Chorus' response to Dr Lally's paper "Further issues concerning the cost of capital for fibre input methodologies."

20 August 2020

OVERVIEW

1. We welcome the opportunity to respond to Dr Lally's paper *Further issues concerning the cost of capital for fibre input methodologies*, 25 May 2020.

2. Our response below, along with the attached expert reports prepared on behalf of Chorus by Sapere, *Cost of capital for fibre input methodologies – response to Dr Lally*, and Incenta Economic Consulting, *Crown financing – issues raised in further paper by Dr Lally*, should be read in conjunction with previous submissions and expert reports we have provided to the Commission on the cost of the capital for fibre input methodologies.

3. Our key areas of concern remain that the Commission in estimating the cost of capital adheres to its three key economic principles of ensuring:[1]

   - **Real financial capital maintenance (FCM)** – as an efficient provider should expect to earn a normal risk-adjusted return on an investment.

   - **Efficient risk allocation** – as the party best placed to manage the risk should bear the risk and be compensated for that.

   - **Recognising the asymmetric consequences of over- and under-investment** – and that an expected NPV = 0 outcome crucially depends on how the cost of capital is estimated.

4. Achieving these outcomes is consistent with the section 162 purpose of the Telecommunications Act of promoting the long-term benefit of end-users. This requires that the Commission, in deriving any estimate of the cost of capital, accounts for the separate risks that exist in the pre-implementation period from 2011 to 2021 and from the first regulatory period and beyond.

5. Finally, while our response specifically addresses Dr Lally's report, issues in relation to the cost of capital estimate are also likely to arise in light of the recent Commission report, *Further consultation draft (initial value of financial loss asset) – reasons paper*, 13 August 2020. It is important that any potential interrelationships between issues raised in Dr Lally's report and the Commission's proposed estimation of the financial loss are considered. To the extent we see any potential interrelationships, we have noted these below. We intend to provide additional commentary on these issues in a separate submission responding to the initial value of the financial loss asset.

Dr Lally, Further issues concerning the cost of capital for fibre input methodologies

6. We understand that Lally's paper sought to address:

   - Issues on the cost of capital arising from submissions on the Commission's Draft Decision 2019 and associated cross-submissions.

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[1] Commerce Commission, *Fibre regulation emerging views – summary paper*, 21 May 2019, p 19, para 58.

- Further questions posed by the Commission on the treatment of the avoided cost of Crown financing, asset beta, the equivalence of a net cashflow and building block approach, and using the same risk-free rate for the cost of debt and equity for compounding the losses forwards to 2021.

7. Of particular concern to Chorus is Lally's proposed approach to estimating the cost of capital for the calculation of the financial loss. The approach implicitly estimates the cost of capital by treating the pre-implementation period as a hybrid of a regulatory and commercial period, and presumes investors knew how losses would be treated in 2011. As we highlight in more detail below, this approach to setting the cost of capital is unreasonable. It does **not** provide investors with an expectation that they will achieve real financial capital maintenance and is not aligned with the section 162 purpose of achieving outcomes in the long-term benefits of end-users.

8. The key findings of the expert reports by Sapere and Incenta assessing separate aspects of Lally's paper are also summarised below.

Lally's estimate of the cost of capital to calculate financial losses does not achieve FCM

9. Dr Lally's approach to calculating the financial loss treats the investment in the pre-implementation period as if it was a commercial investment, and not an investment subject to a single regulatory or single pricing period. According to Lally's recommended approach, the financial loss would be calculated using a cost of capital that has a term of the risk-free rate that updates every year to reflect the remaining years of the pre-implementation period. This implies in each year the compounding loss is calculated using a cost of capital estimate that has descending term of the risk-free rate of 10 years, then nine years, eight years, etc.

10. The technique to base the cost of capital estimate on a term of the risk-free rate and any debt premium consistent with the remaining years of the pre-implementation period, is aligned with the approach Lally has recommended and the Commission has adopted in the price setting of regulated services. That is, the term of the risk-free rate when estimating the cost of capital for price regulated services is set equal to the term over which the regulated prices are set.

11. Estimating the cost of capital using such an approach is justifiable and valid on the basis that the regulated business has knowledge that it will have its price reset in line with cost at the end of the regulatory period. This means that while the investor may initially expect a return over a longer term given the long-lived nature of the infrastructure asset, it will enter into the appropriate swap contracts to lock in a term of the cost of debt that matches the term of the price regulation.

12. The implication of the price regulatory outcome, is that in order for Lally's similar term matching approach to be valid in estimating financial loss in each year of the pre-implementation period, investors would have required pre-existing knowledge of how the losses were going to be calculated at the outset for Chorus. However, this was definitely not the case.

13. As acknowledged by Lally, the requirement for the regulatory asset base (**RAB**) to be calculated with reference to an estimate of actual financial losses was only provided for in 2018.[2] Even then, as evidenced from the current debate, the matter of how financial losses are to be calculated and incorporated in the RAB remains subject to material uncertain. By imposing such a cost of capital estimate in calculating the financial losses, Lally's approach effectively presumes investors in 2011 had perfect foresight over something that happened in the future. This is clearly unreasonable and risks creating an expectation of windfall gains or losses for an efficient business.

14. We note that in the recent report outlining the approach to estimating the initial value of the financial loss asset, the Commission appears to have rejected Lally's proposed approach. It has instead calculated the financial loss using a cost of capital estimate where the risk-free rate that is calculated on the basis of a five-year term, and updated each year. We do not consider the five-year term appropriate and note Sapere in its report (summarised below) has recommended use of a longer term for the risk-free rate.[3] We will provide further commentary on the Commission's proposed approach to the estimating the financial loss in our response in the coming weeks.

15. Finally, it is typical in fixed pricing agreements that investors will bear interest rate risk – as interest rates may turn out higher or lower than expected when prices are set. Chorus' fixed pricing arrangement in place during the pre-implementation period, suggests we had a reasonable expectation of bearing such risks over the period.[4] The Commission's method of estimating the risk-free rate (and Lally's in particular) however, however has the effect of clawing back any benefit that we would have made from falling interest rates under a fixed price framework. This approach is opportunistic and introduces asymmetric risk if the Commission undertakes no such estimate of the risk-free rate when interest rates are rising.

Sapere, Cost of capital for fibre input methodologies – response to Dr Lally

16. Sapere addresses issues raised by Dr Lally and reiterates key arguments made in its earlier report.[5]

17. In particular, the paper raises concerns in relation to the estimate of the cost of capital used to calculate the financial loss in Dr Lally's paper, noting that:

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[2] Dr Lally (Capital Financial Consultants), *Further issues concerning the cost of capital for fibre input methodologies*, p 4, footnote 2.

[3] Sapere, *Cost of capital for fibre input methodologies – response to Dr Lally*, August 2020, p 5, para 22 and p 7 para 31.

[4] This point is also made by Sapere. See Sapere, *Cost of capital for fibre input methodologies – response to Dr Lally*, August 2020, p 4, paras 18-19.

[5] Sapere, *Cost of capital input methodologies for fibre*, January 2020.

- There is circularity in Dr Lally's proposed approach to estimating the debt premium.[6]

- Lally fails to recognise the pre-implementation period is in economic terms equivalent to a single regulatory period, as investors signed a contract with a fixed price (or price cap) from 2011 to 2020. This implies that a single cost of capital estimate could be used, with the term of the risk-free rate set from 1 May 2011 to 31 December 2019.[7]

- Lally's suggestion of using a credit rating of BBB+ to estimate the debt risk premium, fails to recognise that in the pre-implementation period the choice of credit rating is about assessing whether Chorus behaved prudently and efficiently given expectations in 2011, and not about setting future prices. It is therefore appropriate to use Chorus' actual credit rating of BBB, as this exceeds the contractual requirement of achieving a minimum BBB- rating.[8]

- If the Commission treats the pre-implementation period as a commercial period, rather than a single regulatory period, the cost of capital needs to be set at the minimum rate of return in order for it to proceed. On this basis the risk-free rate is proposed to be estimated annually with a ten-year term.[9]

18. In addition, the paper notes that in relation to:

    - **Asset beta** – given the range of estimates of the asset beta in the post-implementation period, a reasonable point estimate for the pre-implementation period is 0.65.[10]

    - **Single risk-free rate** – Sapere agrees with Lally (and the Commission) that the same risk-free rate estimated should be used to estimate the cost of debt and equity.[11]

Incenta Economic Consulting, Crown financing – issues raised in further paper by Dr Lally

19. Incenta addresses additional comments of Dr Lally's paper in relation to how Crown financing should be treated when deriving the loss asset and future regulated revenues.

20. Incenta's report outlines that in relation to:

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[6] Sapere, *Cost of capital for fibre input methodologies – response to Dr Lally*, August 2020, p 2, para 7.

[7] Ibid, pp 4-5.

[8] Ibid, pp 5-6.

[9] Ibid, p 6.

[10] Ibid, p 8.

[11] Ibid, p 9.

- **The equations applied to allow for the Crown financing benefit** – contrary to Lally's suggestion that the method used by Incenta to adjust for the benefit of Crown financing was incorrect, the equations derived are shown to be consistent with those proposed by Dr Lally. There is also no material difference in how benefits associated with Crown financing are reflected by Lally and Incenta in the calculation of regulation revenues (and the loss asset).[12]

- **The avoided cost associated with Crown financing** – Incenta agrees with Lally that the subordinated nature of the Crown financing justifies adjusting the benchmark cost of debt when deriving the avoided cost of Crown financing; and that the difference between Chorus's actual credit rating and the benchmark applied by the Commission, justifies a further adjustment to the benchmark cost of debt. A pragmatic means of giving effect to these adjustments is to apply a BBB- credit rating when deriving the avoided cost of Crown financing – a one notch reduction from Chorus's actual credit rating. This new approach for quantifying the avoided cost has benefited from Lally's further analysis. It removes the complexity and risk of error associated with the earlier method proposed.[13]

[12] Incenta Economic Consulting, *Crown financing – issues raised in further paper by Dr Lally*, August 2020, pp 1-2.

[13] Ibid.