



Memorandum

To: Tim Sparks
From: Jason Ockerby and Hayden Green
Date: 16 October 2014
Subject: **WIK transaction charges**

1 Introduction

1. WIK has presented a report¹ that recommends a “bottom-up” (BU) calculation of transaction charges, based on the costs that would be incurred by an “efficient operator”.² WIK has indicated that such a model could be developed in “a few weeks”.³ In the alternative, WIK recommends setting these charges by indexing Chorus’ existing transaction charges to reflect expected efficiency gains whilst a BU model is developed.⁴
2. WIK object to a “top-down” (TD) approach to determining transaction charges that would be implemented using Chorus’ *actual* cost data. It claims that such an approach will not reveal efficient costs – essentially because it claims that Chorus may not be efficient.⁵ In particular, WIK notes that Chorus’ *underlying processes* may be inefficient, in which case the existing transaction charges will not represent efficient forward-looking costs.
3. Chorus has asked for our views on whether a BU approach to modelling transaction charges is likely to entail superior efficiency properties relative to a TD approach in the particular circumstances it faces. In our opinion, it would not. By way of brief summary, we base our conclusion on the following factors:

¹ WIK-Consult, *Submission in response to the Commerce Commission’s Consultation on setting prices for service transaction charges for UBA and UCLL services*, Report for Spark and Vodafone NZ, 25 September 2014 (hereafter: “WIK report”).

² WIK report, §27.

³ WIK report, §33.

⁴ WIK report, §15.

⁵ WIK report, §19.

- for some 7-years, Chorus (and Telecom before it) has been subject to a regulatory framework that has not provided it with an incentive to procure or provide the relevant services in an inefficient manner – quite the opposite in fact; and
 - many of the services in question have been and continue to be procured by way of competitive tender, and there can therefore be an even stronger presumption that these represent efficient forward-looking costs.
4. For those reasons, we see no reason to think that a TD approach would produce an inappropriate estimate of forward-looking costs. Rather, there should be a strong presumption that Chorus’ actual costs represent a proper reference point for establishing efficient forward-looking transaction charges. We do not consider the same presumption can be made with respect to WIK’s proposals, since:
- unlike Chorus’ actual costs, which are the product of 7-years of efficient cost discovery, the estimates produced by a model constructed in a “few weeks” would, in our view, inevitably be highly questionable; and
 - if such a model did, hypothetically, yield lower cost estimates, this would beg the question why there has been no entry into this market – an obvious explanation is that there are no such rents on offer to spur such activity.
5. In our view, if a BU approach is to be adopted despite these problems, it should be subject to careful cross-checks against local external costs from service companies to ensure that the transactions services modelled are feasible. It would also be appropriate to “market test” the elements of the services that are supplied by external parties to ensure that the charges and contingencies are sufficient to attract commercial providers, e.g., by offering the service for tender to commercial providers and imposing a cap equal to the allowed BU charge.
6. We also note that WIK’s alternative indexation proposal appears to be inconsistent with the final pricing principle, since it would amount to setting the relevant UCLL transaction charges based on benchmarking (and UBA connection charges at zero based on retail minus pricing) rather than on Chorus’ forward-looking costs (although, we recognise this is ultimately a legal question). We expand on these points below, beginning with an overview of the key differences between a BU and TD approach.

2 BU versus TD approaches

7. The primary difference between a BU and a TD approach is that the former is typically based on the costs that would be incurred by what WIK refers to as an “efficient operator”.⁶ The latter is based on the *actual* provider – in this case, Chorus, though these costs may be subject to some cross-checks against local external costs from service companies. If there is good reason to think that the actual service provider in

⁶ WIK report, §27.

question is providing or procuring the service inefficiently then, clearly, a TD approach that incorporates its existing cost data may serve to entrench that inefficiency.

8. For example, if one was setting an initial cost allowance for a previously unregulated monopolist that had not been subjected to any material competitive pressure to reduce costs or improve its efficiency, a TD approach may not result in an efficient ‘baseline’ charge at “year 1”, i.e., at the outset of the regulatory regime.⁷ If one was eager to ensure that the baseline was efficient from the onset of the regime, it may consequently be preferable to employ a BU approach.
9. However, under most conventional incentive-based regulatory frameworks, the importance of this distinction between “TD” and “BU” approaches may diminish over time (to the extent that there is a material distinction in the first place). Suppose, for example, that from “year 1”, a nominal price cap is applied to determine transaction charges for the ensuing five-years. If the regulated business can provide the service at a cost that is below this level, it is able to keep the difference as profit.
10. Under this incentive arrangement, even if there is initially some “fat” in the benchmark at “year 1” if a TD approach is used, when the regulator comes to reset that allowance at the outset of the second regulatory period, the regulated provider will have “revealed” that it can provide the service for that lower cost. This process of enticing the firm to reveal its efficient costs over time is the hallmark of incentive regulation. To be sure, there are some factors that can affect the strength of the motivation to reduce costs including, for example:
 - the length of the regulatory period, e.g., the longer is the period, the stronger the incentive to reduce costs, because the regulated firm is able to “keep” the savings made during the regulatory period for longer before the next reset (and potentially beyond that time – see next point); and
 - what happens at the end of the regulatory period, e.g., whether the firm is required to immediately pass on any efficiency gains in transaction charges in the next regulatory period, or whether it can retain (“carry-over”) some or all of those gains beyond that point.
11. Setting aside these more nuanced matters of detail, the fundamental point of this form of regulatory framework is that, over time, businesses are provided with an incentive to minimise costs, thereby revealing to the regulator the efficient baseline. It follows that, even if there is initially some divergence between a provider’s actual costs and the “true” efficient level, this will disappear over time by virtue of the incentive properties of the regulatory framework.

⁷ Although, it should also be noted that even a profit maximising, unregulated monopolist still has an incentive to minimise costs, and so a TD approach may in fact result in an efficient baseline – even in these circumstances.

12. This means that even if there might be a difference between the cost baseline produced by a TD versus a BU model in “year 1”, that difference is likely to have diminished substantially – if not disappeared altogether – by the outset of the following regulatory period. Put another way, there may be no material difference between the ‘baselines’ produced by the two approaches when they are employed in circumstances in which incentive regulation has been in place for some time.
13. It is consequently highly relevant to consider the incentive properties of the regulatory frameworks that have applied to Chorus (and Telecom before it) in the past. Indeed, if it has been subject to a regulatory framework that has provided it with incentives to reduce its costs and improve efficiency, then WIK’s fundamental proposition – namely, that Chorus’s existing process and costs are inefficient – simply falls away. As we explain below, that is precisely what occurs.

3 Relevance of past regulatory framework

14. The transaction charges that Chorus (and Telecom before it) has been permitted to set have, for the last seven years, been subject to a regulatory framework. Chorus is not, therefore, the “previously unregulated monopolist” described in our previous example. Rather, it is an entity that has been subject to price control for a considerable period. More importantly, the regulatory framework to which it has been subject has provided it with powerful incentives to reduce the costs it incurs providing these services.
15. Under the initial pricing principle (IPP) that has applied for the last 7 years, the prices that Chorus has been able to charge for the relevant UCLL transaction charges have been based on international benchmarks and therefore divorced from the costs that it has incurred providing those services. We understand that Chorus’ UBA connection charges have effectively been set at zero based on retail minus pricing.⁸ It follows that even if Chorus (or Telecom as it was then) was incurring an inefficient level of costs when the prices in the IPP was first applied (which is far from clear), it will have had a strong incentive to ensure that it incurs those costs efficiently since that time in order to improve its profitability, or minimise its losses.
16. It would not have been in Chorus’ interests to incur those costs wastefully, because this would have served simply to compromise its returns. Indeed, if Chorus doubled the amount that is spent procuring and/or providing transaction services this would have no effect on the prices that it could charge. These would continue to be based on the IPP, and the uplift in expenditure would simply come off Chorus’ bottom line. It therefore has no incentive to incur costs unnecessarily. It follows that Chorus historically has had an incentive to *reduce* the cost of transactions services.

⁸ This is a remnant of the fact the Telecom did not charge for connection at retail, which resulted in a zero charge when the previous a “retail-minus” principle was applied to the UBA charges’ connection charges.

17. The present circumstances therefore resemble more closely the scenario described above in which a regulated business has been subjected for some time to incentive regulation. Recall that, in this context, the incentive properties of the regulatory framework mean that there is no reason to believe that the business' actual costs will depart materially from efficient levels. By extension, there is no reason to think that a TD approach will differ materially from a BU approach. At the very minimum, the presumption should be that these costs are the starting point for efficient costs.
18. WIK appears not to have accounted for this highly relevant consideration in arriving at its recommendations. In essence, it is proposing to ignore the history of regulation of transaction charges that has created very high-powered incentives for cost minimisation in the delivery of transaction services. WIK is essentially proposing to supplant a seven-year process of efficient cost discovery for transaction services (since regulation was introduced in New Zealand) with "a few weeks"⁹ of bottom-up modelling. In our opinion, that proposal is unsound.
19. Rather, we consider that the historical operation of a regulatory regime that has provided strong incentives to reveal efficient costs provides a strong basis for the adoption of a TD approach. Specifically, we consider that the appropriate *a priori* assumption should be that the process prescribed by Chorus is efficient and that the onus should be on WIK to demonstrate that it is not. For the reasons set out above, in our opinion, the material set out in the WIK report is insufficient to overcome the presumption that the past regulatory framework has revealed an efficient cost level.

4 Significance of outsourcing

20. Our previous conclusion that the incentive properties instilled in the past regulatory framework can be presumed to have yielded an efficient cost level is reinforced by Chorus' conduct during this period. As we understand it, a significant proportion of the transaction services in question are outsourced and procured by way of competitive tender. In our opinion, this creates an even stronger presumption that those costs are efficient and can form robust inputs into a TD model.
21. In this respect, we find WIK's contention that because Chorus is "passing through major parts of the service companies' costs to the RSPs, it has no incentive to minimize [*sic*] those costs"¹⁰ difficult to comprehend. Even if it were true that Chorus had no interest in incurring those costs efficiently because it could "pass them through" (which it is not) it does not follow that an inefficient outcome would have resulted.

⁹ WIK report, §33.

¹⁰ WIK report, §21.

22. Rather, the rivalry between competing tenderers will have nonetheless served to ensure that only an efficient level of costs is outlaid.¹¹¹² Indeed, for Chorus to have incurred an inefficient level of costs to procure a service, notwithstanding undertaking a competitive tender, it would need to be established that there had been something deeply flawed with the process, for example:
- that Chorus had consciously excluded potentially efficient service companies from tendering for no good reason;¹³ and/or
 - that Chorus had deliberately selected a provider that would not offer the best price/quality proposition in the long run.¹⁴
23. We can see no logical reason why Chorus would go to the effort of running a competitive tender in order to engage in such conduct. WIK has provided no material in its report to suggest that Chorus has acted in such a way or that it has any incentive to do so. To the contrary, as we have set out in previous sections, Chorus has had every incentive to minimise the long-term costs of providing and/or procuring such services and its predilection for competitive tendering is symptomatic of such.
24. In our opinion, the fact that many of the services in question are procured by tender should therefore give the Commission a great deal of confidence that those costs are efficient. Indeed, it is relatively common practice for regulators to adopt a “rebuttable presumption” that services procured by competitive tender represent efficient costs. We see no reason why that should not also be the approach adopted by the Commission in this particular instance.
25. In our view, WIK’s argument that the addition of an overhead margin means the results of the tender are unreliable, is a second-order argument. We would envisage that the percentage margin that is added to these tendered costs will be set with reference to

¹¹ Even if this is not the case in the short-term, it will certainly be so in the long-term. For example, if the firms providing services to Chorus (and others) were seen to be earning “super-normal” profits, this would prompt other firms to enter (and/or existing providers to expand), so as to obtain those rents, causing prices to decrease in the long-run.

¹² We note that service companies can reasonably be expected to earn a margin on the costs that they incur providing transaction services. These margins might reflect the intangible assets such companies have invested in over time, including “know-how” in connecting services. Such margins are expected and common in workably competitive markets.

¹³ It is important to bear in mind here that it is not always efficient to run an “open” tender. If there are only a few candidates that can credibly supply the service it may be more efficient to invite only those suppliers to tender.

¹⁴ It is again important to note that it is not always appropriate to select the qualifying tender with the lowest price. There can be legitimate reasons for selecting a more expensive bid if it is better in other aspects, such as the service is expected to be more reliable or of a higher quality. It may also be in a firm’s long-term interest to pay a price for a period that is greater than the lowest qualifying tender where, for example, this might attract a new supplier to enter the market, since this could increase competition and result in lower costs in the long term.

Chorus' current costs (which for the reason discussed above would reasonably be presumed to be efficient).¹⁵ Furthermore, in respect of the commercial (i.e., unregulated) services that Chorus provides in competition with other providers, it will naturally have a strong incentive to minimise the cost outcomes in a tender, since it will be directly facing those costs.

5 Potential risks associated with a BU model

26. The previous sections have explained why it is not necessary to employ a BU approach to capture the “efficient” process and costs involved in providing transaction services. In short, the historical regulatory context and the way in which Chorus has procured those services means that the Commission can have a high degree of confidence that a TD approach will yield an efficient cost baseline. However, a BU approach would not only be unnecessary; it could also be undesirable – particularly if implemented in the manner contemplated by WIK. Most notably:

- First, there is a real risk that the modelling will not identify all of the activities, equipment and functions that need to be performed in order to provide the services. In this case, Chorus will not be compensated for its efficiently incurred costs. This risk would, naturally, be particularly pronounced if an attempt was made to produce a BU model within the timeframe proposed by WIK, i.e., a “few weeks”, which we consider to be inadequate;
- Second, the modelling would need to capture contingencies for unexpectedly positive or negative operating environments. It is difficult to assign probabilities to such events and there is a real risk the modelling will reflect a “rosy” scenario, leaving Chorus exposed to asymmetric risks and without a mechanism for it to claim for high-cost events; and
- Third, although a BU approach provides very high-powered incentives to minimise costs, this can come at the expense of creating potentially undesirable incentives to reduce quality in the long-run – an incentive not easily addressed through quality-of-service regulation. For example, services may be inappropriately classified in an attempt to reduce costs.

27. In our view, if a BU approach is proposed (despite the conclusions and recommendations set out above), it should be subject to substantial scrutiny and it should be incumbent upon the model developer to demonstrate:

- why existing processes and costs are inefficient; and

¹⁵ If there were however, any residual concerns, the Commission could easily update the margin in future regulatory periods to reflect Chorus' costs on the basis that it would have had strong incentives to minimise those costs in the interim.

- how the proposed model adequately provides for the delivery of the service, accounting for the requirements of retail service providers and the compatibility with their systems.
28. In particular, where costs are modelled for external service companies (e.g., time and motion studies), we consider that an appropriate test would be to put the modelled costs to tender to see whether external service companies would, in fact, be willing to accept the charges and contingencies allowed for in the BU model. Indeed, if a BU model did, hypothetically, yield lower cost estimates for a particular service than those currently being paid by Chorus' to external service companies selected by competitive tender this would cast considerable doubt on its efficacy.
29. Finally, we note that in terms of efficiency incentives, a BU approach is unlikely to capture efficient changes in transaction service processes and delivery. We note that Chorus may have sunk costs in existing service delivery processes that may, when compared to a BU process, be seen as inefficient. Nevertheless, from the perspective of incremental cost minimisation it may be efficient for Chorus to gradually transition to new processes of service delivery. For example, imagine that Chorus was faced with the alternatives of investing in a new BU processing system that costs \$100 every 10 years in perpetuity or continuing to operate an existing system and incurring \$60 in costs every 5 years in perpetuity. In this simple example, it can be shown that even though the existing system has a higher BU cost (\$120), it would be more efficient to continue to operate.¹⁶
30. In our view, a TD approach, with reasonable cross-checks (e.g., based on local input costs e.g., Chorus' service companies' charges) and a regulatory period with incentives to minimise cost would be an appropriate method of revealing efficient costs for transaction services. The latter could simply be achieved by setting a nominal price cap for these services over the regulatory period.

¹⁶ For example, if the two systems were replaced in perpetuity at the nominal constant costs indicated, the NPV cost of the new processing system would be \$162 and the NPV cost of the existing system would be \$158 (assuming a real discount rate of 10%).

6 Conclusion

31. In our opinion, it is neither necessary nor desirable to adopt a BU model to determine an efficient cost baseline for transaction services. The historical regulatory context and the way in which Chorus has procured those services means that the Commission can have a high degree of confidence that a TD approach will yield an efficient cost baseline. Moreover, a BU model approach may give rise to other significant problems that are not readily addressable – particularly if the unduly hasty approach proposed by WIK is pursued.