Taxation and the WACC

Chorus Ltd

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1. Introduction and summary

The Commerce Commission (Commission) is currently developing the Input Methodologies that are to be applied to the regulation of fibre fixed line access services (FFLAS) in New Zealand. This new regulatory regime will apply to Chorus and three other Local Fibre Companies (LFCs). Chorus will be subject to information disclosure and price-quality regulation under this new regulatory regime.

The sale of fibre fixed line access services (FFLAS) by Chorus will be assessable income for New Zealand company tax; however, the cost of capital that is estimated will be a post tax value. This means that the target for regulated revenue for Chorus needs to make an allowance for company tax payments, in the same manner as an allowance for maintenance and other expenses. The purpose of this report is to consider the *mechanism* through which the allowance for taxation is derived.

In considering the mechanism for deriving the taxation allowance, Chorus as requested us to address the following questions and matters:

- Is presenting tax as a building block cost the most transparent approach to presenting tax costs?
- Views on the tax payable approach.
- Views on estimating debt costs using an assumed level of leverage.
- Should a post-tax WACC be applied for price setting?
- Should the returns under Information Disclosure (ID) be disclosed using a post-tax WACC?
- What are your views on setting the initial regulatory tax asset value at the lesser of the actual TAB and the RAB?
- Do you agree with the Commission's view that "past tax losses should not be carried forward or included in the calculation of the loss asset"?
- What approach should be taken for the WACC for ID?

1.1 Summary of key points

1.1.1 Taxation methodology

Is presenting tax as a building block cost the most transparent approach to presenting tax costs?

We agree with the Commission that presenting tax as a building block cost is the most transparent means of deriving the allowance for this cost item. This method involves adopting transparent assumptions about tax-related inputs and undertaking an explicit calculation. This contrasts with a pre-tax approach where the assumptions about the tax system are implicit only and can be difficult to ascertain.

Views on adopting the tax payable approach

We agree with the Commission that it is appropriate for the tax payable approach – whereby the allowance for tax reflects the liability forecast for the next regulatory period – to be adopted for

Chorus. This approach would be rather than overlaying this with a mechanism to smooth the tax allowance in NPV terms (the "modified deferred tax balance" approach). We believe the tax payable approach is appropriate because:

- there is already a mechanism in the Act – as well as the more general ability to apply flexible depreciation – to smooth the overall cost of service associated with FFLAS over time, where this is desired
- the smoothing effected by the tax mechanism is likely to smooth in the wrong direction, and
- the tax smoothing mechanism involves complexity that is not justified in this context.

Views on estimating debt costs using an assumed level of leverage

We agree with the Commission that it is appropriate to estimate the debt costs (i.e., interest deduction in the tax calculation) by applying the same assumed level of leverage that is applied when estimating the WACC.[1] This is essential for remaining consistent with the Commission's logic for arriving at the leverage level assumed in the WACC estimate.

Should a post-tax WACC be applied for price setting?

Our view is that the *vanilla* form of the WACC should be applied for price setting, rather than the post tax WACC (the latter being the Commission's proposal).

While the *post tax* WACC generally is simpler to apply and is more widely understood, it will give the wrong result (or require a complex adjustment to avoid this) if the firm is in a tax loss position.

Noting we believe that tax losses should be assumed to be carried-forward within the regulated activity, and tax losses are expected to be material in the early years of the UFB, applying a vanilla WACC to calculate the value of the loss asset (i.e., prior to the implementation date) and then when setting the revenue cap for the first regulatory period, at least, would be appropriate.

Should the returns under ID be disclosed using a post-tax WACC?

We agree with the Commission that it is appropriate for returns under ID to be disclosed using a post tax WACC. This form of the WACC is simplest to apply and most widely understood. As noted above, a shortcoming of the post tax WACC is that it may generate incorrect outcomes if the firm is in a tax loss situation (i.e., unless an adjustment is made). However, in ID, the opportunity exists to explain and correct any misapprehension that may apply.

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1 To be clear, an explicit assumption about the benchmark interest deduction is *only* necessary if the vanilla form of the WACC is applied when deriving the revenue requirement. If the post tax WACC is applied, then the benefit of tax deductibility of interest is already reflected in the WACC, and so interest deductions are ignored when calculating the taxation allowance.

1.1.2 Setting the initial tax asset values

What are your views on setting the initial regulatory tax asset value at the lesser of the actual TAB and the RAB?

We agree with the Commission's proposal to set the initial Taxable Asset Base (TAB) at the lesser of the actual value and the RAB. The capping gives recognition to the view that applying the actual TAB may be unreasonable where the tax value for IRD purposes has been reset at a materially higher value as a consequence of a past transaction.

There are two changes to the Commission's proposal that we would recommend, however.

- First, the Commission proposes to set the initial TAB (and apply the cap) as at the implementation date. However, as the calculation of the loss asset requires the building block approach to be back-dated to December 2011, setting the initial TAB and applying the cap at that earlier date would appear more sensible.

- Secondly, the Commission does not say how future transactions would be treated when calculating the regulatory taxation allowance. For the industries that are regulated under Part 4 of the Commerce Act, the Commission's position is that all tax effects of future transactions should be ignored (i.e., the TAB and RAB both be carried forward as if the transaction did not occur). We recommend the same principle apply for FFLAS.

Do you agree with the Commission's view that "past tax losses should not be carried forward or included in the calculation of the loss asset"?

We do not agree with the Commission that past tax losses should not be carried forward or included in the calculation of the loss asset, although we note that there are aspects of the Commission's thinking that do not appear to have been fully articulated.

The Commission appears to propose that, when the loss asset is calculated (i.e., during the period spanning 2011 to 2022), any tax losses will be assumed to have been used immediately to reduce taxation in other parts of the regulated provider's activities (for Chorus, this would imply that FFLAS losses would be used to reduce taxation in copper and unregulated services). The alternative to the Commissions (apparent) proposal would be to assume that any tax losses in the UFB (or FFLAS) activity are carried-forward in time until there is sufficient taxable income in the regulated activity for the loss to be applied to reduce taxation.

It is our view that the assumption that tax losses can be used immediately:

- is inconsistent with the Commission's approach for the firms regulated under Part 4 – for these firms, the Commission assumes that losses are retained within the regulated firm and carried-forward, and this is also the approach taken in Australia

- has no benefit in terms of advancing economic efficiency, as the Commission has previously acknowledged, and

- requires assumptions to be made about the tax status of unregulated activities, which is inappropriate and may be speculative (for example, an assumption would be required about the tax allowance implicit in the copper prices, which raises difficult issues).

If the Commission accepts the position that tax losses should be assumed to be carried-forward within the regulated activity, then it would be consistent with this to allow any unused tax losses at the implementation date to be applied when calculating the regulatory taxation allowance after the implementation date.

1.1.3 Approach to WACC for ID

What approach should be taken for the WACC for ID?

This issue is about the *timing* of the WACC determination, rather than the value of the various inputs. Our views are as follows.

- First, the we support the Commission’s view that publication of the annual WACCs for ID purposes is not only unnecessary, but it can also create erroneous expectations about the regime (i.e., that prices will rise or fall with interest rates during a regulatory period, which is not intended).

- Secondly, given Chorus will be subject to price-quality regulation, the Commission’s proposals would imply that the WACC used to set prices/revenues will also be used for ID. We recommend the Commission confirm that this is intended.

1.2 Structure of this report

The remainder of this report is structured as follows:

- Chapter 2 provides relevant background to the taxation issues addressed in this report.

- Chapter 3 provides our response to the specific questions put to us by Chorus.

2. Background to taxation issues

The purpose of this chapter is to provide some contextual discussion to the topic of this report, and so the answers to specific questions that follow. In this chapter we address:

- the mechanism for deriving the taxation allowance in regulation
- the application of the tax payable method, and
- the different forms of WACC applied.

2.1 Key issue – mechanism for deriving the taxation allowance

2.1.1 An allowance for tax is required

The revenue that Chorus receives from the sale of FFLAS will be assessable income for New Zealand company tax; however, the cost of capital that is estimated will be a post tax value (i.e., the SBL-CAPM and hence the WACC provides an estimate of the return investors require after company taxation has been paid). Accordingly, when deriving the control over Chorus's revenue / prices,[2] compliance with the NPV=0 rule requires an allowance to be made for company tax payments in the same manner that an allowance must be made for maintenance and other expenses. The regulatory issue is the *mechanism* through which the allowance for taxation is derived.

2.1.2 Pre tax vs. tax payable – the issues

Historical arguments

There has historically been some advocacy for deriving the compensation for taxation by simply "grossing up" the post tax WACC by the prevailing statutory tax rate.[3] It is straightforward to demonstrate that this method would deliver the correct taxation allowance if, amongst other things, the depreciation allowances permitted for taxation purposes were the same as those provided for regulatory purposes. The alternative is to conduct an explicit calculation of the taxation liability over the next regulatory period that would result from tax depreciation as permitted under NZ tax laws, forecast revenue and other relevant inputs.[4]

It was typically reasoned by those advocating this method that such a pre tax WACC was simple – avoiding the need for the regulator to deal with complex matters like tax – and would ordinarily provide an unbiased allowance for taxation (i.e., not systematically different to the actual cost of tax, at least averaged over time). Indeed, this position was adopted in the early years of regulation by a number of regulators in Australia and in the United Kingdom.

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2 Noting that a revenue cap is mandated for the first regulatory period.

3 This has been described as the "pre tax WACC" or "tax expense" method.

4 This has been described, amongst other things, as the "tax payable", "explicit estimate of tax" or "cash tax" method.

Commerce Commission view

However, the Commerce Commission (in line with a number of other regulators) identified a number of concerns with the use of a pre tax WACC, the principal of which were that:

- *Over-compensation* – the rates of depreciation permitted in New Zealand are much higher than permitted for regulatory purposes, meaning that the use of a simple pre tax WACC is likely to over-compensate for taxation, and

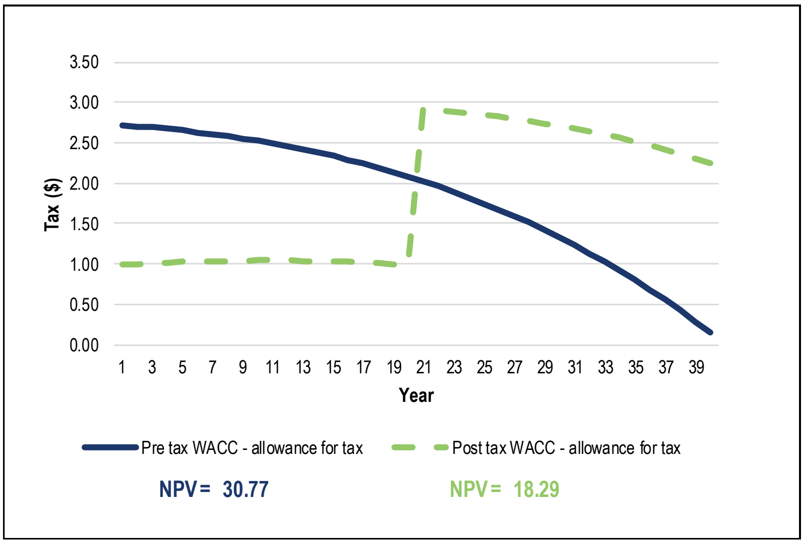
- *Gaming* – it is implicit if a pre tax WACC is applied that the allowance for taxation will reflect a long-term average rate, which may differ from the actual rate of taxation in any year. For the simple case of a new, single-asset business, actual taxation typically would be lower than the long-term average in the early years, but with the situation expected to reverse in later years. The regulatory concern was that an incentive may exist for a regulated business to be overpaid for taxation in the early years, but argue that investment will be deterred in later years unless it is compensation for its actual taxation liabilities.

Both of these concerns have some validity, at least when the asset being considered is a new, single-asset business as noted above. Figure 1 below shows the difference between the taxation allowance calculated under a pre tax WACC and the allowance produced by an explicit calculation. The key assumptions are that:[5]

- regulatory depreciation is straight line over a 40 year life on an inflation-indexed RAB, whereas

- tax depreciation is straight line over a 20 year life and is not escalated for inflation.

Figure 1 – Regulatory issues with a pre tax WACC (new, single-asset business)



5 The other (indicative) assumptions are a post tax WACC of 7 per cent and expected inflation of 2 per cent.

Thus, not only would the pre tax WACC in this simple example be expected to over-reward for taxation (30.77 c.f. 18.29), from year 21 the pre tax WACC allowance will fall short of the actual tax cost.

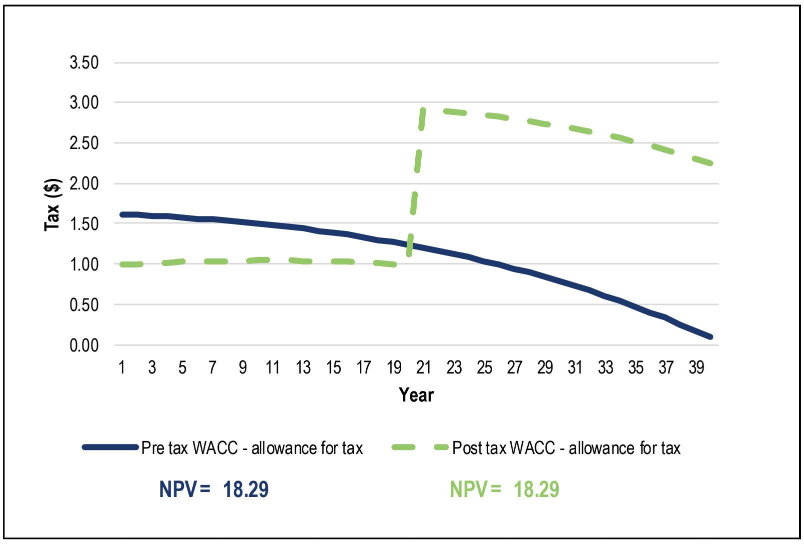
Clearly, the concern about over-compensation could be overcome by estimating the long-term effective tax rate for the entity in question, and applying that in the calculation (as the Commission did in the TSLRIC calculation for FPP). However, this too has problems, including that:

- the gaming concern discussed above would remain (i.e., because the tax allowance would continue to reflect a long-term average), and

- estimates of the long-term effective rate of taxation are sensitive to a number of inputs (i.e. the future rate of company tax, future tax depreciation regimes, capital expenditure and inflation) and is more complex than the tax payable method (i.e., the same calculation must be done, but over an extended future period rather than just the next regulatory period).

Figure 2 shows how the use of the *correct* long term effective tax rate in the pre tax WACC model compares to the actual cost of tax, and demonstrates that the gaming concern may persist.

Figure 2 – Pre tax WACC with effective tax rate vs. tax payable



Pre tax is not always superior for the regulated business

Clearly, however, the examples above are very simplified, and hence it cannot be assumed that a pre tax WACC will be superior (from the regulated business's point of view) in all cases. A critical assumption in the example showing how overcompensation may occur under a pre tax WACC is that the RAB and the taxation asset base start at the same value. However, this may be incorrect for two reasons.

- First, if regulation is applied part way through the life of an asset, then the taxation asset value would be expected to have depreciated more quickly than the RAB at the same point in time, so that the TAB would likely be lower than the RAB.

- Secondly, there may be assets that are depreciated for regulatory purposes that may not be able to be depreciated for taxation purposes. As an example, long-lived buildings cannot be depreciated for tax purposes in New Zealand.

In addition, even where the pre tax WACC method is beneficial over the life of the assets, as discussed above, there ordinarily would be a time after which the regulated prices/revenues would not fully compensate for tax costs. This mismatch between revenue and expenses may create an undesirable risk for the entity at that time.

2.1.3 Tax expense with deferred tax balance method

The Commission applies what it refers to as the "tax expense with a deferred tax balance" to some of the firms that are regulated in New Zealand (this includes the EDBs and GDBs). While the mechanics of the method are somewhat complex, the broad approach is that:

- the tax allowance is calculated by using *regulatory depreciation* rather than tax depreciation, and

- an account is kept of the over- or under-payment of tax in any period (i.e., the difference between the tax allowance and tax payable), and an adjustment is made to keep the taxation allowance NPV neutral.

The purpose of adding the deferred tax balance option is to smooth out the allowance for taxation over time, whilst preserving its value. As tax lives tend to be much shorter than regulatory lives, the cash cost of tax for a new asset will tend to start very low and increase over time as assets become fully depreciated for tax purposes. By using regulatory depreciation in the tax calculation, the depreciation deduction is stretched over the life of the relevant assets, thus smoothing out the tax allowance.

Whether this option is desirable will depend upon whether a specific smoothing mechanism is desirable for the taxation component alone. In our view, this is not necessary or even desirable in the context of Chorus because:

- the availability of other revenue smoothing options for Chorus means that this mechanism is most likely unnecessary, and

- indeed, as this method would result in cash flow being *brought-forward* (or front-ended) for Chorus, the smoothing is probably the reverse of what will be required (i.e., the anchor prices combined with the ongoing migration of customers to fibre will most likely mean that the MAR calculated with straight line depreciation cannot be recovered in the early years, and so more a back-ended recovery of cost would be desirable).

2.2 Applying the tax payable method

2.2.1 Inputs to the calculation

The tax payable method cannot be applied by simply including a forecast of Chorus's actual taxation liabilities because:

- Chorus's actual tax liability will relate to all of its activities in combination, rather than just the regulated activities

- some aspects of that calculation may be inappropriate for regulatory purposes (e.g., reflect revaluations for tax purposes that the regulator proposes to ignore), and

- in any event, the tax payable will be a function of the revenue expected to be earned over the forthcoming period, and so this cannot be determined independently of all aspects of the regulator's decision.

The Commission's standard method for deriving tax payable is to calculate this on a bottom-up basis on the assumption that the regulator's forecasts of revenue and expenditure are consistent with the amounts that the IRD would recognise. The two key regulatory adjustments that may be made are:

- *The value of assets that can be depreciated for tax purposes* – just like the initial Regulatory Asset Base (RAB), the initial tax value (referred to as the taxable asset base, TAB) also needs to be set. The Commission's standard practice is to apply the actual TAB as the starting point, except where this would be manifestly unreasonable.

  – The Commission has recognised that using the actual TAB would be manifestly unreasonable where a past transaction in the assets meant that the TAB was higher than RAB.

  – The main reason for this being unreasonable is because transactions that allow a resetting of the TAB typically mean that the buyer pays less tax in the future (i.e., because the TAB is higher), but the seller also has a tax liability. Thus, if the actual TAB was used, this would recognise the tax benefit gained by the buyer, but ignore the tax-cost to the seller that also occurred (i.e., an asymmetric treatment of the tax consequences of a transaction).

- *Interest deduction* – the Commission's standard practice is to replace the actual interest deduction with an amount that is consistent with the deemed leverage and cost of debt. This approach has been taken to be consistent with the Commission's logic behind the derivation of its leverage level.[6]

  – That is, the Commission's view is that it is very hard to accurately adjust equity betas for leverage – it has noted that if an asset beta is simply levered-up for a target leverage, then the estimated WACC would increase with leverage, which is counter-intuitive.

  – Rather, the Commission reasons that the post tax WACC should be largely unaffected by leverage, and that the best estimate of that WACC (noting the issues with levering betas, noted above) is derived by applying the average leverage from the sample of firms from which the asset beta was derived.

- *Tax losses* – the Commission's standard position since its 2010 Inputs Methodology determination has been to model taxation for the relevant regulated business in isolation from any of its other activities. A corollary of this is that if the regulated business is found to make tax losses in any years, these losses are assumed to be carried-forward to be applied to future taxation liabilities of the regulated business, rather than being used immediately by other parts of the

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6 Whether the interest deduction needs to be applied in the tax calculation depends on the form of WACC applied. The benefit from interest deductibility is contained in the WACC if a post tax WACC is applied (i.e., a separate calculation is therefore not required), but not if a vanilla WACC is applied (i.e., a separate calculation of the interest deduction is required).

business (this latter approach would have the effect of assuming a negative tax liability for the regulated business).

– This is an issue where the Commission has proposed a different approach for the regulated fibre providers. We expand upon this issue in section 3.

2.3 Form of WACC that is applied

The Commission has applied one of two versions of the WACC, the formulae for which are as follows:

Post tax WACC	***Vanilla WACC***
$WACC = K_e \frac{E}{V} + (1-T)K_d \frac{D}{V}$	$WACC = K_e \frac{E}{V} + K_d \frac{D}{V}$
$Tax = (Rev - Opex - Tax\ Dep)T_C$	$Tax = (Rev - Opex - Tax\ Dep - Interst)T_C$

The difference between the versions of the WACC are in where the tax benefit from interest deductions is recognised. In the post tax WACC, this benefit is included in the WACC (and so is excluded from the calculation of the taxation allowance), whereas with a vanilla WACC this benefit is included in the calculation of taxation (and so not included in the WACC). Thus, the post tax WACC will always be lower than the vanilla WACC (and the converse is the case for the calculated tax allowance).

Provided the activity is forecast to be tax paying, then the two versions of the WACC will deliver the same outcome provided that the explicit assumption made about the interest deduction under the vanilla WACC is the same as the implicit deduction that is built into the post tax WACC. Moreover, provided the activity is forecast to be tax paying, then the post tax WACC is easier to apply because it enables a simpler tax calculation (i.e., no need to calculate the interest deduction). This version of the WACC is also much more widely applied by finance practitioners and so will be more easily understood.

However, where there is the potential for the activities to make tax losses and the decision is taken to carry-forward losses (rather than to assume they are used elsewhere in a corporate group), then the vanilla WACC provides for a simpler calculation. This is because the taxation calculated for the vanilla WACC is an estimate of actual tax payable, whereas the taxation calculated for the post tax WACC overstates tax payable because the interest deduction is ignored. Thus, if there is a risk that the entity may make tax losses and the post tax WACC is applied, then:

- the tax allowance needs to be calculated as per normal, but
- a second tax allowance also needs to be calculated to test if the entity is in a tax loss position after considering the effect of interest deductions, and
- if the latter is found, then an adjustment is required to reflect the carry-forward of the loss.

3. Specific questions

The purpose of this chapter is to respond to the specific questions and matters for which Chorus has sought advice. These questions and matters were set out in the Introduction and fall within the following broad topics:

- taxation methodology
- setting the initial tax asset values, and
- the approach to the WACC for Information Disclosure.

3.1 Taxation methodology

3.1.1 Is presenting tax as a building block cost the most transparent approach?

It is our view that presenting tax as a building block cost is the most transparent means of deriving the allowance for this cost.

The two options to be contrasted are:

- presenting tax as a building block cost, or
- incorporating the allowance for tax in the WACC, where the allowance is based on grossing-up an after tax WACC by the statutory tax rate.

Implicit in the building block presentation is that an explicit calculation of the taxation liability is undertaken, which in turn requires all assumptions to be identified. This permits the veracity or reasonableness of those assumptions to be tested. In contrast, when the pre-tax WACC is applied (i.e., using the statutory tax rate as the effective tax rate), the assumptions about the tax system are implicit only, and therefore less transparent.

An alternative method of applying the pre-tax WACC approach is to derive an effective tax rate for the activity. This requires explicit assumptions about the drivers of taxation (i.e., revenue and expenses), but over an extended period. Thus, this method would also be described as reasonably transparent (i.e., all of the assumptions would be identified). However, it would have a different problem, in that the effective tax rate is quite sensitive to matters that are required to be forecast over an extended period. These matters include: the corporate tax rate, rates of depreciation, levels of capital expenditure and inflation.

In addition to transparency, as discussed in section 2.1 above, there are other problems with the pre tax approach from a regulatory perspective, namely:

- the implicit assumptions in a pre-tax model where the statutory tax rate is used can be materially incorrect, but in different directions (i.e., asset owner vs. customers) at different times in an asset's life, and
- a pre-tax model may lead to the compensation for tax departing materially from actual liabilities over the life cycle of the asset, which may cause incentive and risk issues.

3.1.2 Views on adopting the tax payable approach

It is our view that the adoption of the tax payable approach is appropriate for Chorus under price-quality regulation.

It is assumed here that the decision has been made that the tax allowance should be based upon an explicit calculation of the tax liability for the regulated service (with any relevant regulatory adjustments applied). The issue is then whether:

- the tax allowance should reflect the liability expected in the following regulatory period, after making the relevant regulatory adjustments[7] (the "tax payable" approach), or

- a mechanism should be overlayed to smooth the taxation allowance in NPV terms over time, which the Commission has referred to interchangeably as the "tax expense with deferred tax balance" or "modified deferred tax" approach.

We do not think the addition of the tax smoothing mechanism would be an improvement for either Chorus or customers, for the following reasons.

- First, the regulatory regime for FFLAS already has a mechanism that would permit a "smoothing" over time of the whole of the cost of service, as well as the more general capacity to use depreciation to create a more appropriate profile of revenue (and prices) over time, which would already permit the tax element to be smoothed to the extent that this was desirable. Accordingly, an additional smoothing mechanism addressing only the tax element of cost is unnecessary.

- Secondly, to the extent that "smoothing" of the cost of service is desirable, the likelihood is that the smoothing in the early regulatory periods would be to defer the recovery of cost – that is, to push back the recovery of capital costs to when more customers have connected to fibre. However, as Chorus's FFLAS-related tax liability is likely to increase over time, the tax smoothing mechanism would have the effect of advancing cost recovery – that is, it would work in the opposite direction. Accordingly, an explicit tax smoothing mechanism may well be undesirable.

- Thirdly, the tax smoothing mechanism the Commission applies is quite complex, as it draws closely upon accounting methods. Thus, there is a benefit in not applying the tax smoothing mechanism unless there is a good reason for doing so, which, for the reasons above, is not considered to be the case for the current context.

3.1.3 Views on estimating debt costs using an assumed level of leverage

We agree with the Commission that it is appropriate to estimate the debt costs (i.e., the interest deduction in the tax calculation) by applying an assumed level of leverage.

The Commission's standard approach to determining the benchmark leverage for a regulated business is to apply the average level of leverage that is observed in the sample of entities from which the asset beta is derived. The Commission's logic for this position reflects:

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[7] For example, to replace actual interest with the benchmark assumption.

- its view that the simple formulae for adjusting betas for leverage, combined with the SBL-CAPM, create an anomalous relationship between the post tax WACC and leverage, and
- by applying a leverage assumption that is calibrated to the average of the sample of firms from which the asset beta has been derived, the potential for this formula-induced error is minimised.

Importantly, the Commission's logic for deriving the benchmark leverage level contained with it an assumption about how the tax benefit of leverage should be calculated.

- The logic set out above is directed to determining the benchmark leverage that results in the *post tax WACC* estimate that has the least exposure to possible formula-error.
- However, the post tax WACC assumes implicitly that the tax benefit of leverage is calculated on the basis of the benchmark level of leverage – i.e., when the post tax WACC is applied, this benefit is incorporated in the WACC equation.
- It necessarily follows that if a different version of the WACC is applied that requires an explicit assumption about the tax benefit of leverage (i.e., if a vanilla WACC is applied), then to be consistent with the logic underpinning the choice of benchmark leverage, the explicit calculation of the tax benefit of leverage also must be calculated on the basis of the benchmark leverage level.

3.1.4 Should a post-tax WACC be applied for price setting?

A difference between the use of a post tax WACC and vanilla WACC will arise where a firm is making tax losses and those losses are assumed to be carried-forward. In this case the vanilla WACC will provide the correct measure of return unless an explicit (and complex) adjustment is made to the post tax WACC calculation (the calculations using a vanilla WACC are much simpler where there are tax losses).

Given that we believe tax losses should be carried-forward in the loss asset calculation rather than assumed to be used immediately (see section 3.2.2 below), we also think it would be preferable for a vanilla WACC to be used to derive prices/revenues, at least for the calculation of the loss asset and for the first regulatory period. The Commission applies a vanilla WACC in its price/revenue calculations for the EDBs and GPBs.

3.1.5 Should the returns under ID be disclosed using a post-tax WACC?

The Commission does not have a universal approach to the form of WACC that is used for ID for the Part 4 firms (the original ID determinations measured returns against both a post tax and vanilla WACC), although the proposal here is consistent with the trend in the Commission's Part 4 thinking. For example, for the airports, the Commission has recently decided to just measure returns against a post tax WACC.[8]

Assuming that the interest deduction under a vanilla WACC is calculated on the basis of the benchmark gearing level, then the only difference in substance between using a post tax WACC and vanilla WACC for ID is where the activities are making tax losses and these tax losses are carried

[8] Commerce Commission, 2019, Airports backward-looking profitability information disclosure amendments: Reasons paper, June, para.31.

forward. In this situation, the post tax WACC will overstate the returns being made because it overstates the value of the tax deductibility of interest.

For the setting of prices/revenues, it is our view that the vanilla WACC should be applied as this is the most straightforward and transparent means of dealing with firms in a tax loss situation (this is discussed further below). However, for ID, we consider there are benefits in the headline target return and actual return being as simple as possible for interested parties (including finance practitioners) to understand, which would imply using a post tax WACC (and the associated measure of returns) for this purpose. In those situations (if they emerge) where tax losses are being made, then this could be explained and quantified in the comments that accompany the ID disclosures.

3.2 Setting the initial tax asset values

3.2.1 What are your views on setting the initial regulatory tax asset value at the lesser of the actual TAB and the RAB?

The Commission's decision to place a cap upon the TAB so that it cannot exceed the RAB reflects its acknowledgement that the full effects of possible *past* transactions on tax liabilities should be ignored. We agree with this.

Under New Zealand tax law, certain transactions in assets permit the purchaser of the assets to reset the TAB. However, it may be unreasonable to apply that new (higher) TAB for regulatory purposes for two reasons.

- First, under the Commission's standard practice, the RAB is not also reset at the purchase price. Accordingly, recognising the step up in the TAB has an element of inconsistency.

- Secondly, there is another tax effect that is ignored if the higher TAB is simply applied going forward – namely, that the seller of the asset in these situations may suffer a tax liability.[9]

The Commission's proposed method for setting the initial TAB is consistent with what it has applied in other regulated sectors.

However, there are two matters where we recommend that the Commission refine its position.

- First, as the building block approach is being applied back to the commencement of the UFB project to calculate losses (December 2011), it would have seemed more appropriate to set the opening TAB (and apply the cap on the TAB) at this date, rather than deferring this step until the implementation date.

- Secondly, the Commission has not stated how the tax effects of transactions in assets *after the implementation date* will be treated when setting future regulated prices / revenues. For the entities that are regulated under Part 4, the Commission's position is that it should ignore all tax consequences of transactions after the commencement of the Input Methodologies – this is given

9 Where an asset is sold for more than the tax book value, the asset is deemed to have been over-depreciated for tax in the past, and there is a "claw-back" from the seller of the tax effect of the excessive tax depreciation deductions.

effect by carrying the RAB and TAB forward unaffected by any transaction. Indeed, the Commission's discussion suggests that it is considering a *different* approach for FFLAS.[10] It is our view that the EDB/GPB position should be applied also to FFLAS.

3.2.2 Do you agree with the Commission's view that "past tax losses should not be carried forward or included in the calculation of the loss asset"?

There are three issues with tax losses.

- First, should there be any tax losses that pre-date the commencement of the UFB (i.e., **pre 2011**) factored into the loss calculation?

- Secondly, when calculating the **loss asset**, should tax losses that arise in the UFB project / FFLAS be assumed to be carried-forward within the UFB/FFLAS business, or should those losses be assumed to be used immediately by other parts of Chorus's activities (e.g., copper and unregulated services)?

- Thirdly, what should be assumed about tax losses associated with FFLAS as at the **implementation date**? There are two options: (i) assume there are no losses, or (ii) allow any unused tax losses that were factored into the calculation of the loss asset to be carried forward.

It is our understanding that the Commission is proposing the following.

- There is no statement about the pre 2011 losses. However, we can see no reason as to why there may be tax losses from prior to 2011 that are relevant to the UFB, and there is no suggestion in the Commission's discussion that it may believe otherwise.

- The Commission does not state expressly how it expects tax losses to be treated in the loss asset calculation. However, the Commission's logic for assuming there are no tax losses at the implementation date (i.e., that UFB tax losses would have been applied to reduce tax in other parts of the business) would suggest that the Commission proposes to assume that tax losses could be used immediately in other parts of the business when calculating the loss asset.

- The Commission clearly proposes to assume that there are no unused tax losses as at the implementation date, as noted above.

The Commission does not provide a clear reason as to why it is appropriate to take into account the potential for tax losses to be used in other parts of the business when calculating the value of the loss asset (assuming that we have accurately captured its position). The Commission's discussion suggests that this position would be consistent with how it regulates other firms under Part 4 (of the Commerce Act);[11] however, this statement is incorrect. The Commission's practice under Part 4 is to assume that any tax losses from the supply of the regulated service are carried-forward within the regulated

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10 In paragraph 922, the Commission says that under a tax payable approach, it is less likely that it would need to reopen a pricing decision to address the consequences of the tax depreciation claw back due to an asset transaction. However, under the Commission's approach in Part 4 (i.e., where all tax consequences of transactions are ignored), then such a claim would never arise.

11 Emerging views, footnote 459.

activity, and hence only utilised once there is sufficient taxable profit in the regulated activity. This practice is applied to the calculation of price controls for EDBs, GDBs and GPBs and in ID for the airports. The Commission acknowledged in this context, that there was no obvious gain in efficiency from requiring any benefit from using tax losses elsewhere in a corporate group to be recognised when deriving regulated prices or computing ID returns – the Commission's statement in relation to the airports IM was as follows (near identical words were used for the EDB/GPB decision):[12]

> *Tax losses in the wider tax group should generally be ignored when estimating tax costs—among other reasons, to prevent the attribution of tax benefits to a regulated part of the tax group when they have already been attributed and used up by another regulated part of the wider tax group.*
>
> *There is not a clear cut case for the alternative, which would require Airports to share with consumers the benefits that can be achieved by utilising tax losses in the wider tax group. In particular, it is not obvious that an issue of allocative or dynamic efficiency is at stake. It is also important that tax benefits are not allocated to more than one business unit, as this could potentially disadvantage suppliers of multiple services regulated under Part 4. Although this is not currently the case for any of the three Airports, it is still appropriate, on balance, to recognise this possibility by ignoring the position of the wider tax group.*

It is our view that the Commission should not proceed with its possible emerging view that the calculation of the loss asset should assume that tax losses in the FFLAS activity prior to the implementation date are able to be used immediately to reduce tax in Chorus's other activities. The reasons for this are that:

- It is inconsistent with the clear position of the Commission in relation to activities regulated under Part 4 of the Commerce Act, for no valid reason (and with this difference not apparently recognised by the Commission).
- As the Commission has itself acknowledged, there are no clear advantages in terms of economic efficiency from this position.
- The assumption that tax losses are able to be used in other activities requires assumptions about the tax situation of a supplier in activities outside of the regulated services, which is undesirable and could be speculative.
  - For Chorus, its main other activity is the provision of copper services, and the relevant question is whether the regulatory tax allowance provided for these services is sufficient to soak up the entirety of the tax losses for the UFB. However, the copper prices were set on the assumption of a hypothetical newly constructed asset, rather than under a building block approach, with the allowance for taxation was embedded in the WACC, so this test is difficult (if not impossible) to perform.

We also note that the standard practice of Australian regulators is to assume that tax losses are carried-forward within the regulated business. For example, the Australian Energy Regulator's

12 Commerce Commission, 2010, Input Methodologies – Airports, December, paras D.2.9, D.2.10. This position in the 2010 Input Methodologies determination appeared to be a deliberate change from the position the Commission had adopted in some earlier matters.

approach can be discerned most easily by inspecting the standard algorithms that it applies when determining the annual cost of service.[13]

If the Commission accepts the position that tax losses be carried-forward within the regulated activity, then it would be consistent with this to allow any unused tax losses (if there are any) to carry-over past the implementation date.

3.3 Approach to WACC for ID

Background

This issue is about the *timing* of the WACC determination, rather than the value of the various inputs.

The background to this issue is that the Commission previously determined a WACC annually for ID purposes (namely, a WACC as at the start of a particular disclosure year) for all firms that were subject to Part 4 ID. However, publishing this annual WACC had the potential to cause issues.

- For firms that are subject to price-quality determinations, there was never an expectation that if (for example) interest rates fall (and with this, the "spot" WACC) that prices would need to be reduced, just as there is no ability to increase prices if interest rates increase. The obligation (and expectation) is that firms would meet their price/revenue control, which means that the only relevant return for ID is the one that was assumed in the determination. Thus, publication of this WACC could give rise to erroneous expectations as to the workings of the regulatory regime.

- Even for firms that are only subject to ID, prices are typically set and held fixed for an extended period, with interest rate risk borne over the intervening period. Again, this means that the annual WACC outcomes are not relevant (prices would be insensitive to WACC changes within the pricing period), and their publication could act to create the same erroneous expectations noted above.

Since then, the Commission has made changes that reduce the potential for the ID regime to cause issues. The Commission changed the requirement for price-regulated EDBs so that they now disclose (and so are compared against) the WACC that was used to derive their prices. For the airports, the Commission also accepted that the annual WACCs are of little relevance, and instead that the returns to airports should be compared to the cost of capital prevailing around the time of a pricing decision. More recently, the Commission has provided more certainty to the airports as to the WACC that would be applied to test their prices.

Commission's proposals

The Commission's proposals comprise two things.

- An acknowledgement by the Commission that the publication of annual WACCs may cause the issues noted above.

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13 See https://www.aer.gov.au/system/files/Distribution%20post-tax%20revenue%20model%20-%20Version%204%20-%20April%202019%20-%20Appendix%20A_1.XLSM, Analysis worksheet, rows 56 and 59 (this shows that the tax liability has a lower constraint of zero, and that losses are carried forward if this binds).

- To provide a choice of two options for the ID WACC.
  - First, not to specify a separate ID WACC, but to apply the WACC that was last used in a price-quality determination *as a starting point* for ID. This would be a new option.
  - Secondly, to enable a new WACC determination for ID purposes that is consistent with the period over which prices are to be set, which is the airport model.

For Chorus (at least while it is subject to price-quality regulation), it is our expectation that the two options for ID WACCs appear to amount to the same thing. This is that the WACC that is used for the price-quality determination would also be used for ID.

Our views on this matter are as follows.

- First, we agree with the Commission's view that publication of the annual WACCs for ID purposes is not only unnecessary, but it can also create erroneous expectations about the regime (i.e., that prices will rise or fall with interest rates during a regulatory period, which is not intended).
- Secondly, we observe that, as Chorus will be subject to price-quality regulation, the Commission's proposals would imply that the WACC used to set prices/revenues will also be used for ID. This is something where confirmation of this intention from the Commission would be helpful.
- Thirdly, our experience with the airports is that publication of additional information on the WACC that the Commission will use to assess their returns has been a positive in terms of transparency and so would have a preference for this model, although we note that this is not directly relevant to Chorus.