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Public

Submission in response to the Commission's expert reports on the cost of capital for the UCLL and UBA price reviews

Chorus

EXECUTIVE SUMMARY

1 This is Chorus' submission on the Commission's expert reports that review submissions received on the Commission's technical consultation paper "Determining the cost of capital for the UCLL and UBA price reviews". Dr Lally reviews submissions on the cost of debt and the tax adjusted market risk premium (TAMRP) (**Lally Report**) while Oxera reviews submissions on beta and gearing (**Oxera Report**).

2 This consultation on a weighted average cost of capital (WACC) for Chorus, for the first time, enables investor returns to be set at the level which properly reflects the risk profile of Chorus' business. Doing so is important for investors, retail service providers and the long term benefit of end users. As the Commission has noted, WACC needs to be set at a level that encourages investment and therefore benefits consumers.[1]

> *The cost of capital is the financial return investors require from an investment given its risk. Investors have choices, and will not invest in an asset unless the expected return is at least as good as the return they would expect to get from a different investment of similar risk.*

3 This approach is consistent with the Commission's explanation of the section 18 purpose statement:[2]

> *…we have decided that to help build predictability in regulation, we will respect what we see as reasonable investor expectations in relation to major telecommunications infrastructure. The link to section 18 is that predictability supports investment, and investment promotes competition for the long-term benefit of end-users.*

4 This focus on reasonable investor expectations and regulatory predictability is important, and has a useful role in considering expert advice and making decisions in the WACC context. In particular, the Commission should:

4.1 Look for evidence of efficient behaviour in real world markets, and where this conflicts with a priori reasoning favour the evidence of the constraints and expectations faced by real world investors and firms;

4.2 More generally, base its WACC decisions on more information rather than less;

[1] Determining the cost of capital for the UCLL and UBA price reviews, Technical consultation paper, Commerce Commission, 7 March 2014

[2] Consultation paper outlining our proposed view on regulatory framework and modelling approach for UBA and UCLL services (9 July 2014), paragraph 80]

4.3 Be confident it is identifying an expected return that resonates with real world expectations and attainable levels of efficiency.

5 Chorus' previous submission, which included expert reports from Dr Hird of the Competition Economists Group (**Hird Report**) and Professor Grundy (**Grundy Report**), took this approach. In estimating a WACC that compensates for the risks of providing the UCLL and UBA services, the Hird Report proposed that the Commission:

5.1 Have regard to a wide sample of comparator telecommunications firms. Dr Hird examined the asset beta, gearing and credit rating across his sample;

5.2 Determine cost of debt to be consistent with efficient debt raising practices in real world markets and having regard to a wide range of information and using quantitative techniques to generate accurate estimates; and

5.3 Estimate TAMRP to be consistent with the estimate of risk free rate as required in the application of the CAPM.

6 The Lally and Oxera Reports suggest changes to the methodology in the Hird Report for determining WACC parameters. These changes would likely have the effect of substantially lowering the estimated cost of capital for an unbundled copper local loop (**UCLL**) and unbundled bitstream access (**UBA**) service provider, inconsistent with the reasonable expectations of investors.

7 WACC experts, Dr Hird (see the **Hird Response** attached) and Professor Bruce Grundy (see the **Grundy Response** attached), have reviewed the Lally and Oxera Reports. Those responses are attached to this submission.

8 The Commission is encouraged to consider the following in assessing the expert views presented to date:

8.1 WACC should be based on an internally consistent and achievable efficient financing strategy that the UCLL and UBA service provider is assumed to undertake. It should be based on the costs that would be actually incurred in real world markets in implementing that strategy.

8.2 The Lally and Oxera Reports evidence that the Input Methodologies (**IMs**) work of the Commission in other industries is only a starting point. Those Reports make proposals that depart from the IMs for other industries. Where Dr Hird and Professor Grundy are also recommending departures from the IM position this advice should be considered on its merits. The objective is to identify a WACC that accords with real world investor expectations in New Zealand's telecommunications markets, something that was not considered during the IM process.

8.3 Key areas of disagreement with Oxera and Dr Lally relate to Dr Hird's preference to use a broad range of relevant information (for asset beta, gearing, credit rating and DRP) and to rely on financial market behaviour in assessing the WACC (DRP and TAMRP). This goes directly to the need to ground the WACC decision in evidence of the real world expectations of investors.

8.4 The Hird Response provides evidence that the Oxera Report has used methodologies that are not statistically robust. Inappropriate and inconsistent comparator sets have been used. For example, the proposed exclusion of fibre businesses by the Oxera Report appears at odds with including businesses that substantially rely on mobile revenues and profits in the sample of comparators, as well as the Commission's preliminary views on the modelling approach for the UCLL service.

8.5 International data (including foreign currency bonds and the debt practices of regulated businesses in other countries) has been excluded in the Lally Report using arbitrary rules. The WACC decision should be based on as much evidence as possible regarding the real world expectations of investors.

8.6 When considering the term of debt, the Lally Report misinterprets the practice of New Zealand businesses. The Lally Report has not taken into account relevant factors including the industry the businesses are operating in, the size of the businesses and the ownership structure.

8.7 The Grundy and Hird Responses evidence that assumptions made in the Lally Report (around franking credits and the ability to hedge interest rate exposure) do not take account of commercial practicality and potentially raise significant risks of regulatory error.

9 Without adjustment of the approaches in the Lally and Oxera Reports, the Commission risks significantly underestimating the appropriate WACC. Both the Commission's methodology and results would be well out of step with the reasonable expectations of investors in Chorus, the industry and generally.

10 Reasonable expectations suggest that the WACC determined by the Commission in telecommunications should be greater than it would calculate for regulated electricity and gas networks. The asset beta is a key point of comparison between regulatory decisions where other factors may be calculated on a different basis. Dr Hird shows that the asset beta for Chorus determined using the IMs approach is significantly greater than that applied by the Commission in the energy sector. Similarly, asset betas for telecommunications fixed line network providers are set higher than for electricity and gas networks in Australia by the ACCC/AER and in the United Kingdom by Ofcom/Ofgem. US regulators tend not to report asset betas, however, analysis by Professor Aswath Damodaran shows the same pattern empirically for United States firms.[3]

[3] http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/Betas.html

11 Chorus' submission comprises:

11.1 This covering submission in three parts;

(a) Input Methodologies are only a starting point:

(b) Response to the Oxera Report; and

(c) Response to the Lally Report.

11.2 The attached expert response of Dr Hird (the **Hird Response**); and

11.3 The attached expert response of Professor Grundy (the **Grundy Response**).

INPUT METHODOLOGIES ARE ONLY A STARTING POINT

12 The initial technical consultation paper stated that the Commission intended to use the cost of capital IMs as a starting point when estimating the WACC for the UCLL and UBA services. Submissions were invited on the asset beta, leverage and implied long-term credit rating associated with providing the UCLL and UBA services. However the Commission stated that it intended to use the methodologies or values specified in the IMs for the TAMRP and certain other parameters.

13 The Hird Report explained why the approach to WACC in the IMs is a starting point only. Specific consideration for this industry and appropriate changes are required because:

13.1 Provision of the UCLL and UBA services would be expected to have different risks compared to those of other industries regulated under the IMs; and

13.2 The emergence of new data, advances in theory and improvements in analytical techniques.

14 The Lally and Oxera Reports have not disagreed that it is reasonable and appropriate for the approach to calculating WACC to evolve over time. Further, the Lally and Oxera Reports produced for the Commission depart from the IMs in a number of areas. For example:

14.1 The Lally Report advises that the Commission should not augment the cost of debt with a term credit spread differential (**TCSD**), notwithstanding that this is what the Commission does for electricity distribution businesses (**EDB**s) with long debt maturity profiles;

14.2 The Lally Report advises a term for the cost of debt of seven years for Chorus based on the same information considered by the Commission in determining a term for the cost of debt of five years in its IMs; and

14.3 The Oxera Report recommends the use of non-zero debt betas in de-levering equity betas - an approach rejected by the Commission in its IMs.

OXERA REPORT: ASSET BETA, GEARING AND LONG-TERM CREDIT RATING

15 The Hird Response has reviewed the Oxera Report's views on estimating asset beta, gearing and long-term credit rating. The Hird Response advises that:

15.1 The Oxera Report makes a number of assumptions that result in Oxera recommending a range for asset beta that is too low in relation to the risks faced by a fixed line provider of broadband services in New Zealand. In particular:

(a) A more robust approach recommended by the Hird Report is to estimate asset beta having considered a wide set of comparable firms;

(b) Having regard to longer-term betas, as the Commission did in the IM process, remains relevant for this industry, given its long asset lives and rapid innovation, which should tend to give rise to increasing beta, rather than lower beta as claimed by Oxera. The Hird Response advises that the Oxera Report's own analysis suggests that the apparent fall in measured betas over-time is a statistical artefact rather than the result of an underlying economic trend; and

(c) The proposed exclusion of fibre businesses by the Oxera Report appears at odds with the inclusion of businesses that substantially rely on mobile revenues and profits in the sample of comparators, as well as the Commission's preliminary views on the modelling approach for the UCLL service.

15.2 The Oxera Report recommends a long-term credit rating of BBB+/A- without having any regard to the credit ratings on the sample of comparators that it uses to determine asset beta and gearing. The Hird Report recommends the use of a consistent sample of comparators.

LALLY REPORT: COST OF DEBT, TAMRP AND LONG-TERM CREDIT RATING

16 The Hird and Grundy Responses have reviewed the Lally Report on estimating the cost of debt, TAMRP and the long-term credit rating.

17 The Hird Response agrees with the conclusion that the benchmark term for debt should be aligned with the average debt term for similar firms. A TSCD should consequently not be applied. However, the Hird and Grundy Responses disagree with commentary in the Lally Report on a number of issues, including:

17.1 The term of debt to be used. The Hird Response advises that the recommendation in the Lally Report that the Commission adopt a 7 year term is based on a misinterpretation of the practice of New Zealand regulated energy and airport businesses. The Hird Response recommends that the Commission examine the term of debt more broadly. This will enable the Commission to include regulated businesses in other countries, including specifically telecommunications businesses such as those in the sample of comparators used to determine asset beta;

17.2 The basis for estimating the cost of debt. The Hird and Grundy Reports show that the preferred "Option A" (current risk free rate with a current debt risk premium) in the Lally Report is inferior to the other options canvassed in the Lally Report;

17.3 The exclusion of foreign currency bonds. The Hird and Grundy Responses advise that the Lally Report has not established a basis for this exclusion;

17.4 Estimating the TAMRP consistently with the risk free rate:

(a) The Hird Response recommends giving greater weight to current estimates of the TAMRP than suggested by the Lally Report; and

(b) The Grundy Response shows that when taking account of the fact that not all dividends are accompanied by franking credits (a fact noted in the Lally Report) the unadjusted Brennan-Lally CAPM will understate the cost of equity for low beta firms (and vice versa for high beta firms).

18 The Lally Report and Hird Response both discuss the potential to adopt a cost of debt estimate that is based on the assumption that a firm hedges its interest rate exposure to the level of interest rates prevailing at the beginning of each regulatory period. In this context, we emphasise that it is not practical for Chorus to hedge the government bond rate – at least not without incurring significant costs in attempting to arrange bespoke contracts with counterparties. Any hedging that Chorus could undertake would need to be based on the use of interest rate swaps. It therefore follows that, under the options that assume such hedging, the risk free rate used in the cost of debt should also be the prevailing swap rate.

19 Assumptions made by the Commission over which hedging is assumed to occur (in advance) raises a significant risk of regulatory error, for example, as to the ability in reality of the swap market to absorb the volume of swap contracts that would be needed to reset the base rate on the entirety of the debt portfolio at a given time. This requires further consultation and the Commission will be aware of the sensitivity of such matters. Of course, no such hedging is required under Option C (a simple trailing average of fixed rate debt) proposed by Dr Hird and implemented by the other regulators internationally (the Australian Energy Regulator and Ofgem in the UK).