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3 November 2020

Out of scope material received as part of submissions on the FLA further consultation paper (published on 13 August 2020)

The table below lists the submissions on the FLA further consultation paper (published on 13 August 2020) that contain material that was out of scope and that was therefore not taken into account in making the decisions on the IM determination made on 3 November 2020.[1]

While the table only lists substantive submissions that were out of scope we also disregarded proposed drafting changes to the IM determination that were based on the out of scope submission material.

The out of scope material is highlighted in the attached submissions.

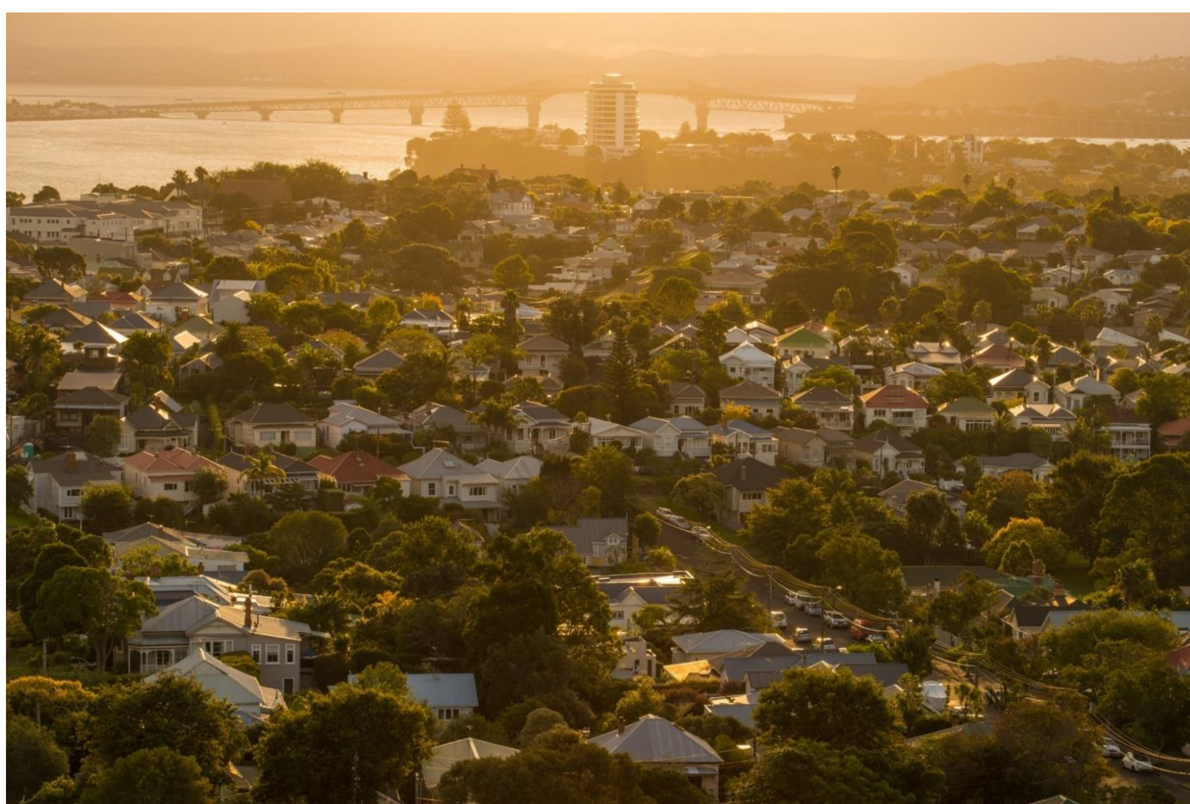
SUBMISSIONS	
Chorus	Executive summary - paragraphs 21.2, 21.3, 21.5 – 21.7, 22 – 23. Main body - paragraphs 4.3, 4.4, 60.2, 60.4, 60.5, 60.6, 73-74, 78 – 82, 83, 85 – 94, 96, 98, 99, 101 – 111.
Cooper Investors Pty Ltd	See both pages.
Investors Mutual Ltd	See pages two to four
L1 Capital	See pages three to eight.
New Street Research	Entire substance of the submission.
River Capital	See pages 2 and 3.
Sapere report to Chorus	Paragraphs 39(b) – (f), 40.
Wolfgang-faber	Entire substance of the submission.

1 Where the out of scope views were already on the record via previous consultation processes (such as submissions on our draft decision) they were still fully considered when making our decisions.

CROSS-SUBMISSIONS	
Chorus	Executive summary – paragraphs 8.1, 8.2, 8.4 - 8.6. Main body – paragraphs 1.1, 13.1, 13.3, 19, 20, 23 – 25 - 27, 30.
Enable Networks Limited and Ultrafast Fibre Limited	Paragraphs 4.1 – 4.3.
Spark NZ	Paragraph 2.
Trustpower	Paragraphs 2.1.2, 2.1.3.
Vocus	Paragraphs 9, 11(ii)-(iii).
Vodafone	See page 2.
2degrees cross- submission	See pages 2 and 3.

Chorus submission on “Fibre input methodologies – Further consultation draft (initial value of financial loss asset)”

10 September 2020



EXECUTIVE SUMMARY

Overview

1. This is Chorus' submission on the Commerce Commission's (**Commission**) 13 August 2020 fibre input methodologies *Further consultation draft (initial value of financial loss asset) reasons paper* (**Reasons paper**) and *Further consultation – initial value of financial loss asset - Fibre Input Methodologies Determination 2020* (**Draft FLA IMs**).

2. We urge the Commission to ensure its decisions on the estimation of the financial losses asset (**FLA**) are part of a holistic view of the outcomes that will arise from the Input Methodology (**IM**) process and the Price Quality Determination (**PQD**) process to follow. The outcomes should deliver on Parliament's objective for the new fibre regulatory framework - to provide a no-shock transition to the regime for consumers and investors. For consumers, this is designed through the setting of anchor services. For investors, this is in reflecting the real risks they faced and ensuring recovery of a fair return on and of that investment through a revenue cap. For both consumers and investors, the regime should contain, without distortion, flexibility and investment incentives to meet the ever-changing demands of the end-user, commercial and technological environment.[1]

3. As consultations have shown to date, there are numerous judgments within and across the IM process and PQD processes. Within this there are a multitude of considerations that will "add up" to establishing a starting regulated asset base (**RAB**), maximum allowable revenue (**MAR**) and incentives signalled ahead. It is essential to ensure throughout each step of the process that a sensible and workable outcome is delivered for real world investors and consumers.

4. In our response, we have therefore sought to discuss and comment on issues relating to the FLA in their entirety, rather than solely on the single parameter being consulted on as part of this consultation. For example, we have also commented on the key cost of capital parameters, compensation for Type II asymmetric risk, and the treatment of Crown financing on the basis that only when viewed together can an assessment be made of whether risk is being appropriately compensated for in the estimation of the FLA.

5. It is critical to recognise the context of these decisions. In particular:

   5.1. In 2011 Chorus investors signed the UFB contracts, agreed prices, accepted the contractual and construction risk, and undertook long-term financing based on the contractual term. There was no ability to renegotiate any of the risks or undertake refinancing annually over the period.

   5.2. The purpose of this regime is to transition from a contractual environment into a utility regulatory model. This regulatory exercise is not a reaction to solving particular problems in the market, but rather to transition to a more enduring arrangement. In fact, the real risks are creating regulatory distortions that may undo many of the positive incentives currently present to compete for uptake,

[1] Telecommunications (New Regulatory Framework) Amendment Bill, First Reading Speech, Minister of Communications https://www.parliament.nz/en/pb/hansard-debates/rhr/combined/HansDeb_20170816_20170816_28.

innovate new products, and continuously drive for improvements in customer experience and efficiencies – which consumers are benefitting from.

5.3. Unlike forward-looking decisions, Chorus cannot adapt to incentives set by these decisions. Under-estimating Chorus' financial losses would represent a one-off expropriation of value from those willing to invest ahead of demand in critical infrastructure.

5.4. Price capped anchor and mandatory services, and competition from other access technologies, ensure that end-users are protected from price shocks.

5.5. Recognising real investor risks (and a no shock transition to a utility model at a time when we continue with significant investment), and the built-in protection of an anchor product (constraining non anchor services facing real market dynamics while enabling flexibility to work in those dynamics) presents the opportunity for outcomes that support investors and consumers.

6. The investment in a once-in-a-generation multi-billion-dollar infrastructure project has involved significant risk for investors. In order to best preserve investor confidence in the regime, consistent with the purpose in section 162(a) of the Telecommunications Act (**Act**), the methodology used by the Commission to calculate the FLA cannot pretend the risks borne by Chorus in participating in this project did not exist. The Commission's proposed approach is inconsistent with the economic principles established for the development of IMs and underestimates the value of the FLA, as:

   6.1. The opportunity cost of capital that the Commission intends to estimate will fail to recognise or compensate investors for the significant risks faced when the investment was undertaken in 2011.

   6.2. The estimate of the benefit of Crown Infrastructure Partnership (**CIP**) financing fails to compensate investors for the residual risk borne by Chorus.

UFB network and risks to investors

7. The UFB network is the backbone of New Zealand's telecommunications network supporting our social and economic resilience. The creation of Chorus as an open access wholesaler in 2011 and our investment ahead of demand in fibre infrastructure has resulted in a range of new products and services, as well as a congestion-free network that has been shown to be of significant benefit to end-users. New Zealand's fibre access network is the envy of many globally and there is now 60% uptake of the service in the community, with data growth of nearly 2000% by New Zealanders since 2011,[2] as well as product innovation like Hyperfibre.

8. While we are in a position to reflect on the benefits the network provides today, this is not the backdrop under which Chorus investors entered into the UFB agreements. Nearly a decade ago, forecast uptake for fibre was predicted to be significantly lower. The Government was required to issue a formal Government Policy Statement (**GPS**) to reassure investors that they ultimately would have the opportunity to be

[2] Commerce Commission 2019 Annual Telecommunications Monitoring Report, *Fixed monthly data use per broadband connection (GB)*, 12 March 2020, p 6 (2011), Chorus (2020).

compensated for the risks of taking on the build of, and investment in, the fibre network.[3]

9. We have faced, and successfully managed, significant risks that go well beyond those experienced in standard regulated infrastructure investments. These risks apply to both the pre-implementation and post-implementation periods. As a proactive wholesale-only provider of services our commercial incentives to promote and transition to fibre have also been well aligned with achieving socially beneficial outcomes for consumers. We have looked to minimise the costs of deployment (productive efficiency), service those customers who value the service most (allocative efficiency) and provide these services at the earliest possible time (dynamic efficiency).

The Commission's approach fails to compensate for investor risks

10. We understand the challenge the Commission faces in developing IMs in the current context. There are limited precedents for dealing with this type of investment and, in particular, estimating the initial value of the FLA. It requires new thinking beyond the standard regulatory approach to account for risks associated with this unique investment – risks that investors took and risks that consumers benefit from. It is important to remember that the Commission's role is to determine actual losses, not the losses of a hypothetical firm or, with the benefit of hindsight to assume away the risk.

11. The current regulatory framework developed by the Commission over the pre-implementation period treats risk as if it has disappeared due to the decision to include the FLA. Further, it exposes investors to a form of asymmetric regulation – an "unfair bet". Returns are now being capped through the introduction of regulation when the project is successful, but no recognition is being provided for the real potential that things could have turned out differently. Just because asset stranding was avoided, does not mean that a material risk did not exist.

12. We urge the Commission to consider carefully the reality of the journey that's unfolded since 2011. The risk taken on by investors in 2011 must be properly compensated, and there should be recognition given to Chorus' effective management of risks and the strong incentives to deliver services efficiently to consumers. The approach currently does not deliver on the Commission's key economic principles of real financial capital maintenance (**FCM**), efficient risk allocation, and recognising the asymmetric consequences of over- and under-investment.

Fibre IMs should incentivise dynamic efficiency

13. A significant benefit of competitive markets is their ability to deliver dynamic efficiency, which we consider is particularly important in telecommunications, where there is ongoing technological progress and innovation resulting in the delivery of improved services to customers.

14. The fibre IMs should continue to provide us with the right incentives to further drive connections and improve the products and services we offer to customers. Outcomes

[3] New Zealand Government, 12 October 2011, *Statement to the Commerce Commission concerning incentives for businesses to invest in ultra-fast broadband infrastructure*, New Zealand Gazette (No 155, p 4,440, Notice No 7120.

that are of benefit to consumers should also result in higher average revenue per user (**ARPU**) to Chorus. Unlike the Part 4 regime, the anchor product acts to protect consumers from unilateral price increases resulting from a higher MAR and means that the Commission can properly recognise the real risk faced by investors without this resulting in price increases to consumers.

15. The Commission's approach to estimating the FLA, and whether it is reasonable and reflects a proper consideration of the risks borne, will send a strong signal about how it will regulate the sector. By providing a signal for future decisions, the approach of the Commission will have a significant impact on forward-looking incentives for fibre fixed line access services (**FFLAS**), as well as potentially profoundly influencing investment in other sectors.

16. To have investors in the position of being penalised after the fact for wearing the risk and managing the project efficiently on the basis that the network is now built would send a chilling message to the investment community, both domestic and international. This at a time where private investment and business confidence is more important than ever – and so is the ability to live, learn and work with greater reliance on digital connectivity.

Key Issues in estimating the FLA

Change to valuation methodology

17. We support the Commission's decision to move to a Discounted Cash Flow (**DCF**) methodology for calculating pre-implementation losses on the basis that this is a well-understood analysis for valuation and should provide the same result as the Building Blocks Methodology (**BBM**) proposed previously.

18. However, using multiple cost of capital estimates, as proposed by the Commission, means that the DCF approach will not give the same results as the BBM approach. Furthermore, given that investors committed to the UFB investment in 2011, at least until 2020, the proposed ongoing estimation using a new cost of capital estimate in each year is inappropriate. It also appears to yield an estimated cost of debt that is below our actual cost of debt over most years of the pre-implementation period.

19. If the Commission is not persuaded that a single cost of capital reflects the nature of the investment decision, then the term of the risk-free rate used for that calculation should be consistent with the 10-year timeframe over which commercial investors undertaking a long-term investment would have evaluated the return. A 10-year term of the risk-free rate is recommended by the Body of European Regulators for Electronic Communications and also many Australian regulators, to match the long life of the essential infrastructure. The Commission's 5-year term is not in line with commercial reality or overseas regulators' views.

20. The Commission's justification for using a 5-year term reflects it viewing the investment as an investment in regulated assets, rather than considering the specific nature of the investment decision.

Cost of capital in the pre-implementation period

21. As outlined above, it is essential that the calculation of the FLA is looked at in a holistic manner. Parameters like the term of the risk-free rate cannot be looked at in isolation. Therefore, in estimating the cost of capital to calculate the FLA we ask that the following amendments are made:

    21.1. **Term of the risk-free rate** – This should be aligned with the period of the initial contract with the Government, which is consistent with the decision to invest under the UFB initiative.[4] If the Commission does not accept that the decision was made in 2011, then the term should be 10 years, consistent with commercial practice. This is opposed to the 5-year term assumed by the Commission, the latter of which is aligned with its standard forward-looking regulatory approach, which is not relevant here.

    21.2. **Asset Beta** – This should be higher than the asset beta post-implementation to reflect the investor risks that existed in 2011. Our experts have previously suggested 0.65 based on the evidence available, rather than the 0.49 proposed by the Commission.[5]

    21.3. **Leverage** – Leverage during the construction period is typically higher, and our experts have suggested 40% is reasonable for the pre-implementation period.[6]

    21.4. **TAMRP** – We agree that if the Commission uses an annual update that the TAMRP should increase to 7.5% in 2019. However, as it is unlikely that any event has moved the TAMRP from 7.0% to 7.5% immediately, it would be appropriate to adopt an estimate of 7.25% for the TAMRP from 2017 to 2019.

    21.5. **Debt premium -** Based on independent expert advice, the appropriate credit rating for the debt risk premium in the pre-implementation period is BBB.[7]

    21.6. **Type II asymmetric risks** – The asymmetric returns and truncation that arises from stranding risks and exists for new large infrastructure investments that are subject to regulation, should be recognised in the pre-implementation period. This should be done by an *ex-ante* allowance, which based on stranding risks alone, our independent economic experts advise is 59bps.

    21.7. **Mid-point estimate vs 75th percentile** – A 75th percentile estimate should be used rather than the mid-point estimate, to reflect the reasonable expectations investors would have held in May 2011 of a normal return over time. Further, this estimate should be used to account for the risks of under-estimation in the pre-implementation period, which we show is occurring based on cross-checks with our prevailing cost of debt. This is critical given that this is not a forward-

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[4] Sapere (8 September 2020) *Cost of capital input methodologies – further consultation initial value of financial losses,* at [13-14].

[5] Sapere (27 January 2020) *The cost of capital input methodologies for fibre,* at [74].

[6] Sapere (8 September 2020) *Cost of capital input methodologies – further consultation initial value of financial losses,* at [39].

[7] Sapere (8 September 2020) *Cost of capital input methodologies – further consultation initial value of financial losses,* at [39].

looking decision and a risk of under-estimation is not something that Chorus can seek to mitigate in any way.

Treatment of Crown Financing

22. The Commission's revised proposal fails to reflect that Crown financing was not costless, because Chorus bears a residual risk in relation to Crown financing, and therefore it is appropriate that the FLA reflect this.

23. It is particularly concerning that the Commission has departed at a late stage, and in the absence of any new evidence, from its November draft decision. This clearly recognised that the funding provided to Chorus was fundamentally debt-like, meaning that Chorus has carried a residual risk in relation to Crown financing, which the Commission's own expert, Dr Lally, agreed with.

The treatment of pre-2011 assets

24. We support the Commission's thorough analysis of the status of pre-2011 assets and reiteration of its November draft decision position to take into account accumulated unrecovered returns on pre-2011 investments provided the returns related to the period between Dec 2011 to 1 Jan 2022 (implementation date). However, we disagree that the inclusion of pre-2011 assets is a matter of discretion for the Commission. Our view is it is required by section 177 of the Act.

25. As noted by the Commission, this approach aligns to the context under which Chorus partnered with the Government, which clearly anticipated that this approach would enable efficiencies from the use of existing assets. The regulatory framework should reward the efficient use of existing and shared assets (with appropriate cost allocation).

Cost allocation

26. No further restrictions on pre-2011 assets are required, as existing tools are sufficient to address the potential for windfall gains and make best use of currently available data. The additional measures proposed would not be consistent with FCM and risk creating inconsistent allocations.

27. The Commission notes the use of the shared cost cap as a safeguard; however, we disagree with the Commission's proposed approach of a shared cost cap as it imposes considerable uncertainty. The shared cost cap has particular practical difficulties when applied to the pre-implementation period, with any assessment made for this period being highly speculative.

1. INTRODUCTION

1. The regulatory framework developed to establish the FLA is a crucial component in determining the opening value of RAB that will apply when regulation commences. Whether the Commission's approach to this task is reasonable and reflects a proper consideration of the risks borne by investors in 2011 will send a strong signal to existing and potential infrastructure investors.

2. Based on the Reasons paper, Chorus is concerned the Commission has not properly taken into account risks associated with this unique investment – risks that investors took in 2011 and risks that consumers have benefited from. The Commission has adopted a standard forward-looking approach for dealing with traditional regulated infrastructure investments and treated the 2011 risks as if they have disappeared due to the decision now made to calculate the FLA.

3. While firms subject to forward-looking decisions may not always agree with those decisions, they can act on the incentives provided. In this case Chorus has no such option. Getting the decision wrong risks a one-off expropriation of value. Given this risk, the Commission should seek to err strongly on the side of caution, particularly given that end-users remain protected through the anchor service mechanism designed specifically for this purpose.

4. We are concerned that current draft IMs will not support the right framework for innovation and investment. As we have explained above, the estimation of the FLA must be considered in its entirety. Therefore, we address the specific issues the Commission has raised in the Reasons paper and the fundamental issues that go to the value of the FLA. For example, the key cost of capital parameters, compensation for Type II asymmetric risk, and the treatment of Crown financing. Our submission is structured as follows:

   4.1. **Section 2** outlines our concerns with the regulatory framework for estimating the FLA, noting that the Commission has not accounted for risks investors faced in 2011 and may have introduced a form of asymmetric regulation;

   4.2. **Section 3** highlights that while we agree with the move to the DCF approach, we don't believe that annual updating of the loss involving a new cost of capital estimate each year is correct, and a constant rate of return is necessary to reflect the decision of investors in 2011;

   4.3. **Section 4** examines the cost of capital estimate for the pre-implementation period, noting that these parameters cannot be looked at in isolation, and assesses that a term of the risk-free rate of 5 years is too short, the debt risk premium should be based on a BBB credit rating, systematic and asymmetric risks have not been properly accounted for by the Commission, and any estimates should be based on a 75th percentile estimate;

   4.4. **Section 5** demonstrates that Chorus bears a residual risk in relation to Crown financing, and that the FLA should reflect this;

4.5. **Section 6** outlines our treatment of pre-2011 assets and how costs are allocated across our copper and fibre networks;

4.6. **Section 7** comments on other matters raised by the Commission, including the treatment of the NSI fund, post-tax cost vs vanilla cost of capital, interest during construction and the forecast used for the initial RAB;

4.7. **Appendix 1** answers specific questions posed by the Commission about cost allocation;

4.8. **Appendix 2** provides our proposed changes to drafting of the IMs;

4.9. **Appendix 3** (submitted as a separate document) is a workbook outlining our proposed amendments to the Commission's workbook as outlined below in our comments regarding the use of a post-tax cost of capital; and

4.10. **Appendix 4** (submitted as a separate document) is a report from economic advisors, Sapere.

2. REGULATORY FRAMEWORK

28. The Commission's regulatory framework established for estimating the FLA is inconsistent with key economic principles and does not achieve outcomes for the long-term benefits of end-users.

29. In particular:

29.1. It does not reflect the significant risks faced by investors in 2011;

29.2. It is introducing an asymmetry in the regulation of Chorus, as it treats risks over the pre-implementation period as if they disappeared due to the decision now made to calculate a financial loss;

29.3. It does not recognise Chorus' effective management of risks and that through our commercial incentives to deal with those risks that we have achieved socially desirable outcomes;

29.4. Reflects a standard regulatory approach to dealing with traditional assets when a new approach is required to address the unique circumstances surrounding the fibre access network investment; and

29.5. It does not properly address the importance of dynamic efficiency, and in doing so the Commission is in danger of sending signals that will adversely affect forward-looking incentives for FFLAS and further investment in telecommunications.

Circumstances surrounding the investment in the UFB network

30. The UFB investment is a once-in-a-generation infrastructure asset that was undertaken in a unique set of circumstances in 2011. It is well-established that any substantial investment in sunk infrastructure assets where there is uncertainty

associated with demand take-up, imposes significant risks on investors. There was no Government policy or support for uptake and no formal role for Government intervention if the programme encountered material difficulties. Chorus investors had no reassurance they would be compensated for the risks they took if the programme or the uptake had been unsuccessful, and debt repayments to Crown financing still had to be repaid.[8]

31. The significant risks faced by Chorus and our investors includes those associated with demand uncertainty, construction risk, the potential for substitution by other access technologies, the copper pricing implied billion-dollar funding gap and uncertain future regulatory and policy settings. These risks go well beyond those experienced in standard regulated infrastructure investments and are particularly acute in the pre-implementation period and continue into the post-implementation period.

32. We understand the challenge the Commission faces in developing IMs in the current context. However, while the Commission at times recognises the need for a new approach, demonstrated by the adoption of a DCF approach as opposed to the traditional BBM, more broadly we have material concerns about the method developed for valuing the FLA.

The Commission's methodology for estimating the FLA is a form of asymmetric regulation

33. The investment in the fibre access network was undertaken prior to investors knowing whether there would be an FLA or a BBM with any wash-up. The method now being used by the Commission to estimate the FLA exposes investors to risk, by introducing a form of asymmetric regulation. This is where regulation is imposed – and so returns are capped – only where projects are a success, but there is no recognition given to the real potential that things could have turned out very differently.

34. There are a range of aspects to the regime where it is unclear if the Commission has fully assessed the potential for adverse outcomes, which exposes Chorus to asymmetric risk. For example:

    34.1. The fact that we are in the midst of implementing price-quality regulation is a consequence of the project being a success and transitioning from a contract model to a utility model. As discussed earlier, if the project had not been successful, then Chorus would have borne the losses. There is no reason to believe the Government would intervene. In short, the fact ex-post that the asset did not become "stranded" during the period, does not mean that this risk did not exist.

    34.2. Similarly, the requirement for the RAB to include an explicit calculation of financial losses – and for this to be based on actual revenue and expenses – is the result of the project's success. During the pre-implementation period, Chorus incurred financial losses as a result of building ahead of demand. A supplier in Chorus' position in the pre-implementation period would expect to

[8] For example, the lack of intervention by the Government when the 2013 draft copper pricing decisions resulted in Chorus facing significant financial challenges which threatened our ability to deliver on our UFB agreement. The UFB agreements also provided for 'step-in' rights for Crown Fibre Holdings (later CIP) rather than the ability to renegotiate contracts in the event that Chorus was unable to deliver to material obligations under the funding contract.

recoup these losses in subsequent years, assuming the project is successful and demand increases. If the project did not succeed, investors would bear the loss. The FLA therefore provides investors the opportunity to receive the expected benefit of their investment, reflecting the project risk. Conversely, discounting the FLA effectively transfers this "success benefit" from investors to consumers, who did not bear the project risk. This success has been driven in part by the strong market incentives and the orientation of Chorus as a wholesaler following demerger in 2011. If the rate of connections had been much slower than expected, there is no reason to believe the loss calculation would have been applied to compensate for past returns being less than expectations – it is likely this poor performance would have been borne by investors.

34.3. In addition, the Commission's method for deriving the cost of capital has been conditioned by the fact that interest rates have fallen over the pre-implementation period. It is difficult to see this approach applied by the Commission had interest rates instead risen over this period.

35. The analogy of the framework the Commission has adopted for estimating the FLA in the context of Part 4, would be that the Commission has:

35.1. Subjected the Part 4 regulated utility to price cap regulation based on an estimated cost of capital;

35.2. Decided ex-post returns have been too high and as a result looked to claw-back the excess returns; and

35.3. Then decided the application of claw-back has the effect of reducing the risk of the entity, and so retrospectively reduced the cost of capital, increasing the claw-back.

36. The unique nature of a multi-billion dollar build ahead of demand under a public private partnership, a demerger, the uncertainty of the regulatory environment for both copper and fibre and the absence of any regulatory precedent for valuing the FLA, means the stated economic principles take on greater significance. The Commission must ensure that there is:

36.1. **Real FCM** – An efficient provider should expect to earn a normal risk-adjusted return on an investment.

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

36.3. **A recognition of the asymmetric consequences of over- and under-investment** – An expected NPV = 0 outcome crucially depends on how the cost of capital is estimated.

37. The principles applied correctly, promote the long-term benefit of end-users by properly allocating risks between Chorus, RSPs and consumers, and compensating investors for the risks incurred. To have efficient risk allocation in the context of the FLA, which involves a backward-looking assessment, requires the Commission to recognise that risk allocation actually exists. This is not currently the case.

38. The Commission's current approach is inconsistent with its economic principles, as the risks taken on by investors in 2011 are not properly compensated, nor is there recognition of our effective management of risks and the incentives for us to deliver services efficiently to consumers. Further assessment of the inadequate way risk has been dealt by the Commission is highlighted in the discussion of the cost of capital in Section 4.

Fibre IMs and the need for dynamic efficiency

39. Yarrow in developing the 2010 IMs for Part 4 highlighted the greatest benefits of competitive markets are that they deliver dynamic efficiency.[9] He stated that:

> *In my view the greatest benefits of competitive markets are in terms of dynamic efficiency – the discovery and use of new information that leads to the development of new products and services, and to new, more efficient techniques of production.*

40. We consider dynamic efficiency is particularly important in telecommunications markets, where there is ongoing technology progress and innovation resulting in the delivery of improved services to customers. During the pre-implementation period, even in the absence of formal regulation, this occurred due to the strong alignment between the commercial incentives and socially optimal outcomes to consumers. For example, the success of the UFB initiative has depended on migration from legacy copper services, which has driven Chorus to be innovative and customer oriented.

41. The fibre IMs need to continue to provide for dynamic efficiency by ensuring the settings provide the right incentives for us to further drive connections and improve product and services we offer to customers. Outcomes that are of benefit to consumers should also result in higher ARPU to Chorus. An approach which focuses too narrowly on reducing prices to consumers, while ignoring incentives to invest and innovate, will not benefit consumers.

42. In contrast to the technologically mature sectors regulated under Part 4, telecommunications services are constantly evolving with much stronger market dynamics. The need to focus on dynamic efficiency is therefore more compelling in the context of Part 6 than it is in Part 4. Moreover, our fibre network is only at 60% of capacity, and our ability to raise prices across a substantial portion of end-users is limited by features unique to Part 6, like the anchor product, but also in our ongoing design and innovation given key market dynamics of our industry, such as competition from 5G fixed wireless access services.

43. Typically for regulated industries the MAR is a constraint that exists to ensure that providers do not charge excessive prices for utility services. This is considered essential in promoting competition and efficiency in downstream retail markets. If the MAR of this regime is set too low here however, unlike other sectors where the constraint is applied, the regulatory framework will actually limit our incentives to migrate customers on to fibre and/or the incentives intended to continue to innovate and move them up the value chain. It is difficult to see how this outcome can be

[9] George Yarrow, Martin Cave, Michael Pollit and John Small *Review of Submissions on Asset Valuation in Workably Competitive Markets: A Report to the New Zealand Commerce Commission*, (November 2010) *Annex 2: George Yarrow – Response to Submissions on Individual Expert Reviews*, at [2.18]. The quote is repeated in Commerce Commission, (November 2018), *New Regulatory Fibre Framework* at [6.6].

reconciled with the long-term benefits of end-users or the Government's overall objectives of improving connectivity and closing the digital divide.[10]

44. UFB is one of the most successful large-scale public-private partnerships ever undertaken in New Zealand and has been cited as an example worldwide of how to successfully deliver large infrastructure projects and fibre infrastructure investments. The Commission's approach to the estimation of the FLA will have lasting implications for Chorus and considerable care should be taken not to disrupt something that is working well and delivering for consumers.

45. The major outcomes of this process will show up in the phase two PQD process next year when a starting RAB and MAR are determined – the culmination of numerous judgments within and across the IM process and PQD phases. It is essential to ensure throughout each step of the process and every judgment that decision makers have a line of sight to the outcomes that will drive outcomes for real world investor and consumer activity.

3. APPROACH TO DETERMINING FINANCIAL LOSSES

46. The Commission's approach to the initial value of the FLA will not adequately compensate Chorus for losses it incurred during the pre-implementation period, and the combination of the decisions made means there is no expectation of real FCM or efficient allocation of risks in the pre-implementation period.

The change in methodology from BBM to DCF

47. The Commission is proposing to change its approach to calculating the FLA, from one of compounding losses under the BBM, to one of compounding net cash flows (the DCF method). The Commission explains that it has chosen to use the DCF method because, among other things, (1) it is the simplest to understand and interpret and should be familiar to all investment analysts, and (2) it is the standard approach adopted in finance theory and practice and avoids the cumbersome use of multiple BBM calculations.[11]

48. We agree with the Commission adopting the DCF method, provided a constant cost of capital is used for discounting cash flows over the course of the pre-implementation period. As explained by Sapere, the BBM and DCF approaches will yield the same estimates of the FLA, if a constant cost of capital is used.[12] Also, investment analysts will be familiar with the DCF methodology using a constant cost of capital, rather than a different cost of capital for each year's cash flow.

Annual updating of the loss – updating vs a constant cost of capital

49. To estimate the value of the FLA, the Commission is proposing to annually update the cost of capital in its DCF calculation. We disagree with this approach. This represents a retrospective treatment of the opportunity cost of capital and means it will apply

[10] "Over 90,000 more households and businesses now have UFB coverage", Minister Faafoi, 27 August 2019, https://www.beehive.govt.nz/release/over-90000-more-households-and-businesses-now-have-ufb-coverage

[11] Commerce Commission, (13 August 2020), *Further consultation draft (initial value of financial loss asset) - reasons paper, at* [3.8].

[12] Sapere (8 September 2020) *Cost of capital input methodologies – further consultation initial value of financial losses, at* [6].

twelve different values of the cost of capital over the course of the pre-implementation period.

50. A constant cost of capital is more consistent with the statutory purpose statement and the Commission's past practice. That is, the appropriate cost of capital for all expenditure incurred in the pre-implementation period is that which applied in 2011. This is because Chorus made the decision to participate in the UFB initiative in 2011 and therefore, the 'investment' was made at that date, rather than annually. A constant cost of capital determined in 2011 therefore reflects the legitimate expectations of investors in 2011 and compensates for the risk accepted by Chorus at the time the investment decision was made. It is also consistent with standard practice adopted in DCF valuations.

51. As Sapere explains, the Commission's proposed approach instead treats each year of investment as a separate investment decision. Implicit in that approach is that investors were in a position to re-assess the business case for proceeding with the UFB build at the outset of each year between 2011 and 2022. This does not reflect the commercial reality. Chorus' decision to participate (or not) in the UFB initiative was a single decision made in 2011. That decision then committed Chorus as a proactive wholesaler and to an ongoing programme of investment in fibre and other obligations until 31 December 2019, a commitment which was then extended by legislation to 31 December 2021.[13] Each subsequent increment of expenditure was an unavoidable consequence of that 2011 decision.

52. The appropriate approach to determining the cost of capital in the pre-implementation period, as detailed by Sapere in its report, is to consider the expectations of investors at the time they made the decision to invest in the UFB initiative.[14] The legitimate expectation of investors in 2011 would have been that they could earn at least the opportunity cost of all their assets, including their physical and financial assets. The expected opportunity cost of the investment is the cost of capital for the period to 31 December 2019, estimated immediately prior to the UFB tender, that is, at 1 May 2011.[15]

53. The Commission's argument against the use of a constant cost of capital appears to be influenced by the fact that none of the regulated providers that were parties to the UFB contracts with the Crown locked in finance rates in 2011 for the length of their contract.[16] However, as Sapere notes, this is not relevant to parties' legitimate expectations of earning a normal return at the time they made the decision to invest for the length of their contract. Financing decisions take into account refinancing risk, investment decisions do not.[17]

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[13] Sapere (8 September 2020) *Cost of capital input methodologies – further consultation initial value of financial losses,* at [13].

[14] Sapere (8 September 2020) *Cost of capital input methodologies – further consultation initial value of financial losses,* at [13-14].

[15] Sapere (8 September 2020) *Cost of capital input methodologies – further consultation initial value of financial losses,* at [21].

[16] Commerce Commission, 13 August 2020, *Further consultation draft (initial value of financial loss asset) - reasons paper,* at [3.30].

[17] Sapere (8 September 2020) *Cost of capital input methodologies – further consultation initial value of financial losses,* at [24].

54. The Commission also implies that a constant cost of capital is only used for simplicity and is not a reflection of real-world decision making.[18] As explained by Sapere, it is common commercial practice to use a constant discount rate for all project cashflows when assessing an investment, irrespective of the actual rate that may later prevail.[19] The Commission noted that a key reason for changing to use the DCF methodology is because analysts will understand this calculation, however this is undermined by the use of a different cost of capital for each year's cash flow.

55. We note the Commission has misinterpreted the quote from Brealey, Myers and Marcus. The Commission uses the quote to infer that a constant cost of capital is only used for simplicity and is not a reflection of real-world decision-making. However, as Sapere notes, the quote continues to the conclusion that "with only rare exceptions firms decide on an appropriate discount rate and then use it to discount all project cashflows."[20]

56. In addition, the Commission's proposal to apply an annual cost of capital rather than a constant cost of capital raises the question of a counterfactual scenario where interest rates rose over that period rather than fell. Investors have raised concerns that the Commission's proposal could be viewed as opportunistic in light of falling interest rates and that this undermines confidence in the Commission's approach to setting the cost of capital. As noted in Section 2 on the Regulatory Framework, this would amount to an asymmetric approach to regulation.

4. COST OF CAPITAL ESTIMATION

57. As noted in Section 3 on the valuation methodology for a FLA, a single cost of capital should be estimated from 2011. This is consistent with the approach taken by investors and should be done instead of the constant updating proposed by the Commission. Irrespective of whether one or multiple values are used, we remain concerned about the parameter values the Commission is adopting to undertake its estimates.

58. To estimate the cost of capital in the pre-implementation period, key issues and parameter values the Commission must consider include:

    58.1. The risk-free rate and its term;

    58.2. How it accounts for risks;

        58.2.1. The debt risk premium, which along with the risk-free rate and debt issuance costs are used to estimate the cost of debt;

        58.2.2. The equity risk premium, comprised of the equity beta (based on the asset beta and the level of leverage) and the TAMRP, which when combined with the risk-free rate is used to estimate the cost of equity;

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[18] Commerce Commission, 13 August 2020, *Further consultation draft (initial value of financial loss asset) reasons paper,* at [3.31].

[19] Sapere (8 September 2020) *Cost of capital input methodologies – further consultation initial value of financial losses*, at [26].

[20] Sapere (8 September 2020) *Cost of capital input methodologies – further consultation initial value of financial losses*, at [25].

58.2.3. Any mark up on the cost of capital to compensate for stranding or Type II asymmetric risks;

58.3. Adjustments to percentile estimates reflecting the risks of estimation errors and asymmetries associated with risks of over- and under-investment.

59. As with the approach to valuation we are concerned that in its consideration of each of these issues, the Commission is taking a retrospective view on the opportunity cost of capital and not taking into account risks actually faced by investors in 2011. The parameter values chosen by the Commission reflect it treating risk over the pre-implementation period as having disappeared due to the decision now made to calculate the FLA. The proposed cost of capital estimates are too low. They do not properly compensate for the risk taken on by investors in 2011 and are such that no investor would have taken on the real risks if this had been known in 2011.

60. In particular our positions on key issues and parameters are that:

60.1. **Term of the risk-free rate** – Rather than a term of 5 years the Commission should use a term consistent with the decision to invest under the UFB initiative – i.e. either 8.7 years based on the alignment with the price-setting period for UFB1 programme, or 10 years based on long-lived assets constructed under the UFB.

60.2. **Asset Beta** – This should be higher than the asset beta post-implementation to reflect the investor risks that existed in 2011. Our experts have previously suggested 0.65 based on the evidence available, rather than the 0.49 proposed by the Commission.[21]

60.3. **TAMRP** – The TAMRP for the pre-implementation regulatory period should be set at 7.0%, which was the rate prevailing in 2011. If the Commission determines to estimate the cost of capital annually, then the question of timing of the change in TAMRP arises. As our experts advised, it is unlikely that any event has moved the TAMRP from 7.0% to 7.5% immediately, which means it would be appropriate to adopt an estimate of 7.25% for the TAMRP from 2017 to 2019.[22]

60.4. **Debt premium -** Based on our independent experts' advice, the appropriate credit rating for the debt risk premium in the pre-implementation period is BBB, based on a 7-year term rather than the BBB+ rating used by the Commission. Further, we don't support the approach of adopting a single debt risk premium based on the median loss year. The Commission should instead use a debt risk premium relevant to the cost of capital estimation date.

60.5. **Asymmetric risks** – The asymmetric returns created by stranding risks and truncation that exists for new large infrastructure investment that are subject to demand uncertainty and the potential for future regulation, should be recognised by an *ex-ante* allowance. Our independent economic experts recommend that in relation to stranding there should be an *ex-ante* allowance of 59bps.

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[21] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [74].

[22] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [92].

60.6. **Percentile uplift** – A 75th percentile estimate should be used, rather than the mid-point estimate to reflect the reasonable expectations investors would have held in May 2011 of a normal return over time. Further, cross-checks show that the current estimate of the cost of debt is below Chorus' actual observable cost of debt over the pre-implementation period, even when using a 10-year term for the risk-free rate. This is critical given that this is not a forward-looking decision and a risk of under-estimation is not something that Chorus can seek to mitigate in any way.

61. Each of the above issues is discussed in further detail in the sections that follow.

Term of the risk-free rate

62. The Commission is proposing to use a risk-free rate term of 5 years. We disagree with this proposed approach. As Sapere explains, the term of the rate should match the expected term of the pre-implementation period, that is, to 31 December 2019. This means a term of 8.7 years is appropriate. The overall cost of capital with a risk-free rate for this term should also apply throughout the pre-implementation period, as the price caps applied without variation (except for inflation adjustment) by legislation.

63. If the Commission insists on adopting the annual updating of the opportunity cost of capital, which we have noted earlier is inconsistent with the standard practice in DCF valuation, then the term of the risk-free rate should still reflect the common commercial practice of using long-term rates. We suggest a risk-free rate term of 10 years is appropriate to reflect the expectation of investors in long-lived infrastructure.

64. We note that the 10-year term of the risk-free rate is recommended by the Body of European Regulators for Electronic Communications:[23]

> *The established practice by most NRAs to date has been to calculate the risk-free rate by using yields on 10-year domestic government bonds.*
>
> *BEREC uses yields on domestic 10-year government bonds for each Member State to calculate the risk-free rate. The approach of using long-term bonds, which are less volatile than shorter-term bonds, is in line with the longer-term nature of investments in electronic communications networks.*

65. We also note that using a 10-year term for the risk-free rate to estimate the cost of capital is also common amongst many Australian regulators.[24] We recognise the Commission in regulating infrastructure does not use such an approach, as it matches the term of the risk-free rate to the term of price regulation. Nevertheless, the rationale provided by Australian regulators for using a longer term for the risk-free rate is instructive for the pre-implementation period, which is being treated by the Commission as a commercial period. Australian regulators using the 10-year term have justified this approach on the basis that it is consistent with the long-term nature of infrastructure investments being considered. We maintain that this justification also

[23] BEREC Report on WACC parameter calculations according to the European Commission's WACC Notice – available at https://berec.europa.eu/eng/document_register/subject_matter/berec/reports/9364-berec-report-on-wacc-parameter-calculations-according-to-the-european-commission8217s-wacc-notice.

[24] For example, the ACCC, AER and IPART (New South Wales) all use 10-year terms for the risk-free rate.

applies to how the risk-free rate should be estimated for the fibre access network in the pre-implementation period.

66. The Commission's proposal to use a risk-free rate term of 5 years is valid if it is regulating prices for 5 years, and such term matching as noted above is the Commission's standard approach to price regulation. However, the circumstances here are different. The pre-implementation period does not reflect a standalone regulatory pricing period and the Commission is treating it as a commercial period. On that basis, there is no rationale for a 5-year term.

67. The term of the risk-free rate that the Commission adopts for the pre-implementation period should be based on the expectations of investors assessing whether to make a commercial investment in a fibre access network. Investors would have considered the expected return from an investment relative to the opportunity cost of capital. The opportunity cost would reflect the characteristics of the investment, including the term of the investment, which for such a long-lived infrastructure asset like fibre would likely be 10 years rather than 5 years. For this reason, a 10-year term for the risk-free rate is more appropriate.

68. Sapere notes that it is normal in corporate financing to separate the "investment decision" outlined above from the "financing decision". The financing decision is made separately and depends on different factors, including the entity's appetite to accept refinancing risk.[25]

69. As Sapere notes, if the Commission maintains the view that the financing decision is relevant, the balance of evidence presented by the Commission does not suggest that the decision to adopt annual financing with a term of 5 years is appropriate.

70. If the Commission were to take into account the financing decisions, this suggests that it should consider only updating the cost of capital when refinancing might actually occur. This is as opposed to the annual updating. If it were to do that it should also use a longer term than 5 years, as Sapere notes the debt financing for Chorus is in the range of 7-10 years.

Accounting for risk

71. As outlined in the earlier section on the Regulatory Framework, investors faced significant risks in 2011, many of which remain today. These risks included:

    71.1. No initial demand and uncertainty over future demand;

    71.2. Cost uncertainty;

    71.3. No guarantee of any bail out on the investment by Government;

    71.4. Potential substitution from emerging mobile broadband services or future dark fibre services; and

    71.5. Policy and regulatory risk.

[25] Sapere, (8 September 2020), *Cost of capital input methodologies – further consultation initial value of financial losses,* at [30].

72. These risks must be properly considered by the Commission in undertaking any cost of capital estimate, in particular in estimating the cost of debt and equity. In addition to our concerns about the term of risk-free rate outlined above, the debt risk premium is inappropriately calculated and there is also no recognition of the additional systematic risks and the asymmetric risks that exist in the pre-implementation period.

Debt risk premium

73. The Commission has proposed to base its debt risk premium on a BBB+ credit rating. We don't agree with this approach. For the pre-implementation period the debt risk premium should be based on a BBB credit rating and estimated using the prevailing rate for seven-year corporate bonds as at 1 May 2011. A BBB credit rating is consistent with Chorus' actual credit rating.

74. As noted by Sapere the use of BBB+ by the Commission 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. It is not about setting future prices. We had strong incentives to minimise costs and behave prudently and efficiently in the pre-implementation period, so it is appropriate to use Chorus' actual credit rating of BBB. This also exceeds the contractual requirement of achieving a minimum BBB- rating.[26]

75. Further, the Commission is proposing to adopt a single debt risk premium based on the median loss year. We don't support this approach. As noted by Sapere, the Commission's approach to estimation of the FLA doesn't involve estimation of year-by-year losses and therefore doesn't result in the identification of the median loss year. The discounted cash flow approach that the Commission has now proposed to use will simply indicate a net cash flow position for each year of the pre-implementation period.[27]

76. Even if it was accepted that the median net cash flow position is the best approximation for the median loss year in the pre-implementation period, Sapere advises there is no basis to believe the median loss year would coincide with a central value for the debt risk premium.[28]

77. Sapere has estimated a plausible range around the actual value of the FLA based on the Commission's assumptions in its example spreadsheet and prior determinations of the debt risk premium for EDBs and GPBs. Sapere's analysis illustrates that, even if it were possible to adopt a single value, this would potentially create a non-trivial wealth transfer.[29] On this basis, Sapere concludes that the Commission should use the debt risk premium relevant to the cost of capital estimation date.

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[26] Sapere, (August 2020), *Cost of capital for fibre input methodologies – response to Dr Lally*, p 2, at [7].

[27] Sapere (8 September 2020) *Cost of capital input methodologies – further consultation initial value of financial losses,* at [34].

[28] Sapere (8 September 2020) *Cost of capital input methodologies – further consultation initial value of financial losses,* at [35].

[29] Sapere (8 September 2020) *Cost of capital input methodologies – further consultation initial value of financial losses,* at [35].

Asset Beta

78. We don't support the Commission's draft decision to apply the same asset beta in both pre-implementation and post-implementation periods. The asset beta for the pre-implementation period should be higher than for the post-implementation period to reflect the greater systematic risks in the pre-implementation period. As explained by Oxera, the greater systematic risk, and therefore a higher asset beta, arises due to the effect of operating leverage, demand risk and long-term cash flows being more pronounced in the construction and early growth phase than in the steady state of the investment in FFLAS.[30]

79. We note the Commission's own expert, CEPA, acknowledges the impact of operating leverage on asset beta "in the roll-out phase and while demand (and therefore connections) is growing".[31] Although CEPA declines to comment on submitter views in relation to the appropriate asset beta for pre-implementation of the new regulatory framework,[32] we assume it would not disagree with our submission that the asset beta in the pre-implementation period (i.e. construction phase of the UFB initiative) should be deemed to be higher than in the post-implementation period (i.e. post-construction phase of the UFB initiative).

80. The Commission's draft decision to apply the same asset beta to both pre- and post-implementation periods appears to be based on a view that it is simply too difficult to quantify an adjustment. This is not an adequate basis for rejecting some form of adjustment if it believes that conceptually there will be differences in the risk profile and the systematic risks are higher. Further, as outlined in Sapere's report, there are a number of asset beta estimates, including those provided by Crown Fibre Holdings (subsequently referred to as CIP), NBN Co, and Openreach that provide guidance and a basis on which to make that judgement.[33]

81. After considering a range of appropriate estimates, and in recognising the higher systematic risk in the pre-implementation period relative to the post-implementation period, Sapere has concluded an asset beta of 0.65 should be adopted for the pre-implementation period as opposed to the 0.49 value used by the Commission.

82. We also note that to calculate the equity beta, the Commission should use a leverage of 40% with the asset beta of 0.65.[34]

TAMRP

83. Consistent with investor expectations in May 2011, the TAMRP for the pre-implementation regulatory period should be set at 7.0%, which was the rate prevailing in 2011.

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[30] Chorus, (16 July 2019), *Fibre emerging views submission*, at [41] - [43]; Oxera, (15 July 2019), *Compensating for systematic risks*, Table 2.1.

[31] CEPA (17 October 2019), *Cost of capital for regulated fibre telecommunication services in New Zealand: Asset beta, leverage, and credit rating – Response to submissions*, p 25.

[32] CEPA (17 October 2019), *Cost of capital for regulated fibre telecommunication services in New Zealand: Asset beta, leverage, and credit rating – Response to submissions*, footnote 64, p 29.

[33] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [72].

[34] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [78].

84. If the Commission insists on an annual update of the cost of capital, then we support the adjustment to the TAMRP proposed by the Commission to use an estimate of 7.5% in 2019. However, without any exceptional economic events since 2015 it is unlikely that the TAMRP sharply moved from 7.0% to 7.5% immediately prior to the re-estimation in 2019. To reflect that any movement is likely to be more gradual, and as with the Commission's approach to the timing of cash flows, Sapere explains it would be appropriate to adopt an estimate of 7.25% for the TAMRP from 2017, and 7.5% should apply from 2019 when the TAMRP was re-estimated by Dr Lally.[35]

Type II asymmetric risk

85. We disagree with the Commission's draft decision not to apply an *ex-ante* allowance for Type II asymmetric risk in the pre-implementation period. An allowance should be applied for both the pre- and post-implementation periods, because Type II asymmetric risks apply in both circumstances.

86. The Commission has set out a framework for estimating the *ex-ante* allowance, using the Dixit & Pindyck model and have proposed an allowance for the post-implementation period of 10bps. Our independent experts have applied the Commission's framework to Chorus' circumstances and their analysis results in an illustrative allowance of 59bps (with a more precise result able to be calculated once the RAB is determined).[36]

87. It is well established that for large scale sunk infrastructure investments in new networks where there is demand uncertainty, there is potential for stranding and for regulation to create asymmetric risks that truncate returns.[37] The additional risks placed on investors and the appropriate policy and regulatory response has been discussed in great detail over the past 20 years in Australia in successive Productivity Commission reports dealing with new investments infrastructure, in particular in gas pipelines.[38] The Commission though does not currently recognise these well-established risks in the pre-implementation period.

88. For Chorus, given there was initially no demand for fibre and there was considerable uncertainty around take up and the potential for competition from competing access technologies, there were significant risks of stranding. This risk did not materialise due to the effective management of risks by Chorus, which has managed to achieve higher than forecast levels of take-up. The success of the project has now led to the introduction of regulation which will cap the returns. The Commission however has provided no recognition for the real potential that things could have turned out very differently pre-implementation. As already noted in Section 2 on the Regulatory Framework, just because asset stranding was avoided, does not mean that a material

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[35] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [92].

[36] Chorus, (28 January 2020), *Submission on Fibre input methodologies: Draft decision reasons paper dated 19 November 2019,* at [248-276]; NERA (22 January 2020), *Assessment of Type II asymmetric risk for Chorus' network*, section 4.3.

[37] See K. Funston, *Real Options and Telecommunications Regulation*, *The Economics of Online Markets and ICT Networks*, pp 113-127, 2006; J.S. Gans, and S. King, *Access Holidays for Network Infrastructure Investment*, Agenda 10, pp 163-78, 2003; and J.S Gans, and S. King, *Access Holidays and The Timing of Infrastructure Investment*, The Economic Record 80, pp 89-100.

[38] For examples of the extensive recognition and discussion on the potential for asymmetric truncation see Productivity Commission, *Review of the National Access Regime*, 2001; Productivity Commission, *Telecommunications Competition Regulation*, 2001; Productivity Commission, *Review of the Gas Access Regime*, 2004; and Productivity Commission, *National Access Regime*, 2013.

risk did not exist. As Sapere also explains, if there is a risk of stranding then that is a cost, for which the provider should be compensated, *even if that risk does not materialise*.[39]

89. Asymmetric risks will exist in both the pre- and post-implementation periods. Oxera recognises that each tranche of UFB investment programme will have its own risk characteristics, which implies the Type II asymmetric risks differ between the pre-implementation period and the post-implementation period:[40]

> *In relation to question 4 [What is the magnitude of any type 2 asymmetric risks that you identify above? Is the magnitude of these risks likely to be different between the pre-implementation period and the post-implementation period?], this report provides initial estimates of the uplift above WACC needed to honour the fair bet principle for the UFB1 programme tranche of investment. Our initial estimates suggest that a range of []. We note, however, that these are indicative estimates and further work would be needed to estimate the appropriate uplift for UFB1 and subsequent tranches. This quantification is explained in further detail in section 4. Finally, in relation to whether the magnitude of these risks is likely to be different between the pre-implementation period and the post-implementation period, we explain in this report that when the project involves multiple tranches of investment, each with their own risk characteristics, the fair bet exercise needs to be conducted for each tranche individually. In other words, this would involve estimating a different cost of capital for each tranche, assessing the risks of these investments as they existed at the time at which the investments took place, and deriving a separate 'delta' uplift for each.*

90. We consider that pre-implementation period Type II asymmetric risks are likely to be higher than the post-implementation risks that Commission has *ex-ante* proposed to compensate for in the IMs. This is due to the demand uncertainty being much greater pre-implementation than post-implementation – there was no demand in 2011 for fibre services while there is 60% take up today.

A 75th percentile v mid-point estimate

91. We disagree with the Commission's draft decision not to apply an uplift to its mid-point estimate of the opportunity cost of capital in the pre-implementation period. As Sapere explains, an uplift to the 75th percentile should be applied for the pre-implementation period, to reflect the reasonable expectations investors would have held in May 2011 of a normal return over time.[41] This retrospective treatment best preserves investor confidence in the regime, consistent with the purpose in section 162(a).

92. As Sapere explains:

 92.1. An uplift is consistent with the Government's economic policy at the time. The UFB initiative was expressly intended to accelerate investment and the 2011 GPS focused on mitigating concern about the potential costs to consumers of

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[39] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [79-82].

[40] Oxera, (15 July 2019), *Compensation for asymmetric type 2 risks - Applying the fair bet principle in the new regulatory framework for fibre in New Zealand*, at [5.6].

[41] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [11].

under-investment and lack of innovation. At the time, the Government's concern was to assure investors they would achieve a normal return given the risk to which they were exposed in 2011, in rolling out a new technology; and

92.2. An uplift is consistent with the Commission's regulatory practice at the time, where the Commission applied the 75th percentile to energy and airport companies, and therefore investors would reasonably have formed the expectation that this would also apply to FFLAS.[42]

93. If the Commission is unwilling to accept that the decision made by Chorus and LFCs to invest under the UFB initiative was made in May 2011, then the appropriate point estimate for the opportunity cost of capital needs to reflect the investor expectations that changed over time. Over the course of the pre-implementation period, investors would have had to accept from late 2014 the Commission's decision amending the cost of capital percentile for Part 4. This means a retrospective treatment of the opportunity cost of capital estimated annually, would require applying the 75th percentile from 2011 to 2014, and then the 67th percentile from the date of the Commission's amendment decision until the implementation date.[43]

94. We also consider there is merit in using the 75th percentile based on the cross-checks we have done of the cost of debt estimate with Chorus' actual cost of debt. This issue is described further in the section that follows.

Checking reasonableness on the cost of capital estimate

95. We note the Commission's view that "*use of common commercial practice is appropriate in the purpose and context of [retail fuel] market study, which unlike [the] present task, did not involve determining large wealth transfers*". The Commission's point about wealth transfers is unclear. Chorus' understanding of the retail fuel market study's purpose was to determine whether there was evidence to suggest that New Zealand consumers are overpaying for fuel. Given the $10 billion spent by consumers annually this suggests potential for significant wealth transfers.[44]

96. We do not agree that there is a wealth transfer from a decision to apply a 10-year term of the risk-free rate, as commonly adopted practice. If anything, were the Commission to perform a cross-check by comparing its notional cost of debt with Chorus' actual cost of debt over the pre-implementation period, it would appear to suggest the opposite. In addition to using such a cross-check to assess the appropriateness of a 10-year term, as noted above, this can be used to inform whether a 75th percentile estimate is more appropriate than a mid-point estimate.

97. The graph below shows the difference between Chorus' actual cost of debt and the notional cost of debt estimates based on the Commission's approach of annually updating the estimate and using a 10-year term of the risk-free rate. It demonstrates that even when adopting a 10-year term for the risk-free rate, for most years, except for FY2012 and FY2014, the notional cost of debt estimates will under-compensate Chorus for its actual borrowing costs incurred during the pre-implementation period.

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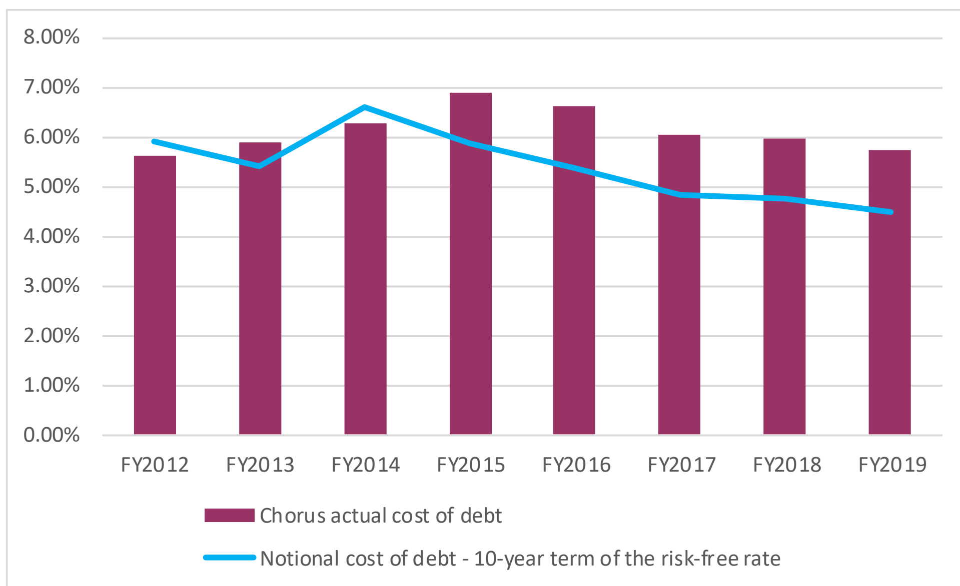
[42] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [32] - [39] and [92] - [94].
[43] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [93].
[44] Commerce Commission (5 December 2019), *Market Study into the retail fuel sector final report*, p 8.



98. While the cost of equity is not directly observable, we consider under-compensation risks also exist in relation to the expected return equity investors expected during the pre-implementation period.

99. This is evidenced in Dr Lally's expert report on the estimation of TAMRP,[45] which demonstrates that the average TAMRP observed in New Zealand markets since 2011 was significantly higher than 7.5% (as proposed by the Commission to apply from November 2020):

    99.1. TAMRP of 10.7% based on Ibbotson method and 10-year term of the risk-free rate for the period 2011-2018;[46]

    99.2. TAMRP of 9.9% based on Siegel 1 method and 10-year term of the risk-free rate for the period 2011-2018.[47]

100. Such outcomes, where the estimated cost of debt under-compensates Chorus for the actual/observed cost of debt, will not best preserve investors' confidence in the regime, and will therefore be inconsistent with the purpose in section 162(a).

Cost of capital parameters

101. The table below summarises our key positions on the cost of capital estimate and compensation for Type II asymmetric risks.

[45] Dr Lally, (26 September 2019), *Estimation of TAMRP.*

[46] Dr Lally, (26 September 2019), *Estimation of TAMRP*, Table 1, p 5. TAMRP will be higher than 10.7% if an adjustment is made to align with a 5-year term of the risk-free rate.

[47] Dr Lally, (26 September 2019), *Estimation of TAMRP*, Table 2, p 11. TAMRP will be higher than 9.9% if an adjustment is made to align with a 5-year term of the risk-free rate.

Parameter	Commission	Chorus position
Asset beta	0.49[48]	0.65 Based on the review of a wide range of available evidence, our independent experts[49], have estimated a pre-implementation asset beta of 0.65.
Debt premium	BBB+	BBB Based on our independent experts' advice[50], the appropriate credit rating for the debt risk premium in the pre-implementation period is BBB.
Term of risk-free rate	5-years, annual updating	8.7 years from 2011, 10 years if annual updating is used.
Leverage	31%	40% Our independent economic expert[51] advised it is reasonable to use a leverage of 40% for the pre-implementation period with the proposed asset beta of 0.65.
Percentile uplift	50th percentile	75th percentile Our independent economic expert[52] advised an uplift to the 75th percentile is given to reduce the risk of underestimation of the cost of capital to 25% and to align with reasonable expectations as at May 2011 of there being such an uplift. We also consider that based on cross-checks comparing estimates of the notional cost of debt versus Chorus' actual cost of debt, using a 75th percentile will reduce the risk of regulatory error in estimation.
TAMRP	7.0%, FY 2012-2020 7.0%-7.5% (weighted average), FY 2021 7.5%, FY 2022 TAMRP uses a weighted average for the loss year in	7.0%, FY 2012-2017 7.25%, FY 2018-19 7.5%, FY 2020-2022 Our independent economic expert advised that the TAMRP for the pre-implementation regulatory period should be set at 7.0%, which was the rate prevailing in 2011.

[48] While there is no reference to asset beta in the IM rules as such, the Commission's specified 'equity beta' of 0.71 is based on an asset beta of 0.49 and leverage of 31%.

[49] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [74].

[50] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [56].

[51] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [78].

[52] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [85].

	which it transitions from 7.0% to 7.5%.	
Type II asymmetric risk	No allowance for Type II asymmetric risk for the pre-implementation period. An allowance of 10bps has been made for the post-implementation period.	0.0059 The stranding risks associated with demand uncertainty in the initial period is higher. Our independent economic expert[53] advised that an *ex-ante* allowance of 59bps for stranding risks is appropriate.

[53] NERA, (22 January 2020), *Assessment of Type II asymmetric risk for Chorus' fibre network,* at [103].

5. TREATMENT OF CROWN FINANCING

102. We disagree with the Commission's revised view in the Reasons paper on the treatment of Crown financing. The Commission's revised view does not provide us with the opportunity to maintain our financial capital in real terms and therefore does not achieve the purposes of the Act. The Commission's revised view is also at odds with the advice it has received from its own expert advisor, Dr Lally, whose view is aligned with the view presented by our expert advisor, Incenta economics.[54] From a process perspective, it is very troubling that the Commission has reversed its views at a late stage, in the absence of new evidence, and on a point on which it has already received substantial amounts of submissions and evidence.

103. The Act requires that the Commission reflect the actual costs of Crown financing in the calculation of the value of the FLA. The Act does not give the Commission discretion in its approach to Crown financing; its role is simply to estimate the actual costs of Crown financing and reflect that in the FLA.

104. As outlined in our previous submissions, the Commission's revised proposal stands in stark contrast to the advice of experts that Crown financing is fundamentally debt-like in nature and so leaves Chorus exposed to a residual risk.[55] Having now seen the full package of Commission proposals for the pre- and post-implementation period, it is clear that this residual risk is not compensated for in the regime.

105. As we have stated in our previous submission,[56] we disagree with the Commission's latest reasoning on Crown financing because:

    105.1. The question of the nature of financing Chorus would have obtained if it didn't receive Crown funding is irrelevant. If there was no Crown financing, the project would not have proceeded. Equity would not have been available because the project was not commercial. The Commission's argument on this point ignores the fact that the Crown financing was intended to bring forward investment that would not have otherwise happened.

    105.2. The Commission has assumed that, because one of Chorus' options after the transition date for the Crown finance "equity" is to allow it to convert to a preference share that it is akin to a dividend free preference share, and so is equity. However, we disagree with this reasoning:

        105.2.1. Allowing the conversion to a preference share is only one of Chorus' options for the equity component – Chorus can also repay the obligation in cash or with a grant of shares. Experts agree that a repayment in cash is the most likely. As Incenta argued,[57] the equity component is just free capital that ranks behind senior debt but ahead of equity in a wind-up.

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[54] Dr Lally, (25 May 220), *Further issues concerning the cost of capital for fibre input methodologies*, p 8.

[55] Chorus, (13 August 2020), *Chorus submission on "Fibre input methodologies - further consultation draft reasons paper"*, at [27].

[56] Chorus, (13 August 2020), *Chorus submission on "Fibre input methodologies - further consultation draft reasons paper"*, at [33].

[57] Incenta, (July 2019), *Chorus's actual financing cost for Crown-financed investment,* at [58].

105.2.2. A preference share is not ordinary equity. It is a hybrid between equity and debt that has a lower cost of capital than ordinary equity. Accordingly, the Commission is wrong to suggest that even if the Crown finance equity was equivalent to a dividend free preference share that such a characterisation would make this finance equivalent to ordinary equity.

105.3. The Commission has pointed to the treatment of ratings agencies as part of the Crown financing as equity in support of its proposal. However, how ratings agencies treat this finance does not determine its economic characteristics – the focus of the rating agencies is the protection afforded to debt providers, and so they use a definition of equity that is specifically tailored to this purpose. For example, Standard & Poor's states the following in its Corporate Ratings Criteria[58] (emphasis added):

> *"What constitutes equity in the first place? Traditional common stock – the paradigm equity – sets the standard. But equity is not a monolith concept; rather it has several dimensions. Standard & Poor's looks for the following positive characteristics in equity:*
>
> - *It requires no ongoing payments that could lead to default;*
> - *It has no maturity or repayment requirement;*
> - *It provides a cushion for creditors in the case of bankruptcy*
> - *It is expected to remain as a permanent feature of the enterprise's capital structure.*
>
> *If equity has these defining attributes, it should be apparent that a specific security can have a mixed impact. For example, hybrid securities, by their very nature, will be equity-like in some respects, and debt-like in others. If equity has Standard & Poor's analyses the specific features of any financing to determine the extent of financial risks and benefits that apply to an issuer. <u>In any event, the security's perceived economic impact is relevant, its nomenclature is not. A transaction that is labelled debt for accounting, tax, or regulatory purposes may still be viewed as equity for ratings purposes, and vice versa</u>". (Emphasis added)*

106. In addition, we note that the Commission's proposed treatment of Crown financing for Chorus is inconsistent with its proposals for the Local Fibre Companies (**LFCs**). For the LFCs, the Commission proposes that the treatment of Crown financing reflect its fundamental nature. Clause 1.1.10(5) states:

> *For the purposes of applying the 'mid-year compounding factor' in the calculation of the 'present value benefit of Crown financing' in clause 1.1.2(4) of Schedule B, in respect of a regulated provider other than Chorus that has Crown financing outstanding for the financial loss year that is, in substance:*
>
> > *(a) provided by way of debt, leverage means the ratio of debt capital to total capital and is 100%; and*

[58] Standard and Poor's, *Corporate Ratings Criteria,* p.91

(b) provided by way of equity, leverage means the ratio of debt capital to total capital and is 0%.

107. For Chorus, a vastly different treatment is proposed. The Commission proposes to deem the avoided cost to be an interest rate reflective of the full project risk (i.e. the cost of capital) even though the fundamental nature of the finance according to both Dr Lally and Incenta is of debt. The Commission's justification for applying a different treatment for Chorus is unclear.

108. If the Commission were to accept Crown financing as being debt like in nature, then views have been expressed in previous submissions by Chorus,[59] and Dr Lally as to how this should be done operationally. In particular:

    108.1. Both the term of the debt and the time that the interest rate is determined should be applied in a manner that is consistent with the assumptions applied for the regulatory debt. This means that the "avoided cost" can be expressed as the regulatory debt cost + a factor.

    108.2. In terms of the factor noted above, we agree that it should be two credit notches (i.e. from BBB+ to BBB-) reflecting (i) the difference between Chorus' actual credit rating and the benchmark, and then (ii) the predominately subordinated nature of the CIP.

The adjustment should reflect the forecast amount of Crown financing outstanding for that regulatory year.[60]

109. For the sake of clarity, the forecast amount of outstanding Crown financing does not need to reflect the repayment schedule agreed between the regulated provider and the Crown. Rather, it needs to reflect the regulated provider's forecast of the outstanding obligations in relation to Crown financing. Any potential difference between the forecast and actual amount of Crown financing will then be reflected in the wash-up amount under price-quality regulation, as per the Commission's proposal.[61]

110. Correctly reflecting the actual costs of Crown financing is critical to ensure a reasonable opportunity for a return on capital, and compensating investors for the risks they have taken. As outlined earlier, having an opportunity to make a fair return is the key to ensuring end-users benefit from continued investment and innovation.

111. We encourage the Commission to consider the broader signal its proposed approach to Crown financing sends to investors. Chorus partnered with Government to build a world class fibre network. The Commission's apparent position is to go beyond removing any benefit from Chorus' deal with the Crown to imposing a cost. Had investors been aware of this before the network was built it is unlikely the project would have ever proceeded. This sends a strong negative signal both to existing

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[59] Incenta (July 2019), *Chorus's actual financing cost for Crown-financed investment,* at [7 to 11]; and Incenta (August 2020), *Crown financing – issues raised in further paper by Dr. Lally,* at [1.2.2].

[60] Chorus, (13 August 2020), *Appendix A: Chorus proposed amendments to the further IM determination.*

[61] Commerce Commission, (23 July 2020), *Fibre input methodologies – further consultation draft - reasons paper*, at [3.31].

investors and any prospective investors considering partnership with Government and/or investment in New Zealand.

6. TREATMENT OF PRE-2011 ASSETS

Inclusion of pre-2011 assets

112. We agree with the Commission maintaining its draft decision to include pre-2011 assets in the calculation of the FLA. The acquisition of pre-2011 assets by Chorus was itself undertaken as a condition of, and pursuant to, the UFB initiative. Therefore, investors have an expectation of a return on and of capital for pre-2011 assets.

113. It is reasonable to assume that FFLAS consumers should contribute to the recovery of their share of the existing assets that are re-used to provide FFLAS. That is, as the consumer transitions from copper to fibre they should continue to pay their share of the cost. This ensures the right outcome is achieved, which is consistent with a workably competitive market. As the Commission notes[62], an incremental cost approach would not account for customer migrations from copper to FFLAS and lead to under-recovery of shared costs.

114. However, we disagree that the Commission has discretion under section 177 as to whether these assets are included or not. Rather, a plain reading of section 177 *requires* the Commission to include in its calculation of the value of the FLA any accumulated unrecovered returns on assets used to meet Chorus' UFB obligations.

TERA cross-check for copper and fibre cost recovery

115. We agree with the Commission's decision not to use TERA's proposed method to check for under- or over-recovery.[63] TERA's approach requires a BBM model for both copper and fibre and then removing UBA and UCLL revenue based on TSLRIC based prices. Analysys Mason's report[64] discusses this in detail. TERA's approach ultimately requires a significantly more complex model for very little benefit.

Cost allocation for pre-2011 assets

116. We agree that cost allocation is required for pre-2011 assets. However, we disagree that additional safeguards are required to prevent over-allocation to FFLAS because: (a) the Commission has overstated the risk of over-allocation to FFLAS; and (b) the existing safeguards are more than adequate.

117. The Commission supports accounting based allocation approach (**ABAA**) as it's suitable to produce results consistent with outcomes in workably competitive markets.[65] As a starting point the Commission should also apply ABAA to pre-2011

[62] Commerce Commission, (13 August 2020), *Fibre input methodologies: Further consultation draft initial value of financial loss asset – reasons paper*, at [2.64].

[63] Commerce Commission, (13 August 2020), *Fibre input methodologies: Further consultation draft initial value of financial loss asset – reasons paper*, at [2.63].

[64] Analysys Mason, (24 January 2020), *Response to TERA paper on "over-recovery"*.

[65] Commerce Commission, (19 November 2019), *Fibre input methodologies: Draft decision - reasons paper*, at [3.388.1].

assets since that will be consistent with workably competitive markets and also the treatment of costs post-2011.

118. While we agree that the principles of allocation should be specified in the IMs, an overly prescriptive approach is unlikely to be beneficial. We intend to approach cost allocation of pre-2011 assets constructively and in a pragmatic way. Our expectation is that many of the theoretical concerns regarding over-allocation will not arise in practice.

119. In addition, context is required when considering cost allocation during the pre-implementation period since some costs that benefitted copper were only incurred because of FFLAS, for example:

119.1. A pre-requisite for participating in the UFB initiative was structural separation. This required the creation of new, duplicated IT systems over the pre-implementation period (and this work is not quite complete). While these systems will be used by the whole of the business in the future, the driver was the UFB initiative, resulting in little benefit to copper services compared to the pre-existing systems; and

119.2. Chorus embarked on major marketing campaigns designed to attract and retain consumers on fixed line broadband. This resulted initially in copper connections, but with a long-term focus and principal motivation to increase connections to fibre once available in an area. The rate of fibre uptake is reflected in the future revenue over several years used to calculate the allocation of such costs used within the calculation of the FLA.

Filters for cost allocation of pre-2011 assets

120. We agree with the Commission applying a filter for assets that support UFB services, rather than geographic footprint of the assets themselves, when calculating the FLA. However other filters applied to pre-2011 assets will be challenging to implement based on the information available. The limitations of the information available from our systems place pragmatic constraints on the nature of the cost allocations that can be applied and on the nature of any filtering supporting such cost allocations. The Commission needs to consider these limitations in setting the cost allocation IMs.

121. For example, there are two key sources of asset data:

121.1. **Fixed Asset Register (FAR)** – The function of the FAR is to reflect the value of the assets deployed rather than why it was built or what services the assets are used to support; and

121.2. **Network records** – We maintain physical network records in a GIS system. This contains information such as asset type and asset location (e.g. Chorus UFB area) but doesn't allow us to identify specific services supported by the asset.

Safeguards already in the IMs

122. While we support the Commission's intent of safeguards for windfall gains from cost allocation, there are sufficient measures already in the IMs that help ensure costs are justifiably allocated. These include:

122.1. Only allocating assets to FLA (and the RAB post-implementation) when they are employed to provide FFLAS (where *employed* is defined as "available for use");

122.2. Requiring proportionate cost allocation, using ABAA to allocate costs to FFLAS and non-FFLAS;

122.3. Requiring the updating of cost allocation data annually;

122.4. Listing default allocators in the IM rules for calculating FLA;

122.5. Requiring that cost allocators are applied consistently across costs and between years; and

122.6. The Commission has the final decision to determine the value of FLA, and the cost allocation decisions behind it.

123. The Commission has also raised specific questions which we address in Appendix 1.

124. The inclusion of additional measures proposed by the Commission, as discussed below, are unnecessary and inconsistent with its economic principles. The Commission notes that excluding pre-2011 assets may discourage asset sharing for future regulated infrastructure projects, counter to section 162(b). This logic can be extended to measures that seek to artificially lower the allocation of shared costs (for instance removing "over-allocated" assets) which also signal there is risk we would not have the opportunity to fully recover these costs.

Removing "over-allocated" assets

125. The proposal to exclude in their entirety any assets which are found to be "over-allocated" is inconsistent with section 177 of the Act, because it essentially amounts to a write-down of the applicable asset value. Section 177 prescribes the rule for valuing fibre assets, including pre-2011 fibre assets. An approach to cost allocation that either removes the asset from the RAB or allocates a greater proportion of its value out of the RAB than would be warranted by ordinary principles of cost allocation, undermines Parliament's decision to prescribe the initial asset valuation methodology. In addition, that approach would undermine FCM and therefore would be inconsistent with the purposes of Part 6.

126. Furthermore, the Commission has not provided a clear indication of what would be considered "over-allocation" and therefore there is significant uncertainty over how this would be workably implemented.

No allocation until a threshold is met

127. The Commission also suggests only allowing the cost of assets to be allocated to FFLAS only when they are primarily used for FFLAS. For instance, below the 50% threshold, an asset would be 100% attributed to non-FFLAS services, however, above the threshold it would only be allocated based on the cost allocator values. This creates a disproportionate allocation in two ways:

127.1. Too little cost would be allocated to FFLAS in the early years; and

127.2. A small percentage change in utilisation could generate a large percentage change in the resulting allocation.

128. As with the proposal to exclude assets subsequently found to have been over-allocated, this approach effectively writes-down the value of the asset and therefore conflicts with the statutory direction in section 177.

129. Moreover, this proposal is inconsistent with the cost allocation principles the Commission has developed over many years in the Part 4 context. The Commission has repeatedly reaffirmed its view that ABAA replicates outcomes the Commission would expect in a workably competitive market. Applying a threshold for allocating shared assets to FFLAS deviates from ABAA and implies an over-allocation of shared assets to unregulated services, which is not consistent with outcomes in workably competitive markets. Furthermore, the asymmetric nature of the rule is arbitrary and would prevent Chorus from maintaining its financial capital in real terms.

Residual value

130. We disagree with the Commission's suggestion to set a cap on the maximum copper asset values transferable to fibre; i.e. where the expected residual value of that copper revenue is transferred to fibre revenue:

130.1. Assets may still be used in future, if only to a lesser extent. For example, in areas where Chorus has built UFB, shared assets are expected to be re-used. While in other areas, network assets may be used less; and

130.2. Such an approach is inconsistent with the Commission's acceptance to use Chorus' statutory accounts. Accepting Chorus' statutory accounts means whether or not the asset is impaired is defined by the accounts, not by some additional exercise that is inconsistent with the accounts.

Application of shared cost cap to the pre-implementation period

131. We interpreted the Commission's previous drafting of the shared cost cap to mean FFLAS should not include any costs that were incremental in the provision of services that are non-FFLAS. When considering a new service this is supported by economic rationale, as such a cap would avoid economic cross-subsidisation, meaning that a new service would be allocated costs bound between incremental cost (lower limit) and standalone cost (upper limit).

132. However, it is unclear whether the Commission's revised drafting ("*could not have avoided*") refers to incremental and/or common costs that Chorus incurred. Either way, a discretionary decision by the Commission on what costs are unavoidable in the supply of FFLAS (e.g. an efficiency adjustment) isn't economically justifiable.

133. We also have concerns with the workability of applying a shared cost cap to the pre-implementation period. Application of the shared cost cap is speculative in determining what costs could have been avoided if copper wasn't provided:

133.1. A world without copper would be considerably different, where avoided costs would be complex as some costs could be saved while other costs would be incurred; and

133.2. Chorus has been transitioning to fibre since 2012, so it would be difficult to pin down a point in time the actual needs of a fibre business.

134. We note that the Commission intends on applying the shared cost cap to pre-2011 costs.[66] As we have previously noted,[67] if the Commission continues with the cap on shared costs it should meet the conditions below (our proposed drafting for these is in Appendix 2):

134.1. Only be used for new services. The ordinary objective of these type of tests is to assess whether a new (usually unregulated) service will bear at least the incremental cost that it causes;

134.2. Not apply retrospectively. Applying a shared cost cap to copper costs does not provide any additional incentives to reduce cost, as they are largely unavoidable; and

134.3. Be based on objective data, rather than hypothetical scenarios; i.e. the cap should only apply where there is data to show shared costs are avoidable.

List of default proxy allocators

135. We agree with the Commission's decision to include "used length of linear assets", "power usage", "number of events" and "any other allocator type as approved by the Commission" to the list of allocator types available in Schedule B.[68] As we have previously submitted, equi-proportional mark-up should also be included.[69]

7. OTHER MATTERS

Non-standard installation fund

136. The Commission has decided that the non-standard installation (**NSI**) fund should be netted off the RAB as a capital contribution, which it assumes is up to $20m.[70] We disagree on the facts assumed by the Commission in its treatment of the NSI fund but propose to engage further with the Commission during the PQ determination process. In order to account for the value of the NSI fund that could be treated as a capital contribution we are proposing to remove reference to the $20m value. Our proposed drafting is in Appendix 2.

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[66] Commerce Commission, (13 August 2020), *Fibre input methodologies: Further consultation draft initial value of* financial loss asset – reasons paper, at [2.96.4].

[67] Chorus, (3 September 2020), *Chorus cross-submission on the Commerce Commission's fibre input* methodologies – *further consultation draft reasons paper*, at [34].

[68] Commerce Commission, (13 August 2020), *Fibre input methodologies: Further consultation draft initial value of financial loss asset – reasons paper*, at [4.19].

[69] Chorus, (28 January 2020), *Submission on Fibre input methodologies: Draft decision – reasons paper dated 19 November 2019 and Draft fibre input methodologies determination 2020 dated 11 December 2019*, at [167.5].

[70] Commerce Commission, (23 July 2020), *Fibre input methodologies: Further consultation draft – reasons paper*, at [3.64].

Post-tax vs vanilla cost of capital

137. As part of moving from a BBM to DCF methodology the Commission has proposed using a post-tax cost of capital in order to simplify the calculation.

138. We recommend the Commission instead use a vanilla cost of capital. If applied correctly and consistently, a calculation that uses a post-tax cost of capital and one that uses a vanilla cost of capital will have identical answers. However, our preference for the vanilla cost of capital reflects the fact that this form of cost of capital provides for a more transparent calculation when tax losses are being made.

139. To this end, we are concerned that the Commission has proposed using a post-tax cost of capital under the assumption that this is simpler because it will avoid the need to calculate the interest deductions available for tax purposes in the pre-implementation period.

140. But this assumption is false – as the Commission has acknowledged, the post-tax cost of capital assumes that interest deductions can be immediately used, and so will overstate the benefit of these deductions where the firm is in a tax loss position after considering the interest deductions. And our modelling suggests that tax losses will be made for much of the pre-implementation period, given the substantial capital expenditure undertaken and so resulting high tax depreciation deductions.

141. Testing whether the firm is in a tax loss position requires the implied interest deductions to be derived, which means that there is little difference in the complexity of the calculations between the use of a vanilla or post tax cost of capital.

142. From the above discussion it is essential that the potential for tax losses to accrue – and so for a test for losses and the required adjustment – be included within the model that is used to calculate the FLA. This should not be treated as an afterthought that can be remedied through a later amendment to the IMs.

143. Rather than propose detailed drafting as to how the test should be undertaken, we have shown how the Commission's loss asset model could be expanded to conduct this test in the workbook attached to our submission (Appendix 3). The workbook also shows how this could be done for either the post-tax cost of capital or vanilla cost of capital.

144. Our model also reflects that when the interest deduction is incorporated into the cost of capital, the interest deductions that are implied by this treatment tend to be much more extensive than the Commission ordinarily assumes. Specifically, intra-year cash flows are implicitly assumed to generate interest deductions, rather than just the opening RAB. Consistency requires these more extensive deductions to be estimated when testing whether the firm is in a tax loss position. This aspect of the Commission's cost of capital is incorporated into our proposed calculations.

Approach to interest during construction

145. We also agree with the revised decision to include the cost of interest during construction in asset values used for the initial RAB.[71] This is a workable solution

[71] Commerce Commission, (13 August 2020), *Fibre input methodologies: Further consultation draft initial value of financial loss asset – reasons paper*, at [3.53].

which reduces complex data re-work[72] and helps ensure asset values reflect actual cost and are consistent with GAAP.

Forecast used for the initial RAB

146. We agree that there is a need to include a transitional provision in order to calculate the FLA for the initial price-quality RAB. Statutory accounts covering the entire pre-implementation period will not be ready until after the implementation date and therefore forecasts will be required to determine the FLA for the initial price-quality RAB.

147. However, actual data, not forecast values, should be used for financial loss year 2020. This is consistent with our previous submissions.[73] Using one less year of forecast will reduce the potential size of any forecast error. This approach is workable and robust as Chorus' audited statutory accounts will be available for use. We have proposed drafting to reflect this change in Appendix 2.

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[72] Chorus, (28 January 2020), *Submission on Fibre input methodologies: Draft decision – reasons paper dated 19 November 2019 and Draft fibre input methodologies determination 2020* dated 11 December 2019, at [106].

[73] Chorus, (13 August 2020), *Submission on Fibre input methodologies – further consultation draft reasons paper*, at [41].

APPENDIX 1: RESPONSE TO COMMISSION'S QUESTIONS ON COST ALLOCATION

Question	Response
Is there anything further that should be done in the IMs to be more certain about the appropriateness of cost allocation for pre-2011 assets in calculating the FLA?	No. The Commission's proposals already place a significant number of restrictions on such allocations.
Is there a 'rule of thumb' that could be applied for the purpose of cost allocation for pre-2011 assets in calculating the FLA	Rather than seeking a "rule of thumb" a better approach is to choose the right cost allocator and consistently use it. As previously submitted, consistency over time for cost allocation is critical, including pre-2011 assets.
Are there properties of pre-2011 assets that would impact the rules for cost allocation in calculating the FLA relative to post-2011 assets?	No. The fact that assets predate a specific date do not make them intrinsically "special".
Should there be a cap on the allocation of pre-2011 assets to the FLA during the transition period	No. The Commission's proposal already means cost allocation is highly constrained. We refer above to *Application of shared cost cap to the pre-implementation period*.

APPENDIX 2: PROPOSED DRAFTING CHANGES

1. Attached as separate document

APPENDIX 3: PROPOSED AMENDMENTS TO RULES FOR FLA CALCULATION OUTLINED IN WORKBOOK

1. The calculation that we propose to use to derive the FLA applying a vanilla WACC is in the form of a modification to the Commission's spreadsheet model and accompanies this submission as a separate attachment.

2. This has been done as a demonstration and while we're confident it is free from material error and therefore suitable for this task, it has not been subject to rigorous internal testing. It also applies some simplifications compared to the Commission's approach, to make the presentation simpler (e.g., we have not applied the 365.25 convention).

3. We also note the model doesn't do anything in relation to CIP. Under our position, CIP would attract a lower carry-forward rate and also be treated as avoided debt, which would need to flow into the interest and tax calculation. The method that we have applied to calculate interest in relation to the RAB assets (inclusive of losses) could be applied directly to the capitalised CIP balances, just with the different carry-forward rate and the balances assumed all to be avoided debt.

4. The calculations presented in that spreadsheet model have been derived to accommodate a different WACC being applied to the cash flows for each year, although Chorus' position is that a constant WACC should be applied over the period.

5. The key additional calculation that is performed in the model is the calculation of the interest deductions that are available for taxation. The assumptions made in the model are as follows.

6. Each year's cash flows (including the 2011 assets) are assumed to be financed (to the level of assumed leverage) at the cost of debt that is assumed for the WACC applicable to that year. The stock of debt created in each year is then assumed to grow from year to year as that year's cash flows are capitalised at the WACC. These assumptions are consistent with the implicit assumptions built into the Commission's proposal to apply a different WACC each year and to apply a post-tax WACC.

7. Interest in each period is assumed to be payable at the midpoint of the period to which it relates. For the first year of each vintage of cash flow, it is assumed that interest is payable for the proportion of time for which the cash flow is capitalised. A different first year interest rate has been applied for cost items (which are all assumed to be incurred mid period) from the revenue offset (which is assumed to be received 34 days after the midpoint of each period).

8. A slight adjustment has been made to the calculation of taxation to reflect the fact that the tax cost is part of cash flow, which will then affect the level of debt and so interest, and hence have a feed back into the tax calculation. The adjustment required is straightforward, and the fact that this generates the expected result is demonstrated.

9. Once annual interest deductions have been calculated, the post financing taxation liabilities can then be calculated, and losses treated in the standard manner. That is, where losses accrue, taxation in that year is set to zero and the losses are carried forward to be offset against future income.

9th September 2020

To whom it may concern,

We are pleased to provide a submission in response to the release of the Commerce Commission's consultation on the fibre loss asset.

Cooper Investors Pty Ltd ("CI") is a specialist equities fund manager with funds under management of approximately A$12 billion. We commenced operations in 2001 and we manage money for a range of clients including large pension and superannuation funds, listed Australian companies, religious institutions, Australian State Government agencies, school endowments, charities and high net worth families. CI is 100% owned by its employees.

CI have numerous listed infrastructure investments and currently have an investment in Chorus.

The Commerce Commission proposing to reverse its November draft decision position for the treatment of Crown Financing as debt, instead proposing to remove any return on this portion of the RAB.

We disagree with this approach as we consider the nature of Crown Financing to be debt-like, and it also encourages early repayment of the Crown Funding which we understand runs counter to the intention of why the financing was provided by the government.

This approach may also impact the willingness of investors to participate in future infrastructure investments where government financing is provided.

While we do not have issues in principle with the switch to a discounted cash flow methodology for the loss asset calculation, our view is the WACC assumptions being adopted within it are too low.

We do not agree with the proposal to reset the WACC annually between 2011 and 2021. As Chorus has shown on slide 30 of their FY20 presentation, this effectively lowers the WACC over this period to slightly below Chorus' current cost of debt given the decline in global interest rates. Chorus does not refinance all of its debt annually, nor should the WACC be reset annually on a retrospective basis. We consider it unlikely that a network investor would refinance capex annually as suggested by the retrospective methodology, which would just introduce additional financing risk. Rather investors would look to obtain finance more consistent with the project term, in this case 10 years.

Asset beta is a key component of the WACC, for which we have not seen any update in the latest financial loss calculation, and our view remains that an asset beta of 0.49 is too low.

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We have submitted previously that an asset beta higher than the proposed 0.49 is appropriate during the construction period given the risks involved such as financial leverage, construction and demand risk. This is consistent with standard project financing and Ofcom's proposed 0.65 asset beta for Openreach in the UK, with the asset beta reducing to 0.6 in the post construction period.

The reasonableness checks we and others have raised, including Crown Fibre's own initial assessment and that now being adopted for fibre deployment in the United Kingdom, show it is feasible to derive an asset beta. The existence of a financial loss asset does not and should not be considered a reason to entirely discount the rate of return for investors.

In addition, the current proposal to restrict the WACC to the 50th percentile is inconsistent with established regulatory practice over the period Chorus was building the network. As data consumption and connectivity continue to grow there will the requirement for ongoing investment in higher network capacity. There is a risk that setting the WACC at the 50th percentile discourages this vital investment.

Ultimately we do not think this return is appropriate for the risks taken at the outset of project, nor does it account for the risk of reduced demand due to alternative technologies such as fixed wireless/5G technology.

The financial loss asset is a core part of the overall RAB and MAR that will be needed to sustain and grow the fibre network. Investors should be able to earn a reasonable return on and recovery of the capital invested. We hope this expectation will be respected in the application of the new regulatory framework.

Please do not hesitate to contact me if you require further clarification.

Yours sincerely,

Ryan Riedler

Deputy Portfolio Manager

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Tristan Gilbertson
Telecommunications Commissioner
Commerce Commission
Wellington 6140

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9 September 2020

Dear Mr Gilbertson

Investors Mutual Limited (IML) is an Australian based fund manager with over AUD 6 billion that it manages on behalf of a wide range of investors including many retail investors. IML takes a long-term approach to investing and we look to invest in companies which generate a high level of recurring income, have competent management, and that can grow their earnings and dividends over time. Since our inception in 1998, we have been a long-term shareholder in many New Zealand listed companies, including Sky City, Fletcher Building, Trade Me and Chorus.

The lengthy nature of our investment horizon is reflected in the fact we have been shareholders in Chorus since very early in the UFB project. This means we have a deep understanding of the risks the company has faced in delivering this project and the returns that investors have received to date. We have made submissions in various regulatory processes over the years, including the copper pricing review, the development of the new fibre regulatory framework and this current implementation phase. We are attracted to New Zealand because of its relatively stable economy and its generally predictable and transparent regulatory system.

The financial loss asset

Ten years ago, commitments were made to split Chorus from Telecom and build a fibre network that many nations would now give their eye teeth for. It was an ambitious project and required an element of government commitment – the Crown funding – to get it off the ground. The Government said in its policy statements that in return for this risky new investment Chorus would have the opportunity to earn normal returns.

The financial loss asset is an important contributor to our ability to earn a return on the fibre asset that has now been largely built and is delivering great benefits for New Zealand consumers today. It is our strong view that the Commission's proposed approach to the financial loss asset does not fairly reflect the public private partnership agreement. Chorus and its investors have delivered on their part of the bargain, but the Commission's interpretation of how the loss asset will be determined appears to be retrospectively undervaluing the contribution we have made.

A fair rate of return during the build period

While we do not take issue with the Commission's proposal to introduce a discounted cash flow approach for the financial loss asset, we continue to question the justification for the proposed adoption of annual risk-free rate calculations through the loss period.

It seems that the Commission is in effect trying to apply a forward-looking regulatory solution typical of a mature regulatory environment, where regulated returns are established in advance, typically for 4 or 5 year periods. In that situation the regulated business has the opportunity to hedge its finance costs and determine a capex program in light of this knowledge.

Chorus has shown in its recent financial results presentation the implied WACC and cost of debt that would apply based on the Commission's proposals. There is something fundamentally wrong if the Commission's indicated parameters are suggesting outcomes below Chorus' actual costs.

As we have submitted previously, it is our belief that the WACC for the entire construction period must be calculated on the market's forward view of interest rates at the time Chorus made the original commitment. This reflects the investment world reality of public private partnership financing decisions. It is supported by the following facts of the UFB agreement:

- In 2011, Chorus signed a 10 year commitment to build its share of the UFB network,
- The agreement included 10 years of fixed pricing, based on CFH's WACC estimates (CFH Response to Select Committee Questions, 2011) at 9%,
- Chorus quite sensibly aligned its initial debt financing to this 10 year period,
- Subsequent capital expenditures were contractually committed and were not separate investment decisions, and
- Chorus' cost of finance increased during the build period because of regulatory uncertainty relating to copper pricing.

We cannot understand how the Commission can consider a year-by-year WACC during the UFB construction period as a fair outcome when the company had no chance to reduce its financing costs commensurately, or to alter its investment decisions during the construction period.

The unfairness of this academic WACC construct is made obvious by the two years when Chorus could not have raised more debt because of the Commission's own copper pricing review. As investors during this period we remember only too well that dividends were stopped, the Crown was being asked to provide backstop emergency funding and the company's financial security was under threat.

Asset beta and percentile

As we have submitted previously, a key issue with the Commission's proposed approach to the financial loss calculation is the treatment of asset beta during the construction period. We consider it clear from the evidence to date that a much higher asset beta than 0.49 is an accepted commercial fact for the rollout of fibre networks on this scale. Asset beta estimates given by Ofcom, NBN and Crown Fibre Holdings, all indicate a higher outcome. The current approach taken by Ofcom in the United Kingdom is compelling because Openreach operates both copper and fibre networks, making it the closest comparator to Chorus. Ofcom say 0.65 is more appropriate for new fibre network operators because:

1. Fibre networks have higher operating leverage due to the operating and capital costs being higher relative to the immature revenue streams,
2. Fibre networks will face higher competition from copper and wireless networks than copper historically faced, and
3. High end fibre services, such as 1Gbps speeds, are viewed by consumers as luxury items which means fibre revenues will be more sensitive to economic conditions than historical copper network, or electricity utility, revenues.

The Commission has suggested there could be difficulties in estimating a pre-implementation period asset beta. We do not see why Ofcom's analysis cannot be relied upon when they were considering the same scenarios that would have applied to Chorus in 2011. The Commission also suggests the case for a higher asset beta may be offset by the compensation for losses. Yet, the financial loss asset was not formally introduced until 2018 as part of the new regulatory framework. The acknowledgment of the loss asset did not automatically magic away the risks and implied asset beta Chorus had operated under from 2011. As the Commission has itself stated, in the event that there is future stranding, the affected assets would be removed from the RAB.

The other major issue is that the WACC should be set at a percentile that reflects the risk of underestimating the WACC. Underestimating the WACC in the pre-2022 period is a very real risk, as Chorus has demonstrated with its chart showing actual versus implied WACC/debt. We therefore reiterate our prior submission view that, at a minimum, the 67th percentile should be used. At the very least, investors in fibre networks reasonably expect to be treated in a like manner to other regulated assets in New Zealand.

Crown funding

It is concerning that the Commission appears to be proposing to backtrack on its draft determination finding that the Crown funding should be treated as the equivalent of debt. As we submitted in July 2019, the CFH securities have their values defined in fixed dollar terms. They do not share in the risks and returns of asset ownership. From a shareholder's point of view, they add leverage and consume debt capacity in the same way as other debt sources.

Since the CFH securities carry debt like risks, the benefit to Chorus each year should be calculated as the difference between its cost of debt from traditional sources and the cost of the CFH funding, multiplied by the face value of CFH securities outstanding. This is relevant to the calculation of both past losses and future revenue caps.

The Commission's proposed treatment leaves Chorus in the untenable position of owning assets which carry downside risk but earn no upside return. How does the Commission reconcile this with the very plausible scenario that CFH funded assets become stranded by alternative technologies, but Chorus is still required to repay the full face value of the CFH funding over the next 15 years? And yet, under the terms of the PPP with the government, Chorus must issue ordinary shares to the Crown in the event that the UFB project is a runaway success.

The proposed treatment of the CFH funding makes it commercially rational for Chorus to now repay the CFH securities with traditional debt as soon as possible, so it can earn a return on the full asset base. This is patently absurd and reveals the degree to which the Commission's approach is

deconstructing the very foundations of the original UFB agreement. The Commission is itself acknowledging that a 25bps return may be required to try and stop this unravelling of the PPP, but there is no evidence as to how this value was derived, nor its commercial fairness.

Any suggestion that Chorus should not be able to repay its funding early is deeply concerning. The Commission should not be proposing to reinterpret the Crown's contract to prevent a scenario that its own proposal is creating.

We reiterate our comments from last year that investors will be watching this process closely to ensure that the returns they should be able to recover from their investment are not simply taken away by the Commission. The treatment of the CFH funding will have long lasting implications for the Crown's efforts to establish future PPPs.

* * *

The coronavirus pandemic has shown just how essential the UFB network has become. It is providing socio-economic benefits above and beyond those envisaged back in 2011. We ask that the Commission take a balanced approach to ensure that there are no unintended consequences for the company, its investors and New Zealand, from this current review. We remember all too well the fallout from the 2013 copper pricing review, when international investor reaction sparked negative headlines overseas and Chorus was placed on negative credit watch.

Failure to adequately recognise the real costs and risks investors have incurred will tarnish what deserves to be New Zealand's greatest public private partnership success story.

Yours sincerely,

Hugh Giddy
Senior Portfolio Manager

Nigel Hale
Equities Analyst

10th September 2020

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The Commission published its "Second consultation paper on financial loss asset and associated provisions for Draft Determination" and has asked for submissions from interested parties.

L1 Capital manages money for a range of clients including large superannuation funds, global endowment funds, high net worth individuals and retail investors. L1 invests globally with North America, Europe, UK, Australia and NZ being key focus areas and has made significant investments in New Zealand over the last 6 years. L1 would like to thank the Commission for the opportunity to present its views as an equity investor.

In its latest round of consultations, the Commission has asked for submissions on a range of consultation documents including submissions on Dr Martin Lally's expert report, which covered the loss asset in some detail.

L1 Capital has submitted on Dr Lally's report but many of the points are also directly relevant to this paper and we reproduce them below. **We apologise for the duplication in content across both this submission and the submission on Dr Lally's report but we are not sure if the Commission's process involves looking at the two sets of submissions in totality or separately and wanted to input into this submission process in the event it was considered on a standalone basis.**

Our submission focuses on the loss asset and calculation of an appropriate WACC for the loss asset. The discussion of a WACC and an appropriate return on investment on the UFB project continues to be of paramount importance to equity investors not only because it informs returns on the UFB investment but because it sends a signal as to whether long term infrastructure investment in NZ will be appropriately rewarded and fairly regulated. L1 firmly believes that at the heart of fair regulatory regime is appropriate recognition of the terms of the UFB contract and the promises made to equity investors at the start of the UBF project by the NZ government.

The Commission has dedicated a very significant amount of time, effort and thought in understanding how best to give effect to the new fibre legislation and we believe the framework set up by the Commerce Commission is a comprehensive attempt to put together all the different parameters of the fibre legislation into a model that can be quantitively interrogated and be subject to informed debate. L1 thanks for the Commission for all its hard work.

However, in respect to the loss asset, L1 believes that the current parameters used to calculate the loss asset simply do not recognise the terms of the UFB contract. This will result in private capital being unable to recover efficiently incurred costs and strand private investment in the UFB project right at the point when all capital has been invested. It is also contradictory to what the NZ government promised investors at the beginning of the project and amounts to a partial seizure of the UFB asset.

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The NZ government set out its objectives for the UFB project very clearly. We quote from the UFB Interim Period Agreement between Crown Fibre Holdings and Telecom Corporation of New Zealand dated 24 May 2011.

"The Government expects to achieve significant productivity benefits from the UFB network. ***However, these benefits would only be realised if wholesale and retail prices were low enough to encourage service providers and end users to migrate to the UFB network from the existing copper network****. The Government's policy objective is that its investment of $1.35 billion will attract sufficient private investment to achieve deployment of a fibre-to-the-premises broadband network to 75 percent of the population over 10 years.* ***Deploying this network successfully would require significant upfront investment from private partners in a new market, where only a small margin for return exists during the first eight-and-a-half years."***

Chorus investors and equity analysts also had a clear conception of the UFB project as a significant infrastructure investment subject to a variety of risks including those related to the obligations under the CFH contract.

We quote from the risk section of a Deutsche Bank report on Chorus published on 1st December 2011, shortly after Chorus demerger from Telecom NZ.

"The UFB rollout will be subject to the risks typically applied to large scale infrastructure project. These include *(a) "Uncertain end-user demand for fibre" (b) "UFB fibre network deployment costs and construction risks (c) "Failure to meet UFB system and product plan delivery milestones" (d) "The UFB agreements require Chorus to maintain an adequate service levels relating to Chorus's operation and availability of the UFB Network and specified services. Failure to meet these service levels would result in financial penalties" (e) "****Failure to achieve and maintain an investment grade credit rating:*** *As a condition precedent, Chorus must obtain an investment grade credit rating (BBB- or above) within two months after the date on which the Subscription Agreement is entered into". Chorus will be prohibited from paying dividends without CFH's approval if it fails to maintain an investment grade credit rating*

The central legal effect of the UFB contracts is that Crown financing is provided to Chorus and LFCs subject to the Crown having contingent rights (including liquidated damages and other penalties) as consideration for construction of the UFB network and the supply of specific services at fixed dollar prices during the transition period. These rights and conditions were discussed in our 13th of August 2020 on the Loss Asset and were reasonably assumed by investors as representing the total obligations under the project.

In relation to beta and returns the NZ government clearly stated its intention that there would be incentives to invest in new infrastructure and regulation would consider the unique risks of the UFB project.

*"The Government's economic policy is that businesses have incentives to innovate and invest in new or upgraded ultra-fast broadband infrastructure for the long term benefit of end users "recognises that revenues, over the life of the assets, are sufficient to cover operating costs and a normal return on, and recovery of, capital invested" and "****takes into account the start-up risks associated with the introduction of new technology"***

L1's view is that the appropriate conceptual basis for estimation of the cost of capital parameters is to view the UFB contract as similar to a public private project financed agreement such as the Transmission Gully contract between NZTA and the Wellington Gateway Partnership.

We submit that the estimation of the cost of capital parameters for the Pre-Implementation period should be based on the analogy with project financing. That would be compatible with the provisions of the UFB contract and the requirements of section 177.

We have set out arguments for why systematic risk, cost of crown financing and appropriate credit rating are all significantly understated during the build period by the Commission in our 20th of August submission to Dr Lally's paper. We reproduce them below.

Systematic Risk in the Pre-Implementation Period

The Issues paper comments regarding beta, in the latter section, "*In respect of the upper bound, I did not present one. Instead, …, I concluded that suitable comparators are not likely to be available for estimating the beta in the Pre-Implementation period and the only candidate was that applicable to the regulatory situation which might be too high or too low.*" (Issues paper p18)

L1 would point to the highly respected corporate finance textbook by Brealey, Myers and Allen[1] as a guide to why the binding capital expenditure commitments under the UFB contract in the Pre-Implementation period result in beta being higher in that period than the value applicable to the regulatory situation. The textbook explanation discusses the effect on the beta of a utility when it commits to undertake an major capital investment and is directly applicable to the beta of the FFLAS UFB business under the UFB contract as indicated by the following extract.

"*Suppose that an electricity utility commits to build a large electricity-generating plant. The plant will take several years to build, and the cost is fixed. Our operating leverage formula still applies but with PV(future investment) included in PV(fixed costs). The commitment to invest therefore increases the plant's asset beta. Of course the PV(future investment) decreases as the plant is constructed and disappears when the plant is up and running. Therefore the plant's asset beta is only temporarily high during construction.*" (Page 227, Brealey, Myers and Allen, 11th Edition (2014))

The beta "applicable to the regulatory situation" is derived from observed betas of a sample of listed comparable telecommunications companies, few of which would have been committed in the relevant period to a network construction on a scale, relative to their asset base, as large as that to which the FFLAS UFB providers were committed during the Pre-Implementation period. Based on the Brealey, Myer and Allen analysis, the beta of the FFLAs UFB providers during the Pre-Implementation period would be higher than the beta estimate derived from the sample set of companies. The upper end of the plausible range of beta estimates derived from the sample set of comparable companies would be a valid candidate to be used as the estimate of beta for the Pre-Implementation period.

We would also note our January 2020 submission which highlights that risks were clearly higher in several areas during UFB build period.

[1] The Commission references another Brealey and Myers textbook in footnote 85 of the FLA paper

Risk	UFB build period (2012-2022)	Regulatory period beginning 2023	L1 Comment
Construction risk -Risk of cost overruns during build phase	**High:** Very large financial obligation related to build with all risk borne by equity holders	**Low:** Communal build largely complete and large section of premises connection complete by 2023	Construction risk is higher than set of comparable companies given extreme capital intensity of rolling out UFB network and should be reflected in a higher asset beta.
Risk of insufficient demand for fibre services	**Very high**: Unclear demand for fibre services at inception of projection. Penalties from CFH for insufficient take-up of fibre services in form of accelerating CFH equity repayments	**High:** Fibre take up to 2019 is running in line with projections	Clearly higher than during first regulatory period: Demand risk has been viewed as a systematic risk by other regulators and reflected through uplift in allowable WACC.
Risk of financial penalties for non-completion of build milestones	**High**: Financial penalties for non-completion and step in rights(see previous section on CFH instruments)	**Low**: Communal build should be largely complete by 2023	Clearly higher than risk in first regulatory period
Balance Sheet Risks:	**High:** Cost of not maintaining investment grade rating during build period is very high for equity holders (see section on CFH instruments)	**Medium:** End of build period should allow stronger cashflow generation, supporting credit metrics	As covered in section above this greatly increased risk to equity holders by increasing effective leverage and equity beta
Interest rate risk	High: High amount of financial leverage, higher interest rates and negative cash flow profile make Chorus sensitive to rates	Medium: Ability to match interest rate to regulatory period and cashflow generation mitigates risks	Clearly higher than during regulatory period

The Commission has previously discussed beta in the context of a WACC uplift.

"The risks that may be systematic include aggregate demand, operating leverage, the specification of price and potential for growth opportunities. It is possible that the aggregate demand risk and potential for growth opportunities were higher during the pre-implementation period compared to the post-implementation period. Operating leverage may also have been higher during the pre-implementation period when capital costs made up a proportionally greater share of costs, which could point to a higher asset beta for the pre-implementation period. Overall, any adjustment to the asset beta to account for differing systematic risk in the pre-implementation period and post-implementation periods would be arbitrary and difficult to quantify. ***It is reasonable to assume that the case for a higher asset beta due to aggregate demand risk, lower operating leverage and construction risk is offset by the case for a lower asset beta due to the compensation for losses."***

L1 appreciates there the calculation of a higher beta in the pre-implementation period includes many areas subject to significant judgment by the Commission (including stranding risk, the appropriate comparators for asset beta and many others) but the Commission has made choices in each of these areas because it recognised that not doing because it was difficult or imprecise would violate financial capital maintenance principal (FCM) and result in an under recovery of costs.

In the case of systematic risk there is a very reasonable argument for a higher asset beta due to higher aggregate demand risk, lower operating leverage, and construction risk as the Commission itself has acknowledged.

On the other hand, compensation for losses, presumably through the loss asset does not give a higher degree of protection that the wash up regime that applies post 2022. The loss asset is still subject to stranding risk, as we have explored in the previous section so to the extent the losses accrued and guaranteed are in a deregulated area they will not be recovered. Additionally, the loss asset still has the possibility of not being recovered if the revenue cap is not achieved, so it subject to the all the usual risks including that are present in the post 2022 regime.

There thus appears to be a strong basis for awarding an uplift to reflect the risks of a new fibre build. That would be consistent with the intention of government policy in 2011 "to take into account the start-up risks associated with the introduction of new technology" and with the approach several other regulators have taken, where construction risk, demand risk and operating leverage of a new fibre network were called out as a basis for a higher beta or WACC uplift.

Implications of Crown Financing

The main discussion on Crown financing in the Issues paper responds to the Commission raising "*the question of whether this funding should be assumed to displace conventional funding at the benchmark cost of capital*". (Issues paper p16) The discussion argues that the saving from subordinated Crown finance would be higher than the benchmark cost of debt where the later relates to senior debt.

The Issues paper does not even mention the unusually onerous conditions to which Chorus is subject by the terms of the Crown finance. These conditions include a variety of control rights over Chorus's activities that the terms and conditions of the finance awarded to the Crown agent CFH. The conditions also included liquidated damages for example. These conditions go far beyond the normal rights associated with subordinated debt. They impose a cost on Chorus which needs to be taken into account by netting this cost off in an assessment of the benefits to Chorus of Crown finance.

These costs may have been ignored in the Issues paper's discussion because it is not recognised that the provision of the Crown finance is the consideration for Chorus committing itself to the terms of the UFB contract including the penalty provisions. The Crown finance is not a separate component to be analysed independently of the onerous network delivery requirements, take up milestones, control rights and penalty provisions. The Crown financing is the compensation for Chorus agreeing to the obligations imposed by the UFB contract.

Section 177 requires the Commission in respect of any Crown finance provided in connection with [UFB] investments, "*to refer to the actual financing costs incurred by the provider (or a related party)*". L1 Capital submits that the terms and conditions are actual financing costs. The wording in section 177 is "financing costs" not "financial costs". Terms and conditions are costs which are incurred in order to obtain that is they are actual financing costs incurred by a provider. The Issues paper's reference to "zero cost" Crown financing is a misinterpretation of section 177.

In discussing the assessment of the effects of Crown financing the Commission refers to "the benefits of Crown financing". We submit that the that section 177 requires the Commission to refer to the actual financing costs incurred and the costs need to be considered in detail before any conclusion is reached that there is a net benefit. There would less risk of a misunderstanding of section 177 if any conclusions were expressed in terms of the "net benefit" as that would acknowledge there are costs.

We have covered these points in more detail in our 13th August submission on the Loss Asset.

The Choice of Credit Rating

L1 believes the issue paper appears to quite inconsistent in its justification of the use of a BBB+ benchmark and we call out some of the inconsistencies below. We also respond to some specific comments in the paper in relation to the L1 submissions on the choice of credit rating

We respond to some of the comments regarding the choice of credit rating below

1. **L1 Comment 1:** A BBB+ regulated rating works against the Commission's goals by increasing stress on the revenues of the regulated entity and increasing regulatory risk.

   Issues Paper Response: L1 Capital (2020, page 17) also argues that a benchmark credit rating of BBB+ rather than BBB reduces the revenues of Chorus, with no compensating advantage. However the Commission (2019, para 3.848) has articulated a clear rationale for its BB+ benchmark: to signal to firms like Chorus the need to improve their credit rating so as to reduce their bankruptcy risk.

   L1 Response: As an owner of a copper, regulated fibre and unregulated fibre business, Chorus credit metrics are based on not just indebtedness but a range of risk factors including technology risk, operating risk, and regulatory risk, including the risk of a punitive regulatory regime. It simply may not be possible for Chorus to achieve a BBB+ rating because of these factors, even with a materially lower level of indebtedness.

   For example in a December 2014 Chorus credit rating note, Standard & Poors notes the following in assigning a BBB rating to Chorus

   "Tempering these strengths are regulatory risks associated with network pricing; cost escalation risks associated with the rollout of the proposed UFB fibre to the home network and network volume risk associated with fixed to mobile substitution and competition from local fibre companies"

   Additionally, setting a credit rating for a past period obviously cannot incentivise outperformance in that period. Obviously the FFLAS UFB providers cannot change their credit rating for a past period and it is unreasonable to invoke an incentive justification for the proposed approach to setting the credit rating. Furthermore *Chorus cannot "attain this by the simple expedient of reducing its leverage which has averaged 55% in the 2014-19 period*" since that period is past.
   The Issues paper's implication that Chorus's leverage during the period 2014-19 was inefficiently and inappropriately too high is particularly troublesome since Chorus was subjected to a highly problematic two stage process of setting copper prices which resulted in dramatic drop in its share price as a result of an initial benchmark price determination process. Investor confidence was only partly belatedly restored by the final TSLRIC based pricing outcome. The fall in Chorus share market capitalisation and revenue outlook resulted in a high debt to equity ratio in that period.

2. **L1 Comment 2:** The Commerce Commission already has strong protections built into the Fibre Act to ensure consumers are protected and penalties for non compliance. The UFB contract also had very strong performance protections built into it which dictated the capital policies of Chorus during the build period.

   L1 Response: There has been no comment from the Commission as to why penalties in the CFH and SLA obligations under the new Fibre Act need to be supplemented by a credit rating that only reduces regulated returns.

3. **L1 Comment 3: Imposing a BBB+ standard on regulated provider is tantamount to unstitching the UFB contract and resetting the commercial terms retrospectively since original CFH contract called for a minimum investment grade rating BBB-.**

   Issues Paper Response: L1 Capital (2020, pp. 17-18) also argues that the BBB+ benchmark credit rating is above the earlier contractual requirement for Chorus to maintain a rating of at least BBB- during the pre-implementation phase. However, the earlier contracts provided no guarantee that pre implementation period losses would be reimbursed. L1 Capital (naturally) does not object to the November 2018 announcement concerning reimbursement of the losses. Its complaint concerning the revised credit rating standard is therefore cherry picking.

   L1 Response: L1 strongly rejects the assertion that L1 is "cherry picking" and would point out the current Commission position does not at all guarantee that pre implementation losses would be reimbursed. As we have highlighted the government's announcement in 2011 clearly set out that investors could have reasonable expectations of recovering their efficient costs and being compensated for start up risk.

   "The Government's economic policy is that businesses have incentives to innovate and invest in new or upgraded ultra-fast broadband infrastructure for the long term benefit of end users "recognises that revenues, over the life of the assets, are sufficient to cover operating costs and a normal return on, and recovery of, capital invested" and "takes into account the start-up risks associated with the introduction of new technology"

   The recognition of start up losses for a new fibre network is entirely consistent with recovery of efficient costs. We would note that the loss asset does not reimburse costs but adds them alongside capital costs to the RAB, making them subject to all the risks of the RAB regime and entirely consistent with UFB commitment in 2011.

   One could argue that if returns on the loss asset were guaranteed that would modify the terms of the UFB commitment. However, the loss asset is still subject to stranding risk, to the extent the losses accrued and guaranteed are in a deregulated area they will not be recovered. Additionally, the loss asset still has the possibility of not being recovered if the revenue cap is not achieved, so it subject to the all the usual risks RAB risks that apply post 2022. We quote the Commission below in respect of their treatment of standing risk as it applies to the loss asset.

   "3.268 Our draft decision is to maintain symmetric treatment and remove the cost component relating to deregulated assets from both the main RAB and the financial loss asset. We consider that the ability to recover revenue from the financial loss asset is closely linked to the ability to recover revenue from the main RAB. ***This means that, as the size of the RAB decreases due to removing deregulated cost components, so does the ability to recover revenue from the financial loss asset."***

One could also argue that if the costs Chorus incurred in 2012-2022 were somehow not efficient and represent a windfall then reimbursement of losses amounted to a favourable change in the UFB contract. However, there is absolutely no evidence of that being presented and the project was carefully managed by CFH at a very detailed level. As equity investors during the period, we can attest that Chorus was very focused on efficient delivery of the fibre build, given the strain the project was putting on the balance sheet and the reduced revenues from copper services.

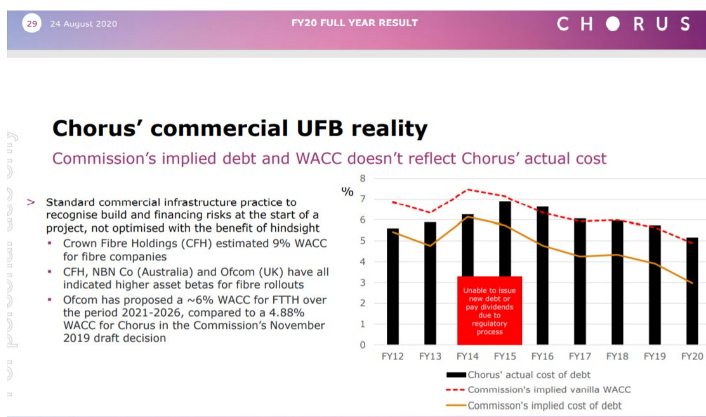
L1 believes that it is clear that it is inappropriate to unstitch the terms of the UFB contract which was the basis for Chorus and other LFC investment and set a BBB+ credit rating when another Crown agency specified what credit rating was acceptable under that contract. The Issues paper is advocating that the Commission impose an after-the-event financial penalty on Chorus because, Chorus complied with the credit rating set by the Crown agency to which it reported at the relevant time rather than - in a past period - conform to a more stringent credit rating thought appropriate by another Crown agency.

Conclusion

L1 believes that the methods the Issues paper advocates for determining the parameters for the purpose of estimating the financial losses incurred by the FFLAS UFB businesses in the Pre-Implementation period are internally inconsistent and result in a material underestimate of the WACC for the UFB period.

One simple way to prove that the Commission underestimates WACC in the loss period is to compare the proposed implied vanilla WACC relative to the actual cost of Chorus's debt during the period. Under the Commission's estimate the implied WACC is no higher than Chorus's cost of debt during most years in the loss period. That is highly unusual.

By all logical estimates, Chorus's UFB WACC should be well above its historical cost of debt to account for (a) significant cost of equity in the capital structure which lifts required returns and WACC and (b) the much higher risk and cost of equity and debt for UFB project relative to Chorus as a whole which had an established copper business and lower business risk.



The task required of the Commission under section 177 of the Act is particularly complex because the commitments required by UFB contract make invalid the standard analysis applicable to a entity which has complete discretion over its expenditure. The most appropriate analysis is one based on the analogy with a project finance funding structure.

If the Commission is not able to base its estimate on this analogy then it should at the very least recognise that its draft methodology results in a material underestimate and correct this by increasing beta for the Pre-Implementation period to the top of the plausible range, reduce to BBB- the credit rating used in assessing the debt risk premium and increase to the average observed level (ie 50% or higher) the leverage used in assessing the debt risk premium.

L1 Capital thanks the Commission for its open and transparent approach in formulating fibre regulation and look forward to the opportunity to engage further on the key inputs as the regulatory regime is developed.

Signed:

Lev Margolin
Portfolio Manager

New Zealand Commerce Commission

Submission on Fibre input methodologies

Initial value of financial loss asset

New Street Research, Australia and New Zealand

About New Street Research

New Street Research (NSR) is the leading global independent research house in the telecom, cable, towers and satellite space. We provide specialist research on these sectors to equity and debt investors in global capital markets. We write research on over 150 companies in the sector across the globe as well as reports on major industry developments including regulation and emerging technology such as 5G. In relation to New Zealand we write research for global investors on Spark, Chorus, Vocus and Vodafone NZ, although we don't have formal research coverage of Vocus or Vodafone New Zealand.

New Street has over 200 institutional investor clients globally. Our research is produced by a team of over thirty analysts with extensive experience in the telecommunications sector, based in London, New York, Singapore and Melbourne. Our research is differentiated by being idea driven, based on independence of thought and firmly focussed on fundamentals and valuation.

We make three points in this submission:

- Crown financing imposed material obligations on, and risks for, both Chorus as a group and non-CFH investors, through the loss making period.
- Chorus's WACC is around 5.5% to 6.0% and we think is similar to and possibly less than that for any separable UFB component given potential variation in expected cash flow. The WACC for the financial loss asset (FLA) asset would be higher given greater uncertainty over outcomes over the past nine years. Chorus's asset beta is well above 0.6 and may be over 0.7.
- There is likely to be significant ongoing investment in fibre and wireless networks and related assets in New Zealand through a period of 'digital densification' through the 2020s to which global investors will benchmark risks and returns with Chorus's regulated assets. Achieving outcomes in the

long-term benefits of end-users requires appropriate consideration of risks faced by investors in those regulated assets.

As a general point we consider the long-term benefit of end-users (LTBE) of telecommunications services is enhanced where investors have confidence in the underlying regulatory model as this has a significant impact on investor perceptions of related investment risk which in turn affects the cost of capital. We think this calls for a high degree of rigour and consistency in such regulation. In particular, we are concerned that key factors that affect regulated outcomes are consistent on an ex ante and ex post basis notably crown financing risks, and key cost of capital parameters including asset betas.

Obligations imposed by Crown financing are a material additional cost to Chorus, and in particular to non-CFH investors, reducing the benefit of Crown financing

We are concerned that the Commission has changed its view on the obligations on, or risks faced by, Chorus is relation to Crown financing and now considers the benefit of Crown financing is equivalent to the regulatory WACC. The previous draft decision made some minor allowance for related risk by reducing the regulatory WACC by 25 basis points. We viewed this as a modest concession rather than a considered view.

Crown financing has priority over other financing, respectively for each of debt and equity financing. By definition that implies greater average cost of capital across other capital investors. It may be the case that the Commission is considering the WACC across the whole group of financing sources but as with any incremental finance decision the impact of incremental financing cost including related risk is on the established investors, in this case on non-Crown financing sources. That is to say your decision on the appropriate regulatory WACC across the group will affect non-Crown financing sources much more than it will affect Crown financing sources, if it affects Crown financing at all given the protections it holds.

In any case, even across the total group of financing there is a clear material increment to risk across the group as a result of the “unusually onerous conditions” to which Chorus is subject by the terms of the Crown finance.

These obligations and conditions were weighed and considered by non CFH capital investors prior to Telecom agreeing to the UFB terms including structural separation. They continued as a consideration by investors through the UFB build period.

The UFB Initiative and Agreements with Crown Fibre Holdings were considered so significant to shareholders consideration and eventual agreement with the UFB arrangements that they formed a separate section of the demerger documents of September 2011. Among other things, these additional risks faced by non-CFH investors and which added to Chorus’s overall risk profile include:

- The establishment of Chorus in an Initial Period Agreement in such a way as to not materially adversely affect CFH’s rights, or Chorus’s ability to perform

any material obligations under the Agreements. In other words, even the initial establishment of Chorus gave priority to CFH over other capital investors.

- Initial leverage obligations, regardless of whether these best suited other capital investors.
- Possible payment of liquidated damages to CFH if performance milestones are not met.
- Possible service default payments if agreed service levels were not met.
- Dividend stopper arrangements.
- Dispute resolution arrangements specific to the UFB.
- Potential payment of liquidated damages, and other potential damages claims.
- Potential loss of management rights in certain circumstances of performance failure, including potential loss of day to day management control.

(Source: Chorus, Telecom NZ demerger document, Section 4, pp 82 - 91.)

And as to our previous point on separability of financing risk, the requirements were considered separately and distinctly by non-CFH investors from whatever consideration was undertaken by Crown Fibre Holdings.

A key indication of the different level and form of risk faced by CFH and non-CFH investors is in the substantial forms of governance imposed on Chorus by the agreement including Relationship Managers, Project Control Groups, Steering Committees and Senior Committees. Chorus was required to consult with CFH on key appointments and CFH was entitled to nominate an independent board member. Chorus was required to meet certain expenditure obligations in relation to the UFB, and have such expenditure vetted by the Senior Committee. Chorus was subject to dispute resolution arrangements specific to the UFB.

Chorus was also required to enter into a Deed of Operational and Governance Undertakings "in favour of the Crown".

These arrangements aided CFH in managing risks in its favour relative to the rest of the group. They also imply a higher level of perceived risk across the group as a result of the UFB agreement.

Any other investor (at that time and while there were risks to UFB being completed) would rightly consider these to be very favourable terms for the Crown with quite distinct performance rights and protections. They are far more beneficial to the Crown than would apply ordinarily to any debt provider.

We consider and we think any informed investor would consider that these obligations impose a material actual cost on Chorus which should be discounted from your assessment of the benefit of Crown financing.

We are concerned that the Commission no longer seems to recognise the issue of incremental benefit/cost much less give it consideration. And we are concerned

that it has backpedalled from a previous recognition of incremental benefit/cost without any evident consideration.

Cost of capital and asset beta

For the purposes of advising institutional investors we value Chorus and set our 12 month price target on the basis of benchmark valuations including EV/EBITDA multiples and dividend yield. We also do discounted cash flow (DCF) analysis primarily to provide a framework for our benchmark valuation including long term EBITDA, operating cash flow and capex forecasts.

For Chorus we currently use a WACC of 5.6% including an asset beta of 0.7 across the whole group including UFB and copper-based cash flow streams.

This is the lowest WACC we use across all of the Australian and New Zealand telecommunications companies on which we provide research reflecting a relatively more secure and reliable cash flow outlook as UFB approaches completion. (We recently advised our clients that NBN Co's implied WACC was indicated at 5.5% in the company's 2019 annual report which we thought "reflects a lower bound given the difficulty of evaluating risk facing a government business enterprise".)

Beyond regulation key risks to future cash flow streams include ongoing changes in fibre penetration rates and rivalry with wireless access including mobile and fixed wireless, which appears moderate at present but may vary in future.

To the extent it is separable, a group-wide WACC of 5.6% implies a comparable WACC for UFB given the expected contribution of future cash flow. If it was somewhat below the group WACC it would not be far below given the bulk of forecast cash flow is driven by regulated fibre. Indeed there may well be more uncertainty about the cash flow path and variability of cash flow from copper-based services than is the case for fibre, although some of that additional variation may impact the UFB cash flow profile for instance if there is faster or slower migration from copper to Chorus fibre.

In relation to the WACC proposed for the financial loss asset (FLA) we consider the asset beta is well above 0.6 currently and we think likely to be close to or above 0.7. Our Chorus WACC has reduced over time as benchmark rates have reduced and the long term cash flow outlook has become more reliable as UFB completes, capex reduces and fibre penetration becomes more established. And, from an investor viewpoint, risk reduces with progress toward a UFB regulatory arrangement within a defined setting. For instance we modelled a WACC of 8.5% for Chorus in 2016, and 9.5% prior to that. We consider the asset beta was materially higher than 0.7 at the commencement of the build and reduced as build progressed.

Looking back over nearly nine years of research coverage of Chorus it is evident that there has been a wide variation in forecast earnings and cash flow as a result of the UFB agreement, with perceptions of risk varying from time to time as events unfolded and perceptions of risk varied.

In particular the copper price benchmark process between 2012 and 2014 imposed considerable additional burden and risk on Chorus investors. As a result of that outcome, even though it was subsequently wound back, equity investors were required to forego a dividend for two years, in effect subsidising equity for a period to support the UFB obligations. On the face of it that may appear to be an outcome of copper related cash flow but the outcome was a result of the UFB Agreement, meeting UFB obligations and it impacted the source and cost of Chorus's UFB funding.

Significant ongoing investment expected in next generation networks including converged fixed and wireless networks, requires an efficient benchmark cost of capital

Even after the completion of UFB investment we anticipate significant ongoing investment and investor interest in the telecommunications sector in New Zealand. 'Digital densification' is likely to be a key trend in New Zealand as elsewhere with deeper reach of fibre and wireless access to many more access points than c1.8m UFB premises.

Chorus has indicated an ongoing maintenance capex of NZ$200m pa as well as potential further investment in fibre connectivity to 'smart locations' and wireless access points. We expect a comparable level of capital investment from Spark and Vodafone NZ, as well as substantial investment from Vocus, 2degrees and others.

The regulatory model established for UFB will set an important benchmark for such investment and help guide the extent to which network investment may be complementary (for instance, supporting converged fixed and mobile connectivity) or competitive encouraging a productive level of rivalry between network players.

As well it is likely to influence the mindset of key decision makers behind those investments. To what extent will they be encouraged to assess and manage risk in investing in their own infrastructure? To what extent will they be encouraged to rely on regulated access to established infrastructure in which they have no direct investment risk?

We think getting the balance right between these build and buy decisions and regulated and unregulated assets is a key driver of New Zealand's telecommunications outcomes in the 2020s. To the extent it provides a benchmark and informs investors about the impact of regulation on outcomes, the long-term benefit of end-users is best served if those investment decisions are guided by UFB pricing based on commercial asset values and cost of capital.

We expect this point would also be relevant to your forthcoming consideration of what services should be included in the scope of RAB regulation. We see no merit and great risk in including in the scope of RAB regulation fibre services which are only at a formative stage and which may well be provided by a range of rival market players.

We have promoted both Chorus and Spark to global investors as a model for infrastructure investment (with the notable exception of the benchmark copper pricing process in 2012-2014), and to a lesser extent Vodafone and Vocus. As a somewhat circular matter we consider the cost of capital investors consider in relation to certain investment in New Zealand reflects their views of New Zealand's infrastructure regulatory model.

In the case of both the asset beta and the cost to investors of crown financing we are concerned that investors will consider that a certain commercial approach was taken ex ante, that is before investment commitment was made, and a very different approach applied ex post, that is after the investment commitment.

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September 8, 2020

Response to Commerce Commission New Zealand "Further consultation draft (initial value of financial loss asset) – Reasons Paper"

Introduction to River Capital

River Capital is a privately owned investment manager with 25 years of experience investing in public equity and credit markets on behalf of Australian and international investors. Over that period, we have been active investors in several long-term capital projects and are currently investors in Chorus. We are firm believers that a fundamental principle of investing in long term capital projects is that we, as investors, are given certainty at the outset as to the rules governing our likely return, and therefore the compensation for the risk that we are taking. Throughout the investment we expect these rules to be administered fairly. Given our experience, we are well placed to provide commentary on the Commerce Commission's proposed approach to the financial loss asset.

Chorus is a great example of a successful public-private partnership

We see Chorus as owning essential network infrastructure that will deliver long term benefits for consumers and, for investors, the opportunity of a fair return over time.

We are further encouraged by the fact the fibre network was built as part of a public-private partnership with the New Zealand Government. The consumer benefits have become even more apparent in the last few months with the effects of coronavirus on societies and economies.

New Zealand's approach has delivered broadband outcomes we're yet to realise in Australia. Here, Australian taxpayers have footed a large and growing bill for speeds and data caps that pale in comparison.

It's in this context that we are concerned by aspects of the Commerce Commission's current proposed approach to the valuation of the financial loss asset.

River Capital

Concern # 1: The Commission's proposal undermines the principles of certainty and fairness that are critical to investing in long-term capital projects

Firstly, we cannot follow the logic for the Commission's proposed reversal in its treatment of the government financing for the UFB project. The financing was a cornerstone requirement for the public-private partnership to get off the ground. It provided the basis for the agreement for Chorus to be split from Telecom and for investors to commit to a punitive contract (if Chorus did not meet its commitments) with the government.

The financing does not compensate investors for the risks they assumed under the project. Further, to suggest that assets funded with Crown financing will effectively attract no return on capital for about 15 years, feels like a deviation from the principles of certainty and fairness that underpinned the original funding of the project. Given the current proposal, it is our view that Chorus should repay as much financing as it can before January 2022. At least it will then begin earning a return on that amount.

The commercial imperative doesn't change with the Commission's suggestion of a 25-basis point 'return' on financed amounts from 2022. The rationale for only applying 25 basis points and then only doing so from 2022 onwards seems commercially inappropriate and does not reflect the risk investors have undertaken by funding the project. If the Commission's task is to identify the actual costs of Crown financing, this approach falls short on both counts.

Related to the above, the Commission has to date suggested it prefers a BBB+ credit rating in evaluating the WACC for Chorus. We question how this can be considered a fair approach when the Commission's proposal is incentivising the company to take on more debt to repay the government.

Concern #2: An annual update of Chorus' risk free rate is not a fair and reasonable approach

Secondly, it is concerning to us that the Commission seems to be persevering with its approach of using an annual update of the risk-free rate through the pre-2022 financial losses period. We cannot understand how this can be considered a fair and reasonable approach when, as Chorus showed in its FY20 results presentation, the Commission's implied WACC is more in line with the company's actual debt costs. The Commission's implied cost of debt was unachievable for the company and the annualised reset of the rate is contrary to standard commercial or regulatory practice.

Chorus did not take on new financing annually as it built the fibre network. It drew down on government financing when it was required, on the terms agreed back in 2010/11. The company locked in initial debt financing through to 2020 to meet government contractual requirements. The only commercially realistic approach is that Chorus took on long term project risk at the outset of the fibre contract. Applying a new five-year rate of return to the investment made each year, reflects a retrospective adjustment of the risks investors took on the project. The company did not have the opportunity to raise debt in 2013-2015 because regulatory processes meant it was reliant on shareholder funds (including no dividend payments) and higher cost bank financing to keep funding the rollout.

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Concern #3: There is scope to consider a higher asset beta when estimating Chorus' WACC

Our third area of concern with the financial loss asset is the Commission's reluctance to consider a higher asset beta during the pre-2022 period. The Commission acknowledged the asset beta could be higher in its November draft decision but suggested there were difficulties with estimating it. The Commission is comfortable estimating other aspects of the Chorus WACC in the pre-2022 period using a range of different assumptions. We do not see how a clear acknowledgement of the potential for a higher asset beta during the construction phase can be discounted on this basis, particularly when the UK regulator has made a highly relevant estimate for Openreach. This is a wholesale network business very similar to Chorus. The Ofcom proposed asset beta is in the same range identified by the government's representative, Crown Fibre Holdings at the start of the rollout. This is more compelling and relevant than the asset beta of 0.49 currently derived from an estimate based on a sample of vertically integrated telecommunications providers.

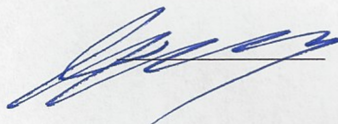
Ultimately, the proposed changes do not adequately reflect the risks that investors have borne throughout the project

Finally, we do not agree with the Commission's draft view that the existence of the financial losses compensate investors for the risks they faced and continue to face through to 2022. If the fibre rollout was a sure thing, the government would not have transferred the risks on to its rollout partners in the way that it did. The financial losses have not offset every risk faced and incurred (e.g. a period of no dividends, the possibility of capital raising, fixed wireless substitution) and there is no guarantee that the losses will be recovered over the life of the asset.

If we were investors in Telecom/Chorus being presented with the same fibre investment case again in 2010 – and we were aware the Commission would apply the interpretations currently proposed for the key components of the loss asset – we would be strongly against investment in the project. We encourage the Commission to recognise the substantial contribution investors have made to New Zealand's fibre public-private partnership, by considering the broad implications of its approach to the financial loss asset. Infrastructure investment requires providing the opportunity for a fair return.

Thank you for your consideration. If you have any questions, please do not hesitate to contact us.

Jim Craig (Executive Chairman)



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Cost of capital input methodologies—further consultation initial value of financial loss asset

Report to Chorus

Vhari McWha and Tony van Zijl

8 September 2020

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Executive summary

The Commerce Commission (the Commission) has released a further consultation paper on the initial value of the financial loss asset. Chorus has asked us to provide our opinion on whether the approach proposed will provide compensation for losses incurred by Chorus during the pre-implementation period.

It is our view that the nature of the investment decision made by Chorus was a single decision in 2011 to invest for at least the period of the initial contract with the Government. This contract set the price path to apply for a period up to 31 December 2019, which was extended by legislation to 31 December 2021. Chorus had very limited opportunity to renegotiate prices or other terms over that period. The method proposed by the Commission does not reflect the nature of the investment decision. Rather the Commission's approach treats annual incremental investments as separate decisions.

In our view, the Commission's proposed recognition of the financial impact of the investment is therefore not consistent with the legitimate expectations of investors in 2011 and does not provide compensation for the risk accepted by Chorus at the time the investment decision was made.

If the Commission persists with the approach it is proposing it should at least use long-term rates. The proposal to use five-year rates based on financing decisions is without conceptual basis. The investment decision would have reflected the characteristics of the overall investment, rather than the characteristics of the financing of the investment.

The proposed simplification to adopt a single debt risk premium based on the median loss year is infeasible as the Commission's method does not assess year-by-year losses and hence cannot identify the median loss year. We have estimated a plausible range around the actual value of the financial loss asset based on the Commission's assumptions in its example spreadsheet and prior determinations of the debt risk premium for EDBs and GPBs. This illustrates that, even if it were possible to adopt a single value, this would potentially create a non-trivial wealth transfer.

Introduction

1. Chorus has asked us to provide an opinion on whether the approach proposed by the Commerce Commission (the Commission) in its 13 August paper "Further consultation draft (initial value of financial loss asset)" will provide compensation for losses incurred by Chorus during the pre-implementation period.

2. Key questions Chorus has asked us to consider are:

   a) The nature of the investment decision made by Chorus and how the associated risk accepted by Chorus is compensated.

   b) The proposed period for the risk-free rate, including the appropriateness of the comparators used by the Commission.

   c) The proposed method for calculating the debt premium based on the median loss year.

3. Chorus has also asked us to prepare mark ups to the draft Input Methodologies (IMs) (13 August version) to reflect the recommended changes in our report.

The Commission's approach is inconsistent with investor expectations

4. Cash flows associated with an investment and dated to different points in time are discounted (or compounded) in order adjust the cash flows to equivalent flows received at a common point in time so that the cash flows can be meaningfully compared and added. A fundamental property of the discounting (compounding) process is that the choice of the common point in time should be arbitrary, in the sense that the value of the set of cash flows calculated at any particular time differs from the value calculated at any other time only in respect of timing.

5. Another fundamental property is that discounting (or compounding) of the cash flows associated with an investment to a common point in time should produce the same result as discounting or compounding, to that common point in time, losses from the investment relative to earning a return equal to the cost of capital.

6. Both of these fundamental properties hold where the cost of capital is constant from year to year. The properties also hold where the annual cost of capital varies from year to year, provided that it is assumed that the product of year by year costs of capital for a period is equal to the compounded annual cost of capital for the whole period, that is:

$$\prod_{t=X}^{Y-1}\left(1 + w_{t(t+1)}\right) = \ (1 + w_{XY})^{Y-X}$$

7. This assumption, made ex ante, is consistent with there being no opportunities for arbitrage. However, ex post, with changes in the economy, it cannot be expected that, for example, the product of the annual costs of capital for each year over a period of three years, estimated at the beginning of each year, is equal to the compounded annual cost for the three year period estimated at the beginning of the period. Thus it is reasonable to make the assumption ex ante but not ex post.

8. Thus, the Commission's proposed approach to calculation of the Financial Loss Asset (FLA), which compounds cash flows using ex post estimates of the annual cost of capital that vary from year to year, cannot be expected to be consistent with either of the properties discussed above. In particular, (i) the value of the Commission's estimate of the FLA discounted to 2011 will not equal the 2011 present value of the cash flows, and (ii) the value of the Commission's estimate of the FLA will not equal the result of compounding of the losses. Furthermore, the Commission's proposed approach suggests that each annual investment (comprising of additional investment net of net revenue earned) made during the pre-implementation period was a separate decision. That position is contrary to the economic reality that the annual investments were an integral consequence of the 2011 decision. We discuss the nature of the investment decision further in the next section.

9. The Commission should use a constant cost of capital for compounding, that is, the cost of capital that was applicable in 2011, the time at which the decision was made to invest in provision of fibre services. That approach would be consistent with the two fundamental properties of discounting (compounding) and the reality of the investment decision.

10. The cost of capital over the pre-implementation period decreased from the 2011 level and therefore, for any given set of cash flows, application of the Commission's proposed approach results in a significantly lower estimate for the FLA than would result from compounding at the 2011 cost of capital. For Chorus this result is not totally obvious as the annual cash flows are in part additional investments and in part net revenues earned. However, the result is immediately obvious from consideration of the losses calculated under the BBM approach. The year by year losses would be smaller than if calculated using the 2011 rate and these smaller losses are compounded forward at lower rates. We also note that had the cost of capital increased over the pre-implementation period, the Commission's proposed approach would have resulted in a larger estimate of the FLA than by using the 2011 rate.

The nature of the investment decision

11. In our January 2020 report, we described the pre-implementation period as "economically equivalent to a regulatory period" (McWha & van Zijl, 2020, paragraph 26). This language has not resonated with the Commission and we will not use it here. Nonetheless, we remain of the view that the logic underlying our description of the pre-implementation period is sound. In our opinion, the appropriate approach to determining the cost of capital relevant to the investment decision made by FFLAS providers is to consider the expectations of those investors at the time they made the investment decision.

12. Under the UFB initiative, bids were received from potential providers of FFLAS services. The resulting deeds of open access undertakings and commercial agreements established service obligations, technical standards and price caps for the period to 31 December 2019. In November 2018, these obligations were extended by legislation to 31 December 2021. We described the nature and scope of these contracts and undertakings, as explained by the Commission, in our January report (McWha & van Zijl, 2020, paragraph 30).

13. The decision to invest in FFLAS (or not) was made in 2011. The decision committed the FFLAS providers to an ongoing programme of investment in fibre and other obligations until 31 December 2019, a commitment which was extended by legislation to 31 December 2021.

14. The choices available to Chorus, and the LFCs, once they had made the initial decision and entered into the agreements with the Crown were very limited. It is not consistent with the nature of the investment decision to characterise it as a series of annual decisions; it was a single decision, made in 2011.

15. The agreement between Chorus and the Government allowed extremely limited opportunity to renegotiate prices (McWha & van Zijl, 2020, paragraph 31). The decision about whether or not to accept the risk, given the expected rate of return, was therefore made with the information that was available in 2011, looking forward over an investment horizon to 31 December 2019. It is our understanding that this decision was not reversible. Chorus therefore implicitly accepted the risk that the actual rate of return could differ from what was expected when the decision was made.

16. The Government understood that to attract investors to the UFB initiative those investors would have had to be able to expect to achieve a normal return on the investment to which they were committing. The Government Policy Statement (GPS) issued at the time confirms this understanding (New Zealand Government, 2011). The introduction to the GPS says:

> The provision of efficient ultra-fast broadband infrastructure requires that businesses have the confidence and incentives to make investments in new or upgraded ultra-fast broadband infrastructure.
>
> Particular issues arise in the way services are or may be regulated under Part 2 of the Telecommunications Act 2001. The way in which the prices, revenues and/or quality of goods and services produced by these businesses is regulated or controlled can affect their incentives to invest in new or upgraded ultra-fast broadband.

17. The economic policy objective is then stated that:

> businesses have incentives to innovate and invest in new or upgraded ultra-fast broadband infrastructure for the long term benefit of end users. The Government considers that this objective will be achieved by:
>
> 1. regulatory stability, transparency and predictability giving businesses the confidence to make long-life investments;
> 2. regulation taking full account of the long-term risks to consumers of under-investment in new or upgraded ultra-fast broadband infrastructure.
> 3. ensuring that any price regulation proposed under Schedule 3 of the Telecommunications Act 2001, that may occur in the future, recognises that revenues, over the life of the assets, are sufficient to cover efficient operating costs and a normal return on, and recovery of, capital invested; and
> 4. ensuring any price regulation proposed under Schedule 3 of the Telecommunications Act 2001 takes into account the start-up risks associated with introduction of new technology.

18. The Government's policy in 2011 was that investors should be able to expect to achieve a normal return given the risks to which they were exposed in rolling out a new technology.

19. This interpretation is consistent with the Commission's characterisation of its task in its Draft decision – reasons paper (Commerce Commission, 2019, paragraph 5.70):

> The methodology for determining the regulatory WACC component of the financial loss asset must ensure that the expected returns from investing in regulated FFLAS are similar to other investments of comparable risk, so regulated providers have incentives to innovate and invest, and are limited in their ability to extract excessive profits.

20. It is also consistent with the Commission's discussion of investor expectations with respect to pre-2011 assets (Commerce Commission, 2020, paragraph 2.75):

> We believe investors would have the legitimate expectation of earning at least the opportunity cost of the assets.

21. The legitimate expectation of investors in 2011 would have been that they could earn at least the opportunity cost of all their assets, including their physical and financial assets. The expected opportunity cost of the investment is the WACC for the period to 31 December 2019, estimated immediately prior to the UFB tender, that is, at 1 May 2011.

22. Chorus accepted the risk in 2011 that the actual cost of capital might vary from their expectations, this risk is inherent in the method of estimating the WACC when an investment is made. As we have said previously, because some, and not all, of the risks have now turned out in Chorus' favour is not a reason to renege.

23. The Commission (2020, paragraph 3.29) says "[w]e believe it is unlikely that in 2011 investors' expectations were frame in terms of what a BBM with a 10-year horizon might have delivered….Investments were made based on commercial terms achieved through the competitive tendering process." We agree that investments were made on commercial terms. In making that commercial decision Chorus and the other bidders would have considered what the opportunity cost of their investment was. Their best estimate of the opportunity cost was the expected value of the WACC at the time: the rate of return they expected to give up to invest in the UFB initiative.

24. The Commission notes that "the evidence before us indicates that none of the regulated providers that were parties to the UFB contracts with the Crown did in fact lock in the finance rates in 2011 for the length of their contract." This is not relevant to parties' legitimate expectations of earning a normal return at the time they made the investment for the length of their contract. Financing decisions take into account refinancing risk, investment decisions do not.

25. The Commission quotes Brealey, Myers and Marcus (1999) who note that there could be different opportunity cost of capital in each period's cashflow. The Commission uses the quote to infer that a single cost of capital is only used for simplicity and is not a reflection of real-world decision making. However, the quote continues (Brealey, Myers, & Marcus, 2001, p. 347):

> But we are in good company: with only rare exceptions firms decide on an appropriate discount rate and then use it to discount all project cashflows.

26. It is thus common commercial practice to use a constant discount rate for all project cashflows when assessing an investment, irrespective of the actual rate that may later prevail. However, use of a single rate is not motivated by desire for simplicity in evaluation of investment proposals; rather it is lack of knowledge of the future that leads to the assumption of a constant rate as the best estimate of actual future rates across the life of the investment.

Term should reflect investment decision

27. If the Commission does not accept that the decision by Chorus and LFCs to invest under the UFB initiative was made in May 2011, the opportunity cost of capital for compounding financial losses should be based on long term (10-year term) rates, reflecting the long-term nature of the investments. The proposal to use rates based on the next five years would seem to be without any conceptual basis.

28. For regulated industries, the Commission justifies its current approach of basing the cost of capital on the length of the regulatory period as costs can be reassessed at the end of the period. However, that reasoning did not apply during the pre-implementation period.

29. It is normal in corporate financing to separate the investment decision from the financing decision. The Commission is used to basing its regulatory cost of capital decisions on the financing decisions it observes, which are likely, at least in part, to be a consequence of the regulatory framework it administers. The Commission accepts this causality (Commerce Commission, 2020, paragraph 3.16.1). However, in this case, the UFB bidders were deciding whether to invest in FFLAS, not how to finance the existing and incremental investments.

30. We noted in the previous section that investors would consider the expected return from an investment relative to the opportunity cost. The opportunity cost of capital would reflect the characteristics of the investment, including the term of the investment. The financing decision is made separately from the investment decision, and depends on different factors including the entity’s appetite to accept refinancing risk.

31. If the Commission maintains the view that the financing decision is relevant, it is our view that the balance of evidence presented by the Commission does not suggest that the decision to adopt annual financing with a term of 5 years is appropriate. For example:

    a) The 2010 survey of debt issued by infrastructure providers which found an average term of around 7 years.

    b) Chorus’ actual debt raising behaviour which the Commission describes as shifting to longer term bond issuances of 7 to 10 years.

    c) The Commission notes that issuances by LFCs may reflect their other activities, rather than the behaviour of a stand-alone FFLAS provider.

32. We note, however, that if entities then make decisions around financing risk that lead them to use derivatives to manage that risk position that is not relevant to determining the opportunity cost of capital in the pre-implementation period.

Debt risk premium

33. The Commission is proposing to adopt a "simplification" of the method for estimating the debt risk premium proposed by Dr Lally of using the debt premium for the median loss year for all cost of capital estimates.

34. However, the Commission's approach to estimation of the FLA does not involve estimation of year-by-year losses and therefore does not result in the identification of the median loss year. The discounted cash flow approach that the Commission has now proposed to use will simply indicate a net cash flow position for each year of the pre-implementation period.

35. Even if we accepted that the median net cash flow position is the best approximation for the median loss year in the pre-implementation period, there is no basis for an a priori belief that the median loss year would coincide with a central value for the debt risk premium. To adopt an assumption of a single value for the debt risk premium would potentially create a non-trivial wealth transfer.

36. Dr Lally estimated that adopting the median loss year debt premium would result in only a small error (0.7%) in the total compounded loss (Lally, 2019, p. 8). Dr Lally's estimate assumed that both losses and debt risk premia were monotonically decreasing over the period. His conclusion is a function of these assumptions.

37. We have made an alternative estimate based on the Commission's spreadsheet example as provided with the further consultation paper, and adjusting only the debt risk premium. For illustrative purposes only, we have used the series of debt risk premia that the Commission estimated for EDBs and/or GPBs from 2011 to 2020 (see Appendix A). This should not be taken as a suggestion that these are the appropriate premia for FFLAS.

38. We made three estimates of the financial loss asset. One using the actual series of premia, one using the minimum value and finally the maximum value. This shows that there is a plausible range around the actual value of the financial loss asset based on the Commission's other assumptions of -3.3% to +4.1%. This is a non-trivial range of possible outcomes and demonstrates that, even if such a simplification were available, the Commission should use the debt risk premium relevant to the WACC estimation date.

Recommended approach

39. For clarity, we set out below our recommended approach to determining the cost of capital for the pre-implementation period.

    a) The risk-free rate should be the rate estimated to apply as at 1 May 2011, and the term should match the expected term of the period, that is to 31 December 2019 (8.7 years). The estimate is the average of one month of daily observations prior to 1 May 2011.

    b) The debt premium is the estimated prevailing rate for seven-year corporate bonds as at 1 May 2011. Alternatively, if the Commission considers that the appropriate term for the smaller LFCs is shorter than seven years, a five-year term could be adopted with a TCSD allowance that assumes Chorus issues 50% of its debt for a ten year term. We have not considered the appropriate term for the smaller LFCs. Using a one month average prevailing rate is consistent with the approach in the other input methodologies at the time. The premium should reflect a BBB credit rating.

    c) The asset beta is 0.65.

    d) Financial leverage is 40%.

    e) TAMRP is 7.0%.

    f) An uplift to the 75th percentile is given to reduce the risk of underestimation of WACC to 25% and to align with reasonable expectations as at May 2011 of there being such an uplift.

40. We also recommend an allowance for stranding risk consistent with the proposed approach in the post-implementation period.

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Appendix A Illustration of debt risk premium error

41. Table 1 shows the results from the Commission's spreadsheet (Commerce Commission, 2020) with changes made to the debt risk premium to reflect the series shown in Table 2. We have compared the value of the financial loss asset (FLA) calculated in the example using the actual series of premia with the FLA value using the maximum premium value recorded in the period, and the minimum value. The dollar values are dependent on the assumed cashflows in the example, but the percentage differences illustrate the potential magnitude of the error if a single value were used for the debt risk premium

Table 1 Financial loss asset at implementation date, example illustration, $000

	Actual debt premium series	Constant at maximum value (2.55%)	Constant at minimum value (1.45%)
FLA at implementation	229.73	239.07	222.20
% difference to actual		+4.1%	-3.3%

Based on the Commerce Commission example spreadsheet released 13 August 2020 and the debt premia estimates in Table 2.

Commission determinations

42. Table 2 records debt premia determined by the Commission for information disclosure purposes for GPBs with a June year end from 2011 to 2019. While not directly comparable to FFLAS, because the term, credit rating and purpose of the estimates are different, they are illustrative.

Table 2 Previous Commission determinations of the debt premium for gas pipeline businesses for information disclosure based on a 5 year term and BBB+ rating

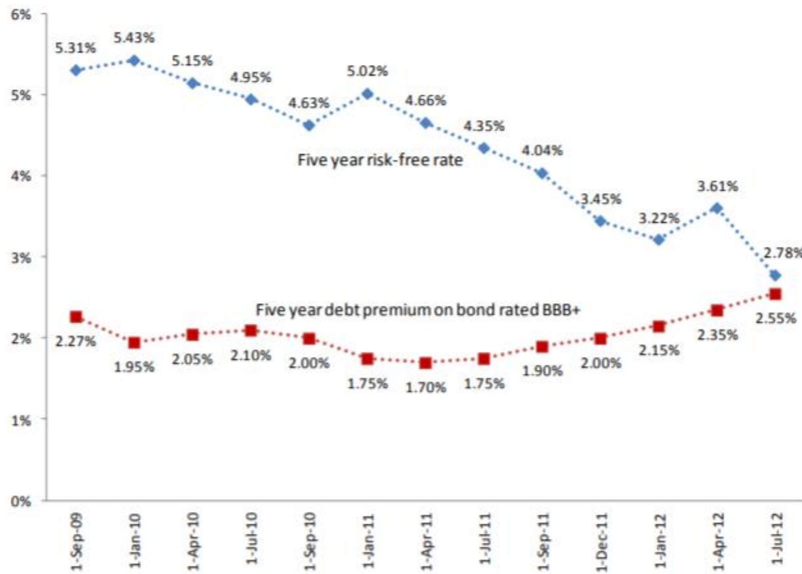
Estimation date	Debt premium	Source
01/07/2011	1.75	Determination of the Cost of Capital for Information Disclosure Year 2012 for Transpower New Zealand Limited, Suppliers of Gas Pipeline Services, and Suppliers of Specified Airport Services (June year-end) Under Part 4 of the Commerce Act 1986, Pursuant to Decisions 709, 711, 712 and 713 Decision Number 727
01/07/2012	2.55	Cost of capital determination for information disclosure year 2013 for Transpower, gas pipeline businesses and specified airport services (with a June year-end) [2012] NZCC 20
01/07/2013	1.85	Cost of capital determination for information disclosure year 2014 for Transpower, gas pipeline businesses and suppliers of

		specified airport services (with a June year-end) [2013] NZCC 12
01/07/2014	1.75	Cost of capital determination for information disclosure year 2015 for Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2014] NZCC 19
01/07/2015	1.53	Cost of capital determination for information disclosure year 2016 for Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2015] NZCC 20
01/07/2016	1.70	Cost of capital determination for information disclosure year 2016 for Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2016] NZCC 15
01/07/2017[1]	1.65	Cost of capital determination for disclosure year 2018 for Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2017] NZCC 19
01/07/2018	1.60	Cost of capital determination for disclosure year 2019 For Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2018] NZCC 11
01/07/2019	1.65	Cost of capital determination for disclosure year 2020 For Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2019] NZCC 8
01/07/2020	1.45	Cost of capital determination for disclosure year 2021 For Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2020] NZCC 15

43. Figure 1 and Figure 2 illustrate similar information in graph form and are drawn from the Commission’s determinations.

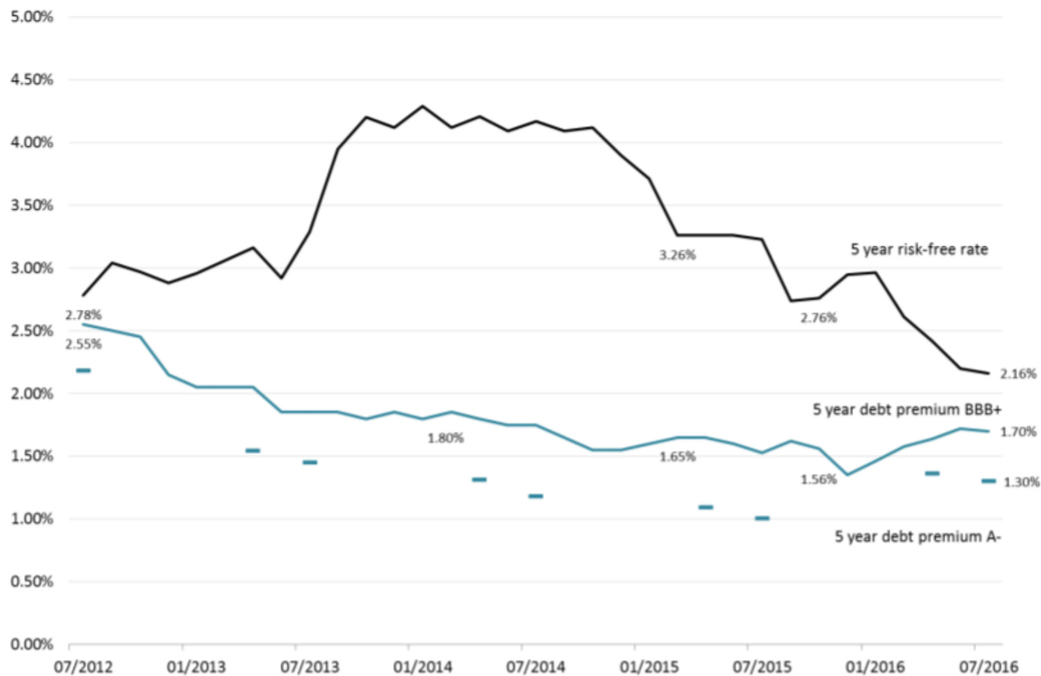
[1] The Commission amended its approach from 2017 to use the average estimated debt premium for the most recent five years. In this table, the estimate given is for that year only.

Figure 1 Changes in the five-year risk-free rate and debt premium for BBB+ bonds



Source: Cost of capital determination for information disclosure year 2013 for Transpower, gas pipeline businesses and specified airport services (with a June year-end) [2012] NZCC 20

Figure 2 Changes in the five-year risk-free rate and debt premium over time



Source: Cost of capital determination for information disclosure year 2016 for Transpower, gas pipeline businesses and suppliers of specified airport services (with a June year-end) [2016] NZCC 15

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The Commerce Commission
Wellington
My Submission on

Feedback sought on approach to determining financial loss asset for new fibre regulatory regime

It appears that the Commission is charged under section 177 of the Telecommunications Act 2001 to make a determination how great the so-called financial loss asset of the firm Chorus would be. And the commission would then allow a certain percentage or sum the firm could charge subscribers to their service.
I object to the whole process of determining such so-called loss and even worse, to call such so-called loss an asset. One could of course argue that this "loss" at least will be regulated by a state department, and not left to the so-called free market. On the other hand, this determination by the commission gives a degree of certainty to the company, which the company can incorporate into their balance sheets. This in turn means that the state to a degree guarantees the income of that company. But it will be not just the state, but the taxpayer, as the service of that company is a near monopoly, and there will be hardly any choice for consumers/taxpayers to go elsewhere, thus the consumer would subsidise the company.
To find yourself in such a situation –created by the state—is against the principles of Natural Justice!
This whole matter only shows that the government of the time (Key) out of political expediency created this situation.
The company will most likely be able to write off certain losses when it comes to paying taxes; that should be enough.
To give the company access to another stream of income through the suggested process is unacceptable, and only shows, who had favoured whom
On another note: It seems that the Commission has a certain degree of bias, when it calls the so-called Ultra-fast broadband more reliable------that is not so! The broadband supplied over the copper network performed very well over the past COVID-19 lock-down time, as shown by the Commission's own contractor "Sam Knows".
There is not need to replace the copper network with a fibre-optic one------only for political expediency there is.
I reject the proposed measure by Commerce Commission.

Chorus cross-submission on the Commerce Commission's fibre input methodologies – further consultation draft (initial value of financial loss asset) reasons paper

1 October 2020

EXECUTIVE SUMMARY

Overview

1. This cross-submission responds to submissions on the Commerce Commission's (**Commission**) fibre input methodologies *Further consultation draft (initial value of financial loss asset) reasons paper* (**Reasons Paper**), published on 20 August 2020.

2. We are now at the final stage of consultation on the fibre input methodologies (**IMs**) and the first stages of the Price Quality Determination (**PQD**) process have just begun. The Commission will make a number of judgements across these processes that will add-up to establishing a starting regulated asset base (**RAB**), maximum allowable revenue (**MAR**) and incentives signalled ahead.

3. The Commission is making numerous individual decisions, including on the financial loss asset (**FLA**), which are all part of a holistic set of outcomes that are expected to deliver a transition, without shocks, from a contracted model to a utility model that is sensible, sustainable and workable.

4. The Commission's draft approach to the FLA does not allow investors adequate compensation for the risks they faced when making the decision to invest in the UFB network. This is being closely watched by the investment community – those in New Zealand and those investing in New Zealand from overseas.

5. A failure to compensate investors for real risks they faced to support the build of infrastructure now critical for economic growth, education and social inclusion sends very poor signals about New Zealand and will deter future investment. It would also undermine the delivery of dynamic efficiency benefits for consumers of telecommunications services. The Commission's individual decisions on the key issues underpinning the FLA, when viewed cumulatively, do not deliver on the Commission's economic principles of real financial capital maintenance (**FCM**), efficient risk allocation and recognising the asymmetric consequences of over- and under-investment.

6. For each issue relating to the cost of capital, treatment of Crown financing and reflection of Type II asymmetric risk in the pre-implementation period, the Commission has proposed to ignore all local and international expert advisors that Chorus has provided (Incenta, Sapere, Oxera, NERA and HoustonKemp).

7. Unless the Commission reverses its draft proposals in these areas, it will not meet the stated FCM principle and it will retrospectively under-compensate for the investment in the once in a many generation fibre network that is serving New Zealand. The risks of regulatory error are high. So are the risks of regulatory distortions to strong market, efficiency and innovation incentives already actively working well and hard for investors and consumers alike. This concern is shared by other fibre network providers and the investment community – i.e., those who took on the risks and have long memories.

8. The following illustrates these concerns and the evidence provided to the Commission:

8.1. **Asset beta** – Investors have informed the Commission that the proposed asset beta is out of step with international comparators and too low. We agree. The asset beta should be higher than the asset beta post-implementation to reflect the real investor risks that existed in 2011. Experts suggested 0.65 based on the evidence available, rather than the 0.49 proposed by the Commission.[1]

8.2. **Percentile estimate** – Investors submit that the use of the mid-point estimate doesn't appropriately reflect the risk in the pre-implementation period. We agree. A 75th percentile estimate would properly reflect the reasonable expectations investors would have held in May 2011 of a normal return over time. Further, this estimate should be used to account for the risks of under-estimation in the pre-implementation period, which we show are occurring based on cross-checks with our prevailing cost of debt. This is not a forward-looking decision. Investment was made ahead of demand and it has future proofed New Zealand's digital connectivity. Under-estimation, and retrospectively assuming away real risks, is not something that can be mitigated in any way.

8.3. **Term of the risk-free rate** – Investors submit that the proposal to recalculate financing annually is unorthodox. It does not reflect the reality that finance would be aligned with the project term. We agree. LFCs submit that the pre-implementation period is economically equivalent to a normal regulatory period, justifying a single term for the cost of capital. We agree. The term of the risk-free rate should be aligned with the period of the initial contract with the Government, which is consistent with the decision to invest under the UFB initiative.[2] If the Commission does not accept that the decision was made in 2011, then the term should be 10 years, consistent with commercial practice. The proposal for a 5-year term bears no relevance to the FLA situation.

8.4. **Debt premium** – Investors continue to submit that it is not appropriate to use a notional credit rating of BBB+ for calculation of the debt premium in the pre-implementation period. We agree. The Commission has independent expert advice before it that the appropriate credit rating for the debt risk premium in the pre-implementation period is BBB.[3]

8.5. **Treatment of Crown financing** – Investors submit that the Commission's revised proposal for the treatment of Crown financing fails to reflect that Crown financing was not costless, because Chorus bears a residual risk in relation to Crown financing, and therefore it is appropriate that the FLA reflect this. We agree. We do not support the Commission's latest shift in position and consider this is a fundamental error if confirmed.

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[1] Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [74].

[2] Sapere, (8 September 2020), *Cost of capital input methodologies – further consultation initial value of financial losses,* at [13-14].

[3] Sapere, (8 September 2020), *Cost of capital input methodologies – further consultation initial value of financial losses,* at [39].

8.6. **Type II asymmetric risk** – Investors submit that the FLA is subject to stranding risk. We agree. The asymmetric returns and truncation that arises from stranding risks, and that exist for new large infrastructure investments that are potentially subject to regulation, should be recognised in the pre-implementation period. This should be done by an *ex-ante* allowance: based on stranding risks alone, our independent economic experts calculated an illustrative allowance close to 59bps.

9. The Telecommunications Act (**Act**) requires pre-2011 assets be included in the calculation of the FLA. RSPs opportunistically seek an incremental cost approach to exclude pre-2011 assets. This is not supported in law, by regulatory precedent, by what would happen in a workably competitive market or in the real-world situation that exists when standing up a wholesale only, open access listed company, transitioning Kiwis to fibre fixed line access services (**FFLAS**) in a large part of New Zealand.

10. We seek to recover an appropriate risk-adjusted rate of return on and of investment and that we continue to be provided flexibility and investment incentives. This will allow us to meet the ever-changing and fast-paced demands of the end-user and the commercial and technological environment as Parliament intended.[4] We urge the Commission to stand back and ask itself:

    10.1. How the decisions it makes at the IM stage may flow through into final outcomes to be determined later next year;

    10.2. How its decisions may positively or negatively impact incentives already present and delivering a level playing field to retailers from which to compete, ongoing efficiency and customer experience improvement initiatives, ongoing investment in resilience and market-responsive product innovation;[5] and

    10.3. How its decisions will affect, and be received by, real-world investors and consumers in the telecommunications sector and the signals they send about all transformational infrastructure investment in New Zealand.

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[4] Telecommunications (New Regulatory Framework) Amendment Bill, First Reading Speech, Minister of Communications https://www.parliament.nz/en/pb/hansarddebates/rhr/combined/HansDeb_20170816_20170816_28.

[5] A snapshot of the Chorus business can be found in our recent annual results presentation http://nzx-prod-s7fsd7f98s.s3-website-ap-southeast-2.amazonaws.com/attachments/CNU/358489/329033.pdf.

1. FCM PRINCIPLE

11. The Commission’s decisions on the cost of capital estimate, treatment of Crown financing, and the allowance for Type II asymmetric risks, must correctly reflect all the relevant risks Chorus faced in making the decision to invest under the UFB initiative. The Commission’s decisions on these issues must, cumulatively, deliver on the Commission’s key economic principles of FCM, efficient risk allocation, and recognising the asymmetric consequences of over-and under-investment.

12. If Chorus is not appropriately compensated for the risks taken, then there is a risk of deterring future investment across sectors. This has implications for realising dynamic efficiency and promoting the long-term benefit of end users in telecommunications and across other infrastructure sectors.

13. This means the Commission’s decisions must reflect the following:

    13.1. Systematic risk is higher in the construction and early growth phase of the investment under the UFB initiative, relative to the steady phase which is expected to be achieved with high fibre uptake post-implementation. This means a higher asset beta in the pre-implementation period than post-implementation;

    13.2. Asymmetric costs of errors in the Commission’s cost of capital estimates are high, even when carried out retrospectively for the purposes of determining the FLA. Given the high risk of error, a reasonableness check may be prudent in this case; and

    13.3. Unsystematic risks that Chorus has faced in making investments under the UFB initiative are high, namely with respect to the potential for asset stranding risk and the residual risk that Chorus bears in relation to Crown financing. This means the Commission’s Discounted Cash Flow (**DCF**) model must include an appropriate allowance for asset stranding and compensation for the residual risk on Crown financing repayment obligations.

14. Chorus’ submissions, as well as all the expert reports presented on Chorus’ behalf, clearly state that the Commission’s decisions should be consistent with the FCM principle, i.e. an *ex ante expectation* of earning a normal return over the lifetime of the assets constructed or used under the UFB initiative. This is not the same as saying that Chorus should be given a guarantee of earning a normal return, which is what Spark implies in its submission.[6]

Cost of capital estimation

15. To best give effect to the economic principle of an *ex-ante* expectation of earning a normal return, consistent with the FCM principle, the Commission should apply a single cost of capital estimate as at May 2011. We agree with Enable and UFF that the

[6] Spark, (10 September 2020), *Further consultation draft (initial value of financial loss asset) – submission,* at [7].

pre-implementation period is economically equivalent to a normal regulatory period, justifying a single term to the implementation period for the cost of capital.[7]

16. Using a single cost of capital estimate to calculate the present value of the unrecovered returns over the pre-implementation period is consistent with the Commission's approach to carry forward the wash-up balance with the cost of capital as the time-value of money, which we understand will be based on a single cost of capital estimated at the beginning of the period. As the Commission explains, this approach is consistent with its 'expectation of a normal return' principle.[8]

17. We also agree with Enable and UFF that if the Commission insists on applying a variable annual cost of capital with a fixed term in its DCF model (which we have earlier noted is inconsistent with standard practice in DCF valuation[9]), it should use a 10-year rather than a 5-year term of the risk-free rate.[10] A 10-year term for the risk-free rate is common commercial practice, and is recommended by the Body of European Regulators for Electronic Communications[11] and also many Australian regulators,[12] to match the long-life of the essential infrastructure.

18. We don't agree with Spark's and Vodafone's submissions that the Commission should adjust its DCF model to account for refinancing that is based on a 5-year term.[13] The term of the risk-free rate that the Commission adopts for the pre-implementation period should be based on the "investment decision" rather than the "financing decision". A 10-year term would more accurately reflect the expectations of investors assessing whether to make a commercial investment in a fibre access network. If the Commission maintains its view that the financing decision is relevant, the balance of evidence presented by the Commission does not suggest that the decision to adopt annual financing with a term of 5 years is appropriate. As Sapere notes, the debt financing for Chorus is in the range of 7-10 years.[14]

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[7] Enable Networks Limited and Ultrafast Fibre Limited, (10 September 2020), *Submission on fibre input methodologies further consultation draft (initial value of financial loss asset) – Reasons Paper 13 August 2020,* at [5.2].

[8] Commerce Commission, (15 September 2020), *Fibre information disclosure and price-quality regulation – Proposed process and approach for the first regulatory period,* at [5.87].

[9] Chorus, (10 September 2020), *Submission on fibre input methodologies further consultation draft (initial value of financial loss asset),* at [49-56].

[10] Enable Networks Limited and Ultrafast Fibre Limited, (10 September 2020), *Submission on fibre input methodologies further consultation draft (initial value of financial loss asset) – Reasons Paper 13 August 2020,* at [5.10].

[11] BEREC Report on WACC parameter calculations according to the European Commission's WACC Notice – available at https://berec.europa.eu/eng/document_register/subject_matter/berec/reports/9364-berec-report-on-wacc-parameter-calculations-according-to-the-european-commission8217s-wacc-notice.

[12] For example, the ACCC, AER and IPART (New South Wales) all use 10-year terms for the risk-free rate.

[13] Spark, (10 September 2020), *Further consultation draft (initial value of financial loss asset) – submission,* at [60-62]; Vodafone, (10 September 2020), *Vodafone New Zealand submission on further consultation draft (initial value of financial loss asset),* pages 7-8.

[14] Sapere, (8 September 2020), *Cost of capital input methodologies – further consultation initial value of financial losses,* at [30].

19. L1 Capital referred to the highly respected corporate finance textbook by Brealey, Myers and Allen as a guide to why the binding capital expenditure commitments under the UFB contract in the pre-implementation period (i.e., construction period) is expected to result in higher asset beta than post-implementation (i.e., post-construction period).[15] This is consistent with the evidence presented from economic experts, Oxera and Sapere.[16]

20. L1 Capital submits that the Commission appears to be inconsistent in its justification of the use of a BBB+ benchmark for the credit rating.[17] As L1 Capital explains, the Commission's rationale for applying a BBB+ benchmark (to signal to firms like Chorus the need to improve their credit rating to reduce their bankruptcy risk) is at odds with the reality that the Commission is setting a credit rating for a past period. The FFLAS UFB providers cannot change their credit rating for a past period and it is unreasonable to invoke an incentive justification for the proposed approach to setting the credit rating. We agree.

21. We disagree with Vector's submission that a real cost of capital should be applied in the pre-implementation period, and the assumption that the nominal return Chorus and other LFCs require on average is around 80bps lower than the nominal cost of capital estimated for each year from 2012 onwards.[18] We agree that decisions should be consistent with the real FCM principle. However, we note that the prices for UFB services were fixed in nominal terms over the pre-implementation period, which means Chorus has had to bear inflation risk. We also note that the Act specifically prescribes an unindexed valuation for the initial value of a fibre asset based on generally accepted accounting practice.

22. We have supported the change to a DCF approach to calculating the FLA on the basis set out above. Should this change again, the Commission must provide an opportunity to review and comment on the proposed changes before any final decision is made in relation to this matter.

Crown financing

23. As we have previously submitted, we do not support the Commission's latest shift in position and consider this is a fundamental error if confirmed. The November draft views of the Commission clearly recognised that the funding provided to Chorus was fundamentally debt-like, meaning that Chorus has carried a residual risk in relation to Crown financing, which the Commission's own expert, Dr Lally, agreed with.

24. We agree with investors' submissions that the Commission's revised proposal for the treatment of Crown financing fails to reflect that Crown financing was not costless,

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[15] L1 Capital, (10 September 2020), *Submission on consultation draft (initial value of financial loss asset),* page 3.

[16] Oxera, (15 July 2019), *Compensation for systematic risks*, at [2.54-2.58]; Sapere, (27 January 2020), *The cost of capital input methodologies for fibre,* at [63-74].

[17] L1 Capital, (10 September 2020), *Submission on consultation draft (initial value of financial loss asset),* pages 6-9.

[18] Vector, (10 September 2020), *Vector Submission on Fibre Input Methodologies – Further Consultation Draft (Initial Value of Financial Loss Asset),* at [27].

because Chorus bears a residual risk in relation to Crown financing, and therefore it is appropriate that the FLA reflect this.

25. We agree with L1 Capital's submission that the terms and conditions of the Crown financing – the onerous network delivery requirements, take-up milestones, control rights and penalty provisions – are a part of the "actual financing costs". These must be taken into account when assessing the benefits of the Crown financing to Chorus.[19]

26. We agree with Investors Mutual that the CFH securities add leverage and consume debt capacity in the same way as other debt sources. The Commission's proposed use of the post-tax cost of capital as a measure of the avoided costs of Crown financing largely overestimates the notional benefit of Crown financing. As Investors Mutual explains, the Commission's proposed treatment leaves Chorus in the untenable position of owning assets which carry downside risk but earn no upside return.[20]

27. We also agree with River Capital that the Crown financing does not compensate investors for the risks they assumed under the project. River Capital explains that to suggest that assets funded with Crown financing will effectively attract no return on capital for about 15 years, feels like a deviation from the principles of certainty and fairness that underpinned the original funding of the project.[21]

Cost of capital percentile and Type II asymmetric risk

28. We agree with investors that the use of the mid-point estimate doesn't appropriately reflect the risk in the pre-implementation period. A 75th percentile estimate would properly reflect the reasonable expectations investors would have held in May 2011 of a normal return over time.

29. Investors Mutual submits that the cost of capital should be set at a percentile that reflects the risk of underestimating the cost of capital. Investors Mutual explains that underestimating the cost of capital in the pre-2022 period is a very real risk, as Chorus has demonstrated with its chart showing actual versus implied cost of capital / debt.[22] We agree. A 75th percentile estimate should be used to account for the risks of under-estimation in the pre-implementation period, which we show is occurring based on cross-checks with our prevailing cost of debt. This is critical given that this is not a forward-looking decision and a risk of under-estimation is not something that Chorus can seek to mitigate in any way.

30. We also agree with L1 Capital that the FLA is subject to stranding risk and, to the extent the losses accrued are in an area that is deregulated in the future, there is a risk those losses will not be fully recovered. Further, as L1 Capital explains, the FLA still has the possibility of not being recovered if the MAR is not achieved, which means

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[19] L1 Capital, (10 September 2020), *Submission on consultation draft (initial value of financial loss asset),* page 5.

[20] Investors Mutual, (9 September 2020), *Submission on consultation draft (initial value of financial loss asset),* page 3.

[21] River Capital, (8 September 2020,) *Submission on consultation draft (initial value of financial loss asset),* page 2.

[22] Investors Mutual, (9 September 2020), *Submission on consultation draft (initial value of financial loss asset),* page 3.

the FLA is subject to all the usual risks that are present in the post-implementation period.[23]

31. We reiterate the above concerns that the cumulative impact of the Commission's decisions means there is a real risk that investors will not be appropriately compensated for investing ahead of demand to build the network that is now critical for supporting New Zealand's productivity. In the absence of modelling data, the Commission is not able to cross-check the impact of its decisions against its own assumptions, those of analysts and against Chorus' business forecasts.

2. COST ALLOCATION

Section 177

32. We continue to support the Commission's draft decision to include pre-2011 assets in the calculation of the FLA. A plain reading of section 177 requires the Commission to include in its calculation of the value of the FLA any accumulated unrecovered returns on assets used to meet Chorus' UFB obligations, which includes pre-2011 assets.

33. Some RSPs argue that section 177 of the Act does not permit the inclusion of pre-2011 assets.[24] We disagree. RSPs have not raised any new arguments in the FLA submissions – all their arguments on the interpretation of section 177 have already been comprehensively addressed by the Commission.[25]

Incremental costs approach

34. We continue to support the Commission's draft decision not to adopt an incremental cost allocation approach to the FLA.

35. Some RSPs argue the Commission should adopt an incremental costs approach when determining the FLA and argue this would largely exclude the pre-2011 assets.[26] We disagree. Again, RSPs have not raised any new substantive arguments in the FLA submissions – their arguments for an incremental costs approach have already been largely addressed and dismissed by the Commission.[27]

36. A purely incremental cost approach would be inconsistent with the purposes of the Act and reality, would be inconsistent with the post-implementation treatment of pre-2011 assets in section 177 of the Act, and would add unnecessary complexity to the cost

[23] L1 Capital, (10 September 2020), *Submission on consultation draft (initial value of financial loss asset),* pages 5 and 7.

[24] Two Degrees, (10 September 2020), *Commerce Commission Fibre Input Methodologies Further consultation draft Initial Value of Financial Loss Asset (Reasons Paper) 2degrees Submission*, page 2.

[25] Commerce Commission, (13 August 2020), *Fibre input methodologies: Further consultation draft initial value of financial loss asset – reasons paper*, at [2.10-2.40].

[26] Spark, (10 September 2020), *Submission on Consultation draft initial value of financial loss asset,* at [32].

[27] Commerce Commission, (19 November 2019), *Fibre input methodologies - Draft decision paper,* at [3.480-3.487]; Commerce Commission, (13 August 2020), *Fibre input methodologies: Further consultation draft initial value of financial loss asset – reasons paper*, at [2.65-2.84].

allocation exercise. Some RSPs base their arguments on "regulatory precedents" that have no relevance to the Commission's task under section 177 and the policy behind the FLA, which was due to the unique circumstances of the UFB initiative and to compensate LFCs for building ahead of demand.

37. As the Commission has noted,[28] an incremental cost approach would not account for customer migrations from copper to fibre and would lead to under-recovery of shared costs. It is reasonable for FFLAS consumers to contribute to the recovery of their portion of shared costs, including those from the existing assets that are re-used to provide FFLAS. That is, as consumers transition from copper to fibre, they should continue to pay their share of the cost. This ensures the right outcome is achieved, which is consistent with a workably competitive market.

38. RSPs do not explain why it would be appropriate to take an incremental cost approach in the pre-implementation period and then use an accounting-based allocation approach (**ABAA**) in the post-implementation period. It doesn't make sense that the regulatory regime would mandate pre-2011 assets are part of the RAB (and so be treated as part of the cost of providing FFLAS from the implementation date onwards) but not part of the cost of providing UFB in the pre-implementation period. It is also not clear on what principled basis the Commission should be required to apply an ABAA approach to shared assets post-implementation but an incremental cost approach in the pre-implementation period.

39. For asset allocation, the question is simply how to appropriately allocate the value of shared assets in order to determine the difference between revenue and costs in the pre-implementation period and the forward-looking costs that must be recovered through regulated prices in the post-implementation period. The Commission should apply the same, standard set of regulatory cost allocation calculations during the pre-implementation period to calculate the cost of service as will be applied after the implementation date. There is nothing at all unconventional about that. The Commission has already highlighted that a consistent cost allocation process across pre- and post-implementation periods is preferred to prevent double recovery and to ensure dynamic allocation is recognised in the pre-implementation period.[29]

40. RSPs also mischaracterise the pre-2011 assets as "copper network assets".[30] This is incorrect. As a consequence of the fact they can be used for fibre, these assets are by definition technology-neutral network assets and built on the assumption they would continue to be used to deliver next generation access. The acquisition of pre-2011 assets by Chorus was undertaken as a condition of, and pursuant to, the UFB

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[28] Commerce Commission, (13 August 2020), *Fibre input methodologies: Further consultation draft initial value of financial loss asset – reasons paper*, at [2.64].

[29] Commerce Commission, (19 November 2019), *Fibre input methodologies: Draft decision paper*, at [3.479, 3.529].

[30] See for example Spark (10 September 2020), *Submission on Consultation draft initial value of financial loss asset*, at [23]; Vocus, (10 September 2020), *Submission on Consultation Draft Initial Value of Financial Loss Asset,* at [31].

initiative. Therefore, investors have an expectation of a return on and of capital for pre-2011 assets.

41. Spark suggests that the regulatory regime envisaged a simple approach to determining the RAB, that avoids the need for arguing over whether assets had been recovered, and that this is advanced by an incremental costs approach.[31] However, section 177 already prescribes a value for the pre-2011 assets, so there is no need to assess the extent to which pre-2011 investments have been recovered. An incremental cost approach is much more complex. Vocus has acknowledged that an incremental cost approach would include the opportunity cost associated with the assets (i.e. what Chorus would have done if it did not participate in UFB).[32] This would take some effort to quantify.

42. Vocus suggests that our position on optional variable accounting-based allocation approach (**OVABAA**) supports using an incremental approach for allocating costs to FFLAS.[33] This is incorrect. The use of OVABAA was specifically noted for use when entering unregulated markets, where ABAA might provide a barrier to entering the market. In this case "unregulated services" cannot be substituted for "UFB service".

43. As we have previously submitted,[34] OVABAA is intended to allow regulated businesses to recover shared costs across all services while ensuring the new, unregulated, services are not allocated costs that would make them unviable. We did not advocate just allocating incremental cost to those services. The outcome of a workable competitive market is that the allocation sits between the bounds of incremental and standalone costs.[35]

44. Vocus argues an incremental costs approach to the FLA would be consistent with the previous TSO net cost determinations and consistent with the Commission's adoption of an average incremental cost approach in its investigation into Telecom's residential telephony prices.[36] These "regulatory precedents" are not relevant to the FLA. There is no direct analogy between the approach to estimating costs in the TSO context and the exercise the Commission is currently engaged in. The approach to pre-2011 assets rests on the words of section 177, the Parliamentary intent that underlies it, and the orthodox principles of cost allocation that the Commission has developed in the context of Part 4 regulated utilities.

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[31] Spark (10 September 2020), *Submission on Consultation draft initial value of financial loss asset*, at [24].

[32] Vocus, (10 September 2020), *Submission on Consultation Draft Initial Value of Financial Loss Asset*, at [29].

[33] Vocus, (10 September 2020), *Submission on Consultation Draft Initial Value of Financial Loss Asset*, at [40].

[34] Chorus, (1 February 2019), *New regulatory framework for fibre: cross-submission on Commission's proposed approach*, at [70].

[35] Commerce Commission, (19 June 2009), *Input Methodologies Discussion Paper*, at [5.50]; Commerce Commission, (22 December 2010), *Input Methodologies (Electricity Distribution and Gas Pipeline Services) Reasons Paper*, at [3.2.64].

[36] Vocus, (10 September 2020), *Submission on Consultation Draft Initial Value of Financial Loss Asset*, at [13-20].

Additional safeguards are not suitable

45. We have previously submitted that the existing cost allocation tools were sufficient to prevent any over-allocation concerns – such concerns are over-stated. The additional measures raised by the Commission are unnecessary and inconsistent with economic principles. In addition, we disagreed with the proposed cap on shared costs as it introduced practical difficulties and imposed considerable uncertainty. We also disagree with the additional caps on the allocation of shared costs and restrictions on cost allocators proposed by some submitters for the reasons set out below.

46. RSPs[37] generally support the three tools the Commission proposed to reduce the likelihood that pre-2011 assets are over-allocated, however don't provide additional arguments to support them. We disagree with adding additional safeguards. As we previously submitted,[38] the existing safeguards are more than adequate.

47. The RSPs downplay or ignore the economic principle that cost allocation should be consistent with recovering costs overall. In the context of FFLAS, calculating the FLA on the basis of only incremental costs would see Chorus fail to recover its common costs in total as these are not being wholly carried by copper.

48. Some submitters also support additional caps to shared costs using connections. Vodafone suggests capping post-2011 shared assets based on the proportion of active FFLAS connections to the total connection volumes assumed in the copper final pricing principle (**FPP**) model.[39] The proposed cap is inconsistent with FCM. Vodafone's suggestion would effectively allocate some shared assets to fixed-wireless access (**FWA**) which would result in these assets never having the *possibility* of being recovered over their lives.

49. Similarly, Spark suggests applying a cost cap to pre-2011 assets based on the proportion of FFLAS connections to total connections.[40] We disagree. It is more suitable to apply causal allocators as per ABAA rather than bluntly apply a cap based on connections. Some costs were incurred in improving the pre-existing assets to make them ready for UFB and this expenditure is not recovered from copper (because it would not have been needed for copper). In this case, applying a cap could result in investments that were driven by the future requirements of the UFB network being excluded.

50. Some RSPs also propose specifying additional conditions for allocators. Spark supports specifying that avoiding double recovery should be a condition for cost

[37] Vocus, (10 September 2020), *Submission on Consultation Draft Initial Value of Financial Loss Asset*, at [13-20].

[38] Chorus, (10 September 2020), *Chorus submission on "Fibre input methodologies – Further consultation draft (initial value of financial loss asset),* at [122].

[39] Vodafone, (10 September 2020), *Submission on Consultation draft initial value of financial loss asset*, page 6.

[40] Spark, (10 September 2020), Submission on Consultation draft initial value of financial loss asset, at [58].

allocator selection for the FLA (in addition to causality).[41] It's unclear what practical effect this suggestion is intended to have, however, it should be noted that this departs from regulatory precedent - the Part 4 definitions of allocators. As we have previously submitted,[42] it is important that the cost allocation approach ensures that all costs can be recovered, and the risk of under-recovery should not be underestimated. Introducing new measures to limit the allocation of shared costs creates considerable risk that costs will be under-recovered.

51. Vodafone suggests the default allocators must be consistent with those chosen for the copper FPP in order to prevent double recovery.[43] It's not clear how this would be implemented given the FPP model did not simultaneously roll out copper and fibre networks and did not require allocation between copper and fibre services.

52. Vodafone proposes capping pre-2011 assets based on a hypothetical opportunity cost.[44] We disagree. Using hypothetical scenarios is counter to the intention of the using a BBM and using actual costs from our accounts. Determining the opportunity cost is a complex process that would create considerable uncertainty. The Commission does not propose this method for valuing pre-2011 assets, rather it notes it as an example of why using incremental costs only would lead to under-recovery.[45] Furthermore, the Commission notes that this method would be a difficult exercise.

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[41] Spark, (10 September 2020), Submission on Consultation draft initial value of financial loss asset, at [58].

[42] Chorus, (16 July 2019), *Chorus submission in response to "Commerce Commission's fibre regulation emerging views dated 21 May 2019"*, at [115, 121].

[43] Vodafone, (10 September 2020), *Submission on Consultation draft initial value of financial loss asset*, page 7.

[44] Vodafone, (10 September 2020), *Submission on Consultation draft initial value of financial loss asset*, page 5.

[45] Commerce Commission, (13 August 2020), *Fibre input methodologies: Further consultation draft initial value of financial loss asset – reasons paper*, at [2.82].

ENABLE NETWORKS LIMITED AND ULTRAFAST FIBRE LIMITED

CROSS-SUBMISSION ON NZCC FIBRE INPUT METHODOLOGIES FURTHER CONSULTATION DRAFT (INITIAL VALUE OF FINANCIAL LOSS ASSET) – REASONS PAPER 13 AUGUST 2020

1 OCTOBER 2020

1. **Introduction**

1.1 This cross-submission is made by Enable Networks Limited (**Enable**) and Ultrafast Fibre Limited (**Ultrafast Fibre**) (collectively referred to in this submission as **LFCs**) in relation to the Commission's *Further consultation draft (initial value of financial loss asset) – reasons paper* dated 13 August 2020 (**FLA Reasons Paper**).

2. **Definition of financial loss**

2.1 A number of submitters urge the Commission to "*define what 'financial loss' actually means*"[1], include only "*genuine losses*"[2] or "*consider a narrow definition of loss*".[3] These submitters argue that other sub-sections of s177 require the reading down of the clear wording of s177(2) that the financial loss asset is equal to the financial losses incurred by the provider in providing FFLAS under the UFB initiative.

2.2 Spark, for instance, submits that "*when you work through section 177 in its entirety [it]…directs the Commission to consider a narrow definition of losses.*"[4] In support of this argument, Spark submits that "*section 177(4) makes it even clearer that losses should not be considered broadly, stating that it is not the intention that LFCs should be protected from all risk of losses*".[5]

2.3 This submission mischaracterises the purpose of s177(4). Part 6 of the Act creates a framework that specifies "*the maximum revenues that may be recovered by a regulated fibre service provider*" subject to PQR.[6] S177(4) makes the obvious point that the maximum revenue figure is merely a regulated revenue cap, not a revenue guarantee. Market forces (such as, in this case, competition from fixed wireless access services) may prevent the fibre provider from achieving the revenue cap.

2.4 Spark further submits that s177(5) "*requires that financial losses incurred relate to meeting specific requirements*", designed to ensure "*that care is taken to reject costs that are not specifically incurred to meet specific UFB requirements*".[7]

2.5 We do not agree with Spark that s177(5) limits in any way the definition of financial loss. In this regard we agree with the Commission that s177(5) is not a restriction on ss177(1) or (2)[8], but merely sets out for the avoidance of doubt some of the assets that must be included in the initial value.

3. **Pre-2011 assets**

3.1 Several submitters disagree with the Commission's view that "*s177 permits (though does not require) pre-2011 assets to be included in the calculations of the FLA*"[9] on the basis that these assets were in place regardless of whether UFB services were to be provided.

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[1] 2degrees FLA Submission, 10 September 2020 p2

[2] Vocus FLA Submission 10 September 2020 [33]

[3] Spark FLA Submission 10 September 2020 p1 (**Spark**)

[4] Spark [12]

[5] Spark [21(b)]

[6] Telecommunications Act 2001, section 194(2)(b)(ii)

[7] Spark [30]

[8] NZCC *Further consultation draft (initial value of financial loss asset) – reasons paper* 13 August 2020 (**FLA Reasons Paper)** p18

[9] FLA Reasons Paper [2.22]

3.2 Trustpower submits that "*reference to post-2011 assets in paragraph (a)* [of s177(3)], *with no corresponding reference to investments that were not made under the UFB initiative, implies that these pre-2011 assets must be excluded in calculating financial losses.*"[10]

3.3 Chorus, in contrast, "*disagree that the inclusion of pre-2011 assets is a matter of discretion for the Commission. Our view is it is required by section 177 of the Act*".[11]

3.4 We agree with Chorus. The sole question to be determined is whether the asset in question is used by the regulated fibre service provider in providing fibre fixed line access services under the UFB initiative. Far from excluding pre-2011 assets by implication as Trustpower submits, section 177(1)(a)(ii) makes clear that pre-2011 fibre assets were intended to be included in the calculation of the fibre loss asset (**FLA**).

3.5 Whether existing assets are used, or new assets are created, is irrelevant. There is an opportunity cost associated with using existing assets for FFLAS and therefore an implicit investment which needs to be included in the FLA.

4. Treatment of Crown financing

4.1 Chorus submits that the Commission's revised approach to calculating Chorus' benefit of Crown financing applies a rate that reflects the full project risk (i.e. the overall cost of capital) rather than the fundamental nature of the actual financing used (debt-like in Chorus' case).[12] We agree with the principle that the benefit of Crown financing should be calculated using a rate that reflects the fundamental nature of the financing.

4.2 Chorus notes that the Commission's proposed treatment of Crown financing for Chorus is inconsistent with its proposals for the other LFCs.[13] The Commission proposes for LFCs other than Chorus that the "compounding factor" used to determine the present value of Crown financing applies a leverage ratio of:

(a) 100% if the outstanding Crown financing is, in substance, provided by way of debt; and

(b) 0% if the outstanding Crown financing is, in substance, provided by way of equity.[14]

4.3 However, we note that this proposed approach is unsuitable for LFCs where Crown financing is a combination of debt and equity. In this case, it is not possible to characterise the financing as either one of debt or equity.

4.4 As previously submitted,[15] the Commission should revert to the approach it originally proposed.[16] The avoided cost of financing in a given year should be determined by applying the appropriate cost of debt and/or equity to the outstanding Crown debt and/or equity balance in that year.

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[10] Trustpower FLA Submission 10 September 2020 [2.3.2] (**Trustpower**)

[11] Chorus FLA Submission 10 September 2020 Chorus [24] (**Chorus**)

[12] Chorus [107]

[13] Chorus [106]

[14] NZCC *Fibre Input Methodologies Determination 2020*, *Further consultation – initial value of financial loss asset*, August 2020, IM clause 1.1.10 (5), p173

[15] LFCs FLA Submission 10 September [4.5]

[16] NZCC *Fibre Input Methodologies, Draft Reasons Paper* November 2019, Box 3.1, p119

5. **WACC for the financial loss asset**

Term of the risk-free rate

5.1 Chorus submits that the appropriate risk-free rate under the proposed discounted cash flow (**DCF**) approach should have a term equal to the expected term of the pre-implementation period.[17] We agree with this view. This would respect investor expectations at the time of investment.

5.2 If the Commission were to decide to retain its planned approach of adopting a variable WACC with a fixed term, then we agree with Chorus that "*a risk-free rate term of 10 years is appropriate to reflect the expectation of investors in long-lived infrastructure*".[18] This would more closely align the discount rate with the nature of cash flows associated with long-lived assets. As Chorus notes, a 10-year term is also consistent with international regulatory practice.[19]

5.3 Spark submits that "*the Commission should look at re-setting the risk-free rate after 5 years.*[20] Vodafone supports this view but submits that even shorter terms may be appropriate for resets occurring after confirmation of the implementation date: "*any financing that took place after 23 November 2018 may have been at a shorter term so that it finished at the same time the new regime started*".[21]

5.4 We do not agree with these submissions. Such an approach would be inconsistent with commonly accepted principles of corporate finance and DCF analysis. It would contradict the principle of maintaining separation between the investment decision and the financing decision. Investment viability is established separately from analysing how the investment should be financed.

5.5 Sapere expressed the opinion that five years was likely to underestimate the relevant refinancing period for LFCs.[22] They are correct. Enable's network build was financed by a combination of Crown Infrastructure Partners Limited (**CIP**) funding and Christchurch City Holdings Limited funding both of which had a 10-year maturity. Ultrafast Fibre's network build was financed by a combination of CIP funding and WEL Networks Limited/Waipa Networks Limited funding, both of which also had a 10-year maturity.

5.6 Vodafone's suggestion that LFCs would have refinanced to align with the start of the new regulatory regime does not reflect reality. Neither Enable nor Ultrafast Fibre had any regard to the evolving regulatory framework in their financing decisions. In both cases long term funding was secured to reflect their obligations to construct the UFB network and provide services over the network; obligations that continue irrespective of the regulatory framework.

Vanilla versus post-tax WACC

5.7 Chorus submits that a vanilla WACC should be used rather than a post-tax WACC.[23] While it agrees with the Commission that the two approaches are identical if applied consistently, it disagrees that the post-tax WACC will be simpler to implement. Chorus submits that it would be more transparent to use the vanilla WACC approach when tax losses are being made.

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[17] Chorus [62]

[18] Chorus [63]

[19] Chorus [64-65]

[20] Spark [62]

[21] Vodafone FLA Submission, 10 September 2020, p7-8

[22] Chorus Appendix 4 [31]

[23] Chorus [138]

5.8 We agree that the uncertainty around the treatment of tax losses in the IMs is unhelpful and inconsistent with the objective of IMs which is to promote regulatory certainty. We consider that there are two possible approaches to resolving this issue:

(a) include specific provisions in the IMs for the treatment of the tax loss issue which arises when applying a post-tax WACC; or

(b) adopt a vanilla WACC as suggested by Chorus.

5.9 As this is the final consultation before the IMs are determined, we recommend the vanilla WACC option because it has been considered in previous consultations.

Adjustment for inflation

5.10 Vector submits that the Commission's approach to treating inflation in the pre-implementation period WACC is not consistent with targeting the real return on investment: "The target real return on investment should be adopted for both the Pre-Implementation Period and in the forward-looking price setting process under Part 6 of the Act."[24]

5.11 The WACC parameters relevant to the pre-implementation period are those that correspond to investor expectations formed at the beginning of the period. In our view, the Commission's proposed approach adequately reflects this.

6. **Fair compensation for risk**

6.1 Chorus and other investors[25] have submitted on the importance of investors being fairly compensated for the risks taken, and that the Commission's proposed approach fails to do so. We agree, as set out in more detail in our previous submissions.

6.2 Chorus' submission at paragraphs 33 to 38 describes well how the Commission's proposed approach is a form of asymmetric regulation which, if implemented, will result in investors not being compensated for the real risks faced by them in 2011.

6.3 It is easy in 2020 to assume these risks away because the UFB Initiative has been a success, but that could not be predicted in 2011. Indeed, in late 2015, when the network build was 56% complete but uptake was at 16%, the UFB Initiative was being criticised as not going according to plan because "*people don't seem to want superfast broadband*".[26] The failure of the UFB Initiative, it was said, "*should be a clear warning sign for policy makers proposing subsidised fibre as a panacea for rural US locations*."[27]

6.4 Investors in 2011 relied heavily[28] on the commitment given by the Government in its October 2011 UFB Economic Policy Statement[29] that any future price regulation would:

(a) recognise that revenues, over the life of the asses, are sufficient to cover efficient operating costs and a normal return on, and recovery of, capital invested; and

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[24] Vector FLA Submission 10 September 2020 [16]

[25] Chorus [10-12]; Investors Mutual FLA Submission 10 September 2020 [p4] (**IML**); L1 Capital FLA Submission 10 September 2020 [p2] (**L1 Capital**)

[26] Bronwyn Howell *Government-funded fibre broadband – not as straightforward as it sounds*, January 2016

[27] Bronwyn Howell *Government-funded fibre broadband – not as straightforward as it sounds*, January 2016

[28] See IML p1, L1 Capital p2

[29] *Statement to the Commerce Commission Concerning Incentives for Businesses to Invest in Ultra-fast Broadband Infrastructure*, New Zealand Gazette No 155, 13 October 2011, 4440 (2011 GPS

(b) take into account the start-up risks associated with the introduction of new technology.

6.5 The Commission is on record that it does not regard these commitments as being "*relevant to our decisions under Part 6*"[30]. The Government chose to withdraw its Policy Statement on 5 October 2019 for reasons it has never explained. However, these events do not change the fact that the policy statement was issued to give investors comfort about future regulatory settings, was relied on by investors, and the Commission's decision to treat that commitment as irrelevant results, as L1 Capital submits, in "*a partial seizure of the UFB asset*".[31]

6.6 The viability of future Public Private Partnership (PPP) investment programmes depends crucially on the perception of a symmetric regulatory framework that offers investors the expectation of fair compensation for risk. The Commission must bear this in mind as it finalises its cost of capital parameters. We endorse the submission of Investors Mutual Limited:

> *"Failure to adequately recognise the real costs and risks investors have incurred will tarnish what deserves to be New Zealand's greatest public private partnership success story".*[32]

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[30] NZCC *Fibre regulation emerging views: Technical Paper* dated 21 May 2019 [93] (**EVP**).

[31] L1 Capital p1

[32] IML, p4.

Further consultation draft (initial value of financial loss asset)

Cross submission | Commerce Commission

1 October 2020

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Introduction

1. Thank you for the opportunity to comment on submissions on the further consultation draft (initial value of financial loss asset) reasons paper (**the draft reasons paper**).

2. Chorus substantively reiterates its previously articulated positions relating to WACC and cost allocation matters that are not the subject of the current consultation. While we have not commented on the points which fall squarely outside the scope of this consultation, this should not be seen as acceptance of Chorus' proposed approach. For example, as set out in our submissions on WACC, we believe the Commission's proposed benchmark comparators over-state the required return by failing to reflect the reality of UFB and regulatory arrangements that sees risk predominantly born by Government and end users rather than the regulated provider.

3. In this submission, we comment on:

    a. Submissions relating to the 2011 expected UFB outcomes and the impossible task faced by the Commission if it sought to identify and resolve for these expectations through the Financial Losses Asset (**FLA**).

    b. Chorus cost allocation and Crown funding proposals.

    c. Vector's observation that using expected inflation for FLA purposes is inconsistent with a real return objective.

Submissions highlight the difficulty of using the FLA to solve for expected UFB outcomes

4. Chorus and Sapere submit that the Commission should seek to resolve the financial losses asset for investor expectations at the time they agreed to participate in the UFB[1] and adopt inputs for determining the FLA consistent with those expectations. As set out in our submission, this regulatory environment is not designed to satisfy the hopes and aspirations investors may have had in 2011, and to suggest that the narrow and specifically constrained financial losses provision should do such heavy lifting is well off the mark. The Act does not support the wider revaluation exercise proposed by their submissions.

5. Even If the Commission had the authority to conduct a revaluation exercise of the type proposed, submissions highlight the range of views relating to the decision to participate in the UFB initiative, including the range of expected outcomes and risks faced by the parties.

6. Chorus and Sapere, in effect, suggest that the fibre network should be considered a standalone fibre deployment project, and that the Commission should look to the markedly different Australia and the UK jurisdictions for evidence of the anticipated return on the investment[2]. However, submissions and other available to us highlight that, even if s177 anticipated resolving for 2011 expectations or overall recoupment of costs, this would be a contested and controversial approach. For example, information released at the time indicate markedly different views on the UFB initiative relating to:

    a. **The decision to participate in the UFB initiative.** Telecom UFB releases to investors highlighted the benefits across Chorus' businesses of participating in the UFB initiative rather than seeking approval for standalone fibre deployment. For example, the September 2011 investor roadshow presentation highlighted the key

[1] Chorus submission at para 52

[2] Chorus *FY20 Annual Results presentation* 24 August 2020 at page 30, repeated in investor submissions

benefits Chorus taking a lead role in the Government led fibre initiative, aligning Chorus and Government interests, and avoiding competing with Government backed fibre competition[3]. Grant Samuel characterised the two options as to being to cooperate or compete[4]. The financial business case was built around these options rather than an incremental fibre build decisions.

In essence investors were persuaded that a substantially greater threat to Telecom's financial viability would have been an attempt to compete with a government funded FTTH network.

b. **Chorus risk as a UFB provider.** Chorus was further expected to have the benefit of rolling forward with an existing high-quality customer base and stable revenue streams rather than taking on fibre specific risks[5], i.e. the UFB initiative reduced rather than increased Chorus risks. While we acknowledge Chorus continued to face business risk, the independent expert noted that Chorus was characterised as having s*trong, reliable cashflows; defined asset base in the form of network infrastructure; and few, generally strong customers (including New Telecom).*[6]

The Telecom CEO reinforced the financial and risk reducing benefits of participating in the UFB initiative[7]

> Participation really has the financial advantage of Chorus being awarded NZD929 million in funding, which will help build the UFB network ahead of demand and help de-risk the transition to these new capital intensive high speed broadband networks. So it is a very positive advantage in taking part.

c. **Fibre demand risk.** While there was uncertainty relating to fibre demand[8], UFB policy assumed that the Crown took this risk. The Government invitation to participate[9] (**ITP**) preferred commercial model anticipated the Crown assuming the risk associated with an immature fibre market. For example, the ITP set out that the

> 3. […] model therefore provides that CFH will take on the risks associated with an immature market, specifically where there may be an initial period during which the LFC's Network has insufficient End User take-up and revenues to deliver an economic return on the LFCs investment in fixed infrastructure. This will occur through CFH funding the acquisition by the LFC of its Communal Infrastructure in anticipation of End User demand.
>
> […]
>
> 7. These commercial arrangements mean that, effectively, during the Concession Period the Partner will only be required to fund that portion of the LFC's Network that is 100% utilised.

In other words, the Crown would retain fibre demand risk

> 105. This structure effectively provides that the Partner only funds that portion of the Network in respect of which an End User has been connected. The Partner only has to invest in the LFC's infrastructure in proportion to End User take-up, does not have

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[3] Telecom *Separation Roadshow Presentation* September 2011 page 11
[4] Grant Samuel expert report at page 67 or page 441 of Scheme booklet
[5] Scheme Booklet at page 16
[6] Scheme Booklet at page 419. Grant Samuel noted these characteristics influenced the proposed debt allocation
[7] Transcript *Investors and Analysts Demerger Presentation* 13 September 2011 at page 5
[8] Mitigating this risk was a key policy driver for UFB
[9] New Zealand Government Ultra-Fast Broadband *Initiative Invitation to Participate in Partner Selection Process* October 2009 Appendix 2 at para 3 and 105

to carry an investment in unused infrastructure, and so is isolated from the risk of uncertain End User take-up.

The LFCs were able to negotiate alternative models. However, the ITP preferred commercial model set the baseline against which these alternative arrangements would have been costed, i.e. the LFC would have been compensated for options whereby they accepted the demand risk. The residual transfer of risk after efficiencies comes in return for increased prices or reduced outcomes.

Whatever the case, Grant Samuel further noted in their report to shareholders that fibre uptake was not a key sensitivity for new Chorus[10].

d. **Risk of build cost over-run.** Build costs remained a key focus, although it's unclear how significant the risk of cost over-runs was. For example, officials advised the Select Committee in 2011 that LFCs were able to be reasonably precise on their build costs and that UFB prices could be accurately set through to 2019[11]. Chorus knowledge of the capabilities of its own network and build costs would likely permit it to assess build costs with a reasonable degree of certainty.

To the extent that build risk was material, Chorus agreed fixed price contracts with service companies that provided certainty of deployment costs through the UFB deployment period. For example, in December 2014 it announced fixed price arrangements for Auckland deployment[12]. Likewise, any transfer of risk to service companies comes in return for increased input costs.

7. As the Commission rightly observes *it is unlikely that in 2011 investors' expectations were framed in terms of what a BBM with a 10-year horizon might have delivered.*[13] It also makes no sense adopting estimates of fibre returns from other jurisdictions that anticipate a significantly different allocation of risk and approach to fibre deployment.

8. However, even if the earlier 2011 expectations were expected to inform a BBM, the range of views demonstrates the difficult task faced by the Commission. It would need to resolve to the different context within which 2011 decisions were made and address potential double or over-recovery where commercial arrangements transfer residual risk for likely addition input costs.

9. In terms of applying a FLA approach that seeks to recoup shared costs across Chorus fibre and copper business, the only reliable way for the Commission to do this is to apply an approach such as the TERA cross check across both businesses. However, the Commission has indicated it is unwilling to apply the TERA approach.

10. This is the complexity and controversy s177 seeks to avoid.

Cost allocation

11. Chorus further recommends that, while the principles of allocation should be specified in the IMs, an overly prescriptive approach is unlikely to be beneficial[14]. Chorus further notes that:

[10] Grant Samuel expert report at page 71
[11] Officials' report on the *Telecommunications (TSO, Broadband, and other matters) amendment bill* 1 April 2011 at page 13
[12] https://chorus-nzx.hosting.outwide.net/api/announcements/download/2014/aec7258c-94a5-45b0-9b20-12bcd886b867/43529657-379e-4616-a6e8-a03b0ed5fffe/206196.pdf
[13] Commission draft at 3.29
[14] Chorus 10 September submission at 118

a. Context is required when considering cost allocation as some costs that benefitted copper were only incurred because of FFLAS[15]. While unclear from the submission, we take it that Chorus is proposing to also consider *benefit received* in choosing an allocator and not rely solely on, say, a measure of capacity used.

b. It may not be able to support some possible cost allocations or filtering due to limitations of the information available from Chorus systems[16].

12. We agree that selecting from a list of cost allocators, on its own, is unlikely to be beneficial and produce outcomes consistent with the purposes of the Act. The Commission should prescribe the approach that best promotes the Part 6 end user and competition outcomes.

13. Chorus' submission highlights:

a. That if Chorus had the leeway to apply a benefits received approach, it would have opportunities to maximises its returns beyond what could be achieve if the Commission set more prescriptive guidance based on the purpose of Part 6.

b. That applying filters to the shared costs - i.e. applying filters relating to geographic footprint of the UFB networks, usability, timing - may not reduce cost allocation concerns as the Commission had hoped[17].

c. That the PQR process must be alive to, and seek to mitigate, Chorus incentives[18] to apply allocators that maximise Chorus' return rather than advance the purpose of Part 6.

14. The Commission set out in the draft reasons paper practical concerns relating to allocation of shared costs[19] and potential tools for mitigating the providers incentives to over-allocate shared costs to fibre services[20]. We agree that the options set out in the draft reasons are worth pursuing further[21].

15. The risk inherent in Chorus' submission reinforces the importance of setting prescriptive guidance in the IMs through, for example, cost allocation principles. This can be done by, for example,

a. Specifying that the relevant costs for the purposes of the FLA relate to those specifically incurred as a consequence of providing FFLAS in the UFB initiative.

b. That only efficient allocations to the fibre network should be permitted.

c. Clarifying in the IMs that the avoidance of double recovery and windfall gains is a consideration for selecting the allocator (in additional to cost causality).

d. Signalling that the Commission will apply an overall cost allocation cap for any shared costs and assets.

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[15] Chorus at para 119
[16] Chorus at para 120
[17] Draft reasons paper at 2.88
[18] Chorus has strong incentives to maximise the allocation of the costs of existing assets in to the financial loss calculation, and this risk is heightened by the age of some assets, the ability to configure the network to over-allocate costs and the information asymmetries held by Chorus. Chorus' submission reinforces these concerns.
[19] Draft reasons paper at 2.85
[20] Draft reasons paper at 2.101
[21] Draft reasons paper at 2.96

16. These principles would be in addition to proposed PQR process measures such as benchmarking of costs, applying a TERA cross check and ensuring a wide consultation process and transparency.

Crown contributions that are not Crown funding

17. The Commission revised its decision on the funding of non-standard connections in the July 2020 updated draft reasons paper[22], concluding that the commercial arrangement between the Crown and Chorus should be treated as capital contributions[23].

18. However, Chorus has submitted that it disagrees with approach and intends to engage further on the issue through the PQ determination process[24]. Chorus proposes to facilitate this engagement by amending the draft IM to reference the *value of the obligations assumed by Chorus* under the settlement agreement with the Crown[25].

19. Without Chorus disclosing the settlement agreement, it is unclear what the implications of narrowing the nature of a capital contributions to *value* will be in practice.

20. Nonetheless, we agree with Chorus that the Commission could consider Crown contributions as part of the PQR process, in the same way that it will consider capital contributions from any other party. In our earlier submission we suggested that the Commission may wish to amend the definition of capital contributions to clarify that contributions from any other party *includes any Crown contribution except where it is Crown funding as defined by the Act.*

21. On reflection, the Commission could delete the specific reference to the settlement agreement and, instead, consider the Crown contribution through the settlement agreement along with other Crown contributions as part of the PQR process as we have proposed.

Real versus nominal returns

22. Vector highlights in its submission a potential disconnect between the expected inflation rate applied

23. Vector notes that the Commission has acknowledged that, over the Pre-Implementation Period, expected inflation using the IM inflation forecasting methodology was materially higher than actual inflation compensating for expected inflation in the discount rate[26]. Therefore, using a historical discount rate without adjusting the embedded historical expected inflation in the discount rate for the FLA for Chorus and LFCs will provide a windfall gain[27].

24. Vector's submission suggests that, in seeking to identify real returns, there may be a material over-statement of costs where forecast inflation was higher than actual inflation. We agree the Commission should consider this disconnect further, particularly as it relates to required equity returns for the FLA period.

[End]

[22] Commission July 2020 draft at 3.55
[23] Commission draft at 3.63
[24] Chorus at para 48
[25] Chorus at page 3 of appendix A
[26] Vector 10 September 2020 submission at para 7
[27] Vector at para 8

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30 September 2020

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Via online submission portal

TRUSTPOWER CROSS-SUBMISSION: FIBRE INPUT METHODOLOGIES: INITIAL VALUE OF THE FINANCIAL LOSS ASSET

1. Introduction

1.1.1 Various parties have provided submissions in relation to the Commerce Commission's (**the Commission's)** consultation draft on the initial value of the financial loss asset (**FLA**) (**the Reasons Paper**). This cross-submission provides Trustpower Limited's (**Trustpower**'s) observations on the commentary and arguments raised in participants' submissions.

2. Cross-submissions

2.1.1 A key theme of Chorus' submissions is that the regime should "recognise or compensate investors for the significant risks faced when the investment was undertaken in 2011"[1] and also that "[r]eturns are now being capped through the introduction of regulation when the project is successful, but no recognition is being provided for the real potential that things could have turned out differently"[2].

2.1.2 Chorus seeks to leverage these arguments, primarily in relation to a discussion of the cost of capital in the pre-implementation period (especially regarding Type II asymmetric risk and the 75th percentile).

2.1.3 We query the extent of the risk that Chorus assumed in committing to invest in the UFB network ahead of demand, particularly given:

a) that it was unlikely Chorus would face widespread overbuild once it was awarded the UFB contract, a motivating factor for it to participate in UFB in the first place; and

b) the demand risk, which was moderated by the trend for an uptake in digital services that had begun prior to 2011. More broadly we note that regulatory risk was moderated by the GPS in 2011.

Consequently, we believe Chorus overstates its case.

2.1.4 Analysis of Chorus' arguments requires the Commission to consider the risks and investor expectations that Chorus took on in 2011, which involves a forensic, and likely subjective, assessment.

[1] Fibre input methodologies – Further consultation draft (initial value of financial loss asset) submission, [September 2020] Chorus, p. 3 (refer to paragraph 6.1)
[2] Fibre input methodologies – Further consultation draft (initial value of financial loss asset) submission, [September 2020] Chorus, p. 4 (refer to paragraph 11)

2.1.5 In the Commission determining financial losses under s177, we don't believe there is sufficient room to consider these matters in detail. The legislation endeavours to delineate what should and should not be included in financial losses, while allowing the Commission some discretion in its application.

2.1.6 On the question of the extent to which the risks assumed by Chorus in building the UFB network should be taken into account by the Commission, we note the legislation does not provide for an underwrite of all of that risk: "It is not the intention of subsections (2) and (3) that regulated fibre service providers should be protected from all risk of not fully recovering those financial losses through prices over time"[3].

2.1.7 In discussing the Commission's discretion as to whether pre-2011 assets are included, Chorus says that "Rather, a plain reading of s177 requires the Commission to include in its calculation of the value of the FLA any <u>accumulated unrecovered returns on assets used to meet Chorus' UFB obligations</u>" (emphasis added).[4] Chorus is mistaken. s177(3)(a) does not say "used to meet" Chorus' UFB obligations; it states "investments made by the provider under the UFB initiative" and no pre-2011 assets fall into that category.

2.1.8 We generally accept Spark's interpretation of s177 when it states that financial losses should not be considered broadly, that "the "losses" relate only to losses arising from the incremental costs of employing a service to provide UFB services"[5] (Vodafone, Vocus and others make a similar point) and the direct losses are those that are relevant.

2.1.9 However, we do not believe that the Commission was correct when it stated "…"investments made by the provider under the UFB initiative" could include pre-2011 assets that were redeployed in whole or part to provide FFLAS under the UFB initiative…".[6] Investments in pre-2011 assets were not made under the UFB initiative.

2.1.10 We are not sure whether Spark is saying that it agrees with the Commission in this regard, but if it does then we disagree. Nevertheless, we do find Spark's discussion of the allocation of shared costs to be persuasive.

2.1.11 Our position is summarised in the below table:

	Pre-2011 assets	**Post-2011 assets**
Included in Regulated Asset Base	Yes, at value in financial statements at 1.12.11	Yes, at cost incurred in constructing or acquiring
Financial losses incurred	No, because investment not made under UFB	Yes, if investment made under UFB; otherwise no

For any questions relating to the material in this submission, please contact me on 027-549-9330.

Regards,

FIONA WISEMAN
SENIOR ADVISOR – STRATEGY & REGULATION

[3] Section 177(4), Telecommunications Act 2001

[4] Further consultation draft (initial value of financial loss asset) submission, [September 2020] Spark, p. 6 (refer to paragraph 21a)

[5] Fibre input methodologies – Further consultation draft (initial value of financial loss asset) submission, [September 2020] Chorus, p. 30 (refer to paragraph 114)

[6] Fibre input methodologies – Further consultation draft (initial value of financial loss asset) – reasons paper, [August 2020] Commerce Commission, p. 17 (refer to paragraph 2.34)

FIBRE INPUT METHODOLOGIES: FURTHER CONSULTATION DRAFT (INITIAL VALUE OF FINANCIAL LOSS ASSET) – REASONS PAPER

Cross-submission to the Commerce Commission

PUBLIC VERSION

29 September 2020

INTRODUCTION

1. Vocus welcomes the opportunity to cross-submit in response to the *“Fibre Input Methodologies: Further consultation draft (initial value of financial loss asset) – reasons paper”*, 13 August 2020.
2. If you would like any further information or have any queries about our submissions, please contact:

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THE COMMISSION SHOULD BE EXPLICIT ABOUT THE DEFINITION OF *“FINANCIAL LOSS”*

3. Our submission that the Commerce Commission (the Commission) should be explicit about the definition of *“financial loss”,* and that the allocation methodology to determine financial losses needs to be consistent with the definition, is consistent with and supported by other Retail Service Provider (RSP) submissions.
4. Similarly, other RSP submissions support our view that an incremental or avoidable cost allocation methodology (ACAM) is consistent with orthodox definitions and measures of losses, and that an Accounting-Based Allocation Approach (ABAA) would overstate financial losses and result in wealth transfers (higher fibre prices) from end-consumers to Chorus.
5. While Chorus and the LFCs support an ABAA approach, there is nothing in their submissions which provides legitimate basis for adopting ABAA over an avoidable cost approach. We note, in the context of discussing the cost of debt, Chorus’ references its view on the approach to determining *“avoided cost”*.
6. If the Commission maintains the view ABAA is an option that is available to it, it should estimate the impact of adopting ABAA rather than an incremental approachon on end-user prices to help determine whether ABAA would best satisfy the section 162 purpose.

END-USERS ARE INSULATING CHORUS’ FROM LOSSES DURING THE ESTABLISHMENT PERIOD

7. Chorus’ assertion that investors are *“in the position of being penalised after the fact for wearing the risk and managing the project efficiently on true basis that the network is now built”* has little or no merit and does not reflect the Commission’s proposals.
8. Chorus claims *“The Commission’s approach fails to compensate for investor risks”* and amounts to an *“unfair bet”* which *“exposes investors to a form of asymmetric regulation”*. These claims are difficult to reconcile with the compensation Chorus will receive from

end-users through the Financial Loss Asset for losses it incurs (as well as additional contribution to other costs under ABAA) during the implementation period.

9. Chorus also suggests *"Just because asset stranding was avoided, does not mean that a material risk did not exist"* but its Regulated Asset Base (RAB) valuation will be based on actual historic costs and will not optimise out any 'stranded assets'. Again, if there are any stranded assets it will be end-users who are principally exposed to this risk not Chorus.

10. If Chorus' claim that *"The approach currently does not deliver on the Commission's key economic principles …"* has any merit it is because end-users are exposed to investment risk the regulated supplier would be exposed to in a workably competitive market or under *"efficient risk allocation"*.

CHORUS HASN'T SUBMITTED ANY NEW INFORMATION ON DETERMINATION OF WACC

11. From a process perspective, and paraphrasing Chorus, it is very troubling that Chorus continues to re-litigate matters, in the absence of any new evidence, on points which have already received substantial amounts of submissions. Much of the Chorus submission simply traverses and repeats previous submission points we and others have already responded to e.g.:[1]

    (i) *"**The Commission should retain a one-year risk-free rate to calculate financial losses:** The approach taken of using a one-year risk-free rate to calculate the net cost of the Kiwi Share Obligation under the original version of the Telecommunications Act provides relevant precedent for determining the WACC for calculation of financial losses (if any)."*

    (ii) *"**The Commission should set the WACC used to calculate financial losses at mid-point.** It is unambiguous that a retrospective application of a WACC uplift would result in higher prices with zero benefits for consumers. We were surprised Chorus (and Sapare) advocated use of 75th percentile, given this was criticised by the High Court in the Part 4 IMs Merit Appeal, and the Commission subsequently deemed it to be excessive. Chorus (and Sapare) appear to want the Commission to transpose errors previously made under the Part 4 Commerce Act setting to Part 6 Telecommunications Act."*

    (iii) *"**The Commission should re-confirm there is no reasonable basis or evidence to support an above mid-point WACC:** No evidence has been provided in support of an above mid-point WACC. Chorus and its consultant submissions have largely been based on rhetoric and assertions. The High Court IM Merit Appeal decision provided clear direction that absent actual evidence an uplift could not be justified.*

[1] Vocus, Draft Fibre Input Methodologies Determination Cross-submission to Commerce Commission, 17 February 2020.

"The reference by Chorus and others to Part 4 WACC precedent is selective and doesn't provide a reasonable basis for an uplift. The Commission's decision to provide a WACC uplift for electricity and gas did not and does not create a "reasonable expectation" that an uplift would be applied in telecommunications or for fibre services. The submitters referring to this precedent ignore that airports weren't granted an uplift."

Vodafone New Zealand cross-submission on further consultation draft (initial value of financial loss asset)

1 October 2020

Thank you for the opportunity to provide a cross-submission on the further consultation of the financial loss asset (FLA). This paper focusses on support for Vector's submission that the local fibre companies (LFCs) should only be rewarded for actual inflation during the FLA, not expected inflation, as is currently the case. But first we provide some brief comments on other submissions.

The Commission received a large number of submissions from the LFCs and their investors aiming for a larger FLA. These submissions largely re-tread old ground that we have responded to in past submissions. We therefore only make the following brief comments:

- No new information has been provided to alter the Commission's view that there was no cost to the Crown financing.

C2 General

- There has been no evidence provided that the terms of the UFB contracts were particularly onerous compared to typical investor requirements.[1] We continue to believe that the LFCs gained substantial advantages from the Crown financing, well beyond the interest free repayments. Other benefits included: protection from Commerce Commission investigation; allowing UBA to continue to be charged at the high retail minus prices for a three year transition period; delaying fibre unbundling; and the general protection afforded to government supported projects.[2]
- Despite arguments that the beta should be higher during the pre-implementation period, we have previously shown that the FLA provided full insurance against all risks during this period. We therefore support a beta of zero, and a small adjustment for future recovery risk.[3]
- We do not consider the arguments for treating the FLA as a single regulatory period have any merit. The purpose of a regulatory period is to provide the regulated firm an incentive to beat the benchmark and earn additional profits, which are then shared with consumers in the future. Since the FLA relates to costs incurred in the past this incentive mechanism does not apply.

We also note that submissions from parties representing a consumer perspective were unified in their view that an incremental cost approach to the financial loss asset is most consistent with the legislative intent. We support these submissions. The Commission has a duty to New Zealanders to ensure that there is no double recovery and that consumers are not burdened with an unreasonably large FLA.

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[1] We have previously shown why these terms were not as onerous as claimed. See Vodafone *New regulatory framework for fibre: Cross-Submission on Emerging Views – Cost of capital*, 9 August 2019, pp14-15.
[2] Vodafone *New regulatory framework for fibre: Cross-Submission on Emerging Views – Cost of capital*, 9 August 2019, p15.
[3] [ref sub to Lally]

C2 General

The financial loss asset must only provide a return on actual inflation

Vector's submission highlighted a key inconsistency in the application of the FLA. As currently proposed, during the pre-implementation period the LFCs will be provided a return based on expected inflation at the date the expenditure was incurred. This is inconsistent with how electricity distribution businesses, gas pipeline businesses, and even how Chorus itself will be treated after the implementation date.

In the Part 4 regime the Commission has made it clear that real financial capital maintenance can only be achieved by applying the actual inflation rate.[4] For example, this topic received considerable attention in the 2016 review of the input methodologies, where the Commission notes:

> *... our approach to RAB indexation for EDBs and GPBs protects them (and their consumers) from inflation risk by delivering real returns all other things being equal. Therefore, real FCM is maintained.*[5]

However, the Commission is now proposing to apply the expected inflation rate in calculating the FLA. This is because the nominal WACC includes an expected rate of inflation, and no adjustments are made to account for the inflation rate that the LFCs actually experienced.

This is in contrast to the treatment of Chorus after the implementation date. Going forward Chorus will be allowed to earn revenue consistent with the nominal WACC rate, which includes an expectation of inflation. This inflation return will then be reversed out by including a revenue line item based on expected inflation. The RAB will then be indexed based on actual inflation, resulting in the maintenance of real FCM.

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[4] Commerce Commission, *Input Methodologies review decisions: Topic Paper 1: Form of control and RAB indexation for EDB, GPBs and Transpower*, 20 December 2016.
[5] Commerce Commission, *Input Methodologies review decisions: Topic Paper 1: Form of control and RAB indexation for EDB, GPBs and Transpower*, 20 December 2016, para 265.

C2 General

In the 2016 review of the Part 4 input methodologies the Commission noted that that applying an expected inflation rate is akin to targeting nominal FCM.[6] We do not believe it was the policy intent to target nominal FCM in the pre-implementation period but that real FCM must be targeted after the implementation date. Instead, the Commission has repeatedly stated that real FCM is one of the key underlying principles for this regime. This must be applied consistently to the FLA.

Vector has demonstrated that this is not an immaterial issue. They calculated that this could reduce the WACC rate by 80 basis points, potentially worth hundreds of millions of dollars to the FLA. The Commission cannot ignore this issue.

We are unaware of any reasons to depart from real financial capital maintenance

Applying actual inflation will expose equity holders to some risk because debt is typically issued in fixed nominal terms. Therefore, if actual inflation is higher or lower than expected then the cost of repaying that debt is lower or higher. The Commission explicitly considered this risk in Part 4 and concluded:

> *Over the long-term this risk is small and will wash out over time if the forecast of inflation is unbiased; and*
>
> *the risk does not expose affect [sic] equity and debt holders collectively (ie, the total return to all capital is an ex-post real return) and suppliers can potentially manage any inflation risk to some extent through their debt financing practices.*[7]

We also note that the beta will already account for this risk. Firms in workably competitive markets routinely face inflation risk and manage that appropriately. Any residual risk will sit on the cost of equity. This will be true of the comparator firms used to determine the beta, and therefore is already accounted for in the LFC's WACC.

The only exception to the Commission's application of actual inflation is for Transpower. The Commission has allowed Transpower a return based on expected inflation because of practical implications, and a view to the long term.

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[6] Commerce Commission, *Input Methodologies review decisions: Topic Paper 1: Form of control and RAB indexation for EDB, GPBs and Transpower*, 20 December 2016.
[7] Commerce Commission, *Input Methodologies review decisions: Topic Paper 1: Form of control and RAB indexation for EDB, GPBs and Transpower*, 20 December 2016, paras 257.1 and 257.2.

C2 General

> *We agree that this it is a different approach to EDBs but consider that the increased compliance and complexity that would be required to change the approach for Transpower do not justify the benefits in terms of protection from inflation risk.*[8]

This justification does not apply to the LFCs financial loss asset. The regime has not yet started, so there is no reporting inconsistency creating additional complexity. Furthermore, the switch in approaches between the pre-implementation and post implementation periods locks in any differences between expected and actual inflation. The long term levelling from an un-biased forecast has no time to take effect because there is no repeat game.

The Commission should apply a capital charge adjustment to the financial loss asset

There are a number of ways to account for the difference between expected and actual inflation. We favour the capital charge adjustment considered as part of the Part 4 input methodologies review.[9] This would ensure that real financial capital maintenance is preserved by deducting from the FLA an amount equivalent to the difference between expected and actual inflation.

A capital charge adjustment means all other modelling can remain the same, and retain the simplicity and transparency the Commission has achieved. Then either yearly, or a one off adjustment can be applied to true-up the calculation in line with actual inflation.

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[8] Commerce Commission, *Input Methodologies review decisions: Topic Paper 1: Form of control and RAB indexation for EDB, GPBs and Transpower*, 20 December 2016, para 316.
[9] Commerce Commission, *Input Methodologies review decisions: Topic Paper 1: Form of control and RAB indexation for EDB, GPBs and Transpower*, 20 December 2016, page 72.

C2 General

Commerce Commission Fibre Input Methodologies

Further consultation draft

- **Initial Value of Financial Loss Asset** (Reasons Paper)

2degrees Cross-Submission, 1 October 2020

Introduction

2degrees appreciates the opportunity to cross-submit in response to the Commerce Commission's *Fibre Input Methodologies: Further consultation draft (initial value of financial loss asset) – reasons paper*.

An incremental or avoidable cost approach should be adopted to the determination of financial losses

There is a commonality of views amongst RSPs and Vector that the Commission is limited to an incremental or avoidable cost approach for determining financial losses. Application of an incremental cost approach would limit the extent to which pre-2011 assets could be included in the financial loss determination.

We agree with Vector that "Whilst the Commission has justified its proposed [ABAA] approach for the loss assessment as being not expressly prohibited by the Act, this reasoning does not mean it is the interpretation most consistent with the purpose of Part 6 of the Act".

Consistent with Vector, Spark submitted "For the Commission to adopt an approach that implies significant cost for end users, it would need to establish that this approach was in end user interests. At this stage, there is nothing to suggest that this is the case". We agree. If the Commission retains the view that it has discretion whether it applies an incremental or accounting-based (ABAA) approach, it should test the price impacts of end-users of the different options as part of its assessment.

The other clear and common message is that an incremental or avoidable cost approach would help limit the extent of double recovery between copper and fibre services.

For example, Vector submitted:

> "The proposed approach has created greater risk of double recovery of costs", and
>
> "A direct actual expenditure approach for the Pre-Implementation Period would ensure there would be no incidental double recovery (i.e. already recouped as part of copper network service tariffs) able to be claimed as part of the FLA."

While Chorus continues to support an ABAA approach, which increases the cost of FFLAS, their submission does not provide a sound economic rationale or explanation as to why this approach, versus an incremental approach, should be used.

Chorus continues to make unsubstantiated claims that the Commission will underestimate financial losses

The Chorus submission makes a number of claims that are not new or based on new evidence, and simply repeat previous submissions e.g. "Under-estimating Chorus' financial losses would represent a one-off expropriation of value", "The approach currently does not deliver on the Commission's key economic principles of real financial capital maintenance (**FCM**), efficient risk allocation, and recognising the asymmetric consequences of over- and under-investment" and "The Commission's approach to the initial value of the FLA will not adequately compensate Chorus for losses it incurred during the pre-implementation period, and the combination of the decisions made means there is no expectation of real FCM or efficient allocation of risks in the pre-implementation".

In common with previous submissions, Chorus does not provide any evidence that the Commission's proposed approach would result in under-recovery. Multiple other submitters have provided a valid alternative basis for concern: over-recovery of financial losses due to double-recovery between copper and fibre.

Well-informed and sophisticated investors would not have expected a WACC above mid-point

Chorus also repeats an earlier claim that "A 75th percentile estimate should be used, rather than the mid-point estimate to reflect the reasonable expectations investors would have held in May 2011 of a normal return over time". This claim was also made by Cooper Investors, Investors Mutual[1] and Sapere.

This has already been addressed in previous submissions, including our "Commerce Commission Fibre Input Methodologies Cross-submission" (17 February 2020).

It has already been pointed out in submissions that:

(i) an above mid-point WACC has never been applied under the Telecommunications Act e.g. mid-point was used in the UBA, UCLL and UBA determinations; and

(ii) a mid-point WACC applies to Airports under Part 4 Commerce Act.

Any investor that had an expectation of a 75th percentile WACC for telecommunications services in May 2011 would have been poorly informed about the operation of the New Zealand Commerce and Telecommunications Acts.

Chorus and Sapere incorrectly claim "the Commission applied the 75th percentile to … airport companies". The Commission has always been clear that "For the

[1] Investors Mutual has suggested that "at a minimum, the 67th percentile should be used".

purposes of information disclosure, … (mid-point) WACC estimates will enable interested parties to assess the profitability of a regulated [airport] service", and "In assessing profitability for the Airports an appropriate starting point for any assessment is the 50th percentile (mid-point) on the range".

The Commission has also been clear that it uses estimates of the WACC at the 25th and 75th percentiles "to estimate the distribution of the estimate of the WACC".[2] If Chorus and Sapere want to rely on the WACC range for forming expectations about what WACC percentile would be permitted, it can just as validly be argued a 25th percentile WACC should be adopted based on airport precedent.

It is also clear that the Commission considers WACC percentiles on an industry-by-industry basis, and that it would always be required to consider the percentile for telecommunications (and fibre) specifically rather than simply adopt a percentile used in another sector or under different legislation. The UBA and UCLL TSLRIC determination process, for example, highlighted substantial differences between energy and telecommunications which would justify different percentiles. It is also clear the Commission's view regarding the appropriate WACC percentile can change over-time.[3]

An informed Chorus/investors would not simply assume the *initial* WACC percentile from a *different* regulated industry under Part 4 of the Commerce Act would be applied to Chorus.

It is interesting to note that while Chorus considers a higher WACC percentile must be adopted consistent with certain (not all) Part 4 of the Commerce Act Input Methodologies, it does not consider that other parts of those same Input Methodologies should also apply (for example, the prescriptive Transpower Capex IM).

Vector has raised material concern that the treatment of inflation will result in overstatement on financial losses

Vector has submitted the discount rate used to determine the discounted cash flow should "only provide compensation for actual inflation over the period and to remove the inflation expectations embedded in the nominal WACC" and the approach the Commission is proposing to take will overstate the WACC required to earn a normal rate of return (achieve Financial Capital Maintenance) by 80 basis points.

Given the potential materiality of this issue the Commission needs to fully consider Vector's concerns before making final decisions on the methodology for determining the value of the Financial Loss Asset.

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[2] Commerce Commission, Input Methodologies (Airport Services) Reasons Paper, December 2010.
[3] Notably the Commission reduced the WACC percentile applying in electricity and gas from the 75th to 67th percentile.