

## **Chorus' initial regulatory asset base as at 1 January 2022 – Final Decision**

### **Reasons paper**

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## Associated Documents

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15 September 2020	ISBN 978-1-869458-38-6	Fibre information disclosure and price-quality regulation – Proposed process and approach for the first regulatory period
13 October 2020	ISBN 978-1-869458-43-0	Fibre Input Methodologies – Main final decisions reasons paper
13 October 2020	ISSN 1178-2560	Fibre Input Methodologies Determination 2020 [NZCC 21]
3 November 2020	ISBN 978-1-869458-45-4	Fibre Input Methodologies – Financial loss asset final decision – reasons paper
3 November 2020	ISSN 1178-2560	Fibre Input Methodologies (initial value of financial loss asset) Amendment Determination 2020 [NZCC 24]
30 April 2021	ISBN 978-1-869458-85-0	Determining Chorus’ first fibre price-quality path - Process update
30 April 2021	ISBN 978-1-869458-86-7	Chorus’ initial price-quality regulatory asset base as at 1 January 2022 – Consultation on Chorus’ initial price quality RAB proposal
19 August 2021	ISBN 978-1-869459-23-9	Chorus’ initial regulatory asset base as at 1 January 2022 – Draft decisions
29 November 2021	ISBN 978-1-869459-55-0	Fibre Input Methodologies - Main 2021 amendments - Final decisions – Final reasons paper
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16 December 2021		Chorus’ price-quality path from 1 January 2022 – Final decision – Reasons paper
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Commerce Commission

Wellington, New Zealand

## List of abbreviations

Abbreviation	Definition
<b>The Act</b>	The Telecommunications Act 2001
<b>ABAA</b>	Accounting-based allocation approach
<b>BBM</b>	Building blocks model
<b>Capex</b>	Capital expenditure
<b>Chorus</b>	Chorus Limited
<b>CO</b>	Central Office
<b>CPI</b>	Consumer Price Index
<b>CRM</b>	Commission ready model
<b>FAR</b>	Fixed asset register
<b>FCM</b>	Financial capital maintenance
<b>FFLAS</b>	Fibre fixed line access service
<b>Financial loss period</b>	The period starting on 1 December 2011 and ending on 31 December 2021
<b>FLA</b>	Financial loss asset
<b>FLY</b>	Financial loss year
<b>FY</b>	Financial year
<b>IAV</b>	Initial asset value
<b>ID</b>	Information disclosure
<b>ID-only RAB</b>	Collection of fibre assets that Chorus employs in the provision of FFLAS that are subject to ID regulation and not PQ regulation
<b>ID RAB</b>	Information disclosure regulatory asset base
<b>IM</b>	Input methodology
<b>LFC</b>	Local fibre company
<b>MAR</b>	Maximum allowable revenue
<b>MBIE</b>	Ministry of Business, Innovation and Employment
<b>NBV</b>	Net Book Value
<b>Opex</b>	Operating expenditure
<b>PQ</b>	Price-quality
<b>PQP1</b>	First price-quality regulatory period (1 January 2022 to 31 December 2024)
<b>PQP2</b>	Second price-quality regulatory period (starting 1 January 2025)
<b>PQ RAB</b>	Price-quality regulatory asset base
<b>RAB</b>	Regulatory Asset Base
<b>Regulated provider</b>	Regulated fibre service provider
<b>Regulations</b>	Telecommunications (Regulated Fibre Service Providers) Regulations 2019
<b>RFI</b>	Request for information
<b>ROI</b>	Return on Investment

Abbreviation	Definition
<b>The Commission</b>	Commerce Commission
<b>Transitional initial PQ RAB</b>	Transitional initial price-quality regulatory asset base
<b>UFB</b>	Ultra-fast broadband
<b>WACC</b>	Weighted average cost of capital

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## Executive Summary

### Purpose

- X1 This paper sets out and explains our remaining decisions required to establish the value of:
- X1.1 Chorus Limited's (**Chorus'**) initial price-quality regulatory asset base (**initial PQ RAB**) as \$5,413 million; and
  - X1.2 Chorus' information disclosure-only regulatory asset base (**initial ID-only RAB**) as \$24 million.
- X2 Chorus' resulting initial information disclosure regulatory asset base (**initial ID RAB**) is \$5,437 million.
- X3 We have determined the final value of Chorus' "opening tax losses" for disclosure year 2022 as -\$1,052 million.
- X4 These are the final initial regulatory asset base (**RAB**) values for the regulatory regime for fibre. The values of the RABs will now be applied and updated over time in line with the rules set out in the input methodologies (**IMs**) to reflect changes to Chorus' asset base.
- X4.1 We will use the values of the information disclosure (**ID**) RAB, price-quality (**PQ**) RAB and ID-only RAB as part of our summary and analysis of Chorus' performance, alongside other information we will collect through ID.
  - X4.2 We will use the value of the PQ RAB as an input to our price-quality regulation resets.

### Changes in the initial PQ RAB value compared to our transitional decision

- X5 The final initial PQ RAB value represents a \$12m decrease compared to the transitional value of Chorus' initial PQ RAB that we set in December 2021 (**transitional initial PQ RAB**), which was a key input required to determine the total revenue that Chorus may recover in its first price-quality revenue path that commenced on 1 January 2022 (**PQP1**).
- X6 This difference in value is because we have now finalised the outstanding decisions that we were unable to determine in December 2021, as the information was not available at the time. Specifically, these decisions are:
- X6.1 the allocator values and allocations for central office space for financial loss years (**FLY**) 2012-2022; and
  - X6.2 updating forecast values for actual values for FLYs 2021-2022.

- X7 The resulting difference in allowable revenue for PQP1 based on finalising the initial PQ RAB will be applied in future regulatory periods through a wash-up mechanism (starting 1 January 2025).

### What is the initial PQ RAB?

- X8 The collection of fibre assets that Chorus employs in the provision of fibre fixed line access services (**FFLAS**) that are subject to PQ regulation is known as its 'PQ RAB'.<sup>1</sup> The initial PQ RAB is the value of these assets as at 1 January 2022, the implementation date of the new fibre regulatory regime, and this value sets the starting point from which future PQ RAB values are calculated.

- X9 The PQ RAB is made up of two components:

X9.1 **Core fibre assets:** fibre assets that are employed by Chorus in the provision of PQ FFLAS (whether or not the asset is also employed in the provision of other services); and

X9.2 **The financial loss asset (FLA):** Chorus is treated as owning a FLA that captures unrecovered returns that have accumulated in relation to the Ultra-fast broadband (**UFB**) initiative over the financial loss period (the period starting on 1 December 2011 and ending on 31 December 2021).

- X10 To determine the final initial PQ RAB components, we have determined:

X10.1 the initial values of core fibre assets by:

X10.1.1 determining the unallocated initial RAB value of the core fibre assets. This is the value before we apply the cost allocation IM and which therefore reflects the total value of assets employed in the provision of FFLAS; and

X10.1.2 applying the cost allocation IM to the unallocated initial RAB value to arrive at the initial RAB value of the core fibre assets.

X10.2 the initial RAB value of the FLA, as described in X9.2.

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<sup>1</sup> Clause 2.2.2(1)(b) of the IMs. "PQ FFLAS" is defined as "means, in respect of a regulated provider, all FFLAS provided by that regulated provider that is subject to price-quality regulation in regulations made under s 226 of the Act. *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2), definition of "PQ FFLAS".

### **What is the initial ID-only RAB?**

X11 The collection of fibre assets that Chorus employs in the provision of FFLAS that are subject to ID regulation, but not PQ regulation, is known as its 'ID-only RAB'. See paragraphs 2.14 to 2.17 below. The initial ID-only RAB is the value of these assets as at 1 January 2022, the implementation date of the new fibre regulatory regime, and this value sets the starting point from which future ID-only RAB values are calculated.

### **What is the initial ID RAB?**

X12 The collection of fibre assets that Chorus employs in the provision of FFLAS that are subject to ID regulation is known as its 'ID RAB'. For Chorus, its initial ID RAB represents the total collection of fibre assets that are included in its initial PQ RAB and initial ID-only RAB. See paragraphs 2.18 to 2.22 below. The total value of Chorus' initial ID RAB is the sum of Chorus' total initial PQ RAB and total initial ID-only RAB. Once more, the initial ID RAB is the value of these assets as at 1 January 2022, the implementation date of the new fibre regulatory regime. Future ID RAB values will be calculated by summing future PQ and ID-only RAB values.

### **Finalising Chorus' initial RABs**

X13 We have reached final determinations on:

X13.1 The initial RAB value of the FLA, which involved calculating its value using revised figures for:

X13.1.1 the allocator values and allocations for central office space for FLYs 2012-2022 (which were not finally determined previously); and

X13.1.2 all the other values for FLYs 2021 and 2022, applying the allocator types previously determined in our transitional decision in 2021, while changing from forecast to actual values.

X13.2 The final values for core fibre assets in the initial PQ RAB and the initial ID-only RAB at implementation date of:

X13.2.1 the "unallocated initial RAB value" of all core fibre assets;

X13.2.2 the "initial RAB value" of all core fibre assets (excluding those associated with central office space), by applying the allocators determined in our transitional decision in 2021; and

X13.2.3 the "initial RAB value" of all core fibre assets used for central office space.

X14 Table X1 outlines our final determinations of Chorus' initial PQ RAB.



**Table X1** Change between transitional initial PQ RAB and initial PQ RAB

Value	Allocated values (\$ millions)		
	<i>Initial PQ RAB</i>	<i>Transitional Initial PQ RAB</i>	<i>Difference</i>
<b>Total</b>	5,413	5,425	-12
<b>Core Fibre Assets</b>	3,997	4,034	-36
<b>FLA</b>	1,416	1,391	24
<b>Tax losses</b>	-1,052	-955	-97

Table X2 outlines our final determined values for Chorus' initial RABs, and the resulting total value of Chorus' initial ID RAB, being the sum of the total initial PQ RAB and the total initial ID-only RAB.

**Table X2** The initial ID RAB and its component initial PQ RAB and initial ID-only RAB

Value	Unallocated values (\$ millions)	Allocated values (\$ millions)		
		<i>Initial ID RAB</i>	<i>Initial ID-only RAB</i>	<i>Initial PQ RAB</i>
<b>Total</b>	6,011	5,437	24	5,413
<b>Core Fibre Assets</b>	4,596	4,022	24	3,997
<b>FLA</b>	n/a	1,416	n/a	1,416
<b>Tax losses</b>	n/a	-1,052	n/a	-1,052

### Central office space

- X15 Our transitional initial PQ RAB decision found a lack of suitable evidence to support Chorus' proposed central office space allocator and we did not accept it. Instead we allowed 50% of Chorus' proposed allocation to be included in the transitional initial PQ RAB, and noted that Chorus could provide adequate assurance before we decided on the final initial PQ RAB in 2022 (this paper).
- X16 Chorus has since provided the information required for us to understand its internal assurance and certification process.
- X17 After examining Chorus' material, our final decision is that there is now satisfactory evidence of certification and assurance of Chorus' model. We have now concluded that the central office space allocator proposed by Chorus meets the IM requirements for an asset allocator and cost allocator and we have allowed 100% of the allocation to be included in the calculation of the initial RABs.

## Opening tax losses for disclosure year 2022

- X18 During the financial loss period, Chorus was accumulating tax losses associated with its operating losses. The value of these tax losses, at 1 January 2022, are Chorus' "opening tax losses". As specified in the IMs, opening tax losses for each regulated fibre service provider (**regulated provider**) for disclosure year 2022 are a value as determined by us (clause 2.3.3(3)(a)).<sup>2</sup> We have now finalised the value of these opening tax losses, based on the changes to the values of UFB assets and the financial losses.
- X19 We have determined a final value of the "opening tax losses" for disclosure year 2022 for Chorus of -\$1,052 million.
- X20 This is higher than the transitional value of -\$955 million. The \$97 million difference between the values of the final and transitional "opening tax losses" is attributed to:
- X20.1 finalising the value of tax depreciation in the transitional value of "opening tax losses" for FLYs 2021-2022. The revised values of tax depreciation increased the value of "opening tax losses" by \$74 million;
  - X20.2 the application of 100% of the central office space allocator, which increases the value of "opening tax losses" by \$17 million; and
  - X20.3 the updated values of tax revenues cash flow, tax operating expenditure cash flow and tax cost allocation adjustment cash flow for FLYs 2021 and 2022, which increases the value of the "opening tax losses" by \$6 million.

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<sup>2</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.3.3(3)(a).

## Chapter 1 Introduction

### Purpose and structure of this paper

- 1.1 This paper sets out and explains our final decisions that establish the value of Chorus Limited's (**Chorus'**) initial price-quality regulatory asset base (**initial PQ RAB**), initial ID-only regulatory asset base (**initial ID-only RAB**) and the resulting initial information disclosure regulatory asset base (**initial ID RAB**).
- 1.2 The paper is structured as follows:
- 1.2.1 **Chapter 1** is an introduction to this paper, summarising our final decisions, the process we have taken and the material we have published to determine the initial PQ RAB and initial ID-only RAB;
  - 1.2.2 **Chapter 2** sets out the regulatory framework we have applied in making these decisions and the key concepts/terminology involved;
  - 1.2.3 **Chapter 3** sets out our consideration of the revised initial regulatory asset base (**RAB**) figures, and the final decisions, based on actual values rather than forecasts for FLYs 2021 and 2022, reached on the final initial RABs;
  - 1.2.4 **Chapter 4** sets out our decision on the allocation of central office space; and
  - 1.2.5 **Chapter 5** sets out our decision on the opening tax losses for disclosure year 2022.

### Summary of decisions contained in this paper

- 1.3 In this paper we set out our final determination of the initial RAB values, including values for the following components of the initial PQ RAB and initial ID-only RAB:
- 1.3.1 the "initial RAB value" of the FLA, in accordance with s 172(2) of the Telecommunications Act 2001 (**the Act**), calculated by using final values for:
    - 1.3.1.1 the allocator values and allocations for central office space for FLYs 2012-2022; and

- 1.3.1.2 all the non-central office space decisions for FLYs 2021 and 2022, by applying the allocator types determined in our transitional initial PQ RAB decision on 16 December 2021,<sup>3</sup> while changing from forecast to actual values;
- 1.3.2 the final values for core fibre assets in the initial PQ RAB and the final initial ID-only RAB at implementation date of:
  - 1.3.2.1 the “unallocated initial RAB value” of all core fibre assets;<sup>4</sup>
  - 1.3.2.2 the “initial RAB value” of all core fibre assets that are allocated using a non-central office space allocator, by applying the allocators determined in our transitional initial PQ RAB decision on 16 December 2021,<sup>5</sup> and
  - 1.3.2.3 the “initial RAB value” of all core fibre assets allocated using the central office space allocator.<sup>6</sup>
- 1.4 This paper also describes the opening tax losses determination we have made for Chorus for disclosure year 2022.

### **Our final determinations**

- 1.5 In the tables below we set out our final determinations for Chorus on the values of the:
  - 1.5.1 initial PQ RAB;
  - 1.5.2 initial ID-only RAB; and
  - 1.5.3 opening tax losses for disclosure year 2022 (noting our determination is explained in Chapter 5).
- 1.6 We have also finalised the total value of Chorus' initial ID RAB.<sup>7</sup>

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<sup>3</sup> Commerce Commission “Chorus’ transitional initial price-quality regulatory asset base as at 1 January 2022 – Final Decision: Reasons paper” (16 December 2021), paragraph 5.7.2.2.

<sup>4</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.2.3(1).

<sup>5</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.2.3(2).

<sup>6</sup> *Ibid*, clause 2.2.3(2).

<sup>7</sup> Note that the total value of Chorus' initial ID RAB is the sum of the total initial PQ RAB and the total initial ID-only RAB. Determination of the initial PQ and ID-only RABs provides the value of the initial ID RAB.

**Table 1.1 Change between transitional initial PQ RAB and final initial PQ RAB**

Value	Allocated values (\$ millions)		
	<i>Initial PQ RAB</i>	<i>Transitional Initial PQ RAB</i>	<i>Difference</i>
<b>Total</b>	5,413	5,425	-12
<b>Core Fibre Assets</b>	3,997	4,034	-36
<b>FLA</b>	1,416	1,391	24
<b>Tax losses</b>	-1,052	-955	-97

**Table 1.2 The initial ID RAB and its component initial PQ RAB and initial ID-only RAB**

Value	Unallocated values (\$ millions)	Allocated values (\$ millions)		
		<i>Initial ID RAB</i>	<i>Initial ID-only RAB</i>	<i>Initial PQ RAB</i>
<b>Total</b>	6,011	5,437	24	5,413
<b>Core Fibre Assets</b>	4,596	4,022	24	3,997
<b>FLA</b>	n/a	1,416	n/a	1,416
<b>Tax losses</b>	n/a	-1,052	n/a	-1,052

### Our process for determining the initial PQ RAB

- 1.7 This paper considers the two matters that were outstanding from the transitional initial PQ RAB that we published on 16 December 2021.<sup>8</sup> Now that the information required is available, we can make our final decisions.
- 1.8 The transitional initial PQ RAB was a key input required to determine the total revenue that Chorus may recover in PQP1, which commenced on 1 January 2022, the implementation date for the new fibre regulatory regime.
- 1.9 To address the two outstanding matters from the transitional initial PQ RAB decision we have:
- 1.9.1 replaced forecast values with actual values for FLYs 2021 and 2022: for our 16 December 2021 decisions, information for FLYs 2021 and 2022 was in the form of forecasts;

<sup>8</sup> Commerce Commission "Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper" (16 December 2021).

- 1.9.2 reviewed the further assurance information supporting the application of the central office space allocator type: this new assurance information has provided us with a basis for making changes to some of the values that are used to determine the initial RABs; and
- 1.9.3 recalculated the FLA, based on the new actual final cash flow values for each FLY given the changes outlined in 1.9.1 and 1.9.2, resulting in the final values for the initial RABs and opening tax losses set out in this decision.
- 1.10 We have applied the allocator decisions made in our transitional initial RAB decision, with the exception of the central office space allocation, where we now apply our final decision of allowing 100% of the allocation, having reviewed new information as set out at 1.9.2.
- 1.11 We will address the difference in the revenue that Chorus would have otherwise been allowed to recover in PQP1, as a result of a change in value between the transitional initial PQ RAB and this final initial PQ RAB, via a wash up in future regulatory periods. It is the final initial PQ RAB value that will underpin the ongoing value of Chorus' PQ RAB in the second regulatory period (**PQP2**), and subsequent regulatory periods. The transitional initial PQ RAB value only served as an input into PQP1.

### **Our process to determine the initial ID RAB and initial ID-only RAB**

- 1.12 As we signalled in our transitional initial PQ RAB decision last year, we are making decisions that establish the value of Chorus ID RAB and ID-only RAB this year.<sup>9</sup>
- 1.13 The transitional initial PQ RAB decision also made decisions that operated to determine Chorus' initial ID-only RAB.<sup>10</sup> This is because cost allocation as part of our transitional decision involved allocating operating costs and asset values (both actual and forecast) between PQ FFLAS and ID-only FFLAS.<sup>11</sup> The remaining decisions made within this paper, to replace forecast figures with actual figures and to decide on the allocation of central office space, determine the final total values of Chorus' initial PQ RAB and Chorus' initial ID-only RAB.

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<sup>9</sup> Commerce Commission "Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper" (16 December 2021), Table 1.1.

<sup>10</sup> While we did not need to determine a transitional value for the initial ID-only RAB, one could have been calculated.

<sup>11</sup> Commerce Commission "Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper" (16 December 2021), paragraph 5.35.

## **Other local fibre company ID RABs**

- 1.14 The ID RABs of the other local fibre companies (**LFCs**), Enable Networks Limited, Northpower Fibre Limited and Tuatahi First Fibre Limited, are out of the scope of this paper. Details of the process for making decisions for these LFCs are outlined on the Commission website.<sup>12</sup>

## **Materials we have published alongside this paper**

- 1.15 Alongside this paper we have published the following:
- 1.15.1 public versions of documents provided by Chorus in response to a notice issued by the Commission under s 221 of the Act;
  - 1.15.2 public versions of documents provided by Chorus in response to a request for information (**RFI**) issued by the Commission; and
  - 1.15.3 revised versions of our FLA discounted cash flow models, one with a 50% application of the central office space allocator and one with a 100% application of the central office space allocator. These models have been updated, from the version we published in December 2021, to reflect our decisions and input information provided by Chorus. We note that the version with a 50% allocation of central office space is provided for reference to our transitional initial PQ RAB decision and it does not reflect our final decision.

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<sup>12</sup> <https://comcom.govt.nz/regulated-industries/fibre/projects/fibre-price-quality-path-and-information-disclosure>

## Chapter 2 Regulatory Framework

### Purpose of this chapter

- 2.1 This chapter sets out the regulatory framework we have applied in making our:
- 2.1.1 decisions that establish the final value of Chorus' initial PQ RAB and initial ID-only RAB (including its initial ID RAB which represents the sum of these values); and
  - 2.1.2 final determination of the opening tax losses for Chorus for disclosure year 2022.
- 2.2 This chapter sets out:
- 2.2.1 the task before us, as defined in the Act<sup>13</sup> and the IMs;<sup>14</sup> and
  - 2.2.2 how we have gone about this task, in terms of meeting the requirements in the Act and the IMs and (where relevant) the exercise of our judgement in accordance with s 166(2)(b) of the Act.

### Structure of this chapter

- 2.3 The structure of this chapter is as follows:
- 2.3.1 a high-level description of Chorus' initial PQ RAB, as described in paragraphs 2.4-2.13;
  - 2.3.2 a high-level description of Chorus' initial ID-only RAB, as described in paragraphs 2.14-2.17;
  - 2.3.3 a high-level description of Chorus' initial ID RAB, as described in paragraphs 2.18-2.22;
  - 2.3.4 the determinations relevant to Chorus' initial RABs made as part of our transitional initial PQ RAB decision, as described in paragraph 2.23;

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<sup>13</sup> Unless stated otherwise, all references to statutory provisions in this paper are references to the statutory provisions under the Telecommunications Act 2001.

<sup>14</sup> When citing applicable IMs in this paper, we have referred to the "*Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021". These references capture the original IMs - *Fibre Input Methodologies Determination 2020* [2020] NZCC 21 (13 October 2020) and the subsequent amendments made as part of *Fibre Input Methodologies (initial value of financial loss asset) Amendment Determination 2020* [2020] NZCC 24 (3 November 2020), *Fibre Input Methodologies (base capex and connection capex baseline allowance determination dates) Amendment Determination 2021* [2021] NZCC 17 (29 September 2021), and *Fibre Input Methodologies Amendment Determination (No.2) 2021* [2021] NZCC 25 (29 November 2021).



- 2.3.5 the determinations relevant to Chorus' initial RABs made as part of this decision, as described in paragraphs 2.24-2.25;
- 2.3.6 a high-level description of Chorus' opening tax losses for disclosure year 2022, as described in paragraphs 2.26-2.32;
- 2.3.7 the key concepts and terminology used in this paper, as described in paragraphs 2.33-2.52;
- 2.3.8 the legal framework, as described in paragraphs 2.53-2.96;
- 2.3.9 an overview of the key values that are determined for Chorus' initial PQ RAB, initial ID-only RAB, and opening tax losses for disclosure year 2022, as described in paragraphs 2.97-2.109; and
- 2.3.10 the economic framework that helps us reach regulatory decisions that promote the relevant purposes set out in Part 6 of the Act, as described in paragraphs 2.111- to 2.117.

## Initial PQ RAB

- 2.4 The collection of fibre assets that Chorus employs in the provision of FFLAS that are subject to PQ regulation is known as its '**PQ RAB**'.<sup>15</sup>
- 2.5 The PQ RAB is made up of two components:
  - 2.5.1 **Core fibre assets:** fibre assets that are employed by Chorus in the provision of PQ FFLAS (whether or not the asset is also employed in the provision of other services);<sup>16</sup> and
  - 2.5.2 **The FLA:** Chorus is treated as owning a FLA that captures unrecovered returns that have accumulated in relation to the UFB initiative over the financial loss period (the period starting on 1 December 2011 and ending on 31 December 2021).<sup>17</sup>

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<sup>15</sup> Clause 2.2.2(1)(b) of *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021. This FFLAS is referred to as "PQ FFLAS". "PQ FFLAS" is defined as "means, in respect of a regulated provider, all FFLAS provided by that regulated provider that is subject to price-quality regulation in regulations made under s 226 of the Act". *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2), definition of "PQ FFLAS".

<sup>16</sup> Telecommunications Act 2001, s 177(6); and *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2). There are some exclusions to the definition of core fibre assets, namely (a) the financial loss asset; (b) intangible assets, unless they are- (i) finance leases; or (ii) identifiable non-monetary assets whose costs do not include (wholly or partly) pass-through costs; and (c) works under construction.

<sup>17</sup> Telecommunications Act 2001, s 177(2) and (3). The definition of "financial loss period" is specified in *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2).

- 2.6 Core fibre assets and the FLA are discussed in more detail under the legal framework section at paragraphs 2.62-2.68 below.
- 2.7 Chorus' initial PQ RAB value is the value of the PQ RAB at the commencement of the new fibre regulatory regime on 1 January 2022. This value, once rolled forward for future years, is used as a key input for PQP2 and subsequent regulatory periods. Determining the value of Chorus' initial PQ RAB is a critical foundational step for the new regulatory regime since it underpins the value of Chorus' PQ RAB in subsequent regulatory periods and its value cannot be reconsidered later.
- 2.8 The disclosure of information about fibre assets in the PQ RAB (which is a subset of the ID RAB) also has significance for the ID aspect of our regulatory regime under Part 6. The value of fibre assets in the PQ RAB has an enduring impact as part of ID as it contributes to ensuring that sufficient information is disclosed under ID to allow interested persons to assess whether the purpose of Part 6 is being met.

*Transitional initial PQ RAB and Chorus' final initial PQ RAB*

- 2.9 We were required to determine the value of Chorus' initial PQ RAB as an input into the first price-quality path for Chorus, before PQP1 commenced on 1 January 2022. However, some information we required to determine Chorus' final initial PQ RAB was unavailable when we made decisions for PQP1 (16 December 2021).<sup>18</sup> As such, we had to determine a transitional initial PQ RAB which served as an input to the calculation of the total revenue Chorus can earn in PQP1. We made decisions that established the value of Chorus' transitional initial PQ RAB on 16 December 2021.<sup>19</sup>
- 2.10 The following information only became available after 1 January 2022:<sup>20</sup>
- 2.10.1 Actual values for FLYs 2021 and 2022: Information for FLYs 2021 and 2022 was only in the form of forecasts when we made decisions that established the value of Chorus' transitional initial PQ RAB.
- 2.10.2 Further assurance information to support the application of the central office space allocator type.

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<sup>18</sup> Commerce Commission "Chorus' price-quality path from 1 January 2022 – Final decision: Reasons paper" (16 December 2021).

<sup>19</sup> Commerce Commission "Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final Decision: Reasons paper" (16 December 2021).

<sup>20</sup> Ibid, paragraph X8.

- 2.11 Now that this information is available, we can determine Chorus' final initial PQ RAB value. Any difference in the revenue that Chorus would have otherwise been allowed to recover in PQP1 as a result of a change in the value of the initial PQ RAB between transitional and final will be washed in future regulatory periods. As noted above, it is the final initial PQ RAB value that underpins the value of Chorus' PQ RAB in PQP2 and subsequent regulatory periods – the transitional initial PQ RAB value served only as an input for PQP1.
- 2.12 We summarise the final initial PQ RAB values for Chorus that have now been finalised as a result of the decisions in this paper in Table 1.1 in Chapter 1.
- 2.13 As the transitional initial PQ RAB used a different framework to the decisions that establish the value of Chorus' final initial PQ RAB value,<sup>21</sup> we have only described in this paper the framework for the decisions that establish the value of Chorus' final initial PQ RAB value. Chapter 2 of our decision that established the value of Chorus' transitional initial PQ RAB explained the framework used for those decisions.<sup>22</sup>

### Initial ID-only RAB

- 2.14 The collection of fibre assets that Chorus employs in the provision of FFLAS that are subject to ID regulation and not PQ regulation is known as its '**ID-only RAB**'.<sup>23</sup>
- 2.15 The ID-only RAB is made up of **core fibre assets**, which are fibre assets that are employed by Chorus in the provision of ID-only FFLAS (whether or not the asset is also employed in the provision of other services). Core fibre assets are discussed under the legal framework section at paragraphs 2.62-2.63 below.

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<sup>21</sup> See, for instance, clause 3.3.1(6)-(9) of *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, which only applied for the decisions that establish the value of Chorus' transitional initial PQ RAB.

<sup>22</sup> Commerce Commission "Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final Decision: Reasons paper" (16 December 2021), Chapter 2.

<sup>23</sup> Clause 2.2.2(1)(c) of *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021. This FFLAS is referred to as "ID-only FFLAS". "ID-only FFLAS" is defined as "means, in respect of a regulated provider, all FFLAS provided by that regulated provider that: (a) is subject to information disclosure regulation in regulations made under s 226 of the Act; and (b) is not subject to price-quality regulation in regulations made under s 226 of the Act". *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2), definition of "ID-only FFLAS".

- 2.16 Chorus' initial ID-only RAB value is the value of the ID-only RAB at the commencement of the new fibre regulatory regime on 1 January 2022. This value, once rolled forward for future years, is important to interested persons as it is a component of the return on investment (**ROI**) calculation under ID, which is a key indicator in assessing whether the purpose of Part 6 of the Act is being met.<sup>24</sup> Determining the value of the initial ID-only RAB is a critical foundational step for the new regulatory regime, since it underpins the value of Chorus' ID-only RAB in subsequent disclosure years and its value cannot be reconsidered later.
- 2.17 We summarise the final initial ID-only RAB values for Chorus that have now been finalised as a result of the decisions in this paper in Table 1.2 in Chapter 1.

### Initial ID RAB

- 2.18 The collection of fibre assets that Chorus employs in the provision of FFLAS that are subject to ID regulation is known as its 'ID RAB'.<sup>25</sup> For Chorus, its initial ID RAB represents the total collection of fibre assets that are included in its initial PQ RAB and initial ID-only RAB.
- 2.19 Therefore, Chorus' ID RAB is made up of two components:
- 2.19.1 **Core fibre assets in its initial PQ RAB and initial ID-only RAB** – as discussed in paragraphs 2.5.1 and 2.15; and
  - 2.19.2 **The FLA in its initial PQ RAB** – as discussed in paragraph 2.5.2.
- 2.20 Chorus' initial ID RAB value is the value of the ID RAB at the commencement of the new fibre regulatory regime on 1 January 2022. This value, once rolled forward for future years, is important to interested persons as it is a major component of the ROI calculation under ID, which is a key indicator in assessing whether the purpose of Part 6 of the Act is being met.<sup>26</sup> Determining the value of the initial ID RAB is a critical foundational step for the new regulatory regime, since it underpins the value of Chorus' ID RAB in subsequent disclosure years and its value cannot be reconsidered later.

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<sup>24</sup> Under s 186 of the Act, the purpose of ID regulation is to ensure that sufficient information is readily available to interested persons to assess whether the purpose of [Part 6] is being met.

<sup>25</sup> Clause 2.2.2(1)(a) of *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021. This FFLAS is referred to as "ID FFLAS". "ID FFLAS" is defined as "means, in respect of a regulated provider, all FFLAS provided by that regulated provider that is subject to information disclosure regulation in regulations made under s 226 of the Act". *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2), definition of "ID FFLAS".

<sup>26</sup> Under s 186 of the Act, the purpose of ID regulation is to ensure that sufficient information is readily available to interested persons to assess whether the purpose of [Part 6] is being met.

- 2.21 As Chorus' initial ID RAB represents the total collection of fibre assets that are included in its initial PQ RAB and initial ID-only RAB, the total value of Chorus' initial ID RAB is the sum of Chorus' total initial PQ RAB value and total initial ID-only RAB value. Therefore, we are not required to make specific decisions in relation to Chorus' initial ID RAB as our decisions related to Chorus' initial PQ RAB and initial ID-only RAB will reveal the value of Chorus' total initial ID RAB.
- 2.22 As we consider that the value of Chorus' initial ID RAB value is important to interested persons, as explained in paragraph 2.20, we have summarised the final initial ID RAB values for Chorus that result from our decisions on the initial PQ RAB and initial ID-only RAB in Table 1.2.

### **Determinations relevant to Chorus' initial RABs made as part of our transitional initial PQ RAB decision on 16 December 2021**

- 2.23 In our decisions that established the value of Chorus' transitional initial PQ RAB on 16 December 2021, we determined the following cost allocation decision:<sup>27</sup>
- 2.23.1 The transitional initial PQ RAB values required for PQP1 (where our decision on the central office space allocator was an "estimate");<sup>28</sup>
- 2.23.2 For the purposes of the final initial PQ RAB decisions for the FLA,<sup>29</sup> the values of which are specified in this paper:<sup>30</sup>
- 2.23.2.1 all decisions for FLYs 2012-2020, except the allocator values used for central office space; and
- 2.23.2.2 all allocator types used for opex/asset values for FLYs 2021-2022, except the allocator types used for central office space;<sup>31</sup>
- 2.23.3 For the purposes of the final initial PQ RAB decisions for core fibre assets in the initial PQ RAB,<sup>32</sup> the values of which are specified in this paper,<sup>33</sup> all allocator types used for core fibre assets forecast to be commissioned at implementation date, except the allocator types for any assets allocated using the central office space allocator; and

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<sup>27</sup> Commerce Commission "Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final Decision: Reasons paper" (16 December 2021), paragraph 5.7.

<sup>28</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 3.3.1(6)-(9).

<sup>29</sup> *Ibid*, clause 2.2.4(1).

<sup>30</sup> See Table 2.1.

<sup>31</sup> Throughout this paper, the term 'opex' is used interchangeably with 'operating costs' as defined in clause 1.1.4(2) of *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021.

<sup>32</sup> *Ibid*, clause 2.2.3(2).

<sup>33</sup> See Table 2.1.

- 2.23.4 The treatment of specific inputs used to calculate the FLA,<sup>34</sup> including the application of the ‘alternative methodology with equivalent effect or substantially the same effect’ provision (a mechanism to permit departures from the IMs in particular instances where Chorus has advised it is not possible for it to apply the IMs).<sup>35</sup>

### **Determinations relevant to Chorus’ initial RABs made as part of this decision**

2.24 We are now determining the following:<sup>36</sup>

- 2.24.1 the “initial RAB value” of the FLA, in accordance with s 177(2) of the Act, calculated by using final values for:
- 2.24.1.1 the allocator values and allocations for central office space for FLYs 2012-2022, as explained in Chapter 4;
  - 2.24.1.2 all the non-central office space decisions for FLYs 2021-2022, by applying the allocator types determined in our transitional initial PQ RAB decision on 16 December 2021,<sup>37</sup> while changing from forecast to actual values, as explained in Chapter 3; and
- 2.24.2 the final values for core fibre assets in the initial PQ RAB and the final initial ID-only RAB at implementation date of:
- 2.24.2.1 the “unallocated initial RAB value” of all core fibre assets;<sup>38</sup>
  - 2.24.2.2 the “initial RAB value” of all core fibre assets that are allocated using a non-central office space allocator, by applying the allocators determined in our transitional initial PQ RAB decision on 16 December 2021,<sup>39,40</sup> and

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<sup>34</sup> Commerce Commission “Chorus’ transitional initial price-quality regulatory asset base as at 1 January 2022 – Final Decision: Reasons paper” (16 December 2021), Chapter 6.

<sup>35</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.14 of Schedule B.

<sup>36</sup> We stated that we would make these determinations in relation to the final initial PQ RAB in Commerce Commission “Chorus’ transitional initial price-quality regulatory asset base as at 1 January 2022 – Final Decision: Reasons paper” (16 December 2021), paragraph 5.8.

<sup>37</sup> Commerce Commission “Chorus’ transitional initial price-quality regulatory asset base as at 1 January 2022 – Final Decision: Reasons paper” (16 December 2021), paragraph 4.2 and Table 5.1.

<sup>38</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.2.3(1).

<sup>39</sup> Commerce Commission “Chorus’ transitional initial price-quality regulatory asset base as at 1 January 2022 – Final Decision: Reasons paper” (16 December 2021), paragraph 4.2 and Table 5.1.

<sup>40</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.2.3(2).

2.24.2.3 the “initial RAB value” of all core fibre assets allocated using the central office space allocator.<sup>41</sup>

2.25 Alongside this paper, we have made a determination which specifies the relevant initial RAB values resulting from the determinations described in paragraph 2.24.<sup>42</sup> These values are also specified in Table 2.1 and described in paragraphs 2.98-2.107.

### **Chorus’ opening tax losses for disclosure year 2022**

2.26 This paper describes the opening tax losses determination we have made for Chorus for disclosure year 2022.

2.27 The opening carry-forward value of the tax losses at the implementation date is calculated by applying a method that includes summing the annual values of notional deductible interest associated with financing privately funded assets in calculating the UFB tax costs cash flow over the financial loss period.<sup>43, 44</sup> The inclusion of notional deductible interest in the calculation of the UFB tax costs cash flow allows for the correct recognition of the timing of the utilisation of losses and changes the closing value of tax losses that is carried forward.<sup>45</sup>

2.28 As specified in the IMs, opening tax losses for each regulated provider for disclosure year 2022 are a value as determined by us (clause 2.3.3(3)(a)).<sup>46</sup> This value, once rolled forward for future years, contributes to the calculation of a regulated provider’s regulatory tax allowance. The regulatory tax allowance is a significant component of regulatory profit, and therefore, important to interested persons as it is used to determine the ROI calculation under ID, which is a key indicator in assessing whether the purpose of Part 6 of the Act is being met.<sup>47</sup>

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<sup>41</sup> Ibid, clause 2.2.3(2).

<sup>42</sup> *Determination of Chorus’ Initial PQ RAB, Initial ID-only RAB, Initial ID RAB, and Opening Tax Losses for Disclosure Year 2022* [2022] NZCC 33, clauses 3.1-3.8.

<sup>43</sup> “UFB tax costs cash flow” is defined as “means the tax costs calculated for a financial loss year under clause B1.1.7 of Schedule B”. *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.2(4)(c) of Schedule B.

<sup>44</sup> Commerce Commission “Chorus’ transitional initial price-quality regulatory asset base as at 1 January 2022 – Final Decision: Reasons paper” (16 December 2021), paragraph 6.30.

<sup>45</sup> Ibid, paragraph 3.85.

<sup>46</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.3.3(3)(a).

<sup>47</sup> Under s 186 of the Act, the purpose of ID regulation is to ensure that sufficient information is readily available to interested persons to assess whether the purpose of [Part 6] is being met.

- 2.29 The transitional value of Chorus’ “opening tax losses” was used for the purpose of determining the regulatory tax allowance for each regulatory year of PQP1 under clause 3.4.1 of the IMs.<sup>48</sup> Our final determination of the value of Chorus’ “opening tax losses” for disclosure year 2022 is being made in accordance with clause 2.3.3(3)(a)(i) of the IMs and is important for ID, as described in paragraph 2.28. The final determination of this value, once rolled forward for future years, will be used as an input for the regulatory tax allowance used for PQP2 and subsequent regulatory periods.<sup>49</sup>
- 2.30 We summarise the final “opening tax losses” value for Chorus (including the components of this value) that have now been finalised as a result of the decisions in this paper in Table 2.1.
- 2.31 Alongside this paper, we have made a determination which specifies the “opening tax losses” for disclosure year 2022 for Chorus.<sup>50</sup>
- 2.32 Our determination of Chorus’ “opening tax losses” for disclosure year 2022 is described in more detail in Chapter 5.

## Terminology and key concepts used in this paper

### *Terminology*

- 2.33 Where necessary to distinguish between the different definitions of FFLAS to explain our decisions with reference to the relevant time periods, we use the defined terms from the IMs:
- 2.33.1 ‘UFB FFLAS’ and ‘services that are not UFB FFLAS’ (when determining the FLA, for the financial loss period in Chorus’ initial PQ RAB and initial ID RAB);
  - 2.33.2 ‘PQ FFLAS’ and ‘services that are not regulated FFLAS’ (for the post-implementation period in Chorus’ initial PQ RAB); and
  - 2.33.3 ‘ID-only FFLAS’ and ‘services that are not regulated FFLAS’ (for the post-implementation period in Chorus’ initial ID-only RAB).
- 2.34 When it is not necessary to distinguish between the different definitions of FFLAS, we use the term ‘FFLAS’ to refer to ‘UFB FFLAS’, ‘PQ FFLAS’ and ‘ID-only FFLAS’.

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<sup>48</sup> See Commerce Commission “Chorus’ transitional initial price-quality regulatory asset base as at 1 January 2022 – Final Decision: Reasons paper” (16 December 2021), paragraph 6.7.

<sup>49</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 3.4.1.

<sup>50</sup> *Determination of Chorus’ Initial PQ RAB, Initial ID-only RAB, Initial ID RAB, and Opening Tax Losses for Disclosure Year 2022 [2022]* NZCC 33, clause 3.9.



*Initial RAB (generally)*

- 2.35 We have adopted a building blocks model (**BBM**) approach to developing our IMs relating to FFLAS under Part 6. Under the BBM, we calculate the value of the collection of fibre assets that are employed by a regulated provider in the provision of regulated FFLAS at certain times.
- 2.36 Under our IM decisions, we adopted the construct of multiple separate RABs in order to implement the Telecommunications (Regulated Fibre Service Providers) Regulations 2019 (**Regulations**). These apply to Chorus as follows:
- 2.36.1 The collection of fibre assets that are employed by Chorus in the provision of PQ FFLAS as at the implementation date is referred to in this paper as Chorus' initial PQ RAB. "PQ FFLAS" means, in respect of a regulated provider, all FFLAS provided by that regulated provider that is subject to PQ regulation in regulations made under s 226 of the Act.<sup>51</sup>
- 2.36.2 The collection of fibre assets that are employed by Chorus in the provision of ID-only FFLAS as at the implementation date is referred to in this paper as Chorus' initial ID-only RAB. "ID-only FFLAS" means, in respect of a regulated provider that is subject to PQ regulation in regulations made under s 226 of the Act, all FFLAS provided by that regulated provider that:<sup>52</sup>
- 2.36.2.1 are subject to ID regulation in regulations made under s 226; and
- 2.36.2.2 are not subject to PQ regulation in regulations made under s 226.
- 2.36.3 The collection of fibre assets that are employed by Chorus in the provision of ID FFLAS as at the implementation date is referred to in this paper as Chorus' initial ID RAB. "ID FFLAS" means, in respect of a regulated provider, all FFLAS provided by that regulated provider that is subject to ID regulation in regulations made under s 226 of the Act.<sup>53</sup>

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<sup>51</sup> Clause 2.2.2(1)(b) of the IMs. "PQ FFLAS" is defined as "means, in respect of a regulated provider, all FFLAS provided by that regulated provider that is subject to price-quality regulation in regulations made under s 226 of the Act. See *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2), definition of "PQ FFLAS".

<sup>52</sup> Clause 2.2.2(1)(c) of the IMs. "ID-only FFLAS" is defined as "means, in respect of a regulated provider, all FFLAS provided by that regulated provider that: (a) is subject to information disclosure regulation in regulations made under s 226 of the Act; and (b) is not subject to price-quality regulation in regulations made under s 226 of the Act;". See *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2), definition of "ID-only FFLAS".

<sup>53</sup> Clause 2.2.2(1)(a) of the IMs. "ID FFLAS" is defined as "means, in respect of a regulated provider, all FFLAS provided by that regulated provider that is subject to information disclosure regulation in regulations made under s 226 of the Act. See *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2), definition of "ID FFLAS".

- 2.36.4 Any collection of fibre assets that are employed in the provision of a FFLAS class as we may from time to time specify for the purposes of Part 6 at a date specified by us is referred to in this paper as Chorus' initial additional RABs.<sup>54</sup>
- 2.37 The focus and relevant RABs for the purposes of this paper are Chorus' initial PQ RAB and Chorus' initial ID-only RAB, including its initial ID RAB which represents the total collection of fibre assets that are included in its initial PQ RAB and initial ID-only RAB. This paper provides our determination of:
- 2.37.1 the unallocated initial RAB value of each core fibre asset (the "unallocated" value is the value of the initial RABs prior to the allocation of assets between PQ FFLAS, ID-only FFLAS and services that are not regulated FFLAS under the cost allocation IM);
- 2.37.2 the allocated initial RAB value of each core fibre asset in the initial PQ RAB, initial ID RAB, and initial ID-only RAB (the "allocated" value is the value of each of those initial RABs after the application of the cost allocation IM); and
- 2.37.3 the initial RAB value of the FLA in the initial PQ RAB and initial ID RAB.

*Key concepts related to the determination of the initial RAB value of the FLA*

- 2.38 The initial RAB value of the FLA as at the implementation date is equal to the accumulated unrecovered returns made by Chorus in providing FFLAS under the UFB initiative during the financial loss period.<sup>55</sup>
- 2.39 Unrecovered returns are calculated as the present value, as at the implementation date, of the revenue inflows less expenditure outflows occurring during the financial loss period adjusted for the depreciated value of UFB assets at implementation date. Expenditure shared between UFB FFLAS and services that are not UFB FFLAS during the financial loss period is subject to cost allocation rules.<sup>56</sup>

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<sup>54</sup> Clause 2.2.2(1)(d) of the IMs. "Additional RAB" is defined as "any collection of fibre assets that are employed in the provision of a FFLAS class as the Commission may from time to time specify for the purposes of Part 6 of the Act, where that collection of fibre assets is a subset of and does not encompass all fibre assets in the (a) ID RAB; (b) PQ RAB; or (c) ID-only RAB.

<sup>55</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.2.4(1) and Schedule B.

<sup>56</sup> For a more detailed discussion, see Commerce Commission "Fibre input methodologies – Financial loss asset – reasons paper" (3 November 2020), Chapter 2.

- 2.40 The UFB assets used to determine the initial RAB value of the FLA are assets that are:
- 2.40.1 constructed or acquired by Chorus; and
  - 2.40.2 employed in the provision of UFB FFLAS (whether or not the asset is also employed in the provision of other services).<sup>57</sup>
- 2.41 The collection of UFB assets that are employed by Chorus in the provision of UFB FFLAS is referred to as the "UFB asset base".<sup>58</sup>
- 2.42 "UFB FFLAS" means any FFLAS provided by Chorus under the UFB initiative during the financial loss period.<sup>59</sup>
- 2.43 In this paper, we use the phrase "initial RAB value of the FLA" to refer to the value of the FLA as at the implementation date, as defined in clause 2.2.4(1) of the IMs. We also use the phrase "initial RAB value of the FLA" when referring to the various unrecovered returns throughout the financial loss period that are used to determine the value of the FLA at implementation date under clause 2.2.4(1) of the IMs.

*Allocated and unallocated RAB values*

- 2.44 When a core fibre asset is first employed in the provision of regulated FFLAS as at the implementation date, it has an "unallocated initial RAB value" which is its "value of commissioned asset".<sup>60</sup> The sum of all unallocated initial RAB values as at the implementation date is referred to as the total unallocated initial RAB value and reflects the total value of assets that are employed in the provision of regulated FFLAS.
- 2.45 The cost allocation IM is then applied to each core fibre asset's unallocated initial RAB value to determine an attributable (i.e., "allocated") portion of the asset value for regulated FFLAS (for example, to calculate depreciation and revaluations).
- 2.45.1 The allocated portion of a core fibre asset attributable to PQ FFLAS at the implementation date is referred to as its initial PQ RAB value.<sup>61</sup>

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<sup>57</sup> Subject to certain exceptions. See *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, the definition of "UFB asset" in clause B1.1.1(2) of Schedule B.

<sup>58</sup> Ibid, clause B1.1.1(2), the definition of "UFB asset base".

<sup>59</sup> Ibid, clause B1.1.1(2), definition of "UFB FFLAS".

<sup>60</sup> Ibid, clause 2.2.3(1).

<sup>61</sup> Ibid, clause 2.2.3(2).

- 2.45.2 The allocated portion of a core fibre asset attributable to ID-only FFLAS at the implementation date is referred to as its initial ID-only RAB value.<sup>62</sup>
- 2.46 The FLA is treated as being directly attributable to PQ FFLAS and its value in the initial PQ RAB and initial ID RAB is determined by us in accordance with s 177(2) and clause B1.1.2 of Schedule B of the IMs.<sup>63</sup> We discuss the process for determining the initial value of the FLA at paragraphs 2.103-2.104.
- 2.47 In this paper, unless specifically stated otherwise, we are referring to the allocated portion of a RAB (i.e., in any instance where we are referring to the 'unallocated RAB' we will state this).

#### *RAB roll-forward*

- 2.48 The unallocated initial RAB value of each core fibre asset is "rolled forward" each disclosure year with the unallocated value of a core fibre asset at the end of a disclosure year having an "unallocated closing RAB value".<sup>64</sup>
- 2.49 The cost allocation IM is then applied to each core fibre asset's unallocated closing RAB value to determine an attributable (i.e., "allocated") portion of the asset value for regulated FFLAS.
- 2.49.1 The allocated portion of a core fibre asset attributable to PQ FFLAS at the end of a disclosure year is referred to as its closing PQ RAB value.<sup>65</sup> The closing PQ RAB value then becomes the opening PQ RAB value for the following disclosure year.<sup>66</sup>
- 2.49.2 The allocated portion of a core fibre asset attributable to ID-only FFLAS at the end of a disclosure year is referred to as its closing ID-only RAB value.<sup>67</sup> The closing ID-only RAB value then becomes the opening ID-only RAB value for the following disclosure year.<sup>68</sup>

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<sup>62</sup> Ibid, clause 2.2.3(2).

<sup>63</sup> Ibid, clause 2.1.1(7).

<sup>64</sup> Clause 2.2.5(1)-(2) of the IMs. "Disclosure year" in this context means "a 12-month period ending on the date specified in an ID determination" - see *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2). In this context, a 'disclosure year' for Chorus is the 12-month period ending on 31 December.

<sup>65</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.2.5(4). We note that the IMs refer to this as the "closing RAB value".

<sup>66</sup> Ibid, clause 2.2.5(3)(b). We note that the IMs refer to this as the "opening RAB value".

<sup>67</sup> Ibid, clause 2.2.5(4). We note that the IMs refer to this as the "closing RAB value".

<sup>68</sup> Ibid, clause 2.2.5(3)(b). We note that the IMs refer to this as the "opening RAB value".

- 2.50 The total values of the PQ RAB (including the value of the FLA), ID RAB (including the value of the FLA) and ID-only RAB will change over time to reflect changes in Chorus' fibre assets over time, including changes in how assets are shared between different services.<sup>69</sup> Examples of changes include the addition of newly commissioned assets; the disposal of assets; revaluation of assets (ie, indexation by the Consumer Price Index (**CPI**)); changes in allocations; and the return of capital via depreciation over time.

#### *Analysys Mason model terminology*

- 2.51 In certain instances, we have adopted the terminology used by Chorus/Analysys Mason in its models and associated documentation (which in some cases departs from the terms we used in our IMs). These are:
- 2.51.1 Initial asset value (**IAV**): Analysys Mason define the IAV as the starting value of the RAB at implementation date.<sup>70</sup> The relevant terms in our IMs are the 'initial RAB value of core fibre assets' and the 'initial RAB value of the FLA'.
- 2.51.2 Voluntary FFLAS': Analysys Mason define 'Voluntary FFLAS' as FFLAS not provided under the UFB contract.<sup>71</sup> There is no corresponding term in our IMs. However, from the implementation date, 'Voluntary FFLAS' forms part of PQ FFLAS and ID FFLAS (as defined in the IMs).
- 2.52 In this paper, our approach is to use the term that best applies in the particular context. For example, when referring to Chorus' models, we use the terms that Analysys Mason or Chorus have used, for ease of navigating their models/explanatory documents. Where relevant, we include references to explain how these terms interact with our IM terminology.

## **Legal framework**

### **Mandatory considerations that apply for our decisions**

#### *Matters to be considered by the Commission and Minister: s 166*

- 2.53 When making the decisions described in this paper, we were required to consider certain matters specified in s 166(2) of the Act:<sup>72</sup>

(2) The Commission or Minister must make the recommendation, determination, or decision that the Commission or Minister considers best gives, or is likely to best give, effect—

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<sup>69</sup> Ibid, clause 2.2.5-2.2.6.

<sup>70</sup> Ibid.

<sup>71</sup> Ibid, Figure 6.

<sup>72</sup> Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020), paragraphs 2.206-2.271.

- (a) to the purpose in section 162; and
- (b) to the extent that the Commission or Minister considers it relevant to the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services.

*Purpose of Part 6: s 162*

2.54 Section 162 sets out the purpose of Part 6 of the Act:<sup>73</sup>

The purpose of this Part is to promote the long-term benefit of end-users in markets for fibre fixed line access services by promoting outcomes that are consistent with outcomes produced in workably competitive markets so that regulated fibre service providers-

- (a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and
- (b) have incentives to improve efficiency and supply fibre fixed line access services of a quality that reflects end-user demands; and
- (c) allow end-users to share the benefits of efficiency gains in the supply of fibre fixed line access services, including through lower prices; and
- (d) are limited in their ability to extract excessive profits.

*How we apply ss 166 and 162*

2.55 We must exercise our judgement on a case-by-case basis and make the following observations about the relationship between the two objectives in s 166(2) of the Act:

2.55.1 Section 166(2)(a) directs us to make decisions that best give effect to the purpose in s 162. This is a mandatory consideration;

2.55.2 We are also required to make decisions that best give effect to the outcome in s 166(2)(b). This is also a mandatory consideration, but only in cases where we consider that it is 'relevant'. In assessing whether the promotion of workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services is relevant, we will consider whether a decision has the potential to affect the level of competition in one or more telecommunications markets;

2.55.3 Where we consider that the promotion of workable competition is relevant, we must strive to make the decision that best gives, or is likely to best give effect, to both:

- 2.55.3.1 the promotion of outcomes consistent with those produced in workably competitive markets for the benefit of end-users of FFLAS (s 166(2)(a)); and

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<sup>73</sup> Telecommunications Act 2001, s 162.

- 2.55.3.2 the promotion of competition in telecommunications markets for the benefit of end-users in those markets (s 166(2)(b)); and
- 2.55.4 Where our decisions require us to exercise judgement in accordance with s 166(2), we have explained why those decisions best give, or are likely to best give, effect to the purposes set out in s 166(2).
- 2.56 As with all decisions under Part 6, our decisions relating to Chorus' initial PQ RAB, initial ID-only RAB, and opening tax losses for disclosure year 2022 must best give, or be likely to best give, effect to the purposes set out in s 166(2).
- 2.57 However, in many cases, we must make our decisions according to specific legal requirements that constrain the exercise of judgement. This arises in relation to:
- 2.57.1 the application of IMs (for instance, the estimation of the cost of capital for the financial loss period)<sup>74</sup> where parameters were determined because they best give, or are likely to best give, effect to the s 166(2) purposes; and
- 2.57.2 the application of mandatory requirements in the Act (for instance, the meaning of "fibre asset" in s 177(6) of the Act).
- 2.58 In these cases, we have explained our decisions by referring to our specific obligations under the IMs or the Act.

*Determining the initial value of fibre assets: s 177*

- 2.59 Section 177 provides the Commission with specific direction on the calculation of the initial value of fibre assets that enter the PQ RAB, ID RAB and ID-only RAB on the implementation date.
- 2.60 The definition of "fibre asset" includes an asset that is constructed or acquired by Chorus and employed in the provision of FFLAS, whether or not it is also employed in the provision of other services: s 177(6).
- 2.61 Section 177(2) and (3) direct that the Commission is responsible for determining the value of the financial losses. This means it is for the Commission to determine the initial value of fibre assets in Chorus' initial PQ RAB, initial ID RAB and initial ID-only RAB (as well as the initial value of fibre assets in the ID RABs for the other local fibre companies).

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<sup>74</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, Section 5 of Schedule B.

### *Core fibre assets*

- 2.62 Section 177(1) sets the value of assets employed in the provision of FFLAS (core fibre assets). The initial value of a fibre asset is calculated by taking the cost Chorus incurred in constructing or acquiring the asset net of capital contributions, adjusted for depreciation and impairment losses (if any): s 177(1).
- 2.63 Assets which were owned by Chorus before 1 December 2011 and therefore pre-date the UFB initiative, and which have been employed in the provision of FFLAS, are valued at their cost derived from Chorus' general-purpose financial statements as of 1 December 2011, adjusted for accumulated depreciation and impairment losses (if any). We refer to these assets in this paper as 'pre-2011 assets'.<sup>75</sup>

### *Financial loss asset*

- 2.64 Financial losses over the financial loss period (from 1 December 2011 to 31 December 2021) must be capitalised and treated as an additional asset (referred to as the "financial loss asset") which is part of Chorus' initial PQ RAB and initial ID RAB, but separately identified.<sup>76</sup>
- 2.65 The FLA calculation must take into account the "accumulated unrecovered returns on investments made by [Chorus] under the UFB initiative": s 177(3)(a).
- 2.66 The background to the FLA is that it was expected that Chorus and the other LFCs that deployed fibre access networks under the Government's UFB initiative would incur financial losses during their initial period of operation.<sup>77</sup> That is, despite the provision of partial funding via concessionary Crown financing, it was expected that the initial uptake of UFB services would generate insufficient revenue to cover the costs that Chorus and the other LFCs incurred during that period.
- 2.67 In order to provide an opportunity for each regulated provider to recover these losses within the new regulatory regime, the Act provides for these accumulated financial losses to be capitalised and included as an asset in each LFC's RAB as at the implementation date.
- 2.68 We discuss this further at paragraphs 2.103-2.104 below in the context of the FLA.

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<sup>75</sup> We note that for the purposes of its model, Analysys Mason uses the term 'pre2012 assets' in reference to the same set of assets (refer to Commerce Commission "Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper" (16 December 2021) Attachment B, B11 to B15 for the four time periods relating to when assets were employed in the provision of FFLAS).

<sup>76</sup> The FLA is not part of Chorus' ID-only RAB as it is "treated as being directly attributed to PQ FFLAS". See *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.1.1(7).

<sup>77</sup> Commerce Commission "Fibre input methodologies: Main final decisions – reasons paper" (13 October 2020).



### **IMs relevant to Chorus' initial PQ RAB, initial ID-only RAB, and initial ID RAB**

- 2.69 Section 176 requires the Commission to publish IMs covering (among other matters) the valuation of assets and the allocation of common costs (for example, between activities, businesses, access seekers, regulated services, or geographic areas), and treatment of revaluations.<sup>78</sup>
- 2.70 In determining the value of fibre assets in Chorus' initial PQ RAB, initial ID RAB and initial ID-only RAB, the key IMs are the asset valuation and cost allocation IMs:<sup>79</sup>
- 2.70.1 the asset valuation IM sets out the rules regarding the determination of the "initial RAB value" of each regulated provider's fibre assets, which includes both the core fibre assets and the FLA; and
- 2.70.2 the cost allocation IM sets the rules for how the values of each regulated provider's shared assets and costs at implementation date are to be allocated to the appropriate FFLAS classes and to services that are not regulated FFLAS.

#### *Overview of how the IMs require the initial PQ RAB, initial ID RAB and initial ID-only RAB to be valued*

- 2.71 In this section, we provide a high-level overview of how the IMs require the initial RABs to be valued.
- 2.72 The value of Chorus' initial PQ RAB is the sum of the values of its core fibre assets employed in the provision of PQ FFLAS and the FLA at the implementation date and is determined by applying the asset valuation IM.
- 2.73 The value of Chorus' initial ID-only RAB is the sum of the values of its core fibre assets employed in the provision of ID-only FFLAS at the implementation date and is determined by applying the asset valuation IM.
- 2.74 The value of Chorus' initial ID RAB is the sum of Chorus' total initial PQ RAB value and total initial ID-only RAB value.
- 2.75 The asset valuation IM establishes separate rules for determining the value of the core fibre assets and the FLA.

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<sup>78</sup> Telecommunications Act 2001, s 176(1)(a)(ii) and (iii).

<sup>79</sup> Under s 175(b) of the Act, we must apply the IMs in determining how regulation should apply to FFLAS and the prices or quality standards applying to FFLAS. We also note that the determination of the initial RAB value of the FLA requires an application of taxation and cost of capital methodologies (see *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.7-B1.1.13 of Schedule B).

### *Determining the value of the core fibre assets*

- 2.76 Core fibre assets may be:
- 2.76.1 UFB assets that have been employed in the provision of UFB FFLAS; or
  - 2.76.2 Fibre assets employed in the provision of FFLAS (but not UFB assets).
- 2.77 While the FLA is calculated based on UFB FFLAS supported by UFB assets only, at implementation date, fibre assets employed in the provision of PQ FFLAS or ID-only FFLAS are core fibre assets with certain exceptions.<sup>80</sup>
- 2.78 Determining the value of the core fibre assets at implementation date as part of our determination of Chorus' initial PQ RAB and initial ID-only RAB is a two-step process.<sup>81</sup>

### *Unallocated initial RAB value*

- 2.79 First, the 'unallocated initial RAB value' of the core fibre assets must be calculated. The unallocated initial RAB value is the value of the core fibre assets before the cost allocation IM has been applied, and therefore reflects the total value of assets that are employed in the provision of FFLAS before cost allocation.<sup>82</sup> A portion of the unallocated assets are also employed in the provision of services that are not FFLAS, and that portion will not be allocated to FFLAS. The unallocated initial RAB value is the total value of the relevant asset determined on a depreciated historic cost basis at implementation date.<sup>83</sup>

### *(Allocated) initial RAB value*

- 2.80 The initial RAB value at implementation date is then arrived at by applying the cost allocation IM to the unallocated initial RAB value.<sup>84</sup> At a high-level, the cost allocation IM requires that:<sup>85</sup>

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<sup>80</sup> Core fibre assets exclude the FLA, works under construction and intangible assets, unless they are finance leases or identifiable non-monetary assets whose costs do not include (wholly or partly) pass-through costs (see *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2), definition of "core fibre asset").

<sup>81</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.2.3.

<sup>82</sup> *Ibid*, clause 2.2.3(1).

<sup>83</sup> Telecommunications Act 2001, s 177(1)(a) and (b); *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.2.13(1).

<sup>84</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.2.3(2).

<sup>85</sup> *Ibid*, clause 2.1.1.

- 2.80.1 Unallocated asset values that are “directly attributable” to the provision of FFLAS are allocated to FFLAS.<sup>86</sup> Conversely, asset values that are directly attributable to the provision of services that are not FFLAS must not be allocated to FFLAS; and
- 2.80.2 Unallocated asset values that are not directly attributable to either FFLAS or services that are not FFLAS (ie, are shared) must undergo cost allocation. Specifically, shared costs must be allocated between those services using the accounting-based allocation approach (**ABAA**).
- 2.81 Within the ABAA, costs and assets must be allocated using an allocator that is based on:<sup>87</sup>
- 2.81.1 a causal relationship: that is, there is a causal relationship between the asset value and the circumstance where a factor influences the employment of the asset in the provision of FFLAS;<sup>88</sup> or
- 2.81.2 a proxy allocator: that is, where a causal relationship cannot be established.<sup>89</sup>
- 2.82 Within the definitions of “causal relationship”, “proxy asset allocator” and “proxy cost allocator” is the requirement that in each case these allocators (ie, ratios):<sup>90</sup>
- 2.82.1 must be consistently applied within a year, and between years; and
- 2.82.2 are objectively justifiable and demonstrably reasonable.
- 2.83 To support our analysis and judgement as to whether the “objectively justifiable and demonstrably reasonable” requirement has been met for the central office space allocator type, we have considered factors such as:
- 2.83.1 whether the proposed allocation promotes the purpose of Part 6 and, where relevant, workable competition in telecommunications markets for the long-term benefit of end-users of telecommunications services;

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<sup>86</sup> “Directly attributable” is defined in the IMs as “(a) in relation to operating costs, where a cost is wholly and solely incurred in the provision of a particular service; and (b) in relation to asset values, where an asset is wholly and solely employed by a regulated provider in the provision of a particular service”. See *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2), definition of “directly attributable”.

<sup>87</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2), definition of “asset allocator” and “cost allocator”.

<sup>88</sup> *Ibid*, clause 1.1.4(2), definition of “causal relationship”.

<sup>89</sup> *Ibid*, clause 1.1.4(2), definition of “proxy asset allocator” and “proxy cost allocator” and 2.1.3(2).

<sup>90</sup> *Ibid*, clause 1.1.4(2), definition of “causal relationship”, “proxy asset allocator” and “proxy cost allocator”.

- 2.83.2 whether the allocator type meets the definition of a proxy cost allocator or proxy asset allocator;<sup>91</sup>
- 2.83.3 whether the allocation is being undertaken at a reasonable level of aggregation – whether operating costs or assets that have been grouped together have sufficiently similar characteristics to be treated in common;
- 2.83.4 the extent to which the underlying data used is robust; and
- 2.83.5 whether there is a readily available alternative allocator which better meets these criteria above, such that it would be unreasonable to prefer the proposed allocator.

#### *Determining the value of the FLA*

- 2.84 The value of the FLA is equal to the unrecovered returns that have accumulated from providing UFB FFLAS in the financial loss period.<sup>92</sup> Therefore, to determine the value of the FLA, we must determine the value of the financial losses incurred in providing UFB FFLAS.
- 2.85 A regulated provider may have provided FFLAS during the financial loss period outside of the UFB initiative (this is referred to as ‘Voluntary FFLAS: see paragraph 2.51.2 above). These FFLAS are not included in the calculation of the FLA, as the Act limits losses to those incurred under the UFB initiative for the financial loss period.<sup>93</sup>
- 2.86 The asset valuation IM sets out how to calculate the financial losses. At a high-level, the financial losses are the sum of the differences between revenue received by the regulated provider for the provision of UFB FFLAS under the UFB initiative and the costs incurred in the provision of UFB FFLAS under the UFB initiative each year.<sup>94</sup>
- 2.87 Because some costs incurred during the financial loss period were shared with services that are not UFB FFLAS (including Voluntary FFLAS), the cost allocation IM must be applied to determine the share of costs attributable to the provision of UFB FFLAS. The rules for allocating these costs are, at a high-level, similar to the rules for allocating asset values for the core fibre assets.<sup>95</sup>

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<sup>91</sup> Ibid, clause 1.1.4(2), definition of “proxy asset allocator” and “proxy cost allocator”.

<sup>92</sup> Ibid, clause B1.1.2 of Schedule B.

<sup>93</sup> Telecommunications Act 2001, s 177(2).

<sup>94</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.2(3) of Schedule B.

<sup>95</sup> Ibid, clause B1.1.6 of Schedule B.

- 2.88 The calculation of financial losses also includes an adjustment to account for the depreciated value of UFB assets at the implementation date<sup>96</sup> and the benefit of concessionary Crown financing during the financial loss period.<sup>97</sup>

*Asset valuation IM*

- 2.89 Under the asset valuation IM, the core fibre assets that are employed by Chorus in the provision of PQ FFLAS at the implementation date are included in the initial PQ RAB.<sup>98</sup>
- 2.90 Under the asset valuation IM, the core fibre assets that are employed by Chorus in the provision of ID-only FFLAS at the implementation date are included in the initial ID-only RAB.<sup>99</sup>
- 2.91 Under the asset valuation IM, the core fibre assets that are employed by Chorus in the provision of ID FFLAS at the implementation date are included in the initial ID RAB.<sup>100</sup>
- 2.92 The regulatory values of these core fibre assets are based on the depreciated historic cost of investments and adjustments for impairment losses (if any), as required by s 177(1) of the Act. In addition to the core fibre assets, the PQ RAB and ID RAB includes a FLA. The FLA captures the unrecovered returns on and of the allocated PQ RAB for the UFB assets that have accumulated up to the implementation date (s 177(2) and (3)).
- 2.93 The asset valuation IM includes the rules relating to the valuation of assets in the initial PQ RAB, initial ID RAB and initial ID-only RAB. These cover the following areas:
- 2.93.1 the scope of RABs and valuation;
  - 2.93.2 core valuation rules for initial RAB assets;
  - 2.93.3 limits on allocation of shared assets to regulated FFLAS;
  - 2.93.4 capital contributions; and
  - 2.93.5 the benefits of Crown financing.

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<sup>96</sup> A portion of unallocated depreciation costs are allocated to UFB FFLAS over the financial loss period.

<sup>97</sup> The treatment of concessionary Crown financing is discussed in detail in “Commerce Commission “Fibre input methodologies – Financial loss asset – reasons paper” (3 November 2020)”.

<sup>98</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2), definition of “PQ RAB”.

<sup>99</sup> *Ibid*, clause 1.1.4(2), definition of “ID-only RAB”.

<sup>100</sup> *Ibid*, clause 1.1.4(2), definition of “ID RAB”.

### *Cost allocation IM*

- 2.94 The cost allocation IM includes the rules relating to the attribution and allocation of assets and costs in determining Chorus' initial PQ RAB and initial ID-only RAB. These cover the following areas:
- 2.94.1 the methodologies used to determine the (allocated) initial RAB values of core fibre assets at the implementation date;
  - 2.94.2 the treatment of assets that pre-date the UFB initiative that are employed during the financial loss period to provide UFB FFLAS (pre-2011 assets) for the purposes of calculating the FLA; and
  - 2.94.3 the treatment of new costs incurred during the financial loss period to deliver UFB FFLAS for purposes of calculating the FLA.
- 2.95 The IM defines “directly attributable” as being where an operating cost is wholly and solely incurred, or an asset is wholly and solely employed, in the provision of a particular service.<sup>101</sup> The assets that are directly attributable are discussed in Chapter 4 of our transitional initial PQ RAB decision.<sup>102</sup>
- 2.96 Assets and costs that are not ‘directly attributable’ must undergo cost allocation.<sup>103</sup> We discuss our cost allocation methodology in greater detail in Chapter 5 of our transitional initial PQ RAB decision.<sup>104</sup> We also discuss cost allocation in relation to our final decision on the central office space allocator in Chapter 4 below.

### **Overview of key values determined for Chorus' initial PQ RAB, initial ID-only RAB, initial ID RAB, and opening tax losses for disclosure year 2022**

- 2.97 We summarise the key values determined as for Chorus' initial PQ RAB, initial ID-only RAB, initial ID RAB, and opening tax losses for disclosure year 2022 in Table 2.1.

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<sup>101</sup> Ibid, clause 1.1.4(2), definition of “directly attributable”.

<sup>102</sup> Commerce Commission “Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper” (16 December 2021), Chapter 4.

<sup>103</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.1.1(4), clause B1.1.6(1)(b) of Schedule B, and clause B1.1.6(2)(c) of Schedule B.

<sup>104</sup> Commerce Commission “Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper” (16 December 2021), Chapter 5.

**Table 2.1 Key values determined for Chorus' initial PQ RAB, initial ID-only RAB, initial ID RAB, and opening tax losses for disclosure year 2022**

Value	Description	\$millions
<b>Unallocated initial RAB value of core fibre assets</b>	The total value of assets employed in the provision of FFLAS. This is the value before we apply the cost allocation IM. <sup>105</sup>	4,596
<b>(Allocated) initial RAB value of core fibre assets in PQ RAB</b>	The value of Chorus' assets employed in the provision of PQ FFLAS (item 1 above) with cost allocation applied. <sup>106</sup>	3,997
<b>(Allocated) initial RAB value of core fibre assets in ID-only RAB</b>	The value of Chorus' assets employed in the provision of ID-only FFLAS (item 1 above) with cost allocation applied. <sup>107</sup>	24
<b>(Allocated) initial RAB value of core fibre assets in ID RAB</b>	The value of Chorus' assets employed in the provision of ID FFLAS (item 1 above) with cost allocation applied (i.e., the sum of items 2 and #3 above). <sup>108</sup>	4,022
<b>Initial RAB value of the financial loss asset (FLA) in PQ RAB and ID RAB</b>	The financial losses Chorus accumulated in providing UFB FFLAS during the financial loss period. <sup>109</sup>	1,416
<b>Total initial PQ RAB value</b>	Sum of all the "initial RAB values" of Chorus' core fibre assets employed in the provision of PQ FFLAS at the implementation date and the "initial RAB value" of the FLA (i.e., the sum of items #2 and #5 above).	5,413
<b>Total initial ID-only RAB value</b>	Sum of all the "initial RAB values" of Chorus' fibre assets employed in the provision ID-only FFLAS at the implementation date (i.e., the value of item 3 above). As the FLA is treated as being directly attributable to PQ FFLAS, the initial RAB value of the FLA is not part of the initial ID-only RAB.	24
<b>Total initial ID RAB value</b>	Sum of all the "initial RAB values" of Chorus' core fibre assets employed in the provision of ID FFLAS at the implementation date and the "initial RAB value" of the FLA (i.e., the sum of items #4 and #5 above).	5,437
<b>Opening tax losses for disclosure year 2022</b>	The value determined by us in respect of Chorus opening tax losses for disclosure year 2022. <sup>110</sup>	-1,052

<sup>105</sup> Ibid, clause 2.2.3(1).

<sup>106</sup> Ibid, clause 2.2.3(2).

<sup>107</sup> Ibid, clause 2.2.3(2).

<sup>108</sup> Ibid, clause 2.2.3(2).

<sup>109</sup> Telecommunications Act 2001, s 177(2); *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.2.4(1), clause B1.1.2 of Schedule B.

<sup>110</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.3.3(3)(a)(i).

*Chorus' unallocated initial RAB values of core fibre assets*

- 2.98 Chorus' unallocated initial RAB values of core fibre assets are:
- 2.98.1 determined under clause 2.2.3(1) of the IMs;
  - 2.98.2 "rolled forward" for future disclosure years under clause 2.2.5(1)-(2) of the IMs; and
  - 2.98.3 adopted and applied as forecasts to inform certain inputs used to determine Chorus' "forecast building blocks revenue" for future price-quality paths (beginning with PQP2) under clause 3.3.1(2) of the IMs.
- 2.99 We do not consider that a separate exercise of judgement in accordance with ss 162 and 166 is required when applying the IMs to determine the unallocated values of core fibre assets over time.

*Chorus' (allocated) initial PQ RAB values of core fibre assets*

- 2.100 We are required to determine the "initial RAB value" of Chorus' unallocated initial RAB values for its core fibre assets employed in the provision of PQ FFLAS at the implementation date. We refer to these determinations in this paper as Chorus' initial PQ RAB values. Chorus' initial PQ RAB values are:
- 2.100.1 determined under clause 2.2.3(2) of the IMs, which includes an application of the cost allocation IM under clause 2.1.1;
  - 2.100.2 "rolled forward" for future disclosure years under clause 2.2.5(3)-(4) of the IMs, which includes (for actual values) an application of the cost allocation IM under clause 2.1.1 to the "unallocated closing RAB value" for the previous disclosure year;<sup>111</sup> and
  - 2.100.3 adopted and applied as forecasts to inform certain inputs used to determine Chorus' "forecast building blocks revenue" for future price-quality paths (beginning with PQP2) under clause 3.3.1(2) of the IMs.

*Chorus' (allocated) initial ID-only RAB values of core fibre assets*

- 2.101 We are required to determine the "initial RAB value" of Chorus' unallocated initial RAB values for its core fibre assets employed in the provision of ID-only FFLAS at the implementation date. We refer to these determinations in this paper as Chorus' initial ID-only RAB values. Chorus' initial ID-only RAB values are:
- 2.101.1 determined under clause 2.2.3(2) of the IMs, which includes an application of the cost allocation IM under clause 2.1.1; and

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<sup>111</sup> Ibid, clause 2.2.5(4).



2.101.2 “rolled forward” for future disclosure years under clause 2.2.5(3)-(4) of the IMs, which includes (for actual values) an application of the cost allocation IM under clause 2.1.1 to the “unallocated closing RAB value” for the previous disclosure year.<sup>112</sup>

*Chorus’ (allocated) initial ID RAB values of core fibre assets*

2.102 We are required to determine the “initial RAB value” of Chorus’ unallocated initial RAB values for its core fibre assets employed in the provision of ID FFLAS at the implementation date. We refer to these determinations in this paper as Chorus’ initial ID RAB values. Chorus’ initial ID RAB values represent the sum of Chorus’ initial PQ RAB values and initial ID-only RAB values, and are:

2.102.1 determined under clause 2.2.3(2) of the IMs, which includes an application of the cost allocation IM under clause 2.1.1; and

2.102.2 “rolled forward” for future disclosure years under clause 2.2.5(3)-(4) of the IMs, which includes (for actual values) an application of the cost allocation IM under clause 2.1.1 to the “unallocated closing RAB value” for the previous disclosure year.<sup>113</sup>

*Financial loss asset (FLA)*

2.103 We are also required to determine the financial losses for Chorus in respect of the financial loss period (the period from 1 December 2011 until 31 December 2021) under s 177(2) and clause B1.1.2(2) of Schedule B of the IMs. The value of Chorus’ financial losses is referred to under the IMs as the “initial RAB value” of Chorus’ financial loss asset under clause 2.2.4(1).

2.104 In determining the financial losses for Chorus under s 177(2) and clause B1.1.2(2) of Schedule B of the IMs, certain decisions require us to exercise judgement (in accordance with ss 162 and 166). Others involve us making decisions according to specific legal requirements that constrain the exercise of judgement (i.e., the application of the IMs, which were determined on the basis that they best give, or are likely to best give effect to the purposes in s 166(2)).

*Total initial PQ RAB value*

2.105 We are required to determine the sum of the “initial RAB values” of Chorus’ fibre assets employed in the provision of PQ FFLAS at the implementation date (the total of the values described under paragraphs 2.100 and 2.103 above). This value is equal to the sum of:

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<sup>112</sup> Ibid, clause 2.2.5(4).

<sup>113</sup> Ibid, clause 2.2.5(4).

2.105.1 the “initial RAB values” of Chorus’ core fibre assets in its PQ RAB; and

2.105.2 the “initial RAB value” of its FLA at the implementation date.

*Total initial ID-only RAB value*

2.106 We are required to determine the sum of the “initial RAB values” of Chorus’ fibre assets employed in the provision of ID-only FFLAS at the implementation date (the total of the values described under paragraph 2.101 above). This value is equal to the sum of the “initial RAB values” of Chorus’ core fibre assets in its ID-only RAB. As the FLA is treated as being directly attributable to PQ FFLAS, the initial RAB value of the FLA is not part of the initial ID-only RAB.

*Total initial ID RAB value*

2.107 We are required to determine the sum of the “initial RAB values” of Chorus’ fibre assets employed in the provision of ID FFLAS at the implementation date (the total of the values described under paragraph 2.102 above). This value is equal to the sum of the total initial PQ RAB value and the total initial ID-only RAB value.

*Opening tax losses for disclosure year 2022*

2.108 As discussed in paragraphs 2.26-2.31, we are required to determine for Chorus the opening tax losses for disclosure year 2022 under clause 2.3.3(3)(a)(i) of the IMs.

*Summary of nature of our cost allocation decisions*

2.109 We have summarised the nature of our outstanding cost allocation decision in respect of central office space and actual values for FLYs 2021-2022 detailing:

2.109.1 areas where we have exercised judgement in accordance with s 166(2) in reaching our final decisions; and

2.109.2 according to specific legal requirements that constrain the exercise of judgement (i.e., the application of the IMs, which have been determined on the basis that they best give/are likely to best give effect to the purposes set out in s 166(2)).

2.110 In Table 2.2 we note the cost allocation decisions where we have applied judgement for our central office space decision - see Chapter 4.

**Table 2.2 Cost allocation decisions**

IM requirement	IM clause	Nature of decision
<b>For operating costs that are not directly attributable to the provision of UFB FFLAS, ABAA must be applied using cost allocators.</b>	Clause B1.1.6(1)(b) of Schedule B.	Decision made in accordance with IM requirements. ABAA must be used to allocate operating costs that are not directly attributable to UFB FFLAS.
<b>For operating costs that are not directly attributable to the provision of PQ FFLAS/ID-only FFLAS, ABAA must be applied using cost allocators.</b>	2.1.1(4)	Decision made in accordance with IM requirements. ABAA must be used to allocate operating costs that are not directly attributable to PQ FFLAS/ID-only FFLAS.
<b>In applying ABAA to allocate operating costs not directly attributable to the provision of UFB FFLAS, allocator types must be used.</b>	Clause B1.1.6(1)(c) of Schedule B.	Judgement is involved in determining which cost allocator to apply.
<b>In applying ABAA to allocate operating costs not directly attributable to the provision of PQ FFLAS/ID-only FFLAS, cost allocators must be used.</b>	2.1.1(5)	Judgement is involved in determining which cost allocator to apply.
<b>For asset values that are not directly attributable to the provision of UFB FFLAS, ABAA must be applied using asset allocators.</b>	Clause B1.1.6(2)(c) of Schedule B.	Decision made in accordance with IM requirements. ABAA must be used to allocate asset values that are not directly attributable to UFB FFLAS.
<b>For asset values that are not directly attributable to the provision of PQ FFLAS/ID-only FFLAS, ABAA must be applied using asset allocators.</b>	2.1.1(6)	Decision made in accordance with IM requirements. ABAA must be used to allocate asset values that are not directly attributable to PQ FFLAS/ID-only FFLAS.
<b>Cost and asset allocators must meet the definitions in the IMs. In both cases, cost and asset allocators are defined as ratios used to allocate costs or asset values whose quantum is based on a causal relationship or a proxy allocator.</b>	The definitions are set out in clause 1.1.4(2).	Judgement is involved in determining whether a causal relationship or a proxy allocator is available.

IM requirement	IM clause	Nature of decision
<b>In applying ABAA to allocate asset values not directly attributable to the provision of UFB FFLAS, allocator types must be used.</b>	Clause B1.1.6(2)(d) of Schedule B.	Judgement is involved in determining which asset allocator to apply.
<b>Causal or proxy cost or asset allocators must be consistent over time and be “objectively justifiable and demonstrably reasonable”.</b>	The definitions of causal relationship, proxy asset allocator, and proxy cost allocators are set out in clause 1.1.4(2) and clause B1.1.1(2) of Schedule B.	Judgement is involved in determining whether a cost or asset allocator is “objectively justifiable and demonstrably reasonable”.
<b>Cost and asset allocator values must be reviewed and updated in respect of each FLY.</b>	Clause B1.1.6(3) of Schedule B.	Decision made in accordance with IM requirements.

## Economic framework

- 2.111 As we noted in our transitional initial PQ RAB decision reasons paper, we developed an economic framework to help guide the decisions we have been making in developing and implementing the new regulatory regime for Part 6. The framework helps us make individual decisions that are consistent with each other, and with the requirement to best give effect to the purposes specified in s 166(2) of the Act.<sup>114</sup>
- 2.112 Determining the initial RAB value for core fibre assets and the FLA is an important decision in implementing the new Part 6 regime. This is because the total initial RAB value of Chorus’ fibre assets is one of the main drivers of both the prices faced by end-users of FFLAS and the value of Chorus’ regulated fibre business. There may also be wider economic ramifications in terms of signals to investors. This is particularly so in the context of determining Chorus’ initial RABs, where the change in regime affects a privately-owned or listed company, and our decisions may affect investor expectations about future regulatory decisions. This matters for future investment.

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<sup>114</sup> Commerce Commission “[Fibre input methodologies: Main final decisions – reasons paper](#)” (13 October 2020) at 2.272-2.309.

- 2.113 The approach that legislators (in drafting Part 6 of the Act) and we (in implementing Part 6) have taken reflects the importance of providing certainty to investors about how we approach and make decisions. In this regard, the Act provides specific direction in areas such as how assets should be valued, the recovery of past losses, and the requirement to develop IMs. In implementing the regime, we developed IMs on matters such as asset valuation and cost allocation. We did so in a way that we considered best gave (or likely best gave) effect to the purpose of Part 6 as required by s 166(2)(a), and the promotion of workable competition where relevant, as required by s 166(2)(b). The purpose of the IMs is to promote certainty. One economic principle that underpinned our development of the IMs was that of financial capital maintenance (**FCM**), which we discuss below.
- 2.114 In our determination of Chorus' initial RABs, our task has been to apply the IMs, as required under s 175.
- 2.115 The economic framework that we have used in determining Chorus' initial RABs includes three components:
- 2.115.1 economic principles, including real FCM, allocation of risk, and asymmetric consequences of under/over-investment;
  - 2.115.2 an incentive framework to help us evaluate how the regime may interact with the incentives faced by regulated providers and assist us in identifying risks to end-users; and
  - 2.115.3 competition screening considerations to help us assess whether our decisions might be relevant to competitive outcomes in telecommunications markets.
- 2.116 The economic framework, and how we applied it in determining Chorus' transitional initial PQB RAB, is discussed in more detail in our paper on the transitional initial PQ RAB.<sup>115</sup> As discussed in Chapter 1 above, we have previously made all of the decisions required to determine Chorus' initial PQ RAB (as set out in our 16 December 2021 reasons paper), with the exception of two matters that we could not make decisions on at the time as the information required was not available. These two outstanding matters related to the following:
- 2.116.1 the use of actual values for FLYs 2021 and 2022: at the time of our determination of Chorus' transitional initial PQ RAB value, the information available for FLYs 2021 and 2022 was in the form of forecasts; and

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<sup>115</sup> Commerce Commission "Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper" (16 December 2021), Chapter 2.

- 2.116.2 the allocation of central office space: in our determination of Chorus' transitional initial PQ RAB value, we said that Chorus had not at that stage provided adequate assurance on the application of the central office space allocator type, and that we would revisit this if such assurance is provided prior to finalisation of the initial PQ RAB. Chorus has provided further assurance information, and this has necessitated changes to some of the values that are used to determine the initial RABs.
- 2.117 Our final decisions on the above two matters are set out in Chapter 3 and Chapter 4 of this decision. Given the nature of the two matters outlined above, we have not needed to apply the economic framework that we set out in our transitional initial PQ RAB decision reasons paper.

## Chapter 3 Finalising Chorus' initial regulatory asset bases

### Purpose of this chapter

- 3.1 This chapter discusses our consideration of the revised initial RAB figures that replace the forecast figures used in our transitional initial PQ RAB decision with actual figures, and the final determinations of the value of the initial RABs.
- 3.2 The details of the various components of our final determination of the initial RAB values are set out at 1.5. The discussion in this chapter relates to the following components of the initial PQ RAB and initial ID-only RAB:
- 3.2.1 for the purpose of the final initial RAB value of the FLA, final values for all the non-central office space decisions for FLYs 2021 and 2022, by applying the allocator types determined in 2021, while changing from forecast to actual values; and
- 3.2.2 the final values for core fibre assets in the initial PQ RAB and the final initial ID-only RAB at implementation date, being the "unallocated initial RAB value" of all core fibre assets and the "initial RAB value" of all core fibre assets that are allocated using a non-central office space allocator, by applying the allocators determined in 2021.<sup>116</sup>

### The final decisions we are required to make

- 3.3 As discussed in the regulatory framework section (Chapter 2) above, in our final decision on the transitional initial PQ RAB in December 2021, we said that there would be two matters that we will make decisions on that may result in the final initial PQ RAB (and its components) having a different value to the transitional initial PQ RAB (and its components).<sup>117</sup> These two matters, which relate to the information that has become available in 2022, are:
- 3.3.1 replacing the forecast values for FLYs 2021 and 2022 with actual values; and
- 3.3.2 our decision on the application of the central office space allocator type, which will determine the subsequent allocation values (both asset and operating) relating to central office space.

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<sup>116</sup> The central office space allocator is discussed in Chapter 4.

<sup>117</sup> Commerce Commission "Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper" (16 December 2021), paragraph X14.

- 3.4 In this chapter, we discuss our review of the replacement of forecast values with actual values, and our resulting final decisions. The actual values were not available when we determined the transitional value of Chorus' initial PQ RAB, and these actual values enable us to make final determinations relating to Chorus' RABs (see paragraph 2.24). Our decision on the application of the central office space allocator type is covered in Chapter 4.
- 3.5 These remaining decisions, along with our decisions made as part of the transitional initial PQ RAB, establish the final values of Chorus' initial PQ RAB, initial ID-only RAB and initial ID RAB. These initial values underpin the value of Chorus' future PQ, ID-only and ID RABs and cannot be reconsidered at a later date.<sup>118</sup> We explain our determination of the final value of "opening tax losses" for disclosure year 2022 for Chorus in Chapter 5.

## **Analysis of the information required from Chorus to make our decisions**

### **Updated models and documentation**

- 3.6 We required Chorus to provide the following:
- 3.6.1 updated versions of the Chorus BBM CRM IAV model and the resulting Chorus NZL CRM MAR model. The updated models had to replace all forecast information in the version of the Chorus BBM CRM IAV model that produced Chorus' transitional initial PQ RAB with actual financial and cost allocation data;
- 3.6.2 two versions of the models, one retaining the 50% reduction in the central office space allocator value that was specified for the transitional initial PQ RAB and a second version that replicates the first version except that the central office space allocation reduction is removed (i.e., no 50% reduction applied), and the full central office space allocation, as proposed by Chorus' floor space model,<sup>119</sup> included.<sup>120</sup>

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<sup>118</sup> See paragraph 2.24 for details of what we are determining.

<sup>119</sup> Chorus' model uses the term "property footprint" and correspondence has also used the general term "floor space", which is the same as "central office space" as referred to in *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.6(1)(c)(iv) and B1.1.6(2)(d)(iv) of Schedule B.

<sup>120</sup> In our transitional initial PQ RAB decision, a 50% reduction factor was applied to central office space, or more specifically the central office space allocator Chorus used was reduced by 50%. We required an updated version maintaining this reduction to enable comparison with the transitional decision and to provide relevant information for our decision on central office space, should we decide that Chorus did not provide adequate assurance for a 100% application.



- 3.7 In providing this information, Chorus was required to confirm that the only changes made to the modelled figures included:
- 3.7.1 changing forecast values to actual values for the period 1 July 2020 to 31 December 2021;
  - 3.7.2 making any necessary structural changes to the model in order to process input data from 1 July 2020 to 31 December 2021, where all changes made were to be documented with justification for each change and an assurance from Chorus that no change to the overall answer resulted from the changes; and
  - 3.7.3 that no other changes to the modelled figures for the entire financial loss period have been made.
- 3.8 Chorus was also required to provide updated and final versions of relevant models that set out the proposed calculation of Chorus' total initial PQ RAB value and total initial ID RAB value.<sup>121</sup>

#### **Commission review**

- 3.9 Once we received the above information, we undertook a review to:
- 3.9.1 consider what further clarifications of the changes in the calculation of the initial PQ RAB between the transitional initial PQ RAB and the proposed final version we required; and
  - 3.9.2 ensure that any changes were only due to updating from forecast figures to actual figures.
- 3.10 In order to review the latest figures from the model with those produced for the transitional initial PQ RAB in December 2021, we used the updated version of Chorus' initial PQ RAB (IAV) model based on the equivalent 50% allocation of central office space.

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<sup>121</sup> As a minimum we required the provision of updated versions of the Chorus Integrated Demand Revenue Model, Chorus BBM opex allocation model, Chorus BBM CRM IAV model and Chorus NZL CRM MAR model. We required updated versions of previously supplied model documentation supporting the model calculations where that documentation required updating.

- 3.11 We have updated our Commission model using results from Chorus' IAV model that replaces forecasts with actual values for FLYs 2021 and 2022 for a 50% application of the central office space allocator.<sup>122</sup> We then compared these results to those from the Commission model published in December 2021.<sup>123</sup> The figures presented below in Table 3.1 show the difference between figures produced by the December 2021 IAV model and figures from the August 2022 version of the IAV model with the 50% application of the central office space allocation.<sup>124</sup> A negative figure indicates the updated result is lower than the result used for the transitional decision, while a positive figure indicates a higher result than that used for the transitional decision.
- 3.12 The comparison of results for the 50% application of the central office space allocator ensures this comparison only looks at changes due to moving from forecasts to actuals. We do not consider here changes in results driven by the change in central office space allocation.
- 3.13 Specific areas that we reviewed where changes have occurred were:
- 3.13.1 Overall changes to results in the calculation of the initial PQ RAB.
  - 3.13.2 Changes to pre-1 July 2020 figures.
  - 3.13.3 Model changes that were undertaken as part of the update to actuals.
  - 3.13.4 The change to the cost allocation adjustment cash flow in FLY 2020.
- 3.14 These changes are discussed in the following sections of this chapter.
- 3.15 As part of our review, we also identified inadvertent errors in:
- 3.15.1 the “unallocated initial RAB values” of Chorus’ core fibre assets as at the implementation date; and
  - 3.15.2 the “UFB unallocated opening asset values” and “UFB unallocated closing asset values” of Chorus’ UFB assets during the financial loss period.

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<sup>122</sup> Commerce Commission - Chorus' Financial Loss Asset demonstration model - 50% application of central office allocation – 6 October 2022.

<sup>123</sup> Commerce Commission - Chorus' Financial Loss Asset demonstration model - Final decision published 16 December 2021.

<sup>124</sup> We note the models use the term “property footprint” and correspondence has also used the general term “floor space”, which is the same as “central office space” as referred to in *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.6(1)(c)(iv) and B1.1.6(2)(d)(iv) of Schedule B.

- 3.16 We have now made appropriate corrections as explained in paragraphs 3.46-3.50 and 3.59-3.61. These corrections have not affected the value of the initial PQ RAB or Chorus' forecast allowable revenue for each regulatory year of PQP1 because the assets we have now excluded from the unallocated initial RAB had a zero allocation in the transitional initial (allocated) PQ RAB. Even if these corrections had been made earlier, our transitional allocation decisions would still have been the same.

### **Overall changes to calculated figures**

- 3.17 We have considered the overall changes to the proposed final initial PQ RAB result. The proposed values<sup>125</sup> show a significant reduction in the initial PQ RAB value compared to the transitional initial PQ RAB value:
- 3.17.1 The proposed initial PQ RAB value at a 50% application of the central office space allocation is \$5,346 million, \$79million less than the transitional initial PQ RAB value with the same treatment of the central office space allocator (i.e., 50% of total allocation allowed).
- 3.17.2 The proposed initial PQ RAB value at 100% application of the central office space allocation is \$5,413 million, \$12 million less than the transitional initial PQ RAB value.<sup>126</sup>
- 3.18 The proposed true-up for actuals from forecasts in FLYs 2021 and 2022 have therefore, in either case, reduced the proposed value of the final initial PQ RAB compared to the transitional initial PQ RAB value.
- 3.19 Chorus, in its covering letter, notes:<sup>127</sup>

The reductions to the core RAB reflect difficult operating conditions where Covid restrictions have slowed our fibre installation programme and other expected network projects. These restrictions have not impacted projected fibre connection volumes in the medium term.

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<sup>125</sup> We note that we now have values at 50% application of the central office space allocation and 100% application of the central office space allocation. The models use the term "property footprint" and correspondence has also used the general term "floor space", which is the same as "central office space" as referred to in *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.6(1)(c)(iv) and B1.1.6(2)(d)(iv) of Schedule B.

<sup>126</sup> This compares a calculation applying 100% of the central office space allocation with a calculation for the transitional initial PQ RAB that used a 50% application of the allocation.

<sup>127</sup> Chorus cover letter s221 Notice – Initial PQ RAB and Initial ID RAB.

Reductions to the FLA reflect lower than expected operating expenditure as we adapted to difficult operating conditions, reduced discretionary expenditure and accelerated cost reduction initiatives.<sup>128</sup>

3.20 The key changes are summarised in Table 3.1 below.<sup>129</sup> The changes occur in FLYs 2015 to 2021.

**Table 3.1 Comparison of final figures at 50% application of central office space allocation to transitional decision**

Chorus Limited data	Start date 1 Dec 11	7 months to 30 Jun 12	Full year to 30 Jun 13	Full year to 30 Jun 14	Full year to 30 Jun 15	Full year to 30 Jun 16	Full year to 30 Jun 17	Full year to 30 Jun 18	Full year to 30 Jun 19	Full year to 30 Jun 20	Full year to 30 Jun 21	6 months to 31 Dec 21	
<b>Cash flow inputs</b>													
UFB revenues cash flow	\$'000	-	-	-	-	-	-	-	-	-	-	(12,756)	(18,581)
Sum of UFB opening asset values as of 1 December 2011	\$'000	-	-	-	-	-	-	-	-	-	-	-	-
UFB value of net commissioned assets cash flow (allocated)	\$'000	-	-	-	-	(5)	(0)	(2)	1	(31)	10	(84,450)	(51,145)
UFB cost allocation adjustment cash flow	\$'000	-	-	-	-	0	(0)	(2)	(6)	19,045	4,876	-	-
UFB operating expenditure cash flow	\$'000	-	-	-	-	(0)	(0)	(18)	(65)	(49)	(37)	(21,871)	(27,875)
<b>Asset-related inputs</b>													
Depreciation (allocated)	\$'000	-	-	-	(0)	(0)	(0)	(0)	(0)	1	9,392	(2,170)	-
<b>Tax inputs</b>													
Sum of regulatory tax asset values as of 1 December 2011 (allocated)	\$'000	-	-	-	-	-	-	-	-	-	-	-	-
Tax UFB value of net commissioned assets cash flow (allocated)	\$'000	-	-	-	-	(5)	(0)	(2)	1	(28)	9	(66,348)	(32,575)
Tax revenues cash flow	\$'000	-	-	-	-	(0)	(0)	(0)	(0)	0	0	(9,086)	(15,699)
Tax operating expenditure cash flow	\$'000	-	-	-	-	(0)	(0)	(18)	(65)	(49)	(37)	(7,631)	(11,321)
Tax depreciation (allocated)	\$'000	-	-	-	-	(0)	(0)	(0)	(0)	(0)	2	55,114	19,126
Tax cost allocation adjustment cash flow	\$'000	-	-	-	0	(0)	(2)	(2)	(6)	13,510	4,871	-	-

3.21 We have reviewed the changes overall, and in particular the changes in the FLYs 2021 and 2022, and the impacts of the changes on the FLA.

3.22 Our review considered the changes in unallocated values and the resulting allocated values for FLY 2021 and 2022. We sought clarification from Chorus of some of the drivers underlying the changes, and we are satisfied that the updated figures are reasonable.

### Changes to pre-1 July 2020 figures

3.23 While the transitional initial PQ RAB decision was based on actual data up to 30 June 2020, some changes in the results for the period pre-1 July 2020 have occurred. See Table 3.1 above.

3.24 Chorus, in its response to the notice,<sup>130</sup> provided explanations for the changes to these figures (noting that the change to the UFB cost allocation adjustment cash flow is explained at 3.26). These are:

<sup>128</sup> The reduction in the FLA referred to is at the recalculation using the 50% application of the central office space allocation.

<sup>129</sup> These changes are a result of comparing the changes between the results of the Commerce Commission - Chorus' Financial Loss Asset demonstration model - Final decision published 16 December 2021 with the results from a version of this model updated using the final results from Chorus' IAV model for the initial PQ RAB at 50% application of the central office space allocation.

<sup>130</sup> See attachment "Chorus A5 – Changes to model v5 Latest", part of Chorus' response to a notice issued under s 221 of the Act on 16 May 2022.

- 3.24.1 **Changes to the UFB Fraction**, used as part of the calculation of some asset classes in the FAR processing. The differences are a result of the UFB fraction, which is a single value for each asset class that is constant over time, where the single value is estimated from the fraction of the asset class settled to UFB items over the entire period of available data. Therefore, revising data by changing forecast figures to actuals requires the recalculation of the UFB fraction for each asset class<sup>131</sup>; and
- 3.24.2 **Changes to the future benefit allocator**, an allocator calculated using the present value of relative revenues over a 5-year time horizon.<sup>132</sup> Given the forward-looking basis of this allocator, changes from forecasts to actuals in FLYs 2021 and 2022 would be expected to impact the allocator values in the pre-1 July 2020 period.
- 3.25 The major change observed to the pre-1 July 2020 figures, which is separate to the changes in 3.24.1 and 3.24.2, is that relating to the UFB cost allocation adjustment cash flow, which is higher by some \$19 million.<sup>133</sup>
- 3.26 In our final decision on the transitional initial PQ RAB, we set out how Chorus calculates the “UFB cost allocation adjustment cash flow” as the difference between the opening RAB for the subsequent financial period, and the closing RAB for the current financial period. In this calculation, Chorus uses an opening cost allocator value, but does not use a closing cost allocator value.<sup>134</sup>

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<sup>131</sup> Attachment “Chorus A5 – Changes to model v5 Latest”, part of Chorus’ response to a notice issued under s 221 of the Act on 16 May 2022, page 4.

<sup>132</sup> For further details of this allocator, see Commerce Commission “Chorus’ transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper” (16 December 2021), paragraphs 5.80 to 5.156.

<sup>133</sup> The “UFB cost allocation adjustment cash flow” is used to determine the “initial RAB value” of the FLA. See *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.2(3)(a)(i) and clause B1.1.2(4)(a) of Schedule B. Comparison of the Commission’s financial loss asset demonstration model results from December 2021 with the model updated with results based off the 50% application of the floor space allocation for October 2022 shows the difference is between \$65.7 million for the October 2022 result and \$46.7 million for the December 2021 result. We note the models use the term “property footprint” and correspondence has also used the general term “floor space”, which is the same as “central office space” as referred to in *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.6(1)(c)(iv) and B1.1.6(2)(d)(iv) of Schedule B.

<sup>134</sup> Commerce Commission “Chorus’ transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper” (16 December 2021), paragraphs 6.91 to 6.101.

- 3.27 We approved this approach, under the ‘alternative methodology with equivalent effect or substantively the same effect’ provision (alternative methodologies), which provides a mechanism to permit departures from the IMs where certain criteria are met.<sup>135</sup>
- 3.28 The reason for the variation, when compared to the transitional initial PQ RAB, in the UFB cost allocation adjustment cash flow for FLY 2020 is the need to update the allocation factors to reflect the new opening cost allocator values (as defined under clause B1.1.2(4)(a) of Schedule B of the IMs) for FLY 2021. Note that Chorus’ model uses one allocation factor for the entire FLY 2020 and one for the entire FLY 2021.
- 3.29 This change is an inevitable consequence of replacing forecast values with actual values and is consistent with our alternative methodologies decision for the transitional initial PQ RAB in 2021.

### Model changes

- 3.30 Chorus has adopted a structural change to the model to use explicit half years. This specifically recognises the period 1 July 2021 to 31 December 2021 as the financial loss “year” 2022, rather than applying an adjustment to the financial year 2022 (1 July 2022 to 30 June 2022) to arrive at values for 31 December 2021.
- 3.31 We have considered whether these changes are just inevitable consequences of replacing forecast values for FLYs 2021 and 2022 with actual values.
- 3.32 Chorus notes that:<sup>136</sup>

Changing to explicit half years was not intended to change the results but does lead to fractionally different calculations of a small number of quantities arising in those half years (e.g. in allocation of forecast capex across geographies, the calculation was based on FY quantities such as ratios of AOP subscribers, and these ratios are slightly different in the two half years of FY22).

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<sup>135</sup> Commerce Commission “Chorus’ transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper” (16 December 2021), paragraph 6.100. The alternative methodologies for determining financial losses are specified in *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.14 of Schedule B.

<sup>136</sup> Attachment “Chorus A5 – Changes to model v5 Latest”, part of Chorus’ response to a notice issued under s 221 of the Act on 16 May 2022, page 2.

- 3.33 The change to explicit half years was necessary due to the way in which the 6-month period, known as FLY 2022, was modelled originally, without using an explicit six month “year”:
- 3.33.1 the final transitional initial PQ RAB model used 12-month forecasts, taken from Chorus’ standard financial year forecast, for the period from 1 July 2021 to 30 June 2022 and applied a factor (eg, 50%) to produce forecasts for FLY 2022 (the period from 1 July 2021 to 31 December 2021);
  - 3.33.2 the update from forecast to actual for FLY 2022 must replace the forecast with the actual result for the period from 1 July 2021 to 31 December 2021; and
  - 3.33.3 this is different from replicating the original approach used for the transitional initial PQ RAB, which would instead take 50% of the result for the full year (ie, 1 July 2021 to 30 June 2022) figure, resulting in an estimate of the six-month result, just as the original forecast was an estimated figure based on the full year forecast.
- 3.34 We have reviewed the changes implemented by Chorus to use specific half-years in the model and we are satisfied that the change is an inevitable consequence of replacing forecast values for FLYs 2021-2022 with actual values.
- 3.35 We have also reviewed the results of a test undertaken by Chorus to compare the impact of the change to half years, using a switch in the latest IAV model that allows it to replicate the original approach. The results were as follows:
- 3.35.1 Using the latest IAV model that incorporates explicit half years and testing it with the original inputs used for the December 2021 IAV model, with the latest model set to force it to replicate behaviour of the December 2021 IAV model reproduces identically the December 2021 IAV model results.
  - 3.35.2 Using the latest IAV model that incorporates explicit half years and testing it with the original inputs used for the December 2021 IAV model with the switch set to off, so it applies the explicit half year’s approach rather than replicating the original approach, produces some minor differences (as discussed above).<sup>137</sup>

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<sup>137</sup> The differences are in the order of \$10,000 for the overall initial PQ RAB result.

- 3.36 We note that there are other changes to the model, such as addition of new asset classes, removal of the “post2012forecast” time frame and adjustments related to IFRS16 leases<sup>138</sup> (via adding negative book value and depreciation factors). We are satisfied that these are necessary actual adjustments that were not forecast in the 2021 and 2022 financial loss years.

### Assurance

- 3.37 We required Chorus to provide agreed-upon procedures reports, produced by an expert practitioner in accordance with *International Standard on Related Services (New Zealand) 4400 Agreed-Upon Procedures Engagements*, on the reconciliation of IAV model inputs used in the calculation of Chorus’ PQ RAB estimate back to Chorus’ fixed asset register (**FAR**) or to Chorus’ general ledger.
- 3.38 The provision of assurance via agreed upon procedures of the updated figures is important given these decisions underpin the value of Chorus’ final initial RABs and cannot be reconsidered at a future date. We also asked for non-cash items and accruals over \$5million to be identified.<sup>139</sup>
- 3.39 Deloitte was engaged by Chorus to carry out the assurance and has reported its findings. We sought further explanation of the key differences and are satisfied with the explanations from Deloitte and Chorus.
- 3.40 There were no non-cash transactions above \$5 million reported. We reviewed the net value of accruals for the six months to 31 December 2021 and for FLY 2021. We do not consider any adjustments necessary for compliance with the IMs (cashflows only). We are satisfied with the explanations for the key reconciliation differences provided by Chorus.

### Core fibre asset as at 1 January 2022

- 3.41 The calculation of Chorus’ financial loss asset is undertaken based on the financial losses incurred by Chorus in providing UFB FFLAS under the UFB initiative for the financial loss period (1 December 2011 to implementation date). During this period, the asset base is comprised of UFB assets.<sup>140</sup> It does not contain assets that are not UFB assets, as those assets are not employed in the provision of UFB FFLAS.

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<sup>138</sup> New Zealand Equivalent to International Financial Reporting Standard 16 Leases (NZ IFRS 16).

<sup>139</sup> Any accruals as at 31 December 2021 will be locked in to the Initial RAB values.

<sup>140</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.1(2) of Schedule B, definition of “UFB asset”.



- 3.42 At the implementation date, fibre assets employed in the provision of PQ FFLAS or ID-only FFLAS are core fibre assets with certain exceptions.<sup>141</sup> The inclusion of fibre assets employed in the provision of PQ FFLAS and ID-only FFLAS is achieved by changing the scope of cost allocators to include the allocation of all PQ and ID-only regulated FFLAS.
- 3.43 The allocator values used to determine the initial RAB value of core fibre assets as at 1 January 2022 are different to the allocator values used on 31 December 2021 to determine the UFB asset base. At the implementation date, the initial RAB value of a core fibre asset is calculated using an allocator that is appropriate for the provision of regulated FFLAS. For example, an allocator based on the number of lines will increase at implementation date to include lines serving customers receiving a type of regulated FFLAS, which is higher than the number receiving a UFB FFLAS, leading to a higher allocation of assets supporting regulated FFLAS to the core fibre asset than the previous allocation of assets supporting UFB FFLAS during the financial loss period.
- 3.44 This change in scope of assets, from UFB assets to core fibre assets, leads to a higher value for the opening total of core fibre assets as at 1 January 2022 than the UFB asset base closing value at implementation date.<sup>142</sup>
- 3.45 This is the reason that the core fibre asset value of the initial PQ RAB presented in Table 1.2 above is a higher value than the figures presented for the UFB asset base closing value at implementation date below in Table 3.2. The change in allocations from those used to determine UFB assets to those used to determine core fibre assets results in an increase of \$281 million.

#### **Unallocated initial RAB values of Chorus' core fibre assets as at 1 January 2022 – correction**

- 3.46 We have corrected an inadvertent error in the unallocated initial RAB values of Chorus' core fibre assets as at the implementation date.

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<sup>141</sup> Core fibre assets exclude the FLA, works under construction and intangible assets, unless they are finance leases or identifiable non-monetary assets whose costs do not include (wholly or partly) pass-through costs (see *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 1.1.4(2), definition of "core fibre asset").

<sup>142</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.2(2) of Schedule B. The UFB asset base closing value at implementation date is \$3,716 million, as shown below in Table 3.2. This is lower than the total initial value of core fibre assets at a 1 January 2022, shown in Table 1.2 as \$3,997 million.

- 3.47 As part of our review of the replacement of forecast values with actual values, we identified that Chorus' assets that are not employed in the provision of regulated FFLAS had unallocated initial RAB values, rather than just Chorus' core fibre assets.<sup>143</sup> This meant that the unallocated values used for our draft decisions from 19 August 2021<sup>144</sup> and our transitional initial PQ RAB from 16 December 2021 were incorrect.<sup>145</sup>
- 3.48 We have excluded these values, consistent with the IMs, which has resulted in the unallocated initial RAB value for Chorus' core fibre assets at the implementation date of \$4,596million. This adjustment has reduced the unallocated initial RAB by \$436million.
- 3.49 It is important to note that this adjustment does not impact the allocation decisions made as part of our transitional initial PQ RAB decision from 16 December 2021. Our allocation decisions have not been impacted as the excluded asset values had an allocation value to PQ FFLAS of zero. This means the transitional allocation decisions would have been the same even if the adjustment had been made earlier.
- 3.50 Further, this adjustment does not impact Chorus' forecast allowable revenue for each regulatory year of PQP1. Chorus' forecast allowable revenue for each regulatory year of PQP1 has not been impacted as the RAB inputs for PQP1 were based on an allocation to PQ FFLAS.<sup>146</sup> As described in paragraph 3.49, the excluded asset values had an allocation value to PQ FFLAS of zero. This means that Chorus' forecast allowable revenue for each regulatory year of PQP1 would not have changed even if the adjustment had been made earlier.

### **ID-only RAB**

- 3.51 The collection of fibre assets that Chorus employs in the provision of FFLAS that are subject to ID regulation and not PQ regulation is known as its '**ID-only RAB**'.<sup>147</sup>

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<sup>143</sup> As explained in paragraphs 2.44 and 2.79, under clause 2.2.3(1) of the IMs, only core fibre assets have an "unallocated initial RAB value" as at the implementation date.

<sup>144</sup> Commerce Commission "Chorus' initial regulatory asset base as at 1 January 2022 – Draft Decisions - Reasons paper" (19 August 2021), Table X1.

<sup>145</sup> Commerce Commission "Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper" (16 December 2021), Table X1.

<sup>146</sup> Commerce Commission "Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper" (16 December 2021), paragraph 2.68.2.

<sup>147</sup> Refer to paragraphs 2.14 to 2.22 for further explanation of the initial ID-only RAB and initial ID RAB.

- 3.52 To determine the (allocated) total initial ID-only RAB value, allocator values that are specific to determining the proportion of asset values attributable to ID-only FFLAS must be applied. The (allocated) total value of the initial ID-only RAB is separately calculated in the model Chorus has supplied.<sup>148</sup>
- 3.53 We note that the ID RAB is not separately calculated in the model Chorus has supplied. As discussed in paragraph 2.21, the total value of Chorus' initial ID RAB is the sum of Chorus' total initial PQ RAB value and total initial ID-only RAB value.

### **Our final determinations on the initial RABs and opening tax losses**

- 3.54 Our final determinations on the value of Chorus' initial RABs and opening tax losses for disclosure year 2022 are set out in Table 1.2 .
- 3.55 We have reached these determinations after reviewing updated information submitted by Chorus that replaced the forecast values for FLYs 2021 and 2022 with actual values.
- 3.56 These determinations are also based on our final decision on the application of the central office space allocator type and the subsequent allocation values (both asset values and operating values) relating to central office space, as set out in Chapter 4.

### **Updated financial loss asset demonstration model**

- 3.57 As indicated above, alongside this paper we have published a revised version of our FLA discounted cash flow model. This model has been updated, from the version we published in December 2021, to reflect our final decisions and input information provided by Chorus.
- 3.58 The cash flows underlying the calculation of the final FLA are set out in Table 3.2. The "UFB asset base closing value at implementation date" in the table is the value at the end of the financial loss period of the UFB assets.<sup>149</sup> This differs from the value of "Core Fibre Assets" in Table 1.2 as that reflects the addition of core fibre assets that were not UFB assets.

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<sup>148</sup> Refer NON CONF Chorus NZL Core BBM v314\_136v6.4 CRM IAV CC (no links) clean - Commission July WACC - 100 combined S18 O11.xlsb . The SInitialMARAllocatedRAB worksheet provides the ID-only RAB value on 1 January 2022 at cell G3240.

<sup>149</sup> The "UFB asset base closing value at implementation date" means the sum of UFB closing asset values in respect of FLY 2022 – see *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.2(2) of Schedule B.

**Table 3.2 Calculation of the Financial Loss Asset (\$,000)**

Cash flow	Value of cash flows												Present Value
	Start date 1 Dec 11	7 months 30 Jun 12	Full year 30 Jun 13	Full year 30 Jun 14	Full year 30 Jun 15	Full year 30 Jun 16	Full year 30 Jun 17	Full year 30 Jun 18	Full year 30 Jun 19	Full year 30 Jun 20	Full year 30 Jun 21	6 months 31 Dec 21	
UFB revenues cash flows		16,498	34,411	41,232	66,777	100,607	165,552	238,310	333,432	433,902	514,427	288,466	2,632,877
Sum of UFB opening asset value as of 1 December 2011	-34,028												-67,648
UFB value of net commissioned assets cash flow		-142,108	-423,897	-418,077	-467,242	-376,951	-453,136	-527,667	-637,668	-524,960	-510,644	-192,771	-6,411,632
UFB operating expenditure cash flow		-17,040	-38,109	-41,723	-76,506	-101,227	-109,750	-111,724	-133,315	-141,887	-140,996	-60,726	-1,257,036
UFB cost allocation adjustment cash flow		-4,586	-7,558	-15,168	-25,430	-34,692	-42,193	-55,787	-57,680	-79,485	-38,066	0	-463,499
UFB tax costs cash flow		0	0	0	0	0	0	0	0	0	0	0	0
Present value of total net cash flows													-5,566,938
Add UFB asset base closing value at implementation date													3,716,847
Add present value benefit of Crown financing													434,522
Financial loss asset													-1,415,569

### UFB unallocated opening/closing asset values of Chorus' UFB assets during the financial loss period – correction

- 3.59 We have corrected the “UFB unallocated opening asset values” and “UFB unallocated closing asset values” of Chorus’ UFB assets during the financial loss period.
- 3.60 As noted in paragraphs 3.46-3.50, we identified that all of Chorus’ assets during the financial loss period had a “UFB unallocated opening asset value” and “UFB unallocated closing asset value”, rather than just Chorus’ UFB assets.<sup>150</sup> This meant that the Commission Financial Loss Asset models used for our draft decisions from 19 August 2021<sup>151</sup> and our transitional initial PQ RAB from 16 December 2021 included incorrect unallocated values.<sup>152</sup>

<sup>150</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.2(9) of Schedule B, definition of “UFB unallocated opening asset value” and “UFB unallocated closing asset value”.

<sup>151</sup> Commerce Commission “Initial value of financial loss asset – Illustrative workbook – 19 August 2021.xlsx”.

<sup>152</sup> Commerce Commission “Chorus’ Financial Loss Asset demonstration model - Final decision – 16 December 2021.xlsx”.

- 3.61 We have adjusted the relevant values consistent with the IMs. As with the unallocated initial RAB value of Chorus' core fibre assets, this adjustment has not impacted our allocation decisions made as part of our transitional initial PQ RAB decision from 16 December 2021, our draft allocation decisions made as part of our draft decisions from 19 August 2021 or Chorus' forecast allowable revenue for each regulatory year of PQP1. The initial RAB value of Chorus' FLA has also not been impacted by this adjustment. These matters have not been impacted as the unallocated asset values that have now been excluded had an allocation value to UFB FFLAS of zero.

## Chapter 4 Central office space

### Purpose of this chapter

- 4.1 This chapter discusses our decision on the use of the central office space allocator and the resulting allocations for both asset and operating values.

### Our final decision

- 4.2 Our final decision, as explained below, is to allow an allocation of 100% for calculating the Central Office (CO) building costs to be included in the determination of the “initial RAB value” of the FLA and the total value of the initial PQ, ID-only and ID RABs.

### Background

- 4.3 Chorus has allocated asset values and operating costs relating to CO buildings and building services by using the central office space allocator.<sup>153</sup>
- 4.4 As part of our transitional decision, we considered Chorus' proposed use of the central office space allocator and the model provided by Chorus that calculated the central office space allocation values. Chorus sought to have the full (100%) allocation value determined by its model applied for the transitional initial PQ RAB decision. However, in our transitional decision, we adjusted the values applied to be 50% of Chorus' model values.
- 4.5 Time and cost constraints led Chorus to undertake a desktop modelling exercise to calculate its use of central office space, rather than attempting to directly measure the use of CO space by FFLAS. This calculation is a relatively complex one.<sup>154</sup>

### What we said in our transitional initial PQ RAB decision

- 4.6 In our transitional initial PQ RAB decision, we did not accept Chorus' proposed central office space allocation for calculating the central office building and related costs to be allocated to the initial PQ RAB, based on a lack of suitable evidence that Chorus' model and associated data had been certified and assured according to Chorus' assurance framework.<sup>155</sup>

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<sup>153</sup> “Central office space” is a default allocator type available under the IMs. See *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.6(1)(c)(iv) and B1.1.6(2)(d)(iv) of Schedule B.

<sup>154</sup> Chorus, “Property model Overview – 5 November 2021”, page 1 under methodology.

<sup>155</sup> Commerce Commission “Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final Decision: Reasons paper” (16 December 2021), paragraph 5.372.1.

- 4.7 We also decided to allow an allocation equal to 50% of Chorus' proposed allocation to be included in the transitional initial PQ RAB, reflecting the uncertainty around the appropriate allocation given the inadequate assurance of the original proposal. This was a conservative estimate of the appropriate allocation.<sup>156</sup>
- 4.8 We noted that Chorus would have the opportunity to provide adequate assurance when we decide on the final initial PQ RAB in 2022. If Chorus did not provide adequate assurance, we said that it was likely that the allocation we allowed in the transitional initial PQ RAB would remain.<sup>157</sup>

#### **Our 29 April 2022 Request for Information (RFI)**

- 4.9 On 29 April 2022, we provided Chorus with more detail about the evidence we required to understand how Chorus' internal assurance and certification process had been applied to its central office space allocation.<sup>158</sup> We did this by way of an RFI.
- 4.10 In our RFI, we asked Chorus to provide evidence that the internal assurance and certification process had been applied successfully to Chorus' floor space model.<sup>159</sup> We asked that this documentary evidence include:
- 4.10.1 relevant records of any risks, limitations and assumptions made by the technical lead, technical reviewer, quality assurance reviewer and project lead, in accordance with Chorus' documented assurance framework;
  - 4.10.2 any certificates, reports or other relevant documents produced at the end of each stage of assurance;
  - 4.10.3 reports from any independent reviewers, whether internal to Chorus or from an external third party; and
  - 4.10.4 any other relevant documentation that supported the assurance review conclusions (for example, if a meeting was held with the subject matter expert(s) who prepared the model to discuss any questions from reviewers, relevant notes or other documentation of the meeting).

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<sup>156</sup> Commerce Commission "Chorus' transitional initial price-quality regulatory asset base as at 1 January 2022 – Final Decision: Reasons paper" (16 December 2021), paragraph 5.372.2.

<sup>157</sup> Ibid, paragraph 5.382.

<sup>158</sup> Commerce Commission, "Initial RAB – floor space model assurance RFI – 29 April 2022".

<sup>159</sup> We note the model uses the term "property footprint" and correspondence has also used the general term "floor space", which is the same as "central office space" as referred to in *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause B1.1.6(1)(c)(iv) and B1.1.6(2)(d)(iv) of Schedule B.

- 4.11 We also asked Chorus to provide us with the updates necessary to replace forecasts in the model with actuals, requesting that Chorus:
- 4.11.1 provide clear information on the updates undertaken in the model to replace forecasts that existed in the previous version with actuals to 31 December 2021 that are now available; and
  - 4.11.2 identify what forecast information existed in the previous version of the model used by the Commission to determine the transitional initial PQ RAB and confirm it has now been replaced with actual information.
- 4.12 We also told Chorus that we expected that documentation it provided would clearly set out any limitations of the model that will impact on its use in considering the impact of vacant space in Chorus properties.

### **Chorus' response**

- 4.13 Chorus provided a mixture of public and confidential material relating to its initial model:<sup>160</sup>
- 4.13.1 **Reports from independent reviewers:** Chorus has supplied a confidential report dated 2 June 2022 from Deloitte on the mathematical integrity and consistency of logic with the model documentation. This report covers both the original model and the updating of forecasts with actuals.
  - 4.13.2 **Updated narrative:** Additional general information and explanation is provided in a report provided by Chorus responding to our RFI.<sup>161</sup>
  - 4.13.3 **A new version of the property model:** Chorus supplied an updated model with actuals replacing forecasts up to 31 December 2021.
  - 4.13.4 **Confidential material:** Chorus provided various other documents in support of its main arguments (floor plans, lists of certifiers and the like), which remain confidential.
- 4.14 Chorus also supplied updated information to replace the forecasts in the model.

### **Discussion and final decision on the central office space allocator**

- 4.15 After examining Chorus' material and obtaining the necessary clarification of issues arising from our review, our decision is that there is now satisfactory evidence of certification and assurance of Chorus' model.

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<sup>160</sup> In response to our list of requirements described at paragraph 4.10.

<sup>161</sup> See "Chorus response to Commerce Commission RFI 'Chorus floor space model assurance' dated 29 April 2022" public version dated 3 June 2022.



- 4.16 The provision of a third-party report, focusing on the mathematical integrity and consistency with the documentation of the property model, gave us further confidence that the model meets the required level of assurance.
- 4.17 With this increased level of assurance we conclude that the central office space allocator proposed by Chorus meets the IM requirements for an asset allocator and cost allocator as it is based on a “causal relationship”:<sup>162 163</sup>
- 4.17.1 this means, in relation to a cost driver, the central office space is a circumstance leading to an operating cost being incurred and in relation to an asset value central office space is a circumstance in which a factor influences the employment of an asset;
- 4.17.2 it is, in respect of the financial loss period, consistent with similar measures, both within a FLY, and between FLYs; and
- 4.17.3 it is objectively justifiable and demonstrably reasonable as it limits the allocation of costs to the proportion of central office space that is used in buildings in areas that have UFB FFLAS deployed (or regulated FFLAS deployed post-implementation) and takes account of both the physical space requirements of equipment and the share of relevant connections.
- 4.18 Based on our analysis under paragraphs 4.15-4.17 we have decided to allow 100% of the allocation to be used in calculating the CO building costs to be included in the determination of the “initial RAB value” of the FLA and the total value of the initial PQ, ID-only and ID RABs.

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<sup>162</sup> Fibre Input Methodologies Determination 2020, as amended on 29 November 2021, clause 1.1.4(2), definition of “asset allocator” and “cost allocator”.

<sup>163</sup> Fibre Input Methodologies Determination 2020, as amended on 29 November 2021, clause 1.1.4(2) and B1.1.1(1) of Schedule B, definition of “causal relationship”.

## Chapter 5 Opening tax losses for disclosure year 2022

### Purpose of this chapter

- 5.1 This chapter explains our determination of the final value of “opening tax losses” for disclosure year 2022 for Chorus, in accordance with clause 2.3.3(3)(a)(i) of the IMs. The value of “opening tax losses” is affected by changes to the values of UFB assets and the financial losses as these changes have tax implications, for example by affecting tax depreciation and the cost of financing assets and losses.
- 5.2 The transitional value of the “opening tax losses”, set in December 2021, was used for the purpose of determining the regulatory tax allowance for each regulatory year of PQP1 under clause 3.4.1 of the IMs.
- 5.3 The difference between the final and transitional values of the “opening tax losses” has no impact on PQP1 revenue as this has already been set and is not subject to the wash-up mechanism under clause 3.1.1(4)-(12) of the IMs. In any event, when we set PQP1 revenue the value of ‘opening tax losses’ resulted in a tax building block of zero. Had we known the final value of ‘opening tax losses’ when we set PQP1 revenue, the tax building block would still have been zero, and therefore PQP1 revenue would not have changed.
- 5.4 For PQP2 onward, building blocks revenue will be based on actual tax loss information from ID, which will reflect the final value of tax losses at implementation.<sup>164</sup> Tax losses will be rolled forward on the basis of opening tax losses plus any actual current period tax losses less actual utilised tax losses.<sup>165</sup>

### Final determination

- 5.5 We have now determined the final value of the “opening tax losses” for disclosure year 2022 for Chorus of -\$1,052 million.

### Relevant considerations

- 5.6 Clause 2.3.3(3)(a)(i) of the IMs specifies that, for disclosure year 2022, “opening tax losses” is a value as determined by the Commission.

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<sup>164</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 3.4.1.

<sup>165</sup> *Fibre Input Methodologies Determination 2020*, as amended on 29 November 2021, clause 2.3.3(3)(b) and 2.3.3(4).

- 5.7 In our decision in December, we indicated that calculating the “opening tax losses” involves judgement, which we must exercise according to s 166(2) of the Act. The calculation involves the use of many of the values determined from applying the IMs, including “value of commissioned asset”, “depreciation”, “cost of debt”, “leverage” and “net drawdown” of senior and subordinated Crown debt.
- 5.8 In our decision on the transitional value of the “opening tax losses”, we explained the steps we used in the calculation and provided the calculation in the FLA demonstration model that accompanied that decision.<sup>166</sup> We also said that we would use the same FLA demonstration model for the final determination of the “opening tax losses” for disclosure year 2022 for Chorus.<sup>167</sup>
- 5.9 For the final value of the “opening tax losses” we have now applied the same steps and have used the same FLA demonstration model as we used for the transitional value of the “opening tax losses”.
- 5.10 Chorus has used our method to calculate the final value of “opening tax losses” and has calculated a value that is substantively the same as our final value.<sup>168</sup>
- 5.11 The final value of “opening tax losses” for disclosure year 2022 for Chorus, -\$1,052 million, is higher than the transitional value of -\$955 million.
- 5.12 The \$97 million difference between the values of the final and transitional “opening tax losses” is attributed to:
- 5.12.1 Finalising the value of tax depreciation in the transitional value of “opening tax losses” for FLYs 2021 and 2022. The revised values of tax depreciation increase the value of “opening tax losses” by \$74 million.
- 5.12.2 Application of 100% of the central office space allocator, which increases the value of “opening tax losses” by \$17 million.
- 5.12.3 The change from forecast values to actual values has changed the calculation of tax revenues cash flow, tax operating expenditure cash flow and tax cost allocation adjustment cash flow for FLYs 2021 and 2022,<sup>169</sup> which increases the value of “opening tax losses” by \$6 million.

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<sup>166</sup> Commerce Commission “Chorus’ transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper” (16 December 2021), paragraph 6.30.

<sup>167</sup> Commerce Commission “Chorus’ transitional initial price-quality regulatory asset base as at 1 January 2022 – Final decision – Reasons paper” (16 December 2021), paragraph 6.33.

<sup>168</sup> Chorus’ calculation is \$251 lower than our calculation.

<sup>169</sup> The concepts of “tax revenues cash flow”, “tax operating expenditure cash flow” and “tax cost allocation adjustment cash flow” are all contained in the model published with this paper, see Commerce Commission - Chorus’ Financial Loss Asset demonstration model - Final decision – 6 October 2022.

- 5.13 Chorus explained that the forecast estimates of tax depreciation rates in the transitional tax loss decision were particularly inaccurate for the asset categories of IFRS 15<sup>170</sup> (the incremental costs of obtaining contracts (e.g. incentive payments)) and cabinets. We are satisfied with Chorus' explanation that the inaccuracy was the result of forecasting tax depreciation rates at an aggregate rather than detailed level.
- 5.14 The decision to apply 100% of the central office space allocator increases tax losses mainly by increasing tax operating costs.
- 5.15 The steps involved in the calculation of the "opening tax losses" are:
- 5.15.1 **Step 1.** Calculate the debt financing costs of commissioned assets.
- 5.15.1.1 This involves calculating, for each annual amount of commissioned UFB assets, the depreciated value of the commissioned UFB assets for each of the remaining FLYs until implementation.
- 5.15.1.2 The interest rate applicable to the year in which the UFB assets are commissioned is used to calculate the gross cost of debt financing for each FLY of the remaining term. The calculation accounts for leverage.
- 5.15.2 **Step 2.** Calculate the avoided costs of debt financing for Crown funded assets.
- 5.15.2.1 This is like the previous step except the Crown funded assets are not depreciated.<sup>171</sup>
- 5.15.2.2 The Crown debt financing rate for the FLY in which the assets are commissioned is used to calculate the avoided interest on Crown funded assets.
- 5.15.3 **Step 3.** Calculate the debt financing costs of annual losses.

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<sup>170</sup> NZ International Financial Reporting Standard (IFRS) 15 Revenue from Contracts with Customers.

<sup>171</sup> Assets funded by the Crown are assumed to not depreciate over the financial loss period because in general Crown funding was not repaid over the financial loss period.

- 5.15.3.1 This step first involves calculating the sum of UFB closing asset values including an adjustment for losses for each FLY of the financial loss period. The UFB closing asset value for a FLY including an adjustment for losses is the UFB closing asset value that is rolled-forward each year inclusive of losses.<sup>172</sup>
- 5.15.3.2 The UFB closing asset value for a FLY adjusted for losses is calculated as the difference between the UFB revenues cash flow and UFB costs cash flow that includes the cumulative financing costs of losses for a given FLY.
- 5.15.3.3 The UFB closing asset value including an adjustment for losses for each FLY is then used to calculate the annual loss that is needed to reconcile the UFB closing asset value exclusive of losses with the UFB closing asset value inclusive of losses for that FLY.
- 5.15.3.4 Each annual loss is then used to calculate the debt financing costs associated with that loss for the remainder of the financial loss period. The calculation accounts for leverage.
- 5.15.3.5 The debt financing costs associated with losses for each year are then summed to obtain the total annual cost of debt financing losses.
- 5.15.4 **Step 4.** Calculate the annual values of notional deductible interest by summing the debt financing costs of commissioned assets, the (negative) avoided costs of debt financing Crown funded assets and the debt financing costs associated with losses.
- 5.15.5 **Step 5.** These annual values of notional deductible interest are then used in the tax accounts to calculate the value of the "opening tax losses" for disclosure year 2022.
- 5.15.5.1 These steps are implemented in the FLA demonstration model which accompanies this determination.

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<sup>172</sup> This differs from the general calculation of the roll-forward of the allocated UFB fibre assets, which does not include the losses accumulated over time. Note that our method works by deconstructing the FLA into its constituent parts on an annual basis for the purpose of calculating the annual financing costs. The FLA is calculated as the "present value of total net cash flows" plus the "UFB asset base closing asset value at implementation date" plus the "present value benefit of Crown financing".