## Annex 3.2 How conservative has Ofcom really been in the Second Consultation?

1. In paragraph 1.38 Ofcom accepts that "*we should set ALFs more conservatively than we did in the October 2013 consultation*". Ofcom says that it has recognised and reflected some degree of asymmetric risk (of setting ALF above rather than below true market value) in the October 2013 proposals (and in Annex 9 in particular).

2. In this section we consider two, discrete issues:

    a. Has Ofcom been as 'conservative' as it claims in its August 2014 proposals?

    b. How 'conservative' should Ofcom be?

3. First, we summarise the reasons Ofcom provides for changing its position on asymmetric risk since the previous consultation.

*What has changed?*

4. Annex 5 of the current consultation introduces two new points. The first is that the availability of additional spectrum in later auctions will go some way towards mitigating any inefficiencies which might otherwise arise from setting ALF too low. Ofcom accepts this point, which explains why it is now proposed to take a more conservative approach than that in October 2013.

5. The second new point is Ofcom's claim that ALFs at this aggressive conception of full market value are required to induce efficiency-enhancing trades because the manager and shareholders of mobile operators will pay more attention to direct costs than to foregone receipts. Ofcom relies, at least to some extent, on this point to sustain the view that the risks of setting ALF too low are significant. If Ofcom were to be wrong on this point, then its approach to setting ALFs should be more conservative than the approach they now take. We show below that Ofcom is wrong.

6. In addition, Ofcom also refers to the greater certainty of the availability of future mobile spectrum, relative to October 2013, as being likely to reduce the market value of ALF bands[1]. This is another reason why Ofcom now proposes to take a more conservative approach.

[1] Paras 1.39-1.41

*Has Ofcom been as conservative as it is claimed?*

7. The question to then ask is whether having decided that it should take a more conservative approach than previously, Ofcom has in fact done so in its current proposals for ALF. Ofcom considers that conservatism should and has been applied "*when interpreting the evidence*". This is a vague statement, but appears to refer both to decisions Ofcom takes in deciding what evidence to consider and what to ignore, as well as how it might weigh the evidence that it has chosen to include. A 'conservative approach' also necessarily should involve adopting a bias towards lower values in circumstances where there is otherwise no strong evidence to suggest that one number is to be preferred to another. It is not clear that a conservative approach requires Ofcom to exclude evidence, unless there are already good reasons for doing so.

8. In practice, Ofcom reports that it has taken a 'conservative' approach in three important areas:

    *a.* In paragraph 2.77, Ofcom adopts the estimate of £32.63m per MHz as an appropriate basis for the UK 800 MHz market value, even though Ofcom claims to consider there is a risk that this may understate the position (*800 MHz absolute value').*

    *b.* In paragraphs 3.56 - 3.60, Ofcom adopts an estimate of £23m per MHz as an appropriate basis for UK 900 MHz market value, arguing that this is 'conservative' because an average of their 'first tier' evidence would produce an estimate nearer to £30m (*Benchmarking evidence').*

    *c.* In paragraph 4.16 and 4.25, Ofcom explains why it is proposed to set the discount rate at the cost of debt, and why, in doing so, they consider this to be 'conservative' (*Discount rate)*.

*9.* In the next sections, we consider each of these points in turn.

*800 MHz absolute value*

10. We show in Section 1 of the main body of the Vodafone response that Ofcom's revised approach to estimating 800MHz market value is flawed. Here we show that, even if Ofcom's approach is correct, the approach Ofcom adopts could not plausibly be described as 'conservative'.

11. Ofcom recognises in paragraphs 2.70 and 2.75 that estimates of £35.3m per MHz and £36.8m per MHz may both overstate relevant market value. Ofcom then argues that the selected value of £32.63m may understate relevant market value for three reasons. We consider each of these in turn:

a. First, Ofcom argues that the incremental bid value (IBV) for the third and fourth 800 MHz blocks is higher in packages with more 2.6 GHz spectrum. The £32.63m value corresponds to a package with 2 x 20 MHz of 2.6 GHz spectrum (Table 2.5). The IBV with 2 x 35 MHz of 2.6 GHz would therefore be higher than £32.63m. The IBV for 2 x 10 MHz is indeed higher than for 2 x 5 MHz - but equally, that for 2 x 15 MHz is *lower* than for 2 x 10 MHz. In the first case, the IBV of the second 800 MHz block increased, and in the second it fell. Then the IBV for 2 x 15 MHz is higher than for 2 x 10 MHz, but in that case the IBV for the second block fell rather than increased.

   Ofcom asks us to infer from these facts that the IBV for 2 x 35 MHz would be higher still. But there is nothing in the data presented in table 2.5 that would lead to this conclusion. There is one data point to suggest the IBV would be higher, and one suggesting it would be lower. The evidence is simply insufficient to draw any conclusion, as Ofcom attempts to do.

b. Second, Ofcom argues that because the IBV for the third and fourth 800 MHz blocks is higher than that for the first block in every case, then this must also be so for 2 x 35MHz of 2.6 GHz. But, again, what the data actually shows is that the IBV for the third and fourth blocks exceeds £23m in every case. That is all. It does not suggest, as Ofcom implies, that the IBV at 2 x 35MHz would exceed £32.63m per MHz. Ofcom simply does not know, from the evidence presented in table 2.5, what the IBV of a third or fourth block might be if the first block is valued at or above £32.63m. It could be more than £32.63m, or it could be less. The data simply does not allow us to answer this question.

c. Third, Ofcom argues that the relevant blocks are actually the second and third blocks, and that an IBV for these is higher than for the third and fourth blocks. This may be so, but Ofcom fails to add that the value for the second blocks in table 2.5 falls as the size of the 2.6 GHz package increases. Using Ofcom's logic, this would suggest that the value of the second block for 2 x 35MHz would be below £46.1m, although again we have no idea by how much. It could be below £32.63 m, in which case Ofcom's argument would support a lower estimate rather than suggest that what Ofcom proposes is conservative.

12. A proper assessment of Table 2.5 therefore does not support Ofcom's claim that £32.63m is a 'conservative estimate', even assuming its approach were to be correct.

*Benchmarking evidence*

13. We show in Section 2 and the appended Frontier report that constitutes Annex 2 that Ofcom's use of benchmarking evidence is also flawed. A proper consideration

of the evidence would exclude Austria altogether from the first tier evidence. Taking Ofcom's (flawed) 800 MHz estimates as a starting point, Ofcom would then be left with a ratio from first tier evidence (the Irish auction) that 900 MHz would be valued at 62% of the 800 MHz value but with Ofcom already having accepted in paragraph 3.51 that this benchmark is likely to be overstated. A conservative estimate based upon first tier evidence alone must therefore be *below this ratio even before any adjustments are made to the UK 800MHz values to which the benchmark data is applied.*

14. Taking into account the second tier evidence does not change this conclusion. If more weight is given to the relevant first tier evidence, then taking into account the second tier evidence as well does not imply that Ofcom's figures are conservative: the figure for Portugal is 67%, and the figure for Spain 71%, but Ofcom has already recognised that this figure is likely to overstate market value.

15. Even if Ofcom refuses to exclude the Austrian evidence altogether, a simple glance at Ofcom's Figure 3.2 suggests that it should be treated with extreme caution. The Austria auction values are significantly higher than any of the other evidence obtained by Ofcom and, in particular, higher than the other first and second tier evidence on which Ofcom proposes to rely. Put simply, Ofcom has three values within a narrow range which suggest a benchmark of between 62% and 71%, with two out of those three values likely to be overstatements in Ofcom's view. It then has one clear outlier which suggests a value of almost double that.

16. We consider that attaching equal weight to the outlier when deriving an average and then discounting below that average, as Ofcom has done, is not a 'conservative' approach, as Ofcom suggests. A 'conservative approach' would in the first place involve disregarding the high outlier altogether, and then applying further discounting to recognise the risk that two of the three remaining estimates are likely to be overstatements.

17. This latter approach is in fact closer to what Ofcom has done with respect to its tiers one, two and three evaluation of 1800 MHz value – here as can be seen from Ofcom's figure 3.3, the Austrian outlier has been effectively discarded in the first tier analysis, and the initial tier one view (and ultimately the overall view) is based on the average of the remaining tier one values for Ireland and Italy.

*Discount rate*

18. We agree with Ofcom that adopting the cost of debt represents an appropriate approach to setting annual fees. This is not really a "conservative" decision based on equally weighted alternatives – rather as we explain in Section 4 of the main body of our response the selection of the cost of debt is no more than the logical outcome of very differently weighted choices. It is not that the selection of the cost of debt is conservative, it is that the selection of the alternative of WACC would simply be wrong. However, in Section 4 and the accompanying Annex 4, we

further explain why Ofcom is wrong to estimate the real, after-tax cost of debt as being 2.6% for deriving annual fees for lump sum value. We show that a rate of less than 1.6% is more appropriate. 2.6% then is not a conservative value for the cost of debt.

*How 'conservative' should Ofcom be?*

19. In the previous section we explained how Ofcom has failed to apply the revised approach to asymmetry correctly when considering the evidence and making adjustments to its estimates. We accepted for those purposes that Ofcom's revised assessment of the magnitude of the asymmetric risk was correct. We recognise, of course, that these are to some extent matters of judgement and that quantifying the asymmetries we are talking about would be a challenging task. However, in this section we explain why the position that Ofcom has taken in its current proposals *must still understate* the magnitude of the asymmetry and that, accordingly, further adjustments will need to be made when Ofcom makes the other adjustments outlined in the previous section. We consider that is primarily because Ofcom still overestimates the risk of inefficiency if ALFs are set on a more conservative view of market value, rather than because Ofcom underestimates the risk of inadvertently setting ALF above market value.

20. Ofcom's main argument against setting ALFs too low (i.e. inadvertently below the relevant market value) remains that that efficiency enhancing trades would not occur. Ofcom held this view in October 2013, and does not appear to have altered this view since[2]. Ofcom now accepts that less harm may be done as a result if higher value users can obtain spectrum by means other than trades, notably by acquiring spectrum in future auctions. But Ofcom's view that ALFs at this view of market values are required to induce trades remains unchanged.

21. We consider that this is a very extreme and implausible position to take. Ofcom provides no evidence to support it. It is possible, for example, to accept that *some* trades might be forgone if ALF is set too low, but other trades could still be expected to occur. A current user will always have incentives to sell to a higher value user, irrespective of the level of ALF, and so the proper question is whether ALF is required to strengthen those incentives or to overcome other considerations[3].

22. Ofcom's position in October 2013 (see A9.29) was that 'strategic considerations' mean these trades would not happen in practice[4]. But:

[2] Para A 5.14

[3] Ofcom essentially recognises this in para A9.16 when arguing that higher ALFs do not deter trades but simply change the prices at which they occur. Exactly the same applies to more conservative ALFs.

[4] Ofcom accepted in October 2013 that other barriers to trades – high transaction cost or lack of price information – are not present in this case.

a. Ofcom provides no evidence of what these 'strategic considerations' are.

b. Ofcom ignores the much more plausible position that trades would still happen in some circumstances (e.g. if there is a wide variation between the valuation of the existing user and the higher value user, and the 'strategic considerations' are low) and might not in others (e.g. if the variations were narrow or uncertain and the strategic considerations high). Ofcom has made no attempt to establish whether the conditions which prevail in the UK market today are conducive to trades or not.

c. Ofcom ignores the many other commercial transactions between operators (such as network sharing) which suggest that 'strategic considerations' can and have been overcome in other contexts.

d. Ofcom does not ask whether 'strategic considerations' might prompt existing users to return spectrum to Ofcom rather than trade directly, thereby increasing the risks of a fallow period.

e. Ofcom does not ask whether setting ALFs at (or even above) market value would be sufficient to overcome these 'strategic considerations'. If they are not, then there is no loss from setting ALFs more conservatively.

23. The relevant comparison for establishing the magnitude of any asymmetry of risk when setting ALF is therefore not, as Ofcom suggests:

    a. Inefficiencies arising from the loss of *all* potential trades between users and

    b. Inefficiencies arising if spectrum is handed back and lies fallow (which is what Ofcom assume happens if ALF exceeds the private value of the existing user)

    ..but rather:

    c. Inefficiencies arising from lost trades which would otherwise occur if ALF were set at higher levels (but ignoring trades that will happen even if ALF is set lower and trades that will not happen even if ALF is set higher) and

    *d.* Inefficiencies arising if spectrum is handed back *rather than traded*

24. This means that Ofcom must be overstating the efficiency loss of (inadvertently) setting ALF below market value (because not all trades would in fact be stopped) and understating the losses associated with (inadvertently) setting ALF too high (because fallow period costs cannot be offset by gains from reassignment which would be realised anyway).

*Ofcom's claim that operators take more notice of ALF than opportunity costs does not support its position*

25. In paragraph A5.15 to A5.19 of the current consultation, Ofcom argues that ALFs are required to induce trades because the management and shareholders of the operator will be more responsive to direct costs of ALF than to foregone receipts which are lost when, in each case, they choose to retain spectrum rather than trade it to a higher value user.

26. However, Ofcom is wrong to think that this argument, even if it could be supported by evidence, justifies setting high ALFs.

27. As a preliminary issue, if operators really were as insensitive to opportunity costs as Ofcom suggests then we would not expect to see spectrum trades elsewhere in the world (notably the US) where no ALF is payable. Ofcom would need to explain why ALF is required to incentivise UK operators to trade when their US counterparts need no such incentive.

28. Second, even if Ofcom were to be right to say that ALF helps to focus minds inside operators, it does not follow that ALF must be set at Ofcom's current interpretation of full market value to achieve this aim. It is perfectly possible to imagine that ALF set at a more conservative "full market value" would also trigger trades which might not occur if it were set at zero. There is really no way of knowing at what level a cost in a mobile operator's accounts prompts a change in behaviour, but it is likely to be below the levels of ALF being proposed by Ofcom in their current consultation. Ofcom's new point is an argument for why ALF should be set at a value greater than zero and perhaps even above existing levels, but this does not support the levels currently being proposed by Ofcom.