# EXPERT REPORT ON THE SUBMISSIONS OF OPTUS AND THEIR EXPERTS IN RELATION TO THE ASSESSMENT OF THE COMPETITIVE EFFECTS OF THE TELSTRA/TPG TELECOM REGIONAL MOCN AGREEMENT

1. I have been instructed to reply to and comment upon the submissions made by Optus in response to the Market Inquiries letter of 31 May 2022 in which the ACCC sought comments on the application for merger authorisation for proposed spectrum and network sharing between Telstra and TPG in regional Australia<sup>1</sup>. I provided an expert report to the ACCC in relation to the application for authorisation made by Telstra and TPG dated 20 May 2022. In that report I concluded that the proposed transaction would not be likely to result in an SLC<sup>2</sup>. The submissions made by Optus, including the expert reports of CEPA, Houston Kemp and Analysys Mason, comment on and disagree with various aspects of my report and generally arrive at the conclusion that the proposed transaction would be likely to result in an SLC and so ought not to be authorised by the ACCC.

# Scope of this report

- 2. I do not think it useful or necessary to respond to every aspect of the submissions that have made by Optus and I focus instead on what I consider to be the critical points of agreement and disagreement between us<sup>3</sup>. On certain issues, Optus' experts appear to disagree with each other, which means that I sometimes disagree with one and agree with another. Any failure to comment on a particular aspect of the Optus submissions should not be taken to mean that I necessarily agree with them.
- 3. I think there is agreement that when undertaking a merger assessment, as the ACCC will do in relation to the application from Telstra and TPG, there are two key tasks to be completed<sup>4</sup>. The first is the choice of the counterfactual against which the competitive effects of the merger are to

<sup>&</sup>lt;sup>1</sup> https://www.accc.gov.au/public-registers/mergers-registers/merger-authorisations-register/telstra-corporation-limited-and-tpg-telecom-limited-proposed-spectrum-sharing

<sup>&</sup>lt;sup>2</sup> https://www.accc.gov.au/system/files/public-registers/documents/Annexure%20O%20-%20Expert%20Report%20of%20Mr%20Richard%20Feasey%20dated%2020%20May%202022%20-%20PR%20VERSION%20-%20MA1000021%20Telstra%20TPG.pdf (hereafter 'Feasey')

<sup>&</sup>lt;sup>3</sup> Optus have, for example, made submissions on a number of other points which might be relevant if the ACCC were undertaking a regulatory or market review or a public benefits test. These include consideration of factors unrelated to the transaction, such the Huawei 5G security decision, (Optus 1.21, 3.8, 3.59, 6.15-6.18) and the implications of the transaction for 'resilience' (Optus para 2.23-2.24 and para 8.7-8.11 and CEPA para 71-72). I ignore these in this report.

<sup>&</sup>lt;sup>4</sup> Ignoring the question of whether the merger in question falls within the jurisdiction of the ACCC, which I assume it does and which does not appear to be contested by any party.

be assessed. The second is the assessment of those competitive effects. I discuss each of these below. Most of this report is concerned with the assessment of competitive effects.

- 4. The main points of disagreement between us relate to the conclusions to be drawn from the competitive assessment, the weights assigned to different factors and effects and the degree of certainty attached to each. They relate to how the transaction will affect the ability and/or incentive of each of Telstra, TPG and Optus to compete with each other and therefore the effect the transaction will have on the competition in the markets in which these firms participate<sup>5</sup>. Optus suggest that I think the impact of the transaction on TPG's competitive position can be disregarded altogether <sup>6</sup>. This is not correct and the comments of mine to which they refer relate to TPG's ability to compete with Telstra by making investments in its network in the Regional Coverage Zone after the transaction and not to TPG's ability to otherwise compete with Telstra. My report contained an extensive discussion of my views on the likely impact of the transaction for the competitive positions of each of Telstra, TPG and Optus and the implications of this for prices, innovation and investment, both in the factual (i.e. with the transaction) and in the counterfactual. The reports of Optus' experts seek to do essentially the same.
- 5. In some cases, there is disagreement about the significance or magnitude of a particular competitive effect, which I often consider will be smaller than claimed in the Optus submissions. In some cases we disagree about assumptions and conclusions relating to how the transaction will affect the incentives of firms to compete, particularly as regards Optus' incentives to compete with TPG<sup>7</sup>. More fundamentally, we disagree about the impact of the transaction for competition *between* the parties (Telstra and TPG) which the Optus submissions either suggest is eliminated by the transaction or can be disregarded. This would be true for a conventional merger in which two businesses merge and cease to be distinct. The proposed transaction is, however, not a conventional or full merger of this kind and Telstra and TPG will continue to compete with each other in the relevant markets both in the counterfactual and in the factual. I therefore consider that

<sup>&</sup>lt;sup>5</sup> I recognise that the transaction will have consequences for competition in the market for wholesale mobile services supplied to MVNOs and, thereby, for the competitive constraints on the three network operators that are provided by MVNOs in the retail market. In my report I concluded that any competitive effects that I identified for the retail mobile services market would generally apply in the same way to the wholesale mobile services market and I did not undertake a separate or detailed analysis of the latter (see Feasey paras 85 and 89). The Optus submissions also largely ignore the effect of the transaction on competition from or with MVNOs and so I do not comment further on them in this report.

<sup>&</sup>lt;sup>6</sup> Feasey para 65 is cited by Optus at footnote 1, in which I said: 'the TPG network in the relevant area is an insignificant competitor to the Telstra network, particularly in comparison with the competition provided by the Optus network' This point is made in several different ways in subsequent paragraphs of my report. At para 1.15 Optus misinterpret this as saying: 'TPG is not expected to apply additional competitive constraints on Telstra.' That is not what I said.

<sup>&</sup>lt;sup>7</sup> Optus are mistaken to say at para 7.3:' using the very same assumptions as Mr Feasey but applying the correct methodology and assessment framework, both CEPA and Houston Kemp conclude...'. CEPA and Houston Kemp in fact adopt different assumptions to me in many instances in order to arrive at their conclusions

the transaction's effect on competition between TPG and Telstra is an important part of the analysis.

6. The table below aims to provide a summary of my understanding of our respective positions on the various aspects of the competitive assessment which I then discuss in detail in the rest of this report. The Optus submissions raise some issues which I did not consider in my earlier report (such as the implications of spectrum pooling for broadband speeds and of broadband speeds for competition) or which I considered in less detail in that report than I do in this report (such as competition between Optus and TPG in the factual or the impact of wholesale charges on price competition). However, nothing in the Optus submissions has led me to alter my conclusion that the transaction will not and is not likely to result in a substantial lessening of competition in any of the relevant markets whichever counterfactual is considered for the purposes of the assessment.

	Feasey view of Competitive Effects (vs TPG/Optus counterfactual) <sup>8</sup>	Optus view of Competitive Effects (vs TPG/Optus Counterfactual)
Effect on Telstra's ability to compete with Optus	Insignificant and negative <sup>9</sup> - Minimal coverage gain - Broadband speed gain not significant - Effects limited to Regional Coverage Zone (RCZ) - TPG wholesale revenue immaterial - Alleviation of capacity constraints has uncertain effects	Substantial and negative  - Broadband speed gain very significant - TPG wholesale revenues - Alleviation of capacity constraints increases quality and price
Effect on Telstra's incentive to compete with Optus	Optus still close competitor and merger effect for price competition uncertain     Minimal impact on Telstra investment incentives	Negative  - Optus becomes more distant competitor - Telstra even more dominant
Effect on Telstra's ability to compete with TPG	Insignificant and negative  - Sharing arrangement means Telstra has less ability to differentiate from TPG	Unclear  - Telstra can differentiate from TPG for IoT and enterprise but not others
Effect on Telstra's incentive to compete with TPG	Significant and positive  - TPG a significantly closer and more effective competitor - 6 month advantage on 5G	Unclear  - Telstra will retain wholesale revenue from customers it loses to TPG so competes less hard
Effect on TPG's ability to compete with Telstra	Significant and positive     TPG much more effective competitor in terms of network coverage and quality in RCZ     6 month delay on 5G not long term disadvantage	Insignificant and negative  - Wholesale charges limit price competition - Agreement limits TPG ability to differentiate - Access to 5G 6 months after Telstra
Effect on TPG's incentive to compete with Telstra	Substantial and positive  - TPG becomes significantly closer competitor	Positive - TPG becomes significantly closer competitor
Effect on TPG's ability to compete with Optus	Significant and positive  - TPG more effective competitor in terms of network coverage and quality in RCZ	Unclear  - TPG becomes more effective competitor - Wholesale costs and 5G 6 months later limit ability to compete with Telstra
Effect on TPG's incentive to compete with Optus	Uncertain  - Not clear whether TPG becomes closer competitor compared to counterfactual	Positive - TPG becomes closer competitor

<sup>&</sup>lt;sup>8</sup> This is the 'most competitive conditions' counterfactual as discussed in Feasey, para 52 and 53 <sup>9</sup> The terms 'negative' and 'positive' in this context refer to whether the effect contributes to competition. Thus a 'negative' effect favours an SLC and a 'positive' effect favours authorisation.

Effect on	Insignificant and negative	Significant and negative
Optus' ability to compete with Telstra	<ul> <li>Optus derives limited benefits from TPG spectrum for alleviation of congestion or broadband speeds</li> <li>TPG wholesale revenues not significant to Telstra</li> <li>Effects limited to RCZ</li> </ul>	<ul> <li>Loss of customers/scale will limit Optus ability to invest</li> <li>TPG wholesale revenues significant to Optus business case</li> <li>Mixed</li> </ul>
Effect on Optus incentive to compete with Telstra	Mixed but insignificant     Short term, Telstra and Optus more distant competitors     Long term Optus incentive to invest to catch Telstra	<ul> <li>Short term, Telstra and Optus more distant competitors</li> <li>Long term Optus incentive to invest to catch Telstra</li> </ul>
Effect on	Insignificant and negative	Significant and negative
Optus' ability to compete with TPG	- As for Optus ability vs Telstra	- Loss of customers/scale will limit Optus ability to invest
Effect on Optus' incentive to compete with TPG	Positive  - Optus will respond to TPG as closer competitor - Sharing with TPG reduces incentive to invest in counterfactual	<ul> <li>Mixed</li> <li>Short term Optus will respond to TPG as closer competitor</li> <li>Long term Optus has less incentive to invest against TPG when it leapfrogs</li> </ul>
Overall effect	No SLC	SLC

# Factual context

- 7. Before I consider counterfactuals, I have three points to make about the characterisation of the nature and scope of the proposed transaction.
- 8. First, I do not think there is any disagreement that the arrangement between Telstra and TPG relates only to the provision of services within the Regional Coverage Zone, which represents a geographic area of around 1.5 million km², and that the Regional Coverage Zone contributes to, but is not the only and may not be the primary reason for, Telstra's network advantage over both TPG and Optus. Importantly, Telstra will retain its network coverage advantage, which it derives from having exclusive access to a network covering a further ~1 million km² in the very remote areas, whether the transaction proceeds or not¹0. This means that, in a *national* market for retail mobile services, any competitive effects arising from the transaction and from changes to

<sup>&</sup>lt;sup>10</sup> Feasey para 11(b)

arrangements in the Regional Coverage Zone need to be assessed having regard to the competitive effects that relate to all the other features of the market which will be unaffected by the transaction.

- 9. I therefore do not agree with CEPA when they say: 'The transactions would reduce infrastructurebased competitors from 3 to 2'11. This is not the case when TPG will continue to operate its network in major cities where the majority of the customers in the retail mobile services market reside and when TPG's existing network in the Regional Coverage Zone means it is not a full 'infrastructure-based competitor' in the way that Telstra and Optus are 12.
- 10. This point is important for the competitive assessment but has been underplayed in the Optus submissions<sup>13</sup>. It means that any effects of the transaction will relate to the provision of services in an area in which a relatively small proportion (17%) of the Australian population live and which represents a relatively small part, in coverage terms, of Telstra's national network. Telstra's ability to differentiate its services from those of Optus and TPG by virtue of its superior network coverage will be largely unaffected by the transaction and any coverage gains from up to ~170 additional sites to which Telstra may obtain access will be insignificant 14. Telstra's ability to differentiate its services on other grounds, including with regard to broadband speeds, for the majority of its customers outside of the Regional Coverage Zone will be similarly unaffected by the transaction. This means that any effects of the transaction will relate only to a sub-set of Telstra's overall competitive capabilities. The ACCC recognised this point when it considered the likely impact on competition of declaring roaming in regional areas, which it thought would not be significant<sup>15</sup>. It means that I consider that many of the competitive effects of the transaction – positive or negative - claimed in the Optus submissions are likely to be exaggerated.
- 11. Second, the Optus submissions (particularly that of Analysys Mason) seek to characterise the proposed arrangement as if Telstra will acquire unrestricted access to the TPG spectrum for its

<sup>&</sup>lt;sup>11</sup> CEPA p.7 and para 77

<sup>&</sup>lt;sup>12</sup> Feasey para 65: 'A long standing competitor with a market share of less than 10% and little prospect of further expansion would not in my view be regarded as representing an effective or substantial competitor to much larger rivals'

<sup>&</sup>lt;sup>13</sup> CEPA do recognise this point when discussing the impact of any benefits Telstra derive from the transaction, noting 'The cost reduction benefits of sharing apply directly to less than one-fifth (some 17%) of consumers served and occur in an area where a significant part of service delivery involves public co-funding...., this suggests it is highly unlikely reduced operating costs in the RCZ would pass-through to lower national prices benefitting all consumers in Australia.' The same observation would, in my view, apply for similar reasons to any adverse effects that might be associated with the transaction.

<sup>&</sup>lt;sup>14</sup> Analysys Mason agree 'increases in coverage are likely to be small', p.17; Optus agree at para 4.27:'the Proposed Transaction will not result in any additional network coverage.'

<sup>&</sup>lt;sup>15</sup> 'Given that the Telstra-Optus areas still only cover about 2.8 per cent of the population, the ACCC is not convinced that the overall impact on Telstra's market position is likely to be significant.' quoted at Feasey para 93

own purposes. That is not correct other in respect of those remote and very remote areas where Optus (and TPG) do not operate a network and are not expected to operate one in future. This aside, the TPG spectrum will be pooled with the Telstra spectrum and these combined resources will be required to support not only Telstra's customers but also those of TPG. Indeed, it is not clear to me that Telstra would be able to provide a MOCN arrangement to TPG without having access to TPG's spectrum given that Telstra's existing spectrum holdings appear insufficient to meet the existing demands of its own customers. My understanding is that Telstra will have no preferential access to the use of the pooled spectrum in the Regional Coverage Zone, compared to TPG, under the arrangement.

- 12. Given this I think it is misleading for Analysys Mason and Optus to characterise the transaction as resulting in Telstra holding '~65% of all spectrum'<sup>16</sup>. A better characterisation might be that a network supporting two out of the three network operators in Australia will utilise about two thirds of the available spectrum to do so. Asymmetric access to spectrum is a feature of almost all mobile markets and has been a feature of an Australian market which Optus has previously said was competitive<sup>17</sup>. That a consequence of the transaction is that Telstra obtains access to more spectrum than in the counterfactual does not mean we must assume that Telstra acquires a stronger competitive position or that competition from Optus will automatically diminish. A careful assessment of the technical and commercial implications of post-transaction spectrum arrangements (including any costs, financial or otherwise, which Telstra will incur in order to implement them) is required before any conclusions about their competitive effects can be made.
- 13. Third, the Optus submission seeks to represent the proposed arrangement as being similar to a conventional network operator/MVNO arrangement<sup>18</sup>. There is a debate to be had about the implications of specific aspects of the proposed arrangement between Telstra and TPG as regards TPG's ability to differentiate its services or compete on prices and the consequences of this for competition which I discussed in my report and to which I return later in this report. It is not, however, accurate to characterise the competitive consequences of an arrangement under which TPG will retain ownership of a substantial network covering around 80% of the Australian population, which TPG will supplement with its other existing retailing and other capabilities and which is a consequence of Telstra needing access to spectrum which only TPG holds as being equivalent to one-way access arrangement negotiated between Telstra and an MVNO that has no

<sup>&</sup>lt;sup>16</sup> Analysys Mason p.18, Optus para 5.9

<sup>&</sup>lt;sup>17</sup> Optus para 5.31: 'Being able to offer higher quality products in the market due to spectrum advantages is not by itself a bad outcome.'

<sup>&</sup>lt;sup>18</sup> Optus para 3.70, 4.9, 7.40

network of its own and no assets to contribute<sup>19</sup>. This point is relevant to a number of the issues I discuss later in this report, including TPG's ability to compete on price and to differentiate its services in the retail mobile services market.

## Counterfactual

14. In most mergers the choice of counterfactual is straightforward and will be represented by the competitive conditions which prevail prior to the merger. However, with this transaction the question of the counterfactual is not so straightforward because, as I explained in my earlier report, there is some uncertainty over whether the ACCC would be able, as a legal matter, to adopt a counterfactual in which TPG entered into another form of network sharing arrangement, either with Optus or with Telstra<sup>20</sup>. In undertaking my assessment I adopted another form of network sharing by TPG as the counterfactual but I explained why adopting a counterfactual in which TPG instead chose to rely upon its own network in the Regional Coverage Zone<sup>21</sup> would be more favourable to the parties and so less likely than the counterfactual I adopted to result in a finding that the transaction resulted in an SLC.

Optus' position on the counterfactual

15. It is not completely clear to me which counterfactual Optus thinks should be adopted by the ACCC for the purposes of the merger assessment. In some parts of its submission it appears to involve TPG both continuing to rely upon its own network and sharing a network with Optus in the same area at the same time<sup>22</sup>. In other parts of the submission it appears to involve an

<sup>&</sup>lt;sup>19</sup> The suggestion in the Optus submission at paragraph 4.63 that Telstra will be able to unilaterally dictate the terms of access to the MOCN to TPG seems misplaced to me. It ignores the (in my view considerable) leverage that TPG likely obtains in the negotiation from the spectrum holdings which Telstra seeks access to and which Optus itself thinks will confer significant benefits to Telstra. At para 42 of my Report I said: 'I would expect TPG to prefer a MOCN arrangement in which the value of the spectrum it could contribute to the arrangement could be reflected in the commercial terms of the transaction'. In other words, I expect TPG to obtain better terms for itself by offering Telstra access to its spectrum than any MVNO without spectrum to offer could hope to obtain.

<sup>&</sup>lt;sup>20</sup> Feasey para 51

<sup>&</sup>lt;sup>21</sup> I referred to this as the 'relevant area' in my report but now adopt the same terminology as the ACCC used in its Market Inquiries Letter and as Optus use in their submission.

<sup>&</sup>lt;sup>22</sup> At paragraph 2.8 Optus say: 'by moving TPG irreversibly from an infrastructure provider to being a re-seller of the Telstra network in regional areas, and granting Telstra an unprecedented share of spectrum assets, the Proposed Transaction will irreversibly change the structure of Australia's mobile telecommunications sector and remove key competitive constraints to Telstra's market power.'. That suggests to me that Optus are using a counterfactual in which TPG retains and relies upon its own network in the Regional Coverage Zone. At paragraph 6.2(c) they say: 'Optus accepts that, absent the Proposed Transaction, TPG would be likely to consider alternate network sharing arrangements to expand its mobile coverage in regional areas. There is, however, nothing to suggest that alternate structures would invariably involve TPG decommissioning its existing mobile network in regional areas.'

alternative network sharing arrangement with Optus and TPG decommissioning its own network in the Regional Coverage Zone<sup>23</sup>.

- 16. It appears there is some disagreement about counterfactuals between CEPA (who adopt prevailing conditions of competition and whose position I discuss below) and Houston Kemp (who favour network sharing with Optus<sup>24</sup>). In the end, however, I consider that the points of agreement between us in relation to the counterfactual are more significant than any points of disagreement.
- 17. The most important point of agreement between us is that absent a network sharing arrangement with either Telstra or Optus, TPG is very unlikely to be able to provide either the coverage or quality of service in the Regional Coverage Zone that would enable it to match or even get close to the coverage or quality of service that will be available from either Telstra or Optus<sup>25</sup>. There is, in other words, no reasonable prospect that, absent the transaction, TPG would be able to develop a network in the Regional Coverage Zone that would be comparable to that of either Telstra or Optus<sup>26</sup>. The arrangement is not, in other words, a '3 to 2' merging of infrastructure either nationally or in the Regional Coverage Zone as CEPA suggest.
- 18. The consequence of this is that TPG will be a significantly weaker competitive constraint on either Telstra or Optus in relation to customers who value coverage than it will be under an arrangement in which it relies on the network of either Optus or Telstra to provide its services in the Regional Coverage Area. I think we agree that prevailing conditions of competition in a counterfactual in which TPG continues to rely on its own network in the Regional Coverage Area would represent materially *less* competitive conditions than those represented by any counterfactual that envisaged TPG in an alternative network sharing arrangement<sup>27</sup>.

<sup>&</sup>lt;sup>23</sup> At para 6.13 Optus says: 'The evidence confirms that the counterfactual to the Proposed Transaction is a market with *an alternative* competitive national 4G/5G network to compete against the dominant Telstra national network.' (my emphasis) and at para 7.12 they say 'there is scope.. for two networks' and 7.17 says: 'the counterfactual would involve continued investment by Optus in accordance with its existing business plan and, in addition, there is a possibility that Optus and TPG would enter into a form of network sharing.'

<sup>&</sup>lt;sup>24</sup> Houston Kemp para 18 (h) and (i)

<sup>&</sup>lt;sup>25</sup> Houston Kemp para 18(i) and Feasey para 45

<sup>&</sup>lt;sup>26</sup> CEPA's position on this point is less clear. At para 58 they say 'Telstra's acquisition of most of TPG's radio spectrum assets in the RCZ is more likely to result in the spectrum being used rather than lying fallow' which suggests they agree that TPG would not have a significant network in the Regional Coverage Zone absent some form of network sharing agreement. However, at para 61 they say: 'consumers in the RCZ would see a reduction in infrastructure competition from three to two players.' This suggests CEPA would expect TPG to offer a viable service in the Regional Coverage Zone absent the transaction. At page 29 CEPA say 'The status quo does not require TPG to expand its network, but their capacity to do so cannot be so easily ruled out'. This is to ignore the discussion in my report of the evidence which led the Federal Court to do precisely this, see Feasev para 44-48

<sup>&</sup>lt;sup>27</sup> Feasey para 48

- 19. We also agree that TPG's current weak competitive position in relation to the provision of services in the Regional Coverage Zone provide it with strong incentives to pursue some form of network sharing arrangement rather than to rely upon its own network and that competition between Telstra and Optus provides each of them with an incentive to offer some form of network sharing arrangement to TPG<sup>28</sup>. Although there is inevitably some uncertainty about the commercial and other terms on which TPG would obtain such an arrangement (if a successful negotiation is in fact possible), there appears to be agreement that pursuing such an agreement is the most likely scenario.
- 20. Given these points of agreement, a remaining point of disagreement is whether it is open to the ACCC to adopt an alternative TPG network sharing arrangement as the counterfactual in this case or whether the ACCC must assume that TPG will continue to rely on its own network and so assess the transaction against less competitive conditions of competition than an alternative sharing counterfactual would represent. Optus and Houston Kemp appear to agree with me that it ought to be open to the ACCC to consider whether a TPG network sharing arrangement is the potential counterfactual. CEPA take the opposite view.
- 21. CEPA says that the ACCC cannot adopt an alternative network sharing arrangement for TPG as a counterfactual and that my reasoning for suggesting that it could is 'circular' because I rely upon my conclusion that the proposed transaction will not give rise to an SLC in order to conclude that an alternative network sharing arrangement could be considered as the counterfactual<sup>29</sup>. There would be something to this if I had said that the competitive effects of the proposed transaction between Telstra and TPG will be the same as the competitive effects of any other network sharing arrangement. However, I was careful to note that the competitive effects of a network sharing arrangement with Optus would be different 'in some respects' from the effects of an arrangement with Telstra<sup>30</sup>.
- 22. I therefore do not agree that my reasoning is circular. It is quite possible for the proposed transaction, which involves one form of network and spectrum sharing between TPG and Telstra, to be subject to merger authorisation by the ACCC but for other forms of network sharing (for example, a MORAN which does not involve spectrum sharing and therefore does not engage Section 90 of the Act or a roaming arrangement) not to be subject to the merger authorisation

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<sup>&</sup>lt;sup>28</sup> Houston Kemp para 18(h), Feasey para 49

<sup>&</sup>lt;sup>29</sup> CEPA para 44, 45 and 76. When CEPA say they consider my 'methodological framework' to be incorrect they appear to mean that they consider that I have adopted the wrong counterfactual for the assessment.

<sup>30</sup> Feasey para 52

regime. There is, in my view, no obvious reason why the ACCC could not consider whether the counterfactual involves TPG sharing a network with Optus.<sup>31</sup>

- 23. Having considered Optus' various submissions on this point, my view remains that it ought to be open to the ACCC to consider adopting a counterfactual in which TPG is involved in an alternative network sharing arrangement with Optus or Telstra. Houston Kemp say they do not have the information required to assess the feasibility of a MORAN arrangement between TPG and Telstra<sup>32</sup>. I concluded: 'Overall, the competitive conditions associated with a counterfactual represented by a MOCN or MORAN agreement with Optus will in my view be sufficiently similar to those associated with a MORAN arrangement with Telstra (with any differences depending more on the precise ways in which each is implemented) to mean that it is not necessary to distinguish between them when undertaking the competitive assessment in this case.' Optus made no submissions on this point but I assume we would agree that it is the conditions of competition, and not the identity of the counterparty, that matter for the assessment.
- 24. The Optus submissions do not consider competitive conditions in the counterfactual to any great extent. This is an important omission because it means that the submissions sometimes ignore the fact that many (although not all) of the adverse competitive effects that Optus say arise from a network sharing arrangement between Telstra and TPG, such as TPG's inability to differentiate its services, Telstra's weaker incentives to compete with TPG on price, TPG's inability to compete with Telstra on price, or the loss of TPG's incentive to invest in the Regional Coverage Zone, would also arise (albeit sometimes with reference to competition between TPG and Optus rather than between TPG and Telstra) in a TPG/Optus network sharing counterfactual. This means there will often be no specific merger effect in relation to these factors<sup>34</sup>.
- 25. If the ACCC were to decide it could not adopt any counterfactual involving TPG in an alternative network sharing arrangement, then I think we are agreed that the counterfactual will involve TPG

<sup>&</sup>lt;sup>31</sup> I think CEPA have failed to fully appreciate the differences between the CMA regime in the UK, where merger reviews are undertaken at the initiative of the CMA and there is no obligation to notify before completion, and the position in relation to spectrum sharing in Australia, where merger authorisation is required before certain arrangements can be implemented irrespective of the level of any competition concerns associated with them (although I am also not sure that all of the potential network sharing arrangements in this case would be required to be notified). As far as the CMA regime is concerned, CEPA quote from the CMA Merger Guidelines insofar as they relate to a Phase 2 assessment. I was careful to explain both that the ACCC merger review process is not equivalent to a CMA Phase 2 and that the approach I suggested be adopted in this case was more akin to that employed in the CMA Phase 1 process when the most competitive counterfactual is generally adopted, see Feasey para 38: 'I consider that the CMA Phase 1 approach is a good way for me to proceed'. But it is of course for the ACCC to decide how it wishes to proceed.

<sup>&</sup>lt;sup>32</sup> Houston Kemp para 23

<sup>&</sup>lt;sup>33</sup> Feasey para 43

<sup>&</sup>lt;sup>34</sup> Feasey para 64, 84 and 100

continuing to rely upon its own network. We also agree, I think, that TPG's network in the Regional Coverage Zone would in these circumstances remain materially inferior to those of both Optus and Telstra. This means the conditions of competition, at least so far as the competition provided by TPG is concerned, would be weaker than under any counterfactual in which TPG shared a network. This would (in my view significantly) reduce the likelihood of the merger giving rise to an SLC, relative to the likelihood if the more competitive counterfactual were adopted. In my report I concluded that the merger would not be likely to result in an SLC on the basis of the more competitive counterfactual and it followed from this that an SLC would not arise if a less competitive counterfactual were adopted<sup>35</sup>. However, the converse does not hold and it is possible to find an SLC on the basis of a more competitive counterfactual but not to find one on the basis of a less competitive counterfactual. In such a case, the choice of counterfactual will be decisive.

#### Competitive Assessment

# Pre-existing conditions of competition

- 26. Before I discuss differences in views as to the likely effects of the transaction it is important to be clear about how the prevailing conditions of competition in the Australian mobile market might be characterised. Optus' submission, and that of CEPA (but not Houston Kemp), appears to be that Telstra's network advantages in the Regional Coverage Zone and the remote areas beyond that are already such that competition is ineffective and that Telstra occupies a dominant position in the relevant markets<sup>36</sup>. Optus go on to argue that the effect of the proposed merger will be to further entrench this position<sup>37</sup>.
- 27. If this is Optus' view then it appears to be at odds with positions it has taken elsewhere in its submission<sup>38</sup>. It also appears to be at odds with the position Optus took during Mobile Roaming Inquiry and with the ACCC's own conclusions in that Inquiry. On that occasion Optus said: 'the current state of competition in the national mobile services market is strong, and remains one of

<sup>&</sup>lt;sup>35</sup> Feasey para 37

<sup>&</sup>lt;sup>36</sup> CEPA p.6

<sup>&</sup>lt;sup>37</sup> Optus para 1.3: 'It will further entrench and extend the dominant market position of Telstra' and 1.5:' By strengthening an already dominant incumbent'

<sup>&</sup>lt;sup>38</sup> At para 3.34- 3.35 of their submission Optus describe how they invested in their regional network between 2015 and 2017, gained share and then lost it again as Telstra invested in its network. They say: 'this is a good example of the competitive process, with Optus investing to challenge Telstra and Telstra responding'. If Telstra were a dominant firm then it would not need to respond.

the most successful areas of competition in the communications sector.'<sup>39</sup> The ACCC came to broadly similar conclusions, finding that: 'Optus believes it is possible for it to gain customers from Telstra in regional areas by improving the quality of its network, without necessarily having to match Telstra's geographic coverage' and 'there is evidence that Telstra needs to respond to investments from Optus in order to maintain its leadership position in both metropolitan and regional areas' and 'competitors can effectively compete with Telstra for market share, including in regional areas, without having to significantly increase their geographic coverage or match Telstra's geographic coverage.<sup>40</sup>

- 28. The ACCC's characterisation of the how competition worked in the mobile retail services market at that time (and which I adopted in my assessment of the transaction in my first report) was as follows:
  - '...the ACCC considers that the analysis it has undertaken on the state of competition is sufficient to determine the competitive dynamics in the market and the likely reasons for Telstra's market position. The ACCC is satisfied that even if Telstra earns an economic profit, the findings would suggest that it is likely to be derived mostly from its competitive advantage in network quality rather than geographic coverage. As discussed earlier, the ACCC also considers that there is evidence of Optus, and to a lesser extent VHA, making investments to compete with Telstra on network quality including in regional areas. There is also evidence that Telstra is responding to these competitive pressures. The ongoing competitive dynamics between the MNOs means that the existence of economic profit at any given point in time does not necessarily indicate a lack of competition. Rather, the existence of economic profits encourages other MNOs to keep competing in order to catch up and Telstra to keep competing in order to maintain its competitive advantage as well as encouraging new entry into the market, which is arguably what has occurred with TPG.'41(my emphasis)
- 29. I understand this to mean that the ACCC does not consider Telstra to hold a dominant position in the mobile retail services market today and that the ACCC does consider Optus to represent an effective competitor to Telstra in this market, including in relation to services provided in the Regional Coverage Zone. I turn in the rest of the report to consider the likely effects of the merger against this background.

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<sup>&</sup>lt;sup>39</sup> Para 4.23 at https://www.accc.gov.au/system/files/Optus\_28.pdf

<sup>&</sup>lt;sup>40</sup> p.46 at

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## Effects of the transaction

- 30. I think Optus and its experts would agree with me that the assessment of the competitive effects of the proposed transaction can be sub-divided into a number of constituent elements and that it is the cumulative effect of these elements that needs to be weighed, in the round, when coming to a conclusion as to the likelihood of an SLC.
- 31. There are various ways of characterising these elements. In my report, I found it helpful to distinguish between the effect of the transaction on the incentives of different firms to compete with each other and upon the ability of those firms to compete. I also thought it helpful to distinguish between the effect of the merger on different aspects of the competitive process, such as investments in networks (which determine other outputs such as the price, quality and volume of services that are supplied), the ability to sustain differences in quality of services and changes in the prices of retail services<sup>42</sup>. I focussed on these aspects and not others because, in my experience, they are the aspects of the competitive process in mobile services markets about which there is most concern when assessing network sharing arrangements. Having considered the various submissions from Optus, I still prefer this approach because it allows us to focus on specific effects and to answer specific questions such as: 'what might happen to retail prices as a result of the merger?', 'might services become more or less differentiated?' and 'what are the implications for investment in networks, and hence for the outputs which those networks support?' The framework employed by Houston Kemp is more stylised and allows them to consider how incentives to compete or to invest will be affected by changes in the competitive positioning of firms with respect to network quality<sup>43</sup>. Although I think the characterisation of Telstra, Optus and TPG occupying a unidimensional axis oversimplifies a market in which all three firms operate sub-brands that appeal to different groups of consumers I generally found the Houston Kemp report clear and helpful in illuminating the points on which we agree and disagree.
- 32. A merger assessment will generally require the identification and delineation of the product and geographic markets that will be affected by the merger as an analytical aid to ensure that competitive interactions between firms are properly captured and understood. I identified three such markets in my report: the national retail mobile services market, the national wholesale

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<sup>&</sup>lt;sup>42</sup> Feasey para 55

<sup>&</sup>lt;sup>43</sup> This means Houston Kemp ignores the effect of other factors, such the wholesale charges that pass between Telstra and TPG under the arrangement (and between Optus and TPG in the counterfactual) which I considered in my report and are considered by CEPA and Analysys Mason.

market for mobile services and the national retail fixed line broadband services market<sup>44</sup>. Much of my report focussed on competition in the provision of 4G and 5G services in the first of these.

- 33. The Optus submission says: 'Optus considers that the national market for the provision of retail mobile services (and the regional customers within that market) will be most significantly impacted by the Proposed Transaction.'<sup>45</sup>. I agree it is the most important market to assess although I do not agree that the effect of the transaction on this market is 'significant' (or negative) for the reasons explained elsewhere. There are references in the Optus submissions to other markets that I did not mention in my report, such as a market for mobile towers<sup>46</sup>. However, it does not appear to me that any of the Optus submissions offer a detailed assessment of the effects of the transaction in these markets<sup>47</sup>, or that Optus is claiming that these would be grounds for the ACCC prohibiting or otherwise opposing the transaction<sup>48</sup>. I therefore do not address them further in this report
- 34. Each of the Optus submissions then address most of the same competitive issues as I did in my report but take different approaches to the analysis. This includes differences in approach between them. I do not think this is of any great significance and what really matters are the conclusions that are drawn from the analysis. Both Houston Kemp and CEPA draw a distinction between short term or static effects and longer term or dynamic effects of the transaction. In this framework, short term effects are associated with changes which arise to prices and quality as a result of the transaction whilst investments in networks are assumed to remain unchanged<sup>49</sup>. I follow their approach in this report, which means I address the issues (impact on investment, quality and

<sup>&</sup>lt;sup>44</sup> Feasey para 27

<sup>&</sup>lt;sup>45</sup> Optus para 3.83

<sup>&</sup>lt;sup>46</sup> Optus para 3.12, 3.89, Analysys Mason p.22, CEPA p.30

<sup>&</sup>lt;sup>47</sup> At para 4.79 Optus say: 'A possible impact is therefore a reduction in demand for tower infrastructure, which may lead to reduction in the number of players competing to offer tower infrastructure to MNOs (i.e. the extent of upstream competition in terms of tower infrastructure)'. This seems to me to be speculation that is unsupported by any evidence. At para 4.80 they say: 'The reduction in infrastructure competition directly affects the wholesale market, with fewer networks available to offer wholesale services to other operators or MVNOs. This can be seen most acutely in two areas. First, TPG may have limitations (explicitly or commercially) on its ability to support MVNOs or other parties. Second, the wholesale market which currently exists for regional roaming will be substantially reduced or at least not broadened for the likely duration of the MOCN NaaS.'. I am not aware of any limitations arising from the arrangement on TPG's ability to compete for MVNO customers (see Feasey para 59). I agree TPG will not require regional roaming services from Optus as a result of the transaction, but I think TPG could still offer roaming services if Optus (or a new entrant) sought them. Optus discuss the impact on fixed wireless access at para 7.74 but does not assess the implication of the transaction for competition in that market.

<sup>&</sup>lt;sup>48</sup> At para 3.72 Optus say: 'The Proposed Transaction will likely have an impact on government and enterprise ("G&E") customers' but do not go on to explain what this impact will be. Optus seem to be saying (para 3.77) that the exclusion of these services from the non-discrimination rules governing supply by Telstra to TPG under the arrangement means that TPG will be a less effective competitor to Telstra in respect of these customers as a result of the transaction. I do not comment on the factual basis of the claim, but it is at odds with Optus' claim that TPG will be an insignificant competitive constraint on Telstra in respect of all and any customers.

<sup>&</sup>lt;sup>49</sup> Houston Kemp para 27

prices) in a different order to the order in my earlier report (I now start with price). It is also important to note that although some effects are referred as being 'short term' this does not mean they are transitory or of any less significance than effects that are 'long term'. Whether one effect is more significant than another depends on careful consideration of the facts rather than being something that can be assumed from the way it is described.

35. Another significant difference in approach is the emphasis placed upon the effect of the transaction on competition between the merging parties as compared with the effects on third parties. In my report I adopted what I regard as the standard CMA approach for merger assessments<sup>50</sup>. This is to first consider the likely impact of the transaction or loss of independence on the incentives and ability of the merging parties, in this case Telstra and TPG, to compete with each other. This normally involves considering how closely the parties compete with each other in the counterfactual in order to understand the competition that will be eliminated by the merger. In this case the analysis is more complex because the transaction will not eliminate competition between the parties in the relevant markets, and so the assessment involves comparing how Telstra and TPG will compete in the counterfactual with how they will compete under the proposed arrangements. Having considered these effects, I then turned to consider whether other competitors, in this case Optus, would or would not continue to provide a competitive constraint on the parties that would be sufficient to safeguard competition and consumers<sup>51</sup>. The Optus submissions instead start by and focus on discussing the impact of the transaction on Optus. A consequence of this is that they give much less attention to the effects of the transaction for competition between Telstra and TPG than I do.

'Short term' or static price effects

36. One of Optus' main arguments is that the ACCC should focus only on the effect of the transaction on the competitive constraint that Optus is able to provide to Telstra. They say 'statements suggesting the merger will also benefit TPG are largely irrelevant to assessing the state of real market competition, especially considering this proposal ensures that any TPG regional customers will be reliant on the Telstra network for coverage, contributing fees to Telstra, and are merely

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<sup>&</sup>lt;sup>50</sup> CMA merger assessments (in both Phase 1 and Phase 2) invariably contain a 'competitive assessment' chapter which starts by discussing (horizontal) competition between the merging parties in the counterfactual and merger and then goes on to consider competition from third parties, see, for example, Cellnex/Hutchison para 8.6, at <a href="https://assets.publishing.service.gov.uk/media/62221304d3bf7f4f0ec9b75e/Cellnex\_CK\_Hutchison\_-Final\_Report.pdf">https://assets.publishing.service.gov.uk/media/62221304d3bf7f4f0ec9b75e/Cellnex\_CK\_Hutchison\_-Final\_Report.pdf</a>. The ACCC Merger Guidelines describe a similar approach, see para 5.12 'The ACCC will take into consideration the extent of competitive constraint that the merger parties exert on each other premerger' and 5.13-5.17

<sup>&</sup>lt;sup>51</sup> Feasey para 68:' In this case, the important question is whether Optus would, in the factual scenario, impose a sufficient competitive constraint on Telstra to mean that the loss of any constraint provided by TPG as a result of the agreement does not result in a lessening of competition that is substantial'

being badged as TPG customers'<sup>52</sup>. I do not agree that the ACCC can or should ignore competition from TPG, including with Telstra, in the way Optus suggest. This would be the approach to take if Telstra and TPG had engaged in a full merger of their respective businesses, such that competition between the merging parties will be eliminated. In that case, the focus would indeed be on competition between the newly merged entity and Optus after the merger. But that is not the position with this transaction. The quotation in my report from the European Commission (which CEPA criticise) was intended to explain that the difference between a network sharing arrangement and a full merger is that in the former case the parties, in this case TPG and Telstra, will remain independent firms and competitors in the relevant downstream markets after the transaction whereas in a full merger they will not.

- 37. Houston Kemp conclude that the short term effect of the transaction for the competitive constraint provided by Optus will be a lessening of competition after considering two effects which they say will offset each other<sup>53</sup>. They say: 'the competitive effects of the proposed Telstra/TPG arrangement in the near to medium term should be assessed by reference to its implications for changes in the degree of differentiation between the services offered by the three MNOs.'<sup>54</sup>. I agree with this although I do not agree with the way Houston Kemp have then undertaken their assessment<sup>55</sup>.
- 38. Houston Kemp say that mobile operators will compete in a differentiated product market by offering different products at different prices. Differences in headline prices can therefore reflect differences in quality rather than necessarily being an indicator of market power. If the transaction results in a firm like TPG improving the quality of its product and becoming a closer and more effective competitor to another firm in the process then competition will increase whilst headline prices may also rise. The effect of the firm becoming a closer and more effective competitor will therefore be revealed by consideration of the impact of the transaction on quality adjusted prices in the market relative to the counterfactual and not by consideration of changes in headline prices.

<sup>53</sup>Houston Kemp, para 54. In contrast to my approach, Houston Kemp do not offer views on the relative significance of any particular effect of the transaction which they identify but simply say that in their view the overall effect of the transaction on competition would be 'highly material', para 8

<sup>&</sup>lt;sup>52</sup> Optus para 1.6

<sup>&</sup>lt;sup>54</sup> Houston Kemp para 41

<sup>&</sup>lt;sup>55</sup> Houston Kemp seem to think that in my report I assume a perfectly competitive market in which firms provide identical products because I expect some of the benefits or 'efficiencies' of the transaction to translate into lower prices or improvements in quality (para 111). They also seem to criticise me for considering the effect of the transaction for individual competitors rather than the 'competitive process' (para 110). This is a misreading or misrepresentation of my approach and seems intended to suggest differences where none exist. I consider that Houston Kemp assess the effect of the transaction on the different competitive positions of individual firms in their report in the same way as I did in my report.

- 39. The idea that a firm that is better able to match the services of a rival will represent a stronger competitive constraint to that rival and so contribute to an increase in competition in the market is discussed in the ACCC's Merger Guidelines and is widely accepted, including by me<sup>56</sup>. Houston Kemp explain the incentive to compete by noting that a closer competitor will acquire more volume (i.e. customers) by cutting prices than a more distant competitor, all else being the same<sup>57</sup>. A closer competitor will therefore find it more profitable to compete with the other firm for customers by cutting prices than a more distant competitor. Conversely, a firm facing more distant competitors will find it more profitable to raise prices because it will lose fewer customers than if it faces closer competitors. Economists have developed tools which allow them to quantify the share of customers the merged entity can be expected to lose to competitors if the merged entity were to raise prices and, therefore, whether it would be profitable for the merged entity to do so<sup>58</sup>. The share of customers lost to competitors will be lower than in the absence of the transaction because any switching between the merging parties will be internalised. These calculations of the 'gross upward pricing pressure index' or GUPPI are informed by the closeness of the competitors to the merged firm (often referred to as the 'diversion ratio') and the gross margins generated by the services in question and so lost when customers switch. Although nobody has produced GUPPI estimates in this proceeding, so far as I am aware<sup>59</sup>, the ACCC will be familiar with the GUPPI model submitted by Frontier Economics<sup>60</sup> (and critiqued by others<sup>61</sup>) to assess the effects of mandating domestic roaming in the Mobile Roaming Inquiry.
- 40. Houston Kemp assesses the effect of the transaction on price competition between TPG and Optus and, separately, between Telstra and Optus. I agree that these are some of the competitive effects that need to be considered. However, I do not agree with the approach Houston Kemp take. I would characterise the Houston Kemp approach as first producing an assessment of the likely effects of the transaction for prices in a duopolistic market in which only Telstra and Optus compete and then producing another, separate, assessment of the likely effects of the transaction for prices in a duopolistic market in which only TPG and Optus compete. Houston Kemp then

<sup>&</sup>lt;sup>56</sup> Feasey para 90. I noted, however, in my report the reported comments of Mr Sims, who suggested that he thought differences in network attributes was an important driver of price competition and that any narrowing as a result of the transaction might be problematic (Feasey para 91). This is at odds with the standard model for differentiated Bertrand competition or competition assessment.

<sup>&</sup>lt;sup>57</sup> Houston Kemp, paras 39-40

<sup>&</sup>lt;sup>58</sup> These have often been used by the European Commission when reviewing full mergers between mobile operators, see e.g. para 1191-1225 at

https://ec.europa.eu/competition/mergers/cases/decisions/m7612\_6555\_3.pdf

<sup>&</sup>lt;sup>59</sup> The statutory timetable for the merger authorisation process would make this very challenging in my opinion.

<sup>60</sup> https://www.accc.gov.au/system/files/MACE%20-%20MR%20Declaration%20Inquiry%20-

<sup>%20</sup>Submissions%20to%20draft%20decision%20-

<sup>%20</sup>Vodafone%20Hutchison%20Australia%20attachment%20E.pdf

<sup>&</sup>lt;sup>61</sup> Including by RBB for the ACCC, see https://www.accc.gov.au/system/files/RBB%20Economics%20-

<sup>%20</sup> Review %20 of %20 report %20 and %20 model %20 by %20 Frontier %20 Economics.pdf

'offset' the effects they find in one 'market' against the effects they find in the other. By doing so, I think Houston Kemp ignore a third important set of competitive interactions in a market which consists of three and not two firms, which are the interactions between TPG and Telstra. These interactions will also affect competition in the market overall, as well as having indirect consequences for competitive interactions between TPG and Optus and between Telstra and Optus<sup>62</sup>. Houston Kemp's approach would be quite correct if we were to be assessing the effects of a full merger between Telstra and TPG, in which case the post-merger market structure would indeed be a duopoly. But that is not the situation that arises under the arrangement between Telstra and TPG and so Houston Kemp's assessment of the short term or price effects of the transaction remains partial and incomplete.

41. Houston Kemp illustrate their view of the effect of the transaction on the competitive positioning of firms with respect to network quality in figure 4.1 of their report. I think this is helpful but, again, incomplete. The illustration shows changes in the competitive positioning of TPG, Telstra and Optus under the transaction compared to the position under the status quo. It should compare the position with the alternative network sharing counterfactual (which is instead also shown in comparison with the status quo). I reproduce the figure to illustrate my view of the effects of the transaction relative to the alternative network sharing counterfactual in Annex A to this report.

# TPG effect (on Optus and Telstra)

- 42. I first discuss the effect of the transaction on the competitive constraint TPG provides on Optus (and Optus on TPG) as Houston Kemp do in their report but I also consider, for the reasons just discussed, the constraint TPG provides on Telstra (and vice versa). Collectively I refer to these effects as the 'TPG effect'.
- 43. I should start by noting that this is one aspect of the overall assessment where the choice of counterfactual will have a significant impact on the analysis. If the counterfactual involves TPG continuing to rely on its own network in the Relevant Coverage Zone then I think there is no disagreement between myself and Houston Kemp that the effect of the transaction will be that TPG becomes a significantly closer competitor both to Optus and to Telstra. The 'TPG effect' will be to unambiguously strengthen the pricing constraint that TPG imposes on both Telstra and Optus.

62 At para 52 Houston Kemp say: 'Telstra and TPG are the least close competitors from the perspective of

network coverage and performance and, accordingly, I assume that competition between them is of lesser relative importance.'. I do not agree this is the case under the factual.

- 44. If the counterfactual involves a network sharing arrangement between TPG and Optus then I think the position is less certain. Houston Kemp say: 'The proposed Telstra/TPG agreement will cause TPG's service to be more similar to that of Optus, due to TPG's improved network coverage and performance in the defined coverage area. The magnitude of this effect will turn on the extent to which the proposed Telstra/TPG arrangement involves a materially greater improvement in TPG's network quality than TPG would be able to achieve under a potential Optus/TPG arrangement.'63. I agree that TPG's network quality will be higher (and so closer to Telstra) under the transaction than under the counterfactual but I am less certain whether TPG will be a closer or more distant competitor to Optus as a result. On the one hand, by sharing the Optus network in the Regional Coverage Zone in a network sharing counterfactual TPG will be less differentiated from Optus than if it shared the Telstra network which differs significantly from Optus in terms of coverage, quality and the availability of 5G services. <sup>64</sup> On the other hand, to the extent that a sharing arrangement between TPG and Optus would inhibit TPG's ability to compete effectively with Optus (as Optus allege the merger arrangement inhibits TPG's ability to compete with Telstra), then the merger may result in TPG being a closer competitor to Optus using the Telstra network than it will be if sharing the Optus network.
- 45. A further consideration, although not one that is addressed by Houston Kemp, will be the effect on price competition of wholesale charging arrangements between TPG and Optus in the counterfactual and between TPG and Telstra in the factual. Optus' submissions on this point refer to the impact of wholesale charges for price competition between TPG and Telstra, and not between TPG and Optus. I therefore discuss them when considering the effect of the transaction on competition between TPG and Telstra in the next section. It is enough to note here that to the extent that wholesale charges would influence price competition between TPG and Telstra in the factual then they would have similar effects for price competition between TPG and Optus in the counterfactual. This is therefore another factor to consider when assessing whether the consequence of the merger would be that TPG would impose a greater or less pricing constraint upon Optus (and vice versa) than under the counterfactual.
- 46. Overall, I am not able to conclude with certainty whether TPG would be a closer or more distant competitor to Optus as a result of the transaction relative to a counterfactual in which it shares a

<sup>&</sup>lt;sup>63</sup> Houston Kemp para 50

<sup>&</sup>lt;sup>64</sup> Feasey para 23. I thought Telstra had 3700 sites in the Regional Coverage Zone compared to Optus' 2500. In Optus' submission they say at paragraph 4.78 that Telstra has 3,250 sites and Optus 2,250 and slightly different figures appear at figure 13 p.60. There is no disagreement that the difference is significant and I assume the ACCC will establish the facts for itself. At para 24 I said: 'TPG would still be able to offer 5G services earlier under the agreement than if it were instead to upgrade even the comparatively few sites it has in the relevant area itself or if it were to rely on sharing Optus' network'. I did not see any response to this in the Optus' submissions.

network with Optus. I am more confident that, closer or not, the effect for price competition between TPG and Optus is unlikely to be very substantial. Houston Kemp seem more confident than I am that the effect of the transaction will be that TPG becomes a closer competitor to Optus and that price competition greater as a result.

- 47. A different assessment is required when considering the effect of the transaction on price competition between TPG and Telstra. I noted previously Houston Kemp ignore this because they think it is of 'lesser relative importance'. I think it is clear that TPG will be a significantly closer competitor to Telstra under the merger than if sharing a network with Optus. This is because in the short term Telstra's network will differ to a material extent from Optus' network in the Regional Coverage Zone in terms of coverage, quality and availability of 5G services. By sharing Telstra's network under the terms of the transaction (which allow TPG non-discriminatory access to that network and will still allow TPG to offer 5G services earlier than in any counterfactual, albeit 6 months after Telstra), TPG will be a materially closer competitor to Telstra in the factual than in any counterfactual. Houston Kemp themselves say 'TPG's customers will effectively enjoy network quality within the defined coverage area that is close to the network quality enjoyed by Telstra's customers'65. The increase in the pricing constraint which TPG imposes on Telstra as a result of becoming a materially closer competitor will, in my view, be significant. Competition between TPG and Telstra will also have indirect consequences for the competitive constraints which each impose on the prices that Optus can charge. In my view, the net effect of this will be that the 'TPG effect' will exert significant downward pressure on prices in the market. In my opinion this will be so even if a direct effect of the transaction were to make TPG a more distant competitor to Optus (rather than a closer competitor, as Houston Kemp conclude).
- 48. CEPA appear to agree with me that an effect of the transaction will be to make TPG a closer competitor to Telstra. However, CEPA say 'this latter effect would not compensate for the reduction in Optus' competitive constraint given Telstra would enjoy wholesale revenues from the customers it loses to TPG.'66 Although CEPA do not explain this further, I understand it to be a reference to a potential effect of the wholesale charges in network sharing arrangements to which I referred earlier. Similarly, Optus reject my view that the transaction will mean that TPG is a closer and more effective competitor to Telstra on the grounds that 'TPG will effectively be at the behest of Telstra's network investment decisions and wholesale supply terms, rendering TPG a weaker competitor if you can call TPG a competitor to Telstra since every time TPG 'wins' a customer, Telstra gains a customer onto its network and benefits financially'. 67

<sup>&</sup>lt;sup>65</sup> Houston Kemp para 70

<sup>&</sup>lt;sup>66</sup> CEPA p.7

<sup>&</sup>lt;sup>67</sup> Optus para 8.5

- 49. I understand the point to be that the opportunity to recover wholesale revenues from customers that are lost to TPG will mean Telstra competes less strongly with TPG for customer than with Optus under the merger relative to the counterfactual<sup>68</sup>. This is a point I did not consider in my first report (and which Houston Kemp do not consider at all). Having done so now, I do not find it persuasive. First, I do not expect that the additional wholesale revenues which Telstra will earn from the transaction will have a significant influence on Telstra's competitive conduct in the national market for retail mobile services including in relation to the setting of prices<sup>69</sup>. This is because the vast majority of the revenues and profits that Telstra earns from its customers will be generated outside of the Regional Coverage Zone and the loss of a customer to TPG will involve the loss of all the revenues and profits associated with the customer and not just those relating to the provision of services inside the Regional Coverage Zone for which Telstra may be partially compensated by wholesale revenues from TPG. Since more than 80% of customers live outside of the Regional Coverage Zone (and those living inside the Regional Coverage Zone will also generate profits from activities outside) I expect Telstra's incentives to compete with TPG for those customers will be largely unaffected by any wholesale payments passing between them.
- 50. Furthermore, and as noted earlier, if there were to be any weakening of Telstra's incentives to compete with TPG as a result of the wholesale payments under the transaction, then this effect will also apply to competition between TPG and Optus in a network sharing counterfactual, where similar arrangements are likely to be required<sup>70</sup>. Although the competitive effect of such arrangements will differ between the factual and the counterfactual, they are likely to mean that their impact on changes to the overall conditions of competition arising from the transaction will be insubstantial.
- 51. The other potential effect of wholesale payments relates to the ability of TPG to compete with Telstra. This is addressed in the Optus submissions and was addressed in my report. It relates to a concern that the wholesale charges which TPG pays under the arrangement will restrict TPG's

<sup>&</sup>lt;sup>68</sup> Analysys Mason make a different point in their report, being that wholesale payments from TPG to Telstra could weaken TPG's ability (not incentive) to compete with Telstra on price, Analysys Mason p.14-15. I discuss this next.

<sup>&</sup>lt;sup>69</sup> I mentioned the opportunity to earn wholesale revenues (and deprive Optus of them) as part of Telstra's rationale for entering into the arrangement with TPG, but it was a secondary consideration after access to the TPG spectrum, see Feasey paras 19 and 22. Telstra expects to generate AUD1.6-1.8 bn in revenue over the 10 year term of the arrangement, which I estimate to be equivalent to less than 1% of Telstra's annual Group revenue and 2% of mobile revenue. I would expect the margin contribution to be an even smaller percentage.

<sup>70</sup> I suggest later that the commercial terms TPG could obtain from Optus would likely be less advantageous to TPG than those it has obtained from Telstra because Optus will attach less value to the TPG spectrum than Telstra. If so, the wholesale revenues Optus obtains in the counterfactual could have a more significant effect in weakening competition than any effect under the transaction. I make this point but recognise it involves speculation that goes beyond what is appropriate for a merger assessment and my conclusions do not rely upon it.

ability to compete with Telstra (and with Optus) on price<sup>71</sup>. Analysys Mason make the further suggestion that Telstra and TPG may have an incentive to mutually agree high charges for access to the Telstra network on the one hand and to the TPG spectrum on the other, and that the effect of these high charges will again be to weaken the pricing constraint that TPG could impose on Telstra and Optus<sup>72</sup>.

- 52. In my view the significance of this effect is principally a factual question. I noted in my report that the payments to be made by TPG to Telstra under the transaction involved: 'an annual fixed charge for access to the network and a charge based upon the total number of TPG subscribers (irrespective of whether they use the network in the relevant area or not). The level of this charge will increase as the network is upgraded to 5G. In addition, TPG will pay Telstra a usage-related charge in relation to those TPG subscribers who use the network in the relevant area, with separate charges for FWA and Internet of Things (IoT) services.'<sup>73</sup> It is difficult to anticipate the impact of each of these charges on TPG's pricing behaviour, but I would not generally expect the annual fixed charge to influence TPG's pricing and I would expect the subscriber-related charges to have a small impact given that the revenues TPG earns from its subscribers are derived across its network as a whole. The usage-related charges would need to be recovered by TPG but their effect on TPG's pricing behaviour will depend upon how material they prove to be in relation to the network and other costs which TPG incurs overall in the provision of its services to customers.
- 53. In suggesting that TPG is in a similar position to an MVNO, Optus and Analysys Mason appear to be implying that the constraint on TPG's pricing arising from the payment of wholesale charges to Telstra will be similar in nature and magnitude to the constraint which MVNOs face in their retail pricing. I do not agree and in my view the constraint will be much less significant. One reason for this is that, unlike one-way access arrangements that are negotiated by MVNOs or the 3G roaming agreement obtained by Hutchison and cited by Optus, 74 TPG has negotiated a two-way arrangement in which Telstra obtains access to TPG's spectrum (being spectrum which Telstra could not otherwise obtain from any other source) in return for providing TPG with access to the Telstra network in the Regional Coverage Zone (access which TPG might otherwise have been able to obtain from Optus). This would lead me to expect that the commercial terms which TPG would obtain under the transaction, including the level of wholesale fees payable to Telstra,

<sup>&</sup>lt;sup>71</sup> Optus para 1.17, 4.32-4.33 and 4.70-71, Feasey para 96-99

<sup>&</sup>lt;sup>72</sup> Analysys Mason p.13-15

<sup>&</sup>lt;sup>73</sup> Feasey para 10(f)

<sup>&</sup>lt;sup>74</sup> Optus para 4.72-4.73

- ought to be much more favourable to TPG than anything an MVNO might be expected to negotiate.
- 54. It is also important to emphasise again that any effect of usage-related or other wholesale charges on TPG's ability to compete on price with Telstra in the factual would be mirrored by a similar effect on TPG's ability to compete with Optus under any network sharing counterfactual<sup>75</sup>.
- 55. I therefore conclude that TPG will be a closer competitor to, and will impose a greater pricing constraint upon, Telstra (and vice versa) as a result of the transaction and that this effect will be significant. I am less certain about whether or not TPG will be a closer competitor to Optus as a result of the transaction compared to the position under a TPG/Optus network sharing counterfactual but I consider that any effect on price competition between TPG and Optus will certainly be less substantial than the effect on price competition between TPG and Telstra. The 'TPG effect' on price competition will therefore be positive and will be dominated by the strengthening of competition between TPG and Telstra.
- 56. It follows from this that I also disagree with the position that Optus itself takes, which is that 'TPG's competitive position is only enhanced relative to Optus and MVNO's and not relative to Telstra. TPG will be further marginalised as a competitor to Telstra'<sup>76</sup>. I have explained that I agree that the competitive constraint TPG imposes upon Telstra as a result of the transaction will differ from the constraint it imposes upon Optus as a result of the merger. However, I do not agree that the constraint TPG imposes on Telstra will be *lessened* or TPG will be a more distant competitor to Telstra as a result of the transaction relative to a counterfactual in which it shares the Optus network. I think the opposite is true. I also think Optus' position is internally inconsistent: they cannot claim that a consequence of the transaction is that TPG will be less able to differentiate its services from and so will become a closer competitor to Telstra<sup>77</sup> whilst at the same time saying that TPG will become a more distant competitor to Telstra.
- 57. I now turn to consider the short term effect of the transaction on competition between Telstra and Optus, which I refer to as the 'Telstra effect'. I considered competition between Telstra and TPG as part of my consideration of the TPG effect and do not repeat that again.

<sup>&</sup>lt;sup>75</sup> Feasey para 100. Given my view that Optus would value the TPG spectrum less than Telstra, the wholesale charges TPG might pay Optus under the counterfactual could be higher than those payable to Telstra under the transaction.

<sup>&</sup>lt;sup>76</sup> Optus para 1.19. At para 3.44 they say: 'Optus submits that the Proposed Transaction will not enable TPG to compete with Telstra on network quality or performance and in the long term will likely render TPG a weaker competitor in the RCZ than it currently is.'

<sup>&</sup>lt;sup>77</sup> Optus para 8.5: 'TPG will effectively be at the behest of Telstra's network investment decisions and wholesale supply terms, rendering TPG a weaker competitor'

- 58. Houston Kemp say that allowing Telstra to use the TPG spectrum will make Telstra a more distant competitor to Optus relative to the counterfactual and so weaken Optus' incentive to compete with Telstra (and vice versa). Houston Kemp say that the increasing competitive distance between Telstra and Optus will enable both firms to raise prices and earn higher margins<sup>78</sup>.
- 59. I do not agree with Houston Kemp's conclusions because I disagree about the effect of the transaction on Telstra's competitive position and about the effect a network sharing arrangement with TPG will have on Optus' competitive position in a network sharing counterfactual. I address each of these points in turn.
- 60. When considering the effect of the transaction on Telstra I consider that it is important to decompose the benefits which Telstra obtains from the transaction. We have already established that there is no material effect in terms of geographic coverage in the Regional Coverage Zone<sup>79</sup>. I explained in my report that an important benefit for Telstra of the arrangement will be the alleviation of capacity constraints in Telstra's network<sup>80</sup>. I consider that this would improve the quality of Telstra's network relative to the counterfactual and would distance Telstra from Optus to some degree and so lessen competition. However, at the same time, increases in capacity in a market and reduction in barriers to expansion can contribute to downward pressure on quality adjusted prices, including in differentiated product markets<sup>81</sup>. The overall effect will therefore depend upon (a) the extent to which the transaction makes Telstra a more distant competitor for Optus (less pricing pressure) and (b) the extent to which the removal of capacity constraints allows Telstra to divert more sales to itself if Optus were to raise its prices (more pricing

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<sup>&</sup>lt;sup>78</sup> Houston Kemp para 49: 'A reduction in the closeness of competition between Telstra and Optus would be expected to reduce the intensity of price competition on Optus from Telstra, and vice versa. Consistent with these outcomes, overall profitability in the market would be expected to increase, as will the extent of the price premium that Telstra can command, relative to Optus.'. I agree that less competition would allow both firms to raise prices but I do not think it follows that the 'price premium' Telstra is able to charge would necessarily increase.

<sup>&</sup>lt;sup>79</sup> See footnote 12

<sup>&</sup>lt;sup>80</sup> I am aware that Optus dispute whether Telstra does in fact face capacity constraints or, if it does, whether additional spectrum is the only way in which it can alleviate them in the short term (as I concluded in my report), see Optus para 1.27, 5.52-5.60 and 7.33. These are factual matters better addressed by others and were assumptions that were provided to me in my Letter of Instructions (Feasey footnote 17). However, I would not generally expect Telstra or any other firm to tolerate congestion in its network if it already had a profitable means of alleviating it at its disposal. At para 7.33 Optus suggest that Telstra does not do so because it has 'market power', but congestion outside of major cities will impact Telstra's reputation across the market as a whole.

<sup>&</sup>lt;sup>81</sup> The ACCC Merger Guidelines discuss barriers to expansion at para 7.44-7.47 in terms of barriers which rivals to the merged entity may face. However, as explained earlier, in this proceeding the parties to the agreement, Telstra and TPG, continue to compete with each and so it is important to consider the barriers to expansion each of them faces as well.

pressure). I conclude that the price effect of the alleviation of Telstra's capacity constraints as a result of the transaction is uncertain<sup>82</sup>. I discuss the impact on broadband speeds, which I did not consider in my earlier report, below. It is also important to recall that the transaction will have no impact on the many other ways in which Telstra differentiates itself outside of the Regional Coverage Zone and which affect the service propositions which Telstra markets to its customers on a national basis. This means that I think any effect of the transaction on the relative competitive positioning of Telstra and Optus in the market as a whole will be insubstantial.

- 61. I also do not agree that an alternative network sharing arrangement between TPG and Optus in a network sharing counterfactual will lead Optus to be a significantly closer competitor to Telstra than it will be in the factual<sup>83</sup>. In the short term, the principal effect of sharing with TPG for Optus will be that it obtains access to the TPG spectrum. I have already said that I think that access to spectrum to alleviate capacity constraints has uncertain consequences for price competition. I also said in my earlier report that I did not in any event think that Optus was likely to have capacity constraints to alleviate, or at least not to anything like the same extent as Telstra<sup>84</sup>. I have therefore not identified any short term benefits that Optus would obtain from a network sharing agreement with TPG that I think would have a material effect on its competitive position relative to Telstra and I did not find any in the Houston Kemp report either<sup>85</sup>.
- 62. I recognise that there is one further factor which I did not discuss in my report but which is introduced in the Optus submissions. This is the claim that access to the TPG spectrum will allow Telstra (and presumably TPG) to offer much higher broadband speeds than Optus in the Regional Coverage Zone<sup>86</sup>. Analysys Mason and Optus say that as a result of the pooling of Telstra and TPG's spectrum holdings in particular, Telstra will be able to offer broadband speeds that are orders of magnitude higher (10x in the 3.5 GHz band and 3x in the 700 MHz band) than Optus will be able to offer. This is a result of Telstra both having more carriers within bands and of being able to aggregate carriers between different bands<sup>87</sup>.

<sup>&</sup>lt;sup>82</sup> Houston Kemp say: 'the alleviation of any capacity constraints may give Telstra the ability to reduce prices, but Telstra may not have the incentive to do so if it does not face close competitive constraints.', para 120. I agree with this, but there is no suggestion that lower barriers to expansion contribute to increases in prices.

<sup>83</sup> Houston Kemp para 18(e)

<sup>&</sup>lt;sup>84</sup> Feasey para 67

<sup>&</sup>lt;sup>85</sup> Houston Kemp para 44 say the counterfactual means: 'better network quality within fringe urban and regional areas for Optus.' in the short term (i.e before additional investments in the network). They do not explain how or why network quality will improve.

<sup>&</sup>lt;sup>86</sup> And in Telstra's case, over its network in the remote and very remote areas. I discuss the impact of spectrum and broadband speeds as a short term price effect on the assumption that any higher speeds could be achieved without first requiring significant additional network investments.

<sup>&</sup>lt;sup>87</sup> Analysys Mason p.3-4, Optus para

- 63. I noted earlier that Optus have previously said during the Domestic Roaming Inquiry that they are able to compete effectively with Telstra and the ACCC has concluded that the market for mobile services is reasonably competitive notwithstanding that Telstra has significant competitive advantage in relation to network coverage and quality. Analysys Mason also say 'Currently, absent the proposed spectrum share, Optus's speed capabilities can be considered broadly comparable to Telstra's speed (we estimate approximately 50–33% slower in key bands, before aggregation)'88. I do not know whether customers would regard such differences as meaning that the networks are 'broadly comparable' but it would appear Analysys Mason do not think that differences of this magnitude need have a material effect upon a mobile operators' ability to compete. In any event, as I explain below, the actual broadband speeds obtained by customers depend upon a number of factors aside from spectrum and it appears that Optus is currently able to match or even to exceed Telstra's 5G broadband speeds on a national basis<sup>89</sup>.
- 64. I rely upon advice provided by Telstra in relation to certain technical questions relating to the impact of spectrum pooling for broadband speeds<sup>90</sup>. I note that the effect of spectrum pooling on the broadband speeds claimed by Analysys Mason and Optus is much more significant in relation to the pooling of the higher band 3.5 GHz spectrum (10x) that the lower band 700 MHz spectrum (3x). This is a consequence of the greater quantity of higher band spectrum that will be aggregated and of assumptions which Analysys Mason make about the effect the deployment of Massive MIMO technology will have on higher band network performance.
- 65. My understanding is that the claims in relation to the 3.5GHz spectrum are not agreed by Telstra because, amongst other things, they fail to recognise that a significant proportion of the 3.5GHz spectrum will be reserved and shared equally between Telstra and TPG for the provision of Fixed Wireless Access services and so will not be available to support mobile services and the spectrum that remains for mobile services must support demand from both Telstra and TPG's customers in the Regional Coverage Zone<sup>91</sup>. In addition, the assumptions made by Optus and Analysys Mason as regards the deployment of Massive MIMO by Telstra and by Optus are disputed by Telstra. I also understand that the competitive impact of any broadband speed advantage which Telstra might obtain from the arrangement will be limited because the geographic coverage provided by high band spectrum will be considerably more limited than that provided by spectrum in the lower

<sup>88</sup> Analysys Mason p.20

<sup>&</sup>lt;sup>89</sup> https://www.opensignal.com/reports/2022/04/australia/mobile-network-experience.

<sup>&</sup>lt;sup>90</sup> These are contained in Schedule 2 of the Letter of Instructions dated 22 July 2022.

<sup>&</sup>lt;sup>91</sup> To the extent that demand from TPG's customers will supplement demand from Telstra's customers (as I would expect it to) then this will limit the broadband speeds obtained by all customers. At para 71 of Feasey I explained that between 5% and 10% of all mobile customers might be TPG customers in major cities who value coverage and who might be expected to generate traffic in the Regional Coverage Zone that would need to be supported by the MOCN.

band<sup>92</sup>. This means that mobile customers will only experience any benefit of higher broadband speeds associated with higher band spectrum at a small number of isolated locations within the Regional Coverage Zone and this will in turn limit the ability of Telstra to market the benefits of such arrangements to its customers<sup>93</sup>. This leads me to conclude that the provision of higher broadband speeds at a small number of individual locations within the Regional Coverage Zone (or in the very remote areas beyond it) as a result of the transaction is unlikely to make a material difference to Telstra's ability to differentiate its network from Optus and market its services to customers on a national basis.

- 66. Any broadband speed advantage for Telstra arising from the pooling of the lower band 700 MHz spectrum will affect a greater proportion of the Regional Coverage Zone but the difference in terms of broadband speeds is much less than claimed by Optus for the higher band spectrum. The claim that broadband speed would increase from 30 Mb/s to 45Mb/s is I understand also disputed by Telstra on the basis that the calculations ignore that the spectrum will be shared between Telstra and TPG and is not reserved for Telstra's exclusive use. Telstra might still obtain some additional advantage in terms of broadband speed but the magnitude of any change is unlikely to mean Optus is no longer 'broadly comparable' or otherwise unable to compete effectively with Telstra, as it has said it has been able to do to date. I therefore do not think that any change in broadband speeds which Telstra might obtain in the Regional Coverage Zone from pooling low band spectrum will be sufficient to have a material effect on Telstra's ability to differentiate or on competition in the national mobile services market.
- 67. I therefore conclude that, overall, the relative competitive positioning of Telstra and Optus will be affected, but not significantly, in the factual relative to any counterfactual and that the consequences for price competition between them will be insubstantial. This is because the arrangement will not leave Telstra as a significantly stronger or more distant competitor to Optus relative to the status quo and, similarly, a network sharing arrangement will not leave Optus a significantly stronger or closer competitor to Telstra relative to the status quo. Any short term effect on price competition between Telstra and Optus arising from comparison between the factual and the counterfactual will therefore be similarly insubstantial.

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<sup>&</sup>lt;sup>92</sup> Telstra advise that higher band 3.5 GHz spectrum will reach about 25% of the distance of lower band 700 MHz spectrum and so will cover only about 7% of the area covered by the latter. If I apply Telstra's view of the distance achieved to the population distribution within the Regional Coverage Zone presented by Optus in Fig 17 of their submission, then any higher band broadband speed advantage would be available in areas where only around 10% of the population live. The other 90% of the population will remain unaffected except to the extent that they travel within areas where the advantage applies. See Schedule 2, Letter of Instructions 22 July 2022 <sup>93</sup> Schedule 2, Letter of Instructions 22 July 2022. I recognise that the competitive effects of pooling higher band spectrum could be more significant for FWA services and the market for national retail fixed line broadband services. I explained earlier in this report that I have not focussed on this market and the Optus submissions do not either.

68. As I explained earlier when considering the TPG effect, I expect the constraint that Telstra and TPG will impose on each other's pricing behaviour will be significantly increased by the transaction.

Conclusion on short term price effects

- 69. Houston Kemp say that the Telstra effect will dominate the TPG effect because Telstra is the larger competitor to Optus<sup>94</sup>. I disagree with this for the reasons just explained but I also do not agree with Houston Kemp that the larger firm will necessarily exercise the stronger competitive effect on Optus' pricing behaviour (or vice versa).
- 70. I think it is agreed that Telstra charges the highest headline prices in the mobile market. This may reflect its higher quality, as already discussed, but in my view it will also reflect the higher costs of discounting prices that an operator like Telstra with a much larger existing base of customers will face relative to an operator like TPG with a smaller existing customer base<sup>95</sup>. This is why, in mobile markets elsewhere, we often observe smaller operators leading the discounting of prices and operators with the larger market share following even when both have similar networks in terms of coverage and quality. It seems to me that the ACCC has in the past also regarded smaller operators as being important in sustaining downward pressure on prices<sup>96</sup>. I therefore disagree with the reasons offered by Houston Kemp as to why the Telstra effect will dominate the TPG effect in this case.

<sup>&</sup>lt;sup>94</sup> Houston Kemp come to this conclusion in para 53 which says: 'Telstra and Optus collectively serve 75 per cent of customers in the national retail mobile services market, compared to 48 per cent served by Optus and TPG. Given this disparity in the absolute and relative market shares of Telstra and Optus, as compared with those of Optus and TPG, I assume that competition between Telstra and Optus is, in the near term, more important to outcomes in the relevant markets than competition between Optus and TPG'

<sup>&</sup>lt;sup>95</sup> The 'costs' I refer to here arise from the inability of mobile operators to fully price discriminate between existing and new customers, such that any discounts to acquire customers from other firms can also result in 'cannibalisation' of revenues obtained from existing customers who switch to the new tariffs. The European Commission explained this in the Hutchison/O2 merger decision: '... firms with smaller market shares such as H3G have to be less concerned than large incumbents that aggressive price discounts would cannibalise the profits they make with their existing mobile customer base. As a result, smaller contestants are generally more inclined to discount their price in an effort to win customers from rivals. Conversely, MNOs with a large market share are likely to be concerned that competitive discounting policies to attract new customers might later force them to offer better terms also to their large existing customer base', para 976 at http://ec.europa.eu/competition/mergers/cases/decisions/m7758\_2937\_3.pdf,

<sup>&</sup>lt;sup>96</sup> For example, in the VHA/TPG Federal Court Judgement, para 200: 'In the ACCC's submission, if TPG does roll-out a mobile network in the next five years, it is likely to be a vigorous and effective competitor for price-sensitive consumers in metropolitan areas.'

71. That said, my main disagreement with Houston Kemp is that they disregard competition between Telstra and TPG in their assessment of competitive effects, which I consider to be the dominant effect for price competition.

CEPA's analysis of pricing effects

- 72. I consider more briefly here CEPA's discussion of competitive effects that they say arise when comparing the transaction with the less competitive counterfactual under which TPG retains its own network in the Relevant Coverage Zone. I presented my views on the appropriate counterfactual earlier. Despite CEPA adopting a less competitive counterfactual that is more favourable to the parties to the transaction, they maintain that the transaction would still result in an SLC.
- 73. CEPA say the transaction is 'a partial (horizontal) merger of two of the three operators' as a result of which 'the market would inevitably be more concentrated'<sup>97</sup>. I agree that prices can be expected to increase in more concentrated markets unless there are significant offsetting efficiencies. However, this is not the correct characterisation of the proposed arrangements between Telstra and TPG, which will not result in any increased concentration in any of the downstream markets in which Telstra, Optus and TPG compete<sup>98</sup>. In my view the opposite is more likely to be the case because TPG will be likely to acquire market share at the expense of both Telstra and Optus as a consequence of the transaction<sup>99</sup>.
- 74. CEPA discuss the competitive effects of the transaction using a very different analytical framework, which they borrow from BEREC, the Board of European Regulators of Electronic Communications<sup>100</sup>. This is difficult to discuss alongside the framework I adopted in my report or the framework employed by Houston Kemp in theirs. That is because it is not a merger assessment framework<sup>101</sup>. CEPA describe the BEREC document as 'influential' and seem

<sup>&</sup>lt;sup>97</sup> CEPA p.5

<sup>&</sup>lt;sup>98</sup> I explained the differences between the proposed transaction and a conventional horizontal merger between two firms at para 54 and 88 of my report.

<sup>&</sup>lt;sup>99</sup> Feasey footnote 21

<sup>&</sup>lt;sup>100</sup> CEPA para 47.

<sup>&</sup>lt;sup>101</sup> This is obvious, for example, from the fact that the CEPA analysis starts with an assessment of what would be termed 'merger efficiencies' in paragraphs 53 to 59 before later considering other competitive effects. Damien Geradin, whom I cited in footnote 14 of my report says of BEREC: '.Although BEREC does not have any competence in the competition law field, it has issued three reports on network sharing ... The informational value of these reports is however limited. BEREC employs a survey-based methodology for its reports, whereby conclusions are drawn on the basis of National Regulatory Authorities' responses to BEREC questionnaires. No actual analysis is conducted by BEREC to evaluate these responses and provide actual evidence of the costs and benefits of network sharing, including the impact of NSAs on competition in the

surprised I only referred to it once in my report. I explained in my report that network sharing arrangements in Europe are not generally assessed by telecoms regulators and that most European regulators do not have concurrent competition powers as the ACCC does. I explained, moreover, that to the extent that network sharing agreements are assessed by competition authorities, they are assessed as horizontal agreements rather than mergers. The analytical framework and legal basis for assessing horizontal agreements is different from that applied to mergers and the framework applied by regulators like the members of BEREC is different again. This is why I found the ACCC's own Merger Guidelines to offer a more appropriate framework than the BEREC document.

- 75. CEPA's assessment of competitive effects, including short term pricing effects, is rather brief and is summarised in paragraph 66 of their report. They seem to agree with me and with Houston Kemp that Telstra and TPG might be able to increase headline prices to reflect improvements in the quality of their services as a result of the transaction 102. However CEPA say that Telstra will also enhance its, and TPG will acquire, market power as a consequence of the transaction and that the exercise of market power will allow Telstra and TPG to increase their profits or margins so that quality adjusted prices will rise alongside headline prices 103. This seems to be based on the assumption that the arrangement will provide both Telstra and TPG with significant advantages, in terms of a superior networks and spectrum, leading to a distancing from and weakening of the competitive constraint provided by Optus on both Telstra and TPG.
- 76. CEPA make the further argument that by losing customers to Telstra and TPG as a result of its weaker competitive position, Optus' own costs will rise and Optus will be forced to reflect this in higher prices, which will then allow Telstra and TPG to further increase their prices<sup>104</sup>. They say that the strengthening of Telstra's competitive position arising from the transaction will adversely affect Optus' ability to compete by reducing its incentive to invest in its network. This is the longer term or dynamic effect of the transaction which I consider later.

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telecommunications market. Moreover, these reports do not include sufficient guidance to allow MNOs to assess what characteristics of network sharing could raise competition concerns. They refer to "some non-exhaustive criteria", a non exhaustive "list of parameters relevant for the assessment of all existing network sharing agreements." 64 Such criteria include market structure, type of sharing, whether NSAs contain exclusivity clauses and whether the NSAs limit information exchange to what strictly necessary, etc. No guidance, however, is provided as to how these criteria interact with each other or which combinations of characteristics raise competition concerns. Instead, BEREC repeatedly emphasizes that the competitive effects of an NSA must be assessed on a case-by-case basis, an approach that only creates uncertainty for MNOs across the EU.... In other words, the guidance currently existing at the EU level is insufficient as it is either dated or superficial'

<sup>&</sup>lt;sup>102</sup> 'Telstra and TPG could each profitably increase prices, as their quality of service would improve', para 68 <sup>103</sup> CEPA para 68

<sup>104</sup> CEPA para 67

- 77. It will be clear from my earlier discussion of the Houston Kemp submissions on these points that I do not agree with CEPA that the consequence of the transaction is that quality adjusted prices are likely to rise because Telstra and TPG will enhance or acquire market power. The main reason is that, like Houston Kemp, CEPA ignore the competitive constraint that TPG will impose on Telstra and Optus and focus only on the weakening of the constraint which Optus imposes on Telstra and TPG. I am uncertain as to whether the constraint from Optus will necessarily be weaker as a result of the transaction but in any event the effect will not be significant. However, I am confident that the constraint from TPG on Telstra (and vice versa) will be significantly stronger and that this will dominate the overall effect on pricing.
- 78. I now turn to consider the long term or dynamic effects of the transaction on the incentives and ability of each of TPG, Telstra and Optus to further invest in their networks.

Long term effects on network investment

79. I concluded in my earlier report that the transaction would remove any incentive on the part of TPG to invest in a network in the Regional Coverage Zone<sup>105</sup>. Houston Kemp and I agree that in any counterfactual in which TPG would enter into a network sharing agreement with Optus, TPG would be left with no incentive to invest in its own network in the Regional Coverage Zone<sup>106</sup>. There will therefore be no effect in relation to this aspect of network investment unless a counterfactual in which TPG retains its network is adopted. CEPA disagree about the counterfactual and say that TPG will continue to rely on its own network but it appears that CEPA nonetheless agree that any form of network sharing would remove TPG's incentive to invest in its own network in the Regional Coverage Zone <sup>107</sup>. I noted earlier that CEPA's position on the extent to which TPG would invest in its network in the Regional Coverage Zone in a counterfactual in which it relies on its own network is unclear<sup>108</sup>.

<sup>&</sup>lt;sup>105</sup> Feasey para 62

<sup>&</sup>lt;sup>106</sup> Houston Kemp, para 71 and 72, Feasey para 62

<sup>&</sup>lt;sup>107</sup> CEPA p.31:' We agree that the effect of the agreement is that TPG loses any incentive to make network investments in the RCZ'

<sup>&</sup>lt;sup>108</sup> See footnote 24: 'CEPA's position on this point is unclear. At para 58 they say 'Telstra's acquisition of most of TPG's radio spectrum assets in the RCZ is more likely to result in the spectrum being used rather than lying fallow' which suggests they agree that TPG would not have a significant network in the Regional Coverage Zone absent some form of network sharing agreement. However, at para 61 they say: 'consumers in the RCZ would see a reduction in infrastructure competition from three to two players.' This suggests CEPA would expect TPG to offer a viable service in the Regional Coverage Zone absent the transaction. At page 29 CEPA say 'The status quo does not require TPG to expand its network, but their capacity to do so cannot be so easily ruled out'. This is to ignore the discussion in my report of the evidence which led the Federal Court to do precisely this, see Feasey para 44-48'

80. A key point of disagreement between myself and Optus and its experts relates to the impact of the transaction on Optus' incentive and ability to invest in its network. In my report, I said that the effect of the transaction on Optus' ability to invest would be insubstantial and that its incentive to invest would be unchanged<sup>109</sup>. The Optus submissions disagree strongly. I consider their arguments below.

Optus' long term competitive response to the transaction

- 81. The Optus submissions each present the argument (in different forms) that an effect of the transaction will be that Optus will invest significantly less in its network in the Regional Coverage Zone relative to any counterfactual and that this weakening of Optus' competitive capability will have a substantial long term adverse effect on competition in the relevant markets. There are two parts to this assessment, one involving consideration of what Optus will do in response to the transaction and the other involving consideration of what Optus will do under a network sharing counterfactual with TPG. I discuss each of these in turn.
- 82. Optus itself says that as a consequence of the transaction 'no rational competitor will be able to justify further significant investment in regional areas'<sup>110</sup>. Later it presents evidence of various internal documents which, whilst heavily redacted, I assume are intended to persuade the ACCC that Optus will reduce its level of planned investments in the Regional Coverage Zone if the transaction is allowed to proceed<sup>111</sup>. Optus argues that it already operates under a number of disadvantages relative to Telstra when it comes to the deployment of new 5G network technologies and that the benefits Telstra would derive from the transaction will be so significant as to deter further investment.
- 83. CEPA say that Optus would have a weaker incentive to invest in the network in the Regional Coverage Zone following the transaction because Optus will acquire fewer additional customers from Telstra and TPG as a result of such investments relative to the counterfactual in which Telstra does not obtain access to the TPG spectrum<sup>112</sup>. CEPA say this means the expected returns from any network investment by Optus will be lower than in the counterfactual.
- 84. Houston Kemp adopt a similar approach to the one they employed when considering short term effects. They first consider the effect of the transaction on Telstra's competitive position relative

<sup>&</sup>lt;sup>109</sup> Feasey para 69

<sup>&</sup>lt;sup>110</sup> Optus para 1.7 and 1.22

<sup>&</sup>lt;sup>111</sup>Optus 7.52-7.71

<sup>&</sup>lt;sup>112</sup> CEPA, p.27

to Optus, which they say is to widen the gap in network capability between the two firms in the Regional Coverage Zone. I refer to this as the Telstra network effect. Houston Kemp say that this will induce Optus to respond by investing to narrow the gap between the two firms. The transaction 'would have the effect of increasing Optus' incentives to invest in network quality. Put another way, the increase in Telstra's network quality arising under the Telstra/TPG arrangement will encourage Optus to increase its investment, to reduce the otherwise widened, network quality differential'<sup>113</sup>.

- 85. Houston Kemp then consider the effect of the transaction on TPG's competitive position relative to Optus (which I refer to as the TPG network effect) which is to reduce the gap in terms of network capability between the two firms in the Regional Coverage Zone and to provide TPG with the superior network. Houston Kemp say this will weaken the incentive for Optus to invest in its network in order to differentiate from TPG: 'the increase in network quality experienced by TPG's customers under the Telstra/TPG arrangement will encourage Optus to reduce its investment, to increase the now differently positioned network quality differential' As they did with short term effects, Houston Kemp then consider which of these two offsetting effects is likely to dominate.
- 86. Houston Kemp then conclude the TPG network effect 'is likely to have the more pronounced impact on Optus' incentives to invest' although I cannot find any explanation in their report as to why this should be the case.
- 87. I do not consider any of the Optus submissions on these points to be very persuasive. The evidence from internal documents submitted by Optus itself is something for the ACCC not me to assess. However, in my experience it is customary for firms that are seeking to persuade public authorities to adopt a particular course of action to argue that network investment will cease, or otherwise be severely affected, if the authorities were to pursue a different course. I note that Optus made similar statements about reconsidering investments in its network in regional areas during the Domestic Mobile Roaming Inquiry<sup>116</sup>. Such statements should not be accepted without first considering the underlying incentives of the claimant and the economic basis on which any such claims might be founded.

<sup>114</sup> para 78

<sup>&</sup>lt;sup>113</sup> para 77

<sup>&</sup>lt;sup>115</sup> Para 79

<sup>&</sup>lt;sup>116</sup>' Should roaming be declared Optus would almost certainly reduce its investment in regional areas.', Mobile Roaming Inquiry para 2.21

- 88. In this case the economic assessments that are provided by CEPA and Houston Kemp in support of Optus' position appear to disagree with each other. CEPA's position is that the Telstra network effect dominates (it does not refer at all to the effect of the transaction on TPG's competitive position when considering Optus' incentives to invest) and that this will induce Optus to invest less. Houston Kemp's position is the opposite. They consider that the TPG network effect will dominate and to the extent that they consider the Telstra network effect, they say that it will induce Optus to invest more and not less.
- 89. I have some reservations about the framework adopted by Houston Kemp in this instance and I am not sure economic theory offers a very good insight into the way in which, in my experience, mobile operators like Optus will make network investment decisions<sup>117</sup>. I agree with the general proposition that firms will seek to differentiate themselves from each other across various dimensions. However, in the mobile markets of today this has become difficult because every operator can offer a variety of products that are differentiated from each other as well as from rivals (including by supplying through sub-brands and MVNOs) using a common set of assets. This is different from a world in which a singular product is supplied by one firm and differentiated from the singular products of other firms. Mobile markets are also mature, meaning that almost everybody will already have an existing supplier of mobile services and significant investments in networks have already been sunk. Acquiring or retaining customers is important because of the role played by economies of scale in mobile markets and the implications these have for the financial returns which operators can obtain from their existing and largely irrecoverable investments.
- 90. Given this, it has not been my experience that a mobile operator will deliberately decide to offer poorer quality or less coverage in the belief that it will be able to earn higher margins by remaining a weaker and more distant competitor with respect to the other operators. Executives do not think or speak in terms of changes in the direction of 'strategic forces' but it would not be my expectation that the Optus management, faced with a transaction which resulted in TPG becoming a closer competitor to Optus, would thereby conclude that the appropriate or profit maximising response would be to reduce the level of investment they planned to make in their network<sup>118</sup>. I would think it more likely that if TPG were to 'leapfrog' Optus in terms of network

<sup>&</sup>lt;sup>117</sup> Houston Kemp recognise that '[any] economic framework involves some simplifications of the real world, including by making various assumptions.... being explicit as to the framework applied enables the evaluation of the extent to which the framework is sufficiently close to reality, and thereby an assessment of whether the

insights derived from the framework can reasonably be applied to the matter at hand.', para 31. I agree with this but think that in the instance their insights about investment incentives are some way removed from reality.

118 Houston Kemp, para 78: 'the increase in network quality experienced by TPG's customers under the Telstra/TPG arrangement will encourage Optus to reduce its investment, to increase the now differently positioned network quality differential.' It is important to note that whether or not the transaction will actually make TPG a closer competitor to Optus, relative to the counterfactual, is not something that I think is certain,

coverage and quality in the Regional Coverage Zone as a result of the transaction then this would prompt Optus to redouble, rather than reduce, its own efforts to improve the quality of its network in the Regional Coverage Zone. I therefore do not agree that the 'direction' of the strategic force is what motivates investment such that Optus would not invest if TPG changed from being a weaker competitor than Optus to being a stronger one as a result of the merger, but Optus would invest if Telstra changed from being a stronger competitor to an even stronger competitor. I would expect Optus to respond to the realisation that it had become a weaker competitor with respect to the other firm irrespective of the competitive position previously occupied by that firm.

- 91. I agree with the Optus submissions that market leading mobile operators will seek to exploit their superior economic position in order to continue to differentiate themselves from their rivals and earn higher margins by doing so. However, smaller or weaker mobile operators will in my experience be seeking to reduce those competitive differences in an effort to acquire customers from the market leader (as well as from each other) and improve their returns to scale. The dominant incentive for mobile operators will invariably be to seek to narrow differences between themselves and the leader. Any narrowing of differences amongst themselves will be an unavoidable consequence of this.
- 92. The description of competitive dynamics just provided is also consistent with my understanding of how competition has developed in the Australian mobile market. As the Optus submission notes, Hutchison was briefly a market leader in 3G but this induced Telstra and other operators to catch up and then overtake them<sup>119</sup>. Since then, Telstra has invested in order to retain market leadership and to continue to enjoy superior economies of scale and financial returns on its investments relative to its smaller rivals. The smaller rivals have sought to reduce the differences between themselves and Telstra in a variety of ways and with varying degrees of success. Telstra has responded to these efforts by investing further to sustain its points of differentiation. I have noted earlier that this view of how competition works in mobile markets is what I think has been adopted by both the ACCC and Optus in previous regulatory proceedings.
- 93. It follows that, in my view, CEPA and Houston Kemp are each partly right and each partly wrong in their assessment of what the transaction would mean for Optus' investment incentives. CEPA is right to consider that Optus' conduct, including in relation to any investments it makes in its network in the Regional Coverage Zone, will be dominated by its competitive response to Telstra rather than to TPG. I explained in my report that Telstra had reserved exclusive access to its

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<sup>&</sup>lt;sup>119</sup> Optus, para 3.52-3.57

- network in the very remote areas precisely in order to ensure that it would remain the best alternative for customers of either Optus or TPG who value network coverage<sup>120</sup>.
- 94. Houston Kemp take the opposite view, and consider that Optus' incentives and conduct in relation to network investment will be dominated by the TPG network effect. I think this is unlikely for several reasons:
  - a. Houston Kemp themselves provide no reasons as to why this should be the case rather than Optus' incentives being dominated by the Telstra network effect.
  - b. It seems counterintuitive to argue that Optus' conduct in relation to its own network investments will primarily be influenced by the position of TPG, which will be the one operator in the market which will have no network itself. Similarly, it seems odd to suggest that Telstra, which I think we are agreed has to date been the most significant influence on Optus' investment decisions, would no longer feature strongly in the deliberations of Optus' management when it comes to future network investment.
  - c. It seems counterintuitive to suggest that Optus would invest in its network in order to compete more effectively only with Telstra and not with TPG when the practical consequence of any investment Optus makes will be to reduce the gap between the capability of the Optus network and the Telstra network, regardless of whether it is Telstra or TPG that is using that Telstra network. I would expect the management of Optus to regard any investment in its network as improving its competitive position relative to both Telstra and TPG and for the investment to be justified on this basis, rather than regarding any investment to improve the quality of the network as being desirable from the point of view of competing with Telstra but undesirable form the point of view of competing with TPG<sup>121</sup>.
  - d. This position would appear to be at odds with the submission of Optus itself, which focusses almost exclusively on the Telstra network effect on Optus and devotes little or no space to the TPG network effect which Houston Kemp say ought to dominate their thinking<sup>122</sup>. The Optus submission clearly states: 'Optus' management decisions are most

<sup>&</sup>lt;sup>120</sup> Feasey para 19

<sup>&</sup>lt;sup>121</sup> Houston Kemp para 81 say: 'In that position, if Optus was to invest in pursuit of network quality closer to the now more distant Telstra, Optus must overcome the likelihood that some of the strategic force benefits (in terms of additional customers to whom its enhanced quality offering would be attractive) will be lost to TPG, which is now also offering network quality that is relatively close to Telstra.' I do not agree that any benefits will be

<sup>122</sup> See, e.g., Optus para 7.59

often made relative to its position to Telstra and the movement of customers between Optus and Telstra'<sup>123</sup>. In this instance I would attach greater weight to the views of Optus management than to economic theory.

- e. Houston Kemp's position seems to be that the improvement in TPG's network quality as a result of the transaction will deter Optus from investing in its network but that the more modest improvement in TPG's position in the counterfactual as a result of sharing Optus' network will have the opposite effect and incentivise Optus to invest in its network 124. I have already explained I do not agree that the effect for TPG's competitive position is as Houston Kemp describe it. However I also think Houston Kemp have disregarded an important difference between investments that are made by Optus in the factual and investments made by Optus in the network sharing counterfactual. The difference is that the benefit of any investments made by Optus in the factual will be accessible only to Optus itself whereas in the network sharing counterfactual, any improvements in the Optus network in the Regional Coverage Zone will be equally accessible to Optus and to TPG. Houston Kemp (and CEPA) have ignored this effect. In my view it will mean that Optus' incentives to invest in its network under the counterfactual will be *weaker* not stronger relative to the factual 125.
- 95. I therefore disagree with Houston Kemp about the TPG network effect but I agree with Houston Kemp that the Telstra network effect will incentivise Optus to invest more in its network in the Regional Coverage Zone so as to be able to continue to compete more effectively with Telstra<sup>126</sup>. The contrary view, taken by CEPA, would imply that investments made by a market leader will lead following firms to accept a loss of customers, lower scale and less investment, leading to a further widening of the gap in competitive capabilities. This is a view of the world in which mobile markets ought to 'tip' quite quickly and result in a single monopoly network. That has not been my experience.

<sup>&</sup>lt;sup>123</sup> Optus para 3.47.'

<sup>&</sup>lt;sup>124</sup> HK para 89: 'I assume that the effect of TPG exerting an upward strategic force, rather than a downward strategic force, on Optus' investment would be potentially very significant'

<sup>125 .</sup> Conversely, as I recognised in my report, Telstra's incentives to invest in its network will be weakened in the transaction, relative to a counterfactual in which it does not have to share the benefits of those investments with TPG, Feasey para 70. Although none of the experts mention it, I note that Optus raise this issue at para 4.30, saying: 'sharing operators will no longer be the sole beneficiary of such investment. The degree to which this may materialise will depend on the terms of the agreement – without clear and transparent mechanisms to prevent abuse, the asymmetry of a MOCN NaaS is likely to accentuate this drawback, enabling the network operator to dictate network investment and ultimately determine the capability of the access seeker's services.' This seems confused: if Telstra can retain 'asymmetric' benefits from network investments and not share them with TPG under the arrangement then its incentive to invest will be greater not weaker.

<sup>&</sup>lt;sup>126</sup> Houston Kemp para 77

96. Finally I would say again that it is easy to overstate the significance of the Telstra network effect and its consequences for Optus' incentives. I do not expect the transaction to make a material difference to the coverage of Telstra's network in the Regional Coverage Zone and any quality improvements are largely obtained by the alleviation of congestion with the impact on network speeds being insubstantial<sup>127</sup>. Additional capacity in the Regional Coverage Zone and beyond should enable Telstra to compete more effectively for additional traffic and customers in those areas, but competition between Telstra and Optus at the national level will also be governed by the capacity constraints which Telstra faces in the major cities and the need to advertise and supply a national service with reasonably common characteristics and customer experience across all geographical areas. The same applies to any broadband speed advantages in the Regional Coverage one, which I consider likely to be small. Overall, this means that any network advantages Telstra derives from the transaction will in my view be of limited significance and their effect on Optus' investment incentives can be expected to be similarly modest.

Optus' competitive position in the counterfactual

- 97. I disagree with Houston Kemp about Optus' incentive and ability to invest in its network in a network sharing counterfactual.
- 98. Houston Kemp conclude that in their counterfactual TPG would become a closer and more effective competitor to Optus and Telstra, but not to the same extent as in the factual where TPG would have access to the Telstra network in the Regional Coverage Area. I gave my views on this issue earlier in this report.
- 99. I also explained earlier why I consider that Optus' incentives to invest in a network sharing counterfactual will be weakened, relative to the transaction, by the requirement to share the benefit of any such investments with TPG under a network sharing arrangement. Houston Kemp ignore this and consider that sharing its network with TPG will strengthen Optus' incentives to invest in its network relative to the factual.

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<sup>&</sup>lt;sup>127</sup> I note that Houston Kemp also conclude that the effect of the transaction on Telstra's incentive and ability to invest in the Regional Coverage Zone is ambiguous, para 97. I take a similar view and did not suggest in my report that additional network investments by Telstra (beyond those required to implement the MOCN and spectrum sharing arrangements it has agreed to) would be a likely consequence of the transaction. This does not mean that I would not expect Telstra to respond to additional network investments which I expect Optus would make in response to the transaction (i.e. second order effects). CEPA say: 'When it comes to both TPG's and Telstra's incentives [to invest] the acceptance of the counter-factual, where an NSA is concluded regardless, is core to Mr Feasey's argument. If this counterfactual is rejected and instead the status-quo is maintained there are potentially substantial differences in incentives to invest for both TPG and Telstra', p.32. CEPA do not explain what those differences might be for Telstra.

- 100. Houston Kemp consider that Optus' ability to make investments and improve its network in the counterfactual will also be greater than in the factual because it will be able to share costs with TPG and will have the benefit of additional wholesale revenues from TPG<sup>128</sup>. I agree that Optus' ability to improve its network in the counterfactual may be somewhat greater, but for different reasons to Houston Kemp and not to any significant degree<sup>129</sup>.
- 101. In my view, the additional revenues from and cost sharing with TPG that Houston Kemp say will enable Optus to invest in the counterfactual will be relatively trivial. Some indication of their magnitude could be provided by the additional revenues which Telstra expects to generate under the transaction and which I consider will make a negligible contribution to margins<sup>130</sup>. I do not expect Telstra's ability to invest in its network in the Regional Coverage Zone to be greatly affected by cost sharing arrangements with TPG and Optus' submissions do not suggest otherwise or that a result of the transaction will be significant investment in coverage by Telstra. I see no reason why the impact on Optus' ability to invest should be any different. I did not consider in my report that Telstra's incentive for entering into the transaction with TPG was chiefly motivated by the prospect of earning wholesale income from TPG or that this would have a significant consequential effect upon Telstra's competitive position.
- 102. In my view, the more important consideration for the assessment is whether the pooling of TPG spectrum would provide Optus with any significant benefit in the Regional Coverage Zone. Optus' own submission is somewhat inconsistent on the relative importance of each factor. Optus focusses on Telstra's access to the TPG spectrum as having a significant competitive effect rather than Telstra's access to any additional wholesale revenues it may derive from TPG but pays little or no attention to whether or how Optus would itself benefit from access to the TPG spectrum in the counterfactual<sup>131</sup>.
- 103. Houston Kemp do not recognise this point or comment on it, although I discussed it in my report<sup>132</sup>. I said that the evidence available to me suggested that Optus did not face the same kind of capacity constraints in its network in the Regional Coverage Zone as Telstra did and that this

<sup>&</sup>lt;sup>128</sup> Para 86. I think these are two ways of making the same point, since the additional wholesale charges will be the way in which Optus shares the costs of the network with TPG.

<sup>129</sup> Feasey paras 66-67

<sup>&</sup>lt;sup>130</sup> Footnote 69

<sup>&</sup>lt;sup>131</sup> I recognise Optus may say more about this in paragraphs that have been redacted but at para 7.59, for example, Optus says 'Optus loses existing and potential future income from a potential deal with TPG to subsidise regional expenditure.' but makes no reference to the consequences of not being able to pool spectrum with TPG.

<sup>&</sup>lt;sup>132</sup> This may be because Optus and Houston Kemp do not consider a network sharing agreement between TPG and Optus would involve the pooling of spectrum. I discussed the implications of pooling for Optus at Feasey para 67

would mean that access to additional TPG spectrum would have substantially less value to Optus in a network sharing counterfactual than to Telstra in the factual. I have said earlier that in my view any advantage of higher broadband speeds that Telstra derives from pooling the TPG spectrum will be insignificant in terms of competitive effect and I consider the same would apply for any benefit Optus might obtain in a network sharing counterfactual that involved spectrum pooling.

104. I therefore do not agree that Optus' ability to invest in its network would be materially greater in a network sharing counterfactual than in the factual, as Houston Kemp say, although I accept that it will somewhat greater. I do not agree with Houston Kemp that Optus' incentives to invest in its network would be greater under a network sharing counterfactual as a result of the TPG network effect. I think the opposite is more likely because Optus would be required to share the benefits of any investments with TPG under a network sharing counterfactual whereas it would retain them for itself in the factual. I note that Optus' own submission focusses on the impact of the transaction for Telstra and Optus' response to this, and not on the impact for TPG's competitive position which Houston Kemp say would be the dominant factor. The overall effect on the levels of investment that Optus would make in either the factual or any counterfactual is difficult to assess, but I consider it is unlikely to be very significant for competition in the national mobile market overall (in respect of which any investments in the Regional Coverage Zone are only one aspect).

## Conclusions on SLC

105. It is important to recall that, in the context of a merger assessment, it is not necessary to conclude that Optus' competitive position relative to Telstra or TPG must strengthen or even remain the same in the factual relative to the counterfactual in order to conclude that no SLC is likely to arise from the transaction. In this case, I agree with Houston Kemp that the transaction is likely to involve some repositioning of Optus and TPG, with TPG becoming a significantly closer and more effective competitor to Telstra and Optus becoming a somewhat more distant, although still close, competitor to Telstra than it would otherwise be in any counterfactual<sup>133</sup>. The assessment needs to consider the implications of these various effects in the round.

<sup>&</sup>lt;sup>133</sup> Such competitive repositioning is referred to in the ACCC Merger Guidelines at para 5.16: 'In some cases, rivals in differentiated product markets that are less direct competitors at the time of a merger may potentially overcome differences between themselves and the merged firm to become closer competitors. This may occur where rivals have the ability and incentive to reposition or extend their product range relatively easily and without significant cost in response to the merged firm increasing its prices. If the competition lost through the merger would likely be replaced by other rivals in the market or new entrants within a one- to two-year period, a merger is less likely to result in an increase in unilateral market power'.

- 106. As with most merger assessments, I consider there is more uncertainty about the magnitude and in some cases the direction of some competitive effects than about others. I am unclear about the position Optus take on some of the effects, particularly those for which their experts hold differing views. I am confident that the effect of the merger on competition between TPG and Telstra will be both significant and positive but less certain about the effect for competition between TPG and Optus. I am confident that any effect on competition between Optus and Telstra will not be substantial and so whether the effect is positive or negative for competition is of less concern. The SLC assessment will then involve consideration of not only whether the merger effects identified can be said to be 'likely' with sufficient confidence but whether, taken together, they will likely result in a lessening of competition that can be said to be substantial 134.
- 107. In my view, even if Optus were to be a somewhat less effective competitive constraint on Telstra and TPG in the long term factual relative to the counterfactual, the adverse effect on competition will not be substantial. This is because the difference in Optus' ability to invest in its network in the Regional Coverage Zone in a counterfactual in which it shares its network with TPG and in the factual is not significant and its incentives to invest will actually be weaker in the counterfactual. Moreover, investments in the Regional Coverage Zone are also only a sub-set of the investments that will determine the competitive dynamics in the market. Thus, even if Optus were to invest somewhat less in its network than it will otherwise do under the counterfactual and to become a somewhat weaker competitive constraint on Telstra and TPG as a result, I would still consider that the increase in competition between Telstra and TPG that results from the transaction (and which represents a long term change in the market that will persist for the duration of the arrangement) and the additional competition between TPG and Optus would lead me to the conclusion that, overall, there will be no likelihood of any substantial lessening of competition in any of the relevant markets. Given this, there would also be no question of an SLC arising if a less competitive counterfactual were adopted by the ACCC.
- 108. In order for me to come to the opposite view, I would need to be persuaded both that the change in TPG's competitive position relative to Telstra arising from the transaction will be insubstantial or negative and that the change in Optus' position relative to Telstra and TPG in the short and long term in the factual compared to the counterfactual would be materially adverse for competition. That might be the case if TPG and Telstra had proposed to fully merge their businesses or to share their networks on a fully national basis. It might also be the case if the

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<sup>&</sup>lt;sup>134</sup> The ACCC Merger Guidelines say at para 3.5:' Generally, the ACCC takes the view that a lessening of competition is substantial if it confers an increase in market power on the merged firm that is significant and sustainable. For example, a merger will substantially lessen competition if it results in the merged firm being able to significantly and sustainably increase prices'

counterfactual envisaged TPG deploying a national network, including in the Regional Coverage Zone, that fully matched those of Telstra and Optus. But I have seen no evidence to suggest it is the case for the transaction for which Telstra and TPG are currently seeking authorisation from the ACCC.

109. In the remainder of this report I discuss a number of other less significant points of agreement or disagreement that arose from my reading of the Optus' submissions. These relate to the effect of the arrangements on the ability of TPG and Telstra to differentiate their services from each other, the likelihood of the transaction resulting in an SLC due to co-ordinated effects and the relevance of international precedents.

# Incentive and ability to differentiate

110. I discussed the impact of the transaction, and specifically the mechanics of the transaction agreements, on TPG and Telstra's incentives and capacity to differentiate their retail services from each other (and from Optus) at some length in my report<sup>135</sup>. Houston Kemp do not address this issue in any detail but assume that TPG and Telstra will become closer competitors by virtue of sharing the same network in the Regional Coverage Zone. I agree with this for the reasons given earlier in this report.

111. Optus argue that that TPG's capacity to differentiate its services from those of Telstra under the transaction will be minimal and that TPG will become a less effective competitor to Telstra as a result. I have already explained why I disagree with this.

112. I have already noted any effect of the arrangement on TPG's ability to differentiate its services with respect to Telstra under the factual will also apply with respect to TPG's ability to differentiate its services with respect to Optus under an alternative active network sharing counterfactual. I explained in my report that the arrangement will allow TPG to direct Telstra to make investments in the MOCN which Telstra might not otherwise wish to make for its own benefit<sup>136</sup>. I also saw no reason why an arrangement with Telstra would impose greater limitations on TPG's capacity to differentiate its services from Telstra than an active network sharing arrangement with Optus would impose on TPG's capacity to differentiate its services from Optus<sup>137</sup>. I accept that any network sharing arrangement will impose greater limitations than if TPG were to continue to rely upon its

<sup>135</sup> Feasey par 73-85

<sup>&</sup>lt;sup>136</sup> Feasey para 82

<sup>&</sup>lt;sup>137</sup> Feasey para 84. I also noted that 'if the counterfactual were to involve domestic roaming arrangements between TPG and Optus, then the incentives and ability of the parties to the roaming arrangement to differentiate their services from each other would be significantly less than in the factual.'

own network to provide services in the Relevant Coverage Zone, although any benefits from such differentiation would also apply to a much more limited coverage area.

- about the more limited opportunities that TPG would have to differentiate its services under what they refer to as a MOCN NaaS, which is what they consider the arrangement to be, as compared to a MOCN JV. They say, for example: 'A key consideration here is decisions on 5G upgrades, which appear in the proposed agreement to be led by Telstra and only accessible to TPG six months later. A relevant question is whether TPG can realistically take unilateral decisions on 5G in the MOCN area. Furthermore, the activation of spectrum between 4G and 5G technologies, and use of Dynamic Spectrum Sharing (DSS) in the radio layer is likely to controlled by the main operator's needs, technology priorities and handset profiles. Here, it is relevant to assess whether TPG may be or become constrained by a network not optimally configured to support its best competitive priorities.' Later they say: 'Although TPG will be able to treat the RAN as its own, service differentiation will likely be limited due to its reliance on Telstra's infrastructure, choice of vendors and software upgrades as a result, TPG is unlikely to be able to offer better services than Telstra' 139.
- 114. I accept that these may be 'relevant questions' but I also think these are matters that need to be kept in perspective. In my view, TPG's primary incentive for entering into the transaction is not so that it can 'offer better services than Telstra' but so that it can offer services that are close to or as good as Telstra's, which is something it will not otherwise be able to do<sup>140</sup>. In my view Telstra (not TPG) is likely to remain the market leader when it comes to investments in new technologies and services and so the question is whether the arrangement will provide TPG with a better chance of keeping up with Telstra relative to the counterfactual not whether it will overtake it. I think it will.
- 115. I also think it is important to recall that the merger assessment involves comparison of TPG's ability to differentiate under the factual with the position it would find itself in under the counterfactual and not with a situation in which the alternative arrangement was a MOCN JV. It may be the case that a hypothetical MOCN JV would allow for greater differentiation but the counterfactual must involve scenarios that are realistically available to TPG. I found nothing in Optus' submissions or any of the other evidence I have seen that would lead me to think that a counterfactual involving TPG sharing a network with Optus would be a full JV.

<sup>&</sup>lt;sup>138</sup> Analysys Mason p.12

<sup>&</sup>lt;sup>139</sup> Analysys Mason p.23

<sup>&</sup>lt;sup>140</sup> Feasey para 83

- 116. In any event, I note that Analysys Mason agree with me that 'The ability of parties to MOCN agreements to compete independently and effectively depends on how they access the shared network resources of the MOCN and not on the nature or extent of their respective ownership interests in the RAN or any of the other assets being shared' 141. I think we agree that whether the arrangement between Telstra and TPG is a JV or not does not determine what the competitive effects of the arrangement will be.
- 117. As an aside, I would not accept, on the basis of my own experience, that a MOCN JV will necessarily produce better outcomes than an arrangement in which one firm retains 'primary control'. I have seen many network JVs, including some in Australia, suffer from paralysis as the JV partners disagree about what investments should be made and as their strategic objectives diverge over time. A network arrangement in which one firm retains primary control will avoid many of these issues and may allow both parties to be more effective competitors than either would otherwise be under a JV arrangement.
- 118. Optus say that Telstra's ability under the agreements to obtain exclusive access to sites upgraded to 5G for a period of 6 months and so differentiate its services from those of TPG will provide it with a 'first mover advantage' which TPG will find difficult to match subsequently 142. I do not agree that a period of 6 months would give Telstra an unmatchable advantage and nor do I consider it unreasonable in order to ensure that the merger does not have an adverse effect on Telstra's incentives to invest in 5G in the Regional Coverage Zone. I would expect Optus to seek similar rights if it pursued a network sharing arrangement with TPG that involved 5G.
- 119. Optus say that Telstra's capacity to differentiate certain of its services from TPG is greater, and so Telstra will be less constrained by TPG in respect of these services and customers, than I suggest in my report<sup>143</sup>. This point relates primarily to services supplied to enterprises and IoT services. These are legal and factual questions about the agreements which are better addressed by Telstra and TPG and which, due to commercial confidentiality, are difficult for third parties to assess. In my report I was more concerned that the arrangements might inhibit Telstra's ability to differentiate its services from TPG than any concern that it would enable Telstra to do so<sup>144</sup>.

<sup>&</sup>lt;sup>141</sup> Feasey para 8. Analysys Mason say: 'The ability of the access operator to offer superiority and diversity will be governed by the contractual and commercial arrangements of the NSA', p.12

<sup>&</sup>lt;sup>142</sup> Optus para 7.21(h)

<sup>&</sup>lt;sup>143</sup> Optus para 4.65-4.66 and 7.21(i)

<sup>&</sup>lt;sup>144</sup> Feasey para 80-81

#### Co-ordinated effects

- 120. I note that the Optus submissions offer some comments about potential co-ordinated effects, which I considered at more length in my report<sup>145</sup>. CEPA make a brief reference to the fact that network sharing arrangements in general require some degree of information sharing which might facilitate co-ordination in downstream markets<sup>146</sup>. They do not suggest that the proposed arrangements would be likely to result in an SLC based on co-ordinated effects and the rest of their report focusses on their claim that the transaction gives rise to an SLC based on unilateral effects. Houston Kemp do not refer to co-ordinated effects at all. Optus say that the ACCC should consider the question but do not identify any specific aspects of the merger arrangements between TPG and Telstra that would indicate a reason for concern<sup>147</sup>.
- 121. I therefore find nothing in the Optus' submissions that requires me to revisit my conclusion that an SLC based on co-ordinated effects will not result from the transaction between Telstra and TPG.

## International precedents

- 122. CEPA and Analysys Mason make a number of comments about the references I made in my report to international precedents and the views of the European Commission. I do not think much is served by responding to these in detail, since I agree that the ACCC is required to undertake its merger assessment based on the specific facts that are before it. My report was not intended and did not claim to offer a detailed overview of network sharing arrangements elsewhere in the world. I broadly agree with the contents of Analysys Mason's report, which does not directly address the merger assessment I undertook in my report.
- 123. I agree with Analysys Mason that the proposed transaction will not be a JV into which each party contributes its existing network assets, as is sometimes the case. A JV may be appropriate when two firms with assets of similar value wish to combine their operations. In this case there is likely to be a very big difference in the value of the Telstra network assets and the TPG network assets in the Regional Coverage Zone and I can fully appreciate why a JV would not work in this context. As noted above in relation to service differentiation, the precise corporate structure and ownership arrangements for the assets is not, in my view, of any real significance and no particular conclusions can be drawn from them. The competitive effects of any network sharing

<sup>&</sup>lt;sup>145</sup> Optus para 7.38-7.42, Feasey para 105-11

<sup>146</sup> CEPA para 70

<sup>&</sup>lt;sup>147</sup> Optus para 7.38-7.42

arrangement and the limitations it may impose on the incentive or ability of the shareholders to compete with each other or with others will depend on the governance arrangements that are in place. Analysys Mason say in relation to the arrangements: 'The contractual aspect of an MOCN NaaS agreement is therefore central to understanding the particularities of the arrangement between the main operator and the access operator, e.g. terms of access for the access operator, control and decision-making granted to the access operator, exclusivity clauses, benefits to the main operator, timeframe.' I agree with this but the same observation would also apply to most JV network sharing arrangements I am familiar with.

124. CEPA say that regulators are generally concerned about network sharing arrangements and imply that a European regulator would likely prohibit the proposed transaction<sup>149</sup>. I tried to explain in my report that it is unusual for European regulators or competition authorities to undertake merger assessments of the kind the ACCC is undertaking, and that most network sharing arrangements are viewed as horizontal agreements which, under European law, firms are required to self-assess<sup>150</sup>. I agree there are instances where European competition authorities have intervened and required that changes be made to network sharing arrangements. I think the evidence provided by CEPA and Analysys Mason shows that these are the exception rather than the rule<sup>151</sup>. I also agree with Analysys Mason<sup>152</sup> and said in my report<sup>153</sup> that developments in network technologies can mean that network sharing arrangements that might have been problematic in the past (e.g. because parties to the arrangement could not act sufficiently independently of each other) may not raise concerns today or in the future as technologies such as network virtualisation are introduced. This means the fact regulators elsewhere may have found network sharing arrangements problematic in the past does not mean the ACCC should consider the proposed merger will be similarly problematic.

<sup>140</sup> 

<sup>&</sup>lt;sup>148</sup> Analysys Mason p.1

<sup>&</sup>lt;sup>149</sup> CEPA p.5: 'Our review of other NSAs suggests that the proposed Telstra/TPG NSA, involving active sharing and a withdrawal by TPG from infrastructure-based competition in Regional Coverage Zone, is exceptional and would result in very close scrutiny by competition and regulatory authorities. As with other MOCN NSAs, it would almost certainly require substantial commitments from the parties to safeguard effective competition. Given what we know about the nature of the Telstra/TPG NSA, we are not convinced the terms would provide a sufficient threshold to safeguard effective competition.' See also p.30-31

<sup>&</sup>lt;sup>150</sup> Feasey para 15

<sup>&</sup>lt;sup>151</sup> CEPA identify five cases (in Iceland, Lithuania, Czech Republic, Italy and Germany) (in sections 2.4 nd 2.5) in which commitments of varying kinds have been required as a condition of approval of network sharing arrangements. The ADL report which I referenced in footnote 14 of my report identifies at least 17 such arrangements excluding Iceland. Analysys Mason list 17 examples of MOCN arrangements, of which they say 4 had commitments or obligations applied to them, see Annex A

<sup>&</sup>lt;sup>152</sup> Analysys Mason p.12

<sup>&</sup>lt;sup>153</sup> Feasey para

125. CEPA criticise my reference to the European Commission's reasoning on Hutchison/O2<sup>154</sup> but misunderstand the point I was making. The point was simply that the network sharing arrangements between TPG and Telstra will ensure that each remains an independent competitive entity in the relevant downstream markets and will not involve the elimination of competitors in the way that a full merger between two vertically integrated firms will do. This critical distinction is generally ignored or downplayed in the Optus' submissions.

Declaration

126. I have made all the inquiries which are desirable and appropriate (save for any matters identified explicitly in this report), and no matters of significance I regard as relevant have, to my knowledge, been withheld in preparing this report.

Prepared by Richard Feasey

25 July 2022

<sup>&</sup>lt;sup>154</sup> CEPA para 22-25

#### Annex A

Fig 1: Competitive interactions with and without transaction (TPG/Optus network sharing as most competitive counterfactual) – Feasey view (size of arrow illustrates strength of competitive constraint)

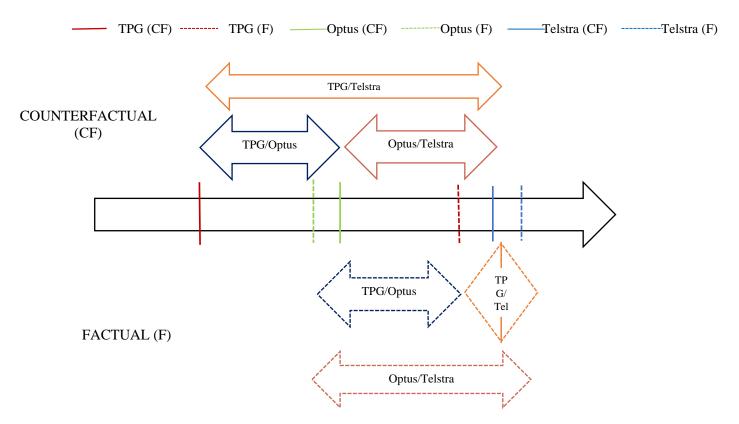
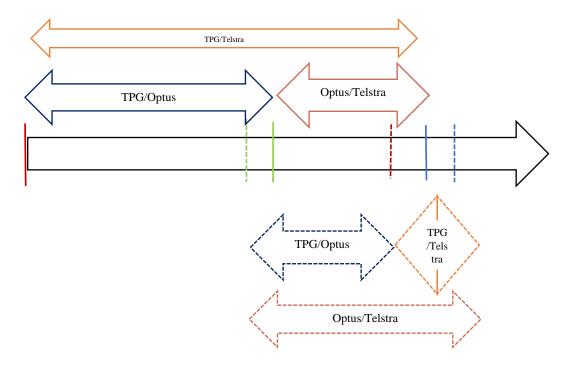


Fig 2: Competitive interactions with and without transaction (TPG relies on own network as least competitive counterfactual) – Feasey view



Special Counsel Contact Geoff Petersen Geoff Petersen

Our ref

GCP:1049539



## 22 July 2022

By email:			
Mr Richar	d Feasev		
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Confidential and privileged

Dear Mr Feasey

#### Application to the Australian Competition and Consumer Commission for Merger Authorisation

- We refer to our letter of engagement to you dated 29 April 2022 and letter of instructions dated 19 May 2022 (**May Letter**). Defined terms in both letters have the same meaning in this letter.
- We also refer to the submission from Optus to the ACCC in respect of the Authorisation Application, and the supporting reports of HoustonKemp, Analysys Mason and Cambridge Economic Policy Associates (**CEPA**).
- This letter sets out further instructions for the preparation of an expert report in response to Optus' submission and the reports of HoustonKemp, Analysys Mason and CEPA.

#### Instructions

- 4 You are instructed to prepare a further written report which:
  - (a) addresses the matters raised in the Optus submission and supporting reports, insofar as they relate to the questions asked of you in our May Letter and the opinions expressed in your report dated 20 May 2022; and
  - (b) identifies any change to the opinions expressed in your report dated 20 May 2022, and the reasons for any such changes.

# **Background documents and assumptions**

In preparing your report, please consider the documents listed in **Schedule 1** and the factual matters identified in **Schedule 2**.

## **Expert witness code of conduct**

- We ask that you prepare your report in accordance with the requirements of the Federal Court's Expert Evidence Practice Note (GPN-EXPT) (**Practice Note**), which includes the Harmonised Expert Witness Code of Conduct (**Code**). A copy of the Practice Note (including the Code) was enclosed with your letter of engagement.
- 7 Under the Code, your report must clearly state the following:
  - (i) your name and address;



- (ii) an acknowledgement that you have read this code and agree to be bound by it;
- (iii) your qualifications as an expert to prepare the report;
- (iv) the assumptions and material facts on which each opinion expressed in the report is based (this letter of instructions may be annexed);
- (v) the reasons for and any literature or other material utilised in support of each such opinion;
- (vi) (if applicable) that a particular question, issue or matter falls outside your field of expertise;
- (vii) any examinations, tests or other investigations on which you have relied, identifying the person who carried them out and that person's qualifications;
- (viii) the extent to which any opinion which you have expressed involves the acceptance of another person's opinion, the identification of that other person and the opinion expressed by that other person;
- (ix) a declaration that you have made all the inquiries which you believe are desirable and appropriate (save for any matter identified explicitly in the report), and that no matters of significance which you regard as relevant have, to your knowledge, been withheld from the court;
- (x) any qualifications on an opinion expressed in the report without which the report is or may be incomplete or inaccurate;
- (xi) whether any opinion expressed in the report is not a concluded opinion because of insufficient research or insufficient data or for any other reason; and
- (xii) where the report is lengthy or complex, a brief summary of the report at the beginning of the report.
- 8 We look forward to receipt of your report in due course.

Yours faithfully Gilbert + Tobin

**Geoff Petersen** Special Counsel **Andrew Low** Partner

Peter Waters Consultant



# Schedule 1 – documents provided

No.	Document
1.	Optus: Submission in response to ACCC market inquiry - Telstra and TPG application for merger authorisation for proposed spectrum sharing in regional Australia (June 2022)
2.	CEPA: Competition impacts of the proposed Telstra-TPG network and spectrum sharing agreements: for Optus (24 June 2022)
3.	Analysys Mason: Final report for Optus: The ACCC's consideration of the Telstra–TPG agreement (27 June 2022)
4.	HoustonKemp: Competitive effects of the proposed Telstra-TPG arrangement (28 June 2022)



#### Schedule 2 - Factual assumptions

#### Technical limitations on use of mid-band spectrum

- The coverage reach of mid band spectrum is comparatively small: ~1.5 km for outdoor coverage and ~0.70 km for indoor coverage for a standard site with antennas at 30m+ and flat terrain
- As propagation losses are greater with mid band (3.5GHz) spectrum compared to low-band, mid band will typically reach approximately 25% of the distance of lower band (700 MHz) spectrum.
- In area terms, this difference in reach means that from a site with both bands deployed, mid band (3.5GHz) spectrum will cover only about 7% of the area covered by lower band (700 MHz) spectrum.

## Technical limitations on ability to achieve higher speeds

- Telstra considers that the claims made in the Optus submission and Analysys Mason report regarding headline speed (Optus submission, [5.32]-[5.33]) are inaccurate.
- The comparison of mobile speeds on a single band as Optus have done is an artificial construct that does not occur in the real world and does not determine actual customer experience. As single bands don't deliver speed in isolation, overall speed will also depend on availability of low-band spectrum and effective reach of capacity (with mid-band coverage and capacity reaching only a fraction of that which low-band can reach) to customers who are moving around. Low-band spectrum availability, as a result, is the dominant factor on the average speeds customers will actually experience, particularly in regional and remote areas.
- The Optus claimed speed differences based on 3.5GHz spectrum in isolation and use and nonuse of Massive MIMO are also flawed for the following reasons:
  - (a) The pooled spectrum available for use in the MOCN will be carrying more traffic and connecting more customers which reduces the speeds possible than the Optus spectrum because the pooled spectrum is shared in two dimensions:
    - (i) between TPG and Telstra for mobile services; and
    - (ii) between mobile and fixed services of TPG and Telstra. 40% of the 3.5GHz spectrum is allocated to fixed wireless services (with Telstra and TPG equally sharing that spectrum allocation).
  - (b) The claims made by Optus and Analysys Mason appear to be based on worst case for Optus not using Massive MIMO, but a Telstra unrealistic best case using high order Massive MIMO.
  - (c) Massive MIMO has many configurations: generally, the smaller the sub-arrays, the narrower the beams and higher the capacity and speed. The higher order Massive MIMOs also utilise a combination of horizontal and vertical beams to maximise the outcome. The claimed advantage in speed for Telstra with Massive MIMO appears to be based on the highest order configuration. However, this highest order configuration can only deliver such gains in dense urban environments and are not relevant for regional (MOCN) coverage.



- (d) Telstra does not accept that it would not be feasible for Optus to deploy Massive MIMO due to their low bandwidth holdings, and Telstra has deployed Massive MIMO using smaller bandwidths than what Optus possesses in regional areas.
- (e) Speed / capacity benefits from Massive MIMO are in any event limited, as the mid-band it uses doesn't propagate over long distances, typically just 25% the range of low-band.