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Public

Cross-submission in response to submissions on the Commission's expert reports on the cost of capital for the UCLL and UBA price reviews

Chorus

1 This is Chorus' cross-submission responding to submissions prepared by and on behalf of Vodafone and Telecom in relation to the cost of capital for the UCLL and UBA price review. Vodafone's submission is prepared by Network Strategies (the **Network Strategies Report**). Telecom has provided a covering submission and attached an expert report prepared by PwC (the **PwC Report**).

2 The Network Strategies and PwC Reports respond to expert reports prepared for the Commission, which in turn considered an earlier process of submission and cross-submission concerning the Commission's technical consultation paper, released on 7 March 2014, *"Determining the cost of capital for the UCLL and UBA price reviews."*

3 The Commission's expert reports, referred to in this cross-submission, are:

3.1 The **Lally Report**, reviewing submissions on the cost of debt and the tax adjusted market risk premium (**TAMRP**); and

3.2 The **Oxera Report**, reviewing submissions on beta and gearing.

4 We asked Dr Hird to review the issues raised by Vodafone and Telecom regarding the Lally and Oxera reports as they relate to the task of estimating the risk adjusted WACC faced by a fixed line provider of broadband services in the New Zealand market.

5 A key overarching principle the Commission should bear in mind is that it must set WACC at a level that encourages investment. The Commission has rightly emphasised that regulation should be predictable and that reasonable investor expectations should be respected. This approach can and should inform the Commission's decision making in the WACC context. The Commission must take into account the expectations of investors, and identify an expected return that resonates with those expectations. To estimate an accurate WACC the Commission should make assumptions that are realistic by reference to businesses operating under the constraints of real world financial markets. Otherwise it risks underestimating the true cost of capital.

6 Chorus' cross-submission comprises:

6.1 This covering submission, which;

(a) briefly summarises the primary points of common ground and contention between the Hird Report and the Vodafone and Telecom submissions;

(b) explains that fibre-only businesses should not be excluded from the assessment of the asset beta; and

(c) discusses the weight that should be attached to betas estimated from pre-April 2009 data.

6.2 The attached expert response of Dr Hird (the **Hird Report**).

Overview of Hird Report

7 The Hird Report finds common ground with Vodafone and Telecom on a number of points:

7.1 The assumed term for the cost of debt should match the term of debt issued by similar businesses – not the term of the regulatory period (common ground with Telecom);

7.2 It is inappropriate to give too much emphasis to the single asset beta observation for Chorus and regard should be had for the wider sample identified by both Dr Hird and Oxera (common ground for all submitters);

7.3 the focus should not be solely on daily betas, and the standard error on a daily beta is not a measure of how robust that beta estimate is as a projection of future beta (common ground with the PwC Report and Network Strategies Report);

7.4 weekly and monthly betas would ideally be estimated using different definitions of a week and a month (common ground with the PwC Report). The Hird Report notes that Chorus' beta is much higher when this is done;

7.5 Deutsche Telekom should be excluded from Oxera's preferred sample based on the criteria that Oxera uses (common ground with the Network Strategies Report).

8 However, in other areas the Hird Report concludes that criticisms made of the Lally and Oxera Reports by submitters are not well founded. In particular, the Commission is invited to consider the following matters in assessing the submissions prepared to date:

8.1 The PwC Report's criticism of Oxera for having regard to beta estimates from before the last 5 years should be disregarded, because:

(a) it is inconsistent with the Commission's reasoning for selecting a sample period in the Input Methodologies, and would, if applied consistently, result in all data being rejected as unusable (including the last 5 years); and

(b) the Hird Report provides evidence that there has not been a reliable downward trend in betas that would justify giving more weight to the most recent 5 years of data.

8.2 The PwC Report appears to misunderstand Oxera's use of debt betas; and

8.3 The criticism in the Network Strategies Report of Professor Lally's proposal to adopt a term for the cost of debt in excess of the regulatory period would, if consistently applied, result in a much higher cost of debt and overall WACC than Network Strategies suggests (and higher than the Hird Report recommends).

9 In relation to the assessment of the asset beta, there are two main issues of contention between submitters:

9.1 Whether fibre-only businesses should be included or excluded (excluded explicitly in the Oxera and Network Strategies Reports, and implicitly in the PwC Report);

9.2 The weight to be given to betas estimated from data pre-April 2009.

10 More detail on each of these is set out below.

Inclusion of fibre-only businesses

11 The Oxera Report excludes fibre-only businesses from its 'refined' sample on the basis that comparators with no copper network assets represent *"a fundamental difference in the core assets of the comparator firm, and therefore in the nature of the business risk."*[1] Network Strategies has endorsed this exclusion. PwC has not endorsed the exclusion explicitly but has used the Oxera 'refined' sample as the basis for its own estimates.

12 The Hird Report suggests that the asset betas for four fibre-only businesses should, if anything, be given more weight than other businesses because they are pure fixed line businesses (with no mobile operations).

13 The four fibre-only firms have average asset betas, depending on how they are measured, of at least 0.70 compared to Oxera's proposed 0.42 midpoint asset beta and PwC's proposed 0.34 (Network Strategies does not proposes a specific value).

14 The Hird Report also advises that exclusion of the four 'pure play' fixed fibre operators would be inconsistent with the Commission's preliminary decision to base its cost model on a fibre network.

15 The Hird Report also observes that these four firms are relatively 'new entrants' and that this is a further reason for concluding that they are more relevant. New entrants are more likely to be exposed to the type of revenue volatility associated with the Commission's cost modelling (where revenues are reset every 5 years based on the costs of the prevailing costs of a new entrant). The Hird Report notes that if cost modelling is based on the assumption that prices and revenues are reset every 5 years based purely on hypothetically efficient technologies at that point in time, this would create a higher level of risk for the New Zealand operator than exists for any of the comparators – all of whom have costs and revenues that would be more stable than those modelled on the basis of a pure 'new entrant' (hypothetically efficient technologies) standard.

Weight to be given to data pre-2009

16 The Hird Report also considers the appropriate weight to be given to pre-2009 data, using the Commission's IM methodology (upheld by the High Court on appeal). Further research has been undertaken to determine the sensitivity of the estimated average beta for the purpose of identifying the least arbitrary approach. The Hird Report demonstrates that there is not a general downward trend in measured asset betas.

[1] Oxera, p. 25.

17 The Hird Report supports the position that the Commission has taken to date on this issue. Caution should be exercised when speculating *ex post facto* about the fundamental causes of variations in measured asset betas over time. Randomness in measurement is generally the primary explanation, rather than fundamental changes in underlying beta risk. The Hird Report suggests that PwC has erred in assuming that only the most recent data is relevant and in providing speculative reasons as to why earlier data is not representative. It notes that the same arguments for focusing on the last five years were considered and rejected by the High Court in the IMs judgment.

18 However, if PwC's criticisms of the pre-2009 data are accepted as relevant, the Hird Report notes that to be consistent the data arising out of the 2009 to 2012 period is arguably equally problematic. The most obvious criticisms are the lasting effects of the global financial crisis, which reached beyond 2009, and the impact of the 2011-2012 Eurozone crisis, which was at least as significant a crisis for the comparator sample. This demonstrates the futility of excluding data for speculative reasons. The most recent data for 2013 to 2014 indicates an upward trend back towards the pre-crisis norms.

19 For those reasons, the Hird Report advises in favour of giving weight to the entire range. Chorus agrees. The Hird Report demonstrates that the four years of data between 2009 and 2012 give rise to unusually low relative measured asset betas relative to both previous *and* subsequent years. PwC has erred in giving exclusive weight to the period with the lowest observed asset betas.