20] HMRC, Levelling the tax playing field, March 2013, p.6.

Annex - Paul Reynolds / Director

43. Paul Reynolds, a founding partner of CEG Europe, is an expert in the economics of competition law, regulation and damages, with over 20 years experience in economic and financial analysis. Paul has assisted companies and lawyers in responding to investigations by national regulatory and competition authorities, the European Commission and in court proceedings and international arbitrations. Paul has had expert testimony accepted by the UK Competition Appeals Tribunal, the European Commission and the Australian Competition Tribunal.

44. Paul has particular expertise in relation to the electronic communications industry and other network industries. Paul has analysed the development of competition in fixed, mobile and broadcasting markets in court and regulatory proceedings. Paul also has expertise in the design of regulation and cost modelling. Paul has advised operators on issues raised by communications regulation in Afghanistan, Australia, Austria, Bangladesh, Belgium, Canada, Germany, India, Italy, the Netherlands, New Zealand, Portugal, South Africa, Switzerland and the United Kingdom. Paul was a lead author of a number of landmark reports for the GSM Association including on the implications for interconnection pricing of the migration to IP networks, best practice in mobile licensing and the development of the mobile content industry.

45. Paul has advised on a number of litigation cases particularly in relation to the telecommunications industry. These include litigation between Vivendi and Deutsche in relation to ownership of a Polish mobile operator and competition damages cases in the Czech Republic, Ireland, New Zealand and the United Kingdom.

46. Paul has provided analysis on the competition law implications of a number of major mergers including Foxtel's acquisition of Austar, GSK's acquisition of a pharmaceutical brand from AstraZeneca, the proposed joint venture between BHP and Rio Tinto, UCB's acquisition of Scharwz Pharma, T-Mobile Austria's acquisition of tele.ring and P&G's acquisition of Gillette.

47. Paul was previously a partner at Case Associates and has also worked for CRA International, as a director in the telecommunications branch of the Australian Competition & Consumer Commission (ACCC) as well as a senior economist with the Australian Federal Treasury. Paul has a Masters of Commerce (in Economics) with first class honours from the University of Melbourne and a Bachelor of Economics (Hons) from the University of Western Australia.