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Competition Commission Bus Market Investigation

**Response to the addendum on  
geographic market segmentation and  
operator conduct**

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## 1. Introduction

- 1.1. PTEG welcomes the Competition Commission's (CC) latest findings that:
  - There is evidence of competition having been restricted in some markets by the conduct of large operators, referring in particular to extensive communication between operators, retaliation, signalling and the sale/acquisition of rivals' assets;
  - The conditions to facilitate tacit coordination are present across the UK;
  - The possibility of retaliatory conduct arising can form a barrier to entry and expansion which can apply across other areas.
- 1.2. We share the CC's concern that coordination of the sort of conduct described in the addendum and its appendices may occur elsewhere and could do so in the future. Indeed, past OFT investigations confirm that such activity has taken place. The CC findings are also very much consistent with the increasing degree of concentration observed in PTE markets and the lack of direct competition between adjacent large operators.
- 1.3. We would also point out that **these latest findings may well result in a higher estimate of the degree of detriment than presented in the Provisional Decision on Remedies (PDR)**. This is because much of the overlap identified by the CC between existing routes is due to interaction between large operators. Given the favourable conditions for tacit coordination, the existence of such overlaps may therefore not signal either the presence of effective competition or the threat of competition.
- 1.4. Given the points above, **we are surprised and alarmed by the casual manner in which the CC seems to have brushed aside what is significant evidence of market failure** and has ruled out a more detailed investigation or further substantial recommendations beyond those set out in the PDR. Given the severe implications of these findings and the real risk that they may be more widespread across the reference area, we feel that a much more robust and detailed consideration of the problem and of remedial measures by the CC is warranted.
- 1.5. The CC may argue in response that this is a matter for other authorities or beyond the remit of the current investigation. We would disagree. It took over 18 months and the full weight of the CC for this sort of evidence on operator conduct to come to light. It seems completely unrealistic to expect that other bodies with fewer dedicated resources, more limited know-how and remit could go further than the CC. We would also argue that the issue of operator conduct is very much at the heart of the AEC identified and it's therefore important to understand how prevalent this sort of behaviour is likely to be across the reference area. We believe it is important that the CC highlights how this evidence came to light, and make recommendations as to how to deter such activity in the future.
- 1.6. As we've argued in our response to the PDR, there are intrinsic features of the spatially- and time-constrained nature of bus operations which confer a significant advantage on incumbent operators relative to new entrants, above and beyond those identified by the CC. We feel that those features make on-street competition inherently un-attractive to operators and provide an additional incentive for coordination.
- 1.7. Ultimately, **we remain wholly unconvinced that the limited remedies already set out in the PDR can have a material effect on the underlying structural characteristics of the local bus market** which we believe to be the root cause of prevailing absence of competitive

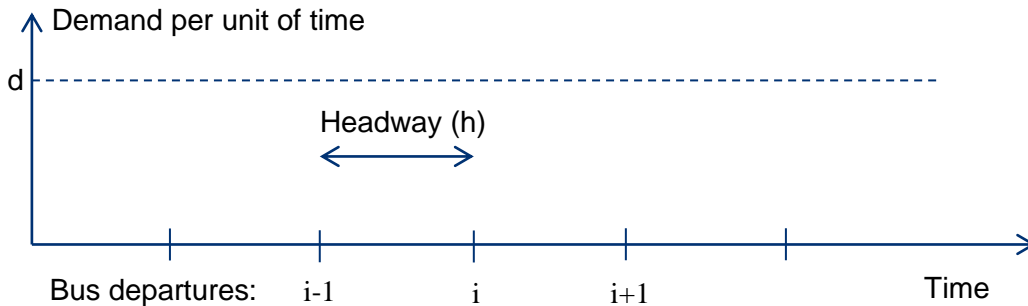
constraints in this market. We also have significant concerns that the doubts expressed by the CC over the value of partnerships will make operators increasingly reluctant to be involved, thereby undermining one of the few tools which have been effective in improving bus networks and delivering a stable competitive outcome. We therefore call on the CC to re-consider its assessment of the proposed, and alternative, remedies in the light of the arguments set out in our main response to the PDR and further developed below.

## 2. Spatial competition, the nature of bus markets and conditions for tacit coordination

- 2.1. The addendum makes several references to responses from operators which state that one reason for the absence of competition on the ground may stem from the fact that an existing route is already well served by the incumbent operator:
- Paragraph 10: “ (...) a more likely explanation of geographic separation was simply that these areas were already well served by operators such that **profitable** opportunities for entry were not available” [Stagecoach]
  - Paragraph 11: “[Arriva] said that where entry did not occur, this was generally because there was no viable market opportunity available given that the market was already served by an incumbent operator.”
  - Paragraph 45: “Operators have stressed a lack of commercial opportunities to us as explaining why there is not more entry into territories principally served by their rivals, but the evidence set out above indicates that this can also be shaped by the understanding of areas and likely retaliatory actions. We have also determined the existence of barriers to entry.”
- 2.2. In our view, this point goes to the core of the AEC identified and is fundamental in understanding both why tacit coordination is likely to take place and why stable on-street competition is unlikely to emerge. We feel that the CC has not done enough to understand the detailed mechanics of competition in the bus market and, in doing so, has overlooked some of its earlier conclusions (in particular relating to customer behaviour and the likely unstable nature of on-street competition)<sup>1</sup>. We therefore develop below some of the points made in our response to the PDR.
- 2.3. Consider the following example, which represents a simple spatial competition model of a bus route:

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<sup>1</sup> Evans, A. (1987), “A theoretical comparison of competition with other economic regimes for bus services”, *Journal of Transport Economics and Policy*, 21, pp. 7-36; Novshek, W. (1980), “Equilibrium in simple spatial (or differentiated product) models”, *Journal of Economic Theory*, 22, pp 313-326; Salop, S.C. (1979), “Monopolistic competition with outside goods”, *Bell Journal of Economics*, 10.



- 2.4. The y-axis represents the level of demand over time, which is assumed constant. The x-axis represents elapsed time with each notch representing a bus departure. The distance along the x-axis between adjacent bus departures represents the headway, which is assumed to be uniform.
- 2.5. In this example, the profit per bus departure equals  $d \cdot h \cdot p - c$ , where  $p$  represents revenue per passenger and  $c$  represents the full allocated cost of a given bus departure. We assume that the incumbent's profit margin equals 20% (defined here as  $d \cdot h \cdot p / c = 1.2$ ) and that this is above the cost of capital, hence making the route attractive to a similarly efficient new entrant.
- 2.6. **Scenario 1.** Let's assume that a new entrant chooses to run a service at the prevailing price half way between existing departures  $i-1$  and  $i$ , and the that the new entrant sticks to its current price and service pattern. The new entrant's short turn profit<sup>2</sup> will equal  $d \cdot h \cdot p / 2 - c = d \cdot h \cdot p / 2 - d \cdot h \cdot p / 1.2 = -0.33 (d \cdot h \cdot p)$ . Hence the new entrant makes a substantial loss. The incumbent will also make a loss on one of its services. Effectively, the new entrant would only be able to cover its costs (let alone make a normal profit) if the incumbent was making a profit of at least 100%. Hence, the CC's point that "(...) **any attempt by existing operators to increase fares or cut services might present a profitable opportunity for entry by another operator (...)**"<sup>3</sup>, while true in a perfectly competitive market, clearly does not hold in the bus market.
- 2.7. This very simple example shows how an incumbent is effectively protected from well-intentioned<sup>4</sup> and efficient new entry even when it is earning substantial excess profit. By rationally spacing its departures evenly the incumbent is severely restricting the opportunities for profitable entry and will know that it is only a matter of time for the new entrant to eventually abandon the route. In that sense, doing nothing is enough of a deterrent to push new entrants out. We believe this is what operators refer to when they state that there are no opportunities for **profitable** entry.

<sup>2</sup> Over time, the additional service may lead to an increase in demand. However, this is unlikely to be of an order of magnitude such to alter the conclusion in this paragraph. It is also important to highlight that, in many practical situations, demand is unlikely to be uniform over time but rather to increase from zero to its maximum level between one scheduled bus departure and the next. In that case, the new service would make a lower short run profit than the incumbent's and entry would be even less attractive.

<sup>3</sup> Paragraph 81 of the addendum

<sup>4</sup> By this, we mean that the new entrant chooses to operate its service where it is of most benefit to passengers, i.e., half way between existing departures.

- 2.8. **Scenario 2.** Let's now assume that the new entrant chooses to run its service immediately ahead of the incumbent's bus departure  $i^5$ . In this case, the new entrant's profit equals  $d.f.p-c$  and the incumbent makes a loss of  $c$ . The incumbent has three options:
1. to withdraw service  $i$  and reallocate the resource elsewhere, but probably earning a lower profit margin.
  2. to review its timetable so as to make room for the new entrant's service and accept a lower profit margin overall
  3. to re-time service  $i$ , immediately ahead of the new entrant's service.
- 2.9. Options 1 and 2 would show signs of weakness to other prospective competitors and reduce the incumbent's profit margin. As the CC points out, "*because entry is likely to lead to significant revenue extraction, possibly on the incumbent's most profitable routes, the incentive to discipline entrants is strong*"<sup>6</sup>. There are therefore strong incentives to adopt the third strategy, especially if the incumbent is able to cross-subsidise a temporary loss. What would follow would be a loss-making period of timetable instability and unreliability until the operator least able to absorb this loss was to withdraw from the market. In this example, this is very likely to be the new entrant given that the incumbent would still be able to cross-subsidise its loss-making bus departure from other services.
- 2.10. We would also emphasise that the incumbent need not signal its response to a regulator as it would not need to register a new service but simply to adjust its departure times slightly. It would also be able to use some of its excess profit from other departures to pay the additional cost of monitoring the location of the new entrant's bus and adjust its own services accordingly. This could involve an earlier departure by service  $i$  but also a delayed departure for service  $i-1$ . This makes this sort of behaviour virtually impossible to detect and regulate. More importantly, **it makes new entry highly risky and unlikely to take place at all.**
- 2.11. In the CC's own words, "*competition can result in a costly period of rivalry between operators which is likely to be loss-making, and so culminate in the exit of one operator*"<sup>7</sup>. As argued in our response to the PDR this sort of competition is unlikely to be beneficial to passengers.
- 2.12. **Scenario 3.** Now let's assume that two large operators, A and B, run similar service patterns as illustrated in the figure above in two adjacent corridors. Operator B is willing to earn a lower profit and may then consider investing so as to enter Operator A's corridor. Regardless of the strategy adopted by A and B there would clearly be a significant loss for both operators for a period of time, the outcome of which would be uncertain at the outset. So not only would this substantially increase the risk for an expansion of operator B's network (which may incidentally increase its expected profit margin and effectively make new entry irrational altogether) but it would also deliver a clearly sub-optimal outcome for the industry as a whole (i.e.: operators A plus B).
- 2.13. As long as operators are aware of this result, then this would provide a very strong incentive for medium and large operators to engage in tacit coordination to ensure each stuck to their own 'territory'. This conclusion is be strengthened by a number of other factors including

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<sup>5</sup> In this scenario, it's unlikely that there would be any demand uplift from the additional service. In effect, so long as new entry led to increased network instability this may actually lead to a decline in demand as observed following deregulation.

<sup>6</sup> Paragraph 30 of the addendum.

<sup>7</sup> Paragraph 41, Summary of Provisional Findings.

existing asymmetries of information between operators and the discrete location of existing depots<sup>8</sup>, which may further increase the cost and risks of entry.

- 2.14. Overall, we believe that the examples above show that there are strong incentives for operators to maintain the status quo and to avoid effective on-street competition. They also demonstrate that there is likely to be a substantial cost from deviating from the prevailing behaviour, again a key condition for tacit coordination. Finally, they show that where some form of competition has existed historically, it is rational for operators to attempt to coordinate their services. This is further reinforced by the additional demand benefits of a stable network.

### 3. Tacit coordination and partnerships

- 3.1. We regret that the CC has used the findings of its work on operator conduct to further extend its vague doubts over the role of partnerships in delivering a more competitive and successful bus market:

*“(...) we have recommended that, in introducing partnerships and applying the relevant competition test, Local Transport Authorities (LTAs) are careful to take account of the risks associated with facilitating coordination between competitors that goes beyond what is acceptable under competition law and what is necessary to deliver passenger benefits. To help LTAs do this, we have provisionally decided to recommend the establishment of a forum, whereby the OFT and LTAs can discuss competition issues arising from specific partnership proposals.”*

- 3.2. We agree with the CC’s statement that “*head-to-head competition tends towards instability the closer the competition between operators becomes*”<sup>9</sup>. We have also provided additional evidence that stable on-street competition is very unlikely to materialise without some degree of coordination between operators. Partnerships can be an effective way to ensure that sustainable competition is maintained where it already takes place.
- 3.3. Partnerships are also one way in which LTAs can more effectively monitor potential anti-competitive behaviour between operators given the greater transparency over operator conduct and data that they can give rise to. We do not believe open and transparent partnerships between operators and LTAs can lead to any greater detriment than **tacit** coordination between operators away from the public eye. If anything, the opposite is likely to be true. By making LTAs and operators less willing to enter into partnerships, this recommendation is likely to make the issue of tacit coordination worse, not better.
- 3.4. With respect to the recommendation that an OFT/LTA forum be set up, this seems to ignore the fact that LTAs are already required to ensure that any partnership plans are in the public interest. If a partnership is taken forward then this implies that its wider benefits are deemed to outweigh any negative impact on the potential for on-street competition. In our experience, the substantial benefits from partnerships are very likely to outweigh the distant, debatable and uncertain benefits from unstable on-street competition.
- 3.5. PTEs have invested significant time and effort in laying the foundations for successful partnership working, in some cases involving decades of close working with all local

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<sup>8</sup> Assuming operators choose to site their depots rationally, it is likely that the dead running cost for operator A to run services in its dominant corridor will be lower than for operator B to expand its operations to operator A’s corridor.

<sup>9</sup> Paragraph 42 of Summary of Provisional Findings



operators. In some areas this has resulted in higher service frequencies, higher quality vehicles, extended operating hours and reduced public funding. It would be a considerable loss for existing and potential bus users if voluntary agreements, statutory partnerships and qualifying agreements in their current form were to be damaged or endangered by the actions of the CC.

- 3.6. Instead of attempting to undermine the existing regulatory framework, we feel that the CC's efforts would be better targeted at making recommendations to strengthen the existing framework where it could address the problems identified. For example, additional powers to enable LTAs to gain greater oversight of operator data (either in the context of partnership working or regulatory accounting), as suggested in our response to the PDR, could potentially deter tacit coordination and reduce excess profits.

#### 4. Will the proposed remedies address tacit coordination?

- 4.1. The CC states that the conditions for tacit coordination to take place are as follows:

“(a) first, the market has to be sufficiently concentrated for **firms to be aware of the behaviour of their competitors**, and for any significant deviation from the prevailing behaviour by a firm to be observed by other firms in the market;

(b) second, it must be clear that it will be **costly for firms to deviate from the prevailing behaviour**, so costly that it will be in a firm's interests to go along with the prevailing behaviour rather than seek to deviate from it; and

(c) third, this type of parallelism can only be sustained in markets where there are **relatively weak competitive constraints**.<sup>10</sup>

- 4.2. The CC argues that the package of remedies set out in the PDR is sufficient to address points (b) and (c) but recognises that the level of transparency between operators in the UK bus market is inherently high.
- 4.3. With respect to point (a), even if the CC's remedies were to prevent further increases in concentration in the future they do nothing to reduce the degree of concentration observed at present.
- 4.4. With respect to point (b), the CC suggests that the proposed operator behaviour remedy will significantly reduce the ability of incumbent operators to retaliate following new entry. We believe this is unlikely to be the case but, even if it were, it merely addresses a small portion of the barriers to entry present in the market. Firstly, we have argued in our response to the PDR that the proposed remedy is unlikely to have a material effect as it can in practice be easily circumvented by operators. Secondly, we have demonstrated in section 2 that entry is inherently costly and risky and hence condition (b) is an intrinsic feature of the UK bus market. Moreover, we have shown that the incumbent can further increase costs for new entrants purely by making short term tactical changes to existing services rather than by introducing new services.
- 4.5. With respect to point (c), the CC emphasises its confidence that its original package of remedies will promote new entry and expansion into local bus markets. However, this is based more on assertion rather than evidence, as highlighted in our response to the PDR. The CC also seems to overlook the fact that the market is currently dominated by a small oligopoly of very large operators in whose interest it will be to maintain the status quo. This is

<sup>10</sup> Paragraph 65 of the addendum

even more so in particular local markets. It seems to us that the incentives for this group of operators to coordinate will be as strong as ever. The threat of new entry will therefore need to come from the large number of much smaller operators with very limited capacity for additional investment (essential for expansion/new entry), often specialising in the tendered market or other niche markets, and for whom asymmetry of risk and information relative to incumbent operators will always remain a substantial entry barrier.

- 4.6. Overall, we cannot see how the CC has demonstrated that the conditions for tacit coordination will no longer be present in the market. We believe that points (a) and (b) are intrinsic to the UK's highly concentrated deregulated bus market. With respect to point (b), we illustrate this clearly in section 2. With respect to point (c) we would argue that this will always be the case if conditions (a) and (b) are met.
- 4.7. We are therefore completely unconvinced that the CC's proposed remedies will have a material effect in terms of **reducing** the potential for tacit coordination.

## 5. Point of clarification

- 5.1. Paragraph 31 of the addendum states that: "*We have not found indications that operators are likely to signal using fare levels or other aspects of the quality of their service*". It's not clear from this whether the CC has examined detailed fares information in reaching this conclusion or whether it is unable to reach a conclusion because this data is not available at a sufficiently disaggregate level.

## 6. Overall remedy package

- 6.1. As stated in our response to the PDR, we feel that the CC is unlikely to meet its statutory duties without significantly re-thinking its proposed package of remedies. This is the case, even more so, now that unequivocal evidence of coordination between operators has come to light.
- 6.2. There are intrinsic characteristics of the UK deregulated bus market which make on-street competition both unlikely and undesirable (from a passenger perspective). We therefore believe that the detriment identified by the CC can only be addressed by making more fundamental changes to the existing regulatory framework.
- 6.3. We believe we have presented strong arguments for the CC to re-consider its position on franchising as well as statutory partnerships and the scope for regulatory accounting.