



Expert reports on the cost of capital for UCLL and UBA price review

- Review of submissions on the cost of debt and the TAMRP for UCLL and UBA services – Dr Martin Lally
- Review of the beta and gearing for UCLL and UBA services – Oxera Consulting

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Introduction

1. Thank you for the opportunity to provide comments on the two expert reports prepared for the Commission on the cost of capital for the UCLL and UBA price review. The two reports continue the consultation process commenced by the Commission with its 7 March 2014 technical consultation paper *Determining the cost of capital for the UCLL and UBA price reviews* (“**7 March Paper**”) and the subsequent submissions and cross-submissions provided by stakeholders in the process. The two reports now being consulted on are:
 - *Review of submissions on the cost of debt and the TAMRP for UCLL and UBA services* – Dr Martin Lally, Capital Financial Consultants Ltd, (“**Lally Paper**”); and
 - *Review of the beta and gearing for UCLL and UBA services* – Oxera Consulting, (“**Oxera Paper**”).
2. We have asked PricewaterhouseCoopers to provide us with advice in relation to Oxera’s review of the company-specific cost of capital elements associated with the use of the simplified Brennan-Lally CAPM methodology used by the Commission. Their expert report is appended to this submission (“**PWC Report**”).
3. We discuss the key issues raised from both reports by topic in this submission. In paragraphs 7 to 25 below we discuss issues related to the estimation of the allowable cost of debt and primarily drawn from the Lally Paper and Oxera’s comments on leverage, credit rating and debt beta, while in paragraphs 26 to 35 we discuss issues related to Oxera’s comments on equity and asset betas, and the question of different betas for the UCLL and UBA estimates of WACC.
4. There is no confidential version of this submission.

Use of foreign currency bonds: comments on the Lally Paper

5. Dr Lally considered the use of foreign currency bonds in his advice to the Commission on a range of issues raised in the consultation process on the 7 March Paper. He does not favour their use in estimating the debt premium due to issues with liquidity, data quality issues, and with approaches to weighting different bonds. As a result, Dr Lally suggests that only local currency bonds should be used and concludes that this approach does not result in bias in the estimation of a firm’s average DRP. Based on Dr Lally’s assertion that there is no systematic bias in the difference between debt risk premia between domestic and foreign currency bonds, Telecom is comfortable with this view although certain aspects of Dr Lally’s reasoning do raise concerns for us.
6. In our view, the careful use of foreign currency bond data could potentially be useful in a weighted average cost of debt analysis. We think that their inclusion would require more detailed analysis (including testing the relationship of debt risk premia in comparison with domestic currency bonds), should the Commission choose to include them. For companies with a sufficient scale to access foreign debt (and possibly equity) markets, foreign currency bonds may provide a reasonable source of funding diversification to reduce refinancing risk in a prudent debt strategy. In this regard, the fact that some companies are too small to access these markets should not be a consideration when considering modelling the debt margin for a New Zealand company of the scale of a hypothetical UCLL and UBA provider. We consider that the problems associated with the inclusion of debt margin data from thinly traded foreign currency

bonds in a cost of debt analysis on an otherwise un-weighted basis likely outweigh the benefits of including them in the Commission's analysis.

The use of Chorus' credit rating and leverage: comments on the Lally and Oxera Papers

7. The assessment of an appropriate leverage level is a prerequisite for the calculation of the cost of equity. The calculation of an estimated equity beta uses the asset beta estimate and the leverage assumption. The estimation of a long term credit rating requires consideration of the long term business risks (effectively subsumed in the debt and equity beta estimates), and of the appropriate leverage for a hypothetical UCLL and UBA provider. We start with Dr Lally's comments on the use of Chorus' actual credit rating, and then discuss the approach taken by the Commission in the Input Methodologies process, and the discussion set out in the Oxera Report.

Chorus' actual credit rating

8. Dr Lally does not favour the use of evidence as to Chorus' actual credit rating as the sole or primary observation to be used in choosing a target credit rating for a hypothetical fixed access network provider delivering UCLL and UBA services. We agree with his suggestion that the use of the Chorus credit rating would create incorrect incentives for Chorus and constitute a cost-based rather than incentive-based approach to the cost of debt for a hypothetical UCLL and UBA provider. We agree with Dr Lally's conclusions not to place sole or primary weight on Chorus' actual credit rating.

Credit rating for a hypothetical efficient provider of UCLL and UBA services

9. Oxera considers a range of evidence in relation to a long term credit rating including data on leverage from Chorus, a set of comparator firms, and consideration of regulatory precedent. This approach explicitly does not place sole or primary weight on Chorus' credit rating or leverage. We think this is the right emphasis to be used to reach a conclusion on leverage and credit rating for a hypothetical efficient UCLL and UBA provider.
10. In our view, if the Commission is properly to implement a TSLRIC model as envisaged by the legislation, the Commission should consider the credit rating of a hypothetical efficient provider of UCLL and UBA services, based on leverage assumptions and asset beta consistent with the average leverage of the refined, (or at minimum, the broader) comparator set, and hence reducing the issues surrounding the debt beta, as more fully set out in PricewaterhouseCooper's appended expert report.

Leverage assumptions – Oxera Paper

11. Oxera's approach to determining leverage is broadly to follow the Commission's process as used in the Input Methodologies. In determining leverage, we think the IM approach of using a notional leverage based on a sample of comparator firms used to estimate the asset beta is equally appropriate for use in relation to for a hypothetical provider of UCLL and UBA services, although some small modifications are likely to improve the quality of the estimates of each parameter.

12. The decisions on estimating the parameter values for estimating WACC are interrelated, and additional adjustments to parameters estimated in isolation increase the risk of estimation error. Accordingly, and for the reasons set out in PricewaterhouseCooper's expert report, we consider that the selection of a leverage assumption and an asset beta estimate are best drawn from Oxera's refined comparator set, and particularly so if a decomposition analysis of the business lines were to be undertaken.
13. Rather than placing sole or primary reliance on Chorus' leverage, the best available information as to the leverage of a hypothetical efficient provider of UCLL and UBA services would be the average of the refined, or possibly the broader, comparator set recommended by Oxera. Additionally, as PricewaterhouseCoopers comment, the use of a leverage assumption consistent with the asset beta estimate is likely to mean that an assumption of zero debt betas is likely to have negligible net effect on the accuracy of the overall WACC estimate.¹
14. Oxera conclude that a target Standard and Poors target credit rating within a range of A- to BBB+ is considered appropriate. We think that this range is likely to be reasonable although an analysis of the credit ratings of the companies contained in the broader, or preferably the refined Oxera comparator set would provide material assistance in assessing the point within this range that represents the most appropriate assessment of a target credit rating.

Estimating the debt risk premium

15. The Lally Paper suggests that a combination of a curve fitting approach, and the averaging over yields on bonds of a similar term are valuable approaches to be used in estimating the debt risk premium. Dr Lally notes that both the averaging and the various curve-fitting approaches are viable methodologies for estimation of the debt risk premium. He also acknowledges that there is no professional consensus on the overall best approach. We also consider that this combined approach has the potential to lead to a better quality estimate of the debt risk premium provided that sufficient information is available to support a robust estimate based on a curve-fitting approach. Dr Lally's recommendations do however raise some process concerns.
16. Dr Lally does not provide the Commission any clear guidance on which (if any) of the approaches to curve fitting he might recommend as best suited in the present circumstances; either for New Zealand market conditions, or in consideration of any specific issues that arise in the WACC estimation process for the UCLL and UBA FPPs. Even if there is no reason to prefer one of these approaches over the others, Dr Lally does not suggest how the evidence provided to the Commission from applying any one or more of the various curve fitting approaches should be weighed, evaluated or combined with the information on average yields on bonds of a similar term in reaching a decision as to the appropriate estimate of the debt risk premium. Our

¹ We note that PricewaterhouseCoopers also reach the same conclusion once a more appropriate relativity for debt betas for different credit ratings are allowed for.

concern is that this lacuna introduces scope for further complication to the WACC estimation process.

17. On balance, we think the Commission should consider the availability of information to support a sound application of the curve-fitting approach, and determine whether to seek expert guidance as to the choice of curve-fitting methodology in the circumstances. We would support the Commission's decision to use the averaging approach alone as an alternative to a combined approach where a robust application of a suitable curve-fitting methodology was not feasible.

Approach to regulatory debt policy

18. Dr Lally does not support the firm-specific use of the term credit spread differential (TCSD), and suggests that regulated firms in New Zealand have an assumed average debt term equal to a prudent borrowing, assessed at approximately seven years. The Lally paper supports an allowance for the transaction costs on notional interest rate swap contracts to swap the underlying risk free rate on staggered issuance of debt to the regulatory risk free rate basis. This leads to a proposed regulatory debt policy using the opening risk free rate with a term matched to the duration of the regulatory cycle, a debt risk premium estimate for a term matched to the average term for regulated firm borrowing, and including the transaction costs on interest swap contracts.
19. We note that this approach is essentially that used in relation to the TSO WACC determinations for the 2006/2007 and 2007/2008 year apart from the specific nature of the swap costs reflecting Dr Lally's proposed assumption of staggered borrowing. We think there is merit in Dr Lally's proposal to use a hypothetical prudent staggered debt issuance programme for the reasons he sets out in his paper.
20. In our view Dr Lally's suggestion is the preferred approach to setting the allowed cost of debt. This substantially reflects the reasoning set out in our submissions and PricewaterhouseCoopers reports in relation to the TSO WACC determinations for the 2006/2007 and 2007/2008 year, and our submissions on the UCLL and UBA FPP process WACC determinations of 31 March 2014, and the PricewaterhouseCoopers report of the same date. Telecom agrees with Dr Lally that the TCSD approach should not be used.

Approach to the tax adjusted market risk premium

21. In relation to the estimation of the tax adjusted market risk premium, (TAMRP), Dr Lally has used five different methods to produce an estimate of the TAMRP for both five and ten year terms. These methods are consistent with how the Commission has determined its existing TAMRP estimate of 7%. He considers this approach preferable to the use only of the dividend growth model, (DGM) as proposed by CEG in their expert report for Chorus dated March 2014.
22. Telecom has some concerns as to the detailed application of Dr Lally's use of the five methods outlined in the Lally Paper to derive estimates of TAMRP for New Zealand and an average TAMRP based on results for a range of foreign markets, and its usefulness in indicating a forward looking TAMRP for use in estimating an appropriate forward looking WACC for the UCLL and UBA FPP process. We have raised a range of issues about similar concerns around the estimation of historic TAMRP in our past submissions on WACC, (for example in relation to

reliance on the Siegel approach and the lack of timeliness of forward looking TAMRP estimates). We refer the Commission to these submissions again.

23. Despite these reservations on Dr Lally's approach to deriving a TAMRP estimate, we agree with Dr Lally that the use of a single method alone for estimating the TAMRP, and particularly the use of the DGM, is inappropriate.

PricewaterhouseCoopers expert report on the Oxera Paper

24. Oxera provided the Commission advice on estimation of the asset beta for a fixed access telecommunications provider, of its gearing and long term credit rating, the assumed debt and equity betas for such a provider, and whether the UCLL and UBA services should have a different service specific beta to the whole of entity beta for such a provider.
25. We asked PricewaterhouseCoopers to review and provide us with comments on the Oxera Paper. Their report to us is appended to this submission. In summary, they suggest that the evidential weight placed on Chorus own actual beta by Oxera comes with a range of risks which increase the probability and magnitude of estimation error around an estimate of the beta applicable to a hypothetical provider of UCLL and UBA services. Oxera consider the Chorus beta to be strongly relevant as the best available evidence of a separated fixed access network operator comparable.
26. The data limitations surrounding Chorus' limited two year trading history, and the exclusion of trading data surrounding the "regulatory shocks" to the share price also represent a limitation on the adequacy of information from which to make a robust estimate of Chorus' beta. By undue focus on Chorus' own actual beta the risk is that the subsequent analysis of asset beta for a hypothetical UCLL and UBA operator is likely to be overly influenced by the perception of Chorus's position without taking account of the issues related to structural separation, regulatory change, the influence of the fibre roll-out and agreements with Crown Fibre Holdings, (and additionally certain unregulated services other than UCLL and UBA which may also drive additional joint and common costs and risks).
27. In other words, significant weight on Chorus' own asset beta is likely to make it more difficult to carry out a proper comparison with a fixed access network operator providing solely UCLL and UBA services. The hypothetical UCLL and UBA provider estimated beta should likely better be derived from comparator datasets including diversified telecommunications operators, and regional infrastructure businesses, and finally, tested for consistency with Chorus, possibly with a high-level cross-check against regulatory precedent. Although the order of reasoning set out in the Oxera Paper differs from this approach, the refined comparator set compiled by Oxera provides comfort as to the comparability of integrated telecommunications providers, and to the extent possible because of data limitations, with Chorus. We think the most robust approach to estimation of the asset beta would be the approach suggested by PricewaterhouseCoopers - to estimate the asset beta based on the refined comparator set and a more conventional five year analysis.
28. PricewaterhouseCoopers suggest, based on the standard error of Oxera's estimates that it is not possible to conclude that Chorus' equity beta differs from the market average equity beta.

PricewaterhouseCoopers advise that in their expert opinion, it would be more reasonable for Oxera to have placed greater emphasis on the information on beta derived from a representative sample of integrated telecommunication providers listed in overseas markets. Any remaining concerns about comparability with the hypothetical UCLL and UBA provider could be addressed if necessary by undertaking a beta decomposition analysis on a line of business basis. Their detailed comments on these matters are set out in their expert report.

29. Oxera's comparator sample consisting of international telecommunications companies provides the basis for their overall estimate of an equity beta for Chorus. Oxera suggest, based on market data and assuming a zero debt beta and a gearing ratio of 40%, that the equity beta for Chorus would be within a range from 0.55 to 0.85.
30. In their expert report, PricewaterhouseCoopers set out their detailed analysis and conclude that, ignoring debt betas, (which they say would be reasonable to do), and subject to their comments on this issue elsewhere in their report, an equity beta range of 0.55 to 0.60 for UCLL and UBA services would be more appropriately derived from the data Oxera present than the range suggested by Oxera.
31. As noted above, we think that the best available information as to the leverage of a hypothetical efficient provider of UCLL and UBA services would be the average of the refined, or possibly the broader, comparator set recommended by Oxera. Additionally, as PricewaterhouseCoopers comment, the use of a leverage assumption consistent with the asset beta estimate is likely to mean that an assumption of zero debt betas is likely to have negligible net effect on the accuracy of the overall WACC estimate.

For the reasons set out in the expert report by PricewaterhouseCoopers, it is inappropriate for Oxera to place emphasis on Chorus to carry out an analysis of debt beta. PricewaterhouseCoopers assess the difference between Oxera's assessment of the debt betas for its comparator companies and the likely debt beta for the hypothetical provider of UCLL and UBA services as minimal.

Is a separate beta required for UCLL and UBA?

32. Telecom agrees with the conclusion reached by Oxera that there is no clear justification for differentiating the asset beta for the UCLL service from that for the UBA service. It is possible that further investigation, such as a beta decomposition analysis based on analysis of line of business beta estimates, might provide usable results to demonstrate that the asset beta should be differentiated between the hypothetical UCLL and UBA provider on the one hand and integrated telecommunications providers or Chorus on the other. For the reasons set out above, we do not agree with the Oxera conclusion that it would appear reasonable to make no adjustment to the Chorus beta analysis when deciding on a beta for UCLL and UBA. We prefer the approach suggested by PricewaterhouseCoopers - to estimate the asset beta based on the refined comparator set and a more conventional five year analysis.