Commerce Commission draft decision on Chorus's expenditure allowance – reply to certain cost allocation issues

Report for Chorus

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1. Introduction and summary

1.1 Background

1. The Commerce Commission has recently published its draft decision on Chorus's expenditure allowance for the second regulatory period (2025-2027, RP2),[1] which addressed how Chorus proposed to allocate its operating expenditure between the regulated fibre services (fibre fixed line access services, or FFLAS) and the other services that Chorus provides. These other services (collectively non-FFLAS services) are principally telecommunications services provided over the legacy copper network, but with a material and growing set of unregulated fibre-based services.

2. We provided a report for Chorus in relation to the allocation of operating expenditure for the pre-implementation period[2] and the first regulatory period (2022-2024, RP1),[3] and a further report in relation to cost allocation for RP2, both of which are discussed by the Commission.

3. Chorus has asked us to respond to the Commission's economic arguments in the Draft Reasons Paper in relation to cost allocation, including how the Commission has addressed our earlier reports.

1.2 The principal issues

4. The Commission's framework for cost allocation requires that:

   a. operating costs that can be directly attributed to either the regulated fibre services, or other services, be allocated to the respective services, and

   b. the remaining costs (the "costs not directly attributable", which we refer to as the "shared costs") be allocated between the regulated fibre and other services, and the Input Methodologies include criteria to guide this allocation.

5. The matters that are addressed in this report relate how certain shared costs should be allocated in the "corporate" cost centre and in the "chief technology officer" cost centre.[4]

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[1] Commerce Commission (2024), Chorus' expenditure allowances for the second regulatory period (2025 – 2028): Draft decision – Reasons paper, April ("Draft Reasons Paper").

[2] Incenta (2021), Certain cost allocation issues relevant to the IAV, March ("Incenta (2021)"). The "pre implementation period" refers to the period from the commencement of the UFB project to the commencement of RP1. The Telecommunications Act required an assessment of Chorus's cost of service compared to its revenue during this period as part of the setting of the initial regulatory asset base, which in turn required an allocation of costs between Chorus's FFLAS and non-FFLAS services over the period back to financial year 2012.

[3] Incenta (2023), Cost allocation issues for RP2, October ("Incenta (2023)").

[4] Both of our reports addressed a wider range of issues, which are not relevant to or in dispute in, the current matter. For example, Incenta (2023) addressed how certain shared costs in the "consumer and network operations" and "product sales and marketing" cost centres should be allocated (co-location services, service company management and PSM personnel), all of which were accepted by the Commission.

6. For the pre-implementation period and RP1, a substantial portion of the shared costs were allocated according to the relative shares of the regulated fibre services and other services with respect to total expenditure (referred to as "totex"). For RP2, and consistent with what Chorus (and ourselves) foreshadowed when the RP1 prices were determined,[5] a change of allocators has been proposed (namely, relative revenue). The Commission's draft decision is to not allow the change of allocators, so that the totex allocator would continue to apply in RP2 where it did in RP1.

1.3 The Commission's comments and summary of our response

1.3.1 Our previous advice

7. Incenta (2023) set out in detail the economic principles that are relevant to the application of the Input Methodology cost allocation requirements and that best achieves the Purpose Statement in the Act.[6] A conclusion of that report was that the objective of the allocator should depend on the economic nature of the specific shared cost item being allocated:

    a. Cost items that are likely to be incremental to a group of services should be allocated according to the best estimate of how those costs are caused (this will isolate the incremental cost of each service as accurately as possible), and

    b. Economic common costs should be allocated in a manner that allows their recovery overall (but avoids double-recovery).

8. Our findings were that:

    a. the majority of the cost incurred in the corporate and CTO systems shared costs comprise economic common costs, which we said should be allocated using a relative revenue allocator, and

    b. of the remaining (incremental) costs, a relative revenue allocator is likely to be a reasonable proxy for the true causal allocator in most cases

        i. we noted that while relative revenue is not always the best available proxy allocator,[7] applying the same allocator across all of the relevant items would have the benefit of simplicity and be robust to changes in Chorus's corporate structure and how it chooses to deliver its IT systems

        ii. accordingly, we recommended applying a relative revenue allocator to both the (economic) common and incremental costs contained in the relevant shared costs.

9. The Incenta (2023) report built on the observation we made in Incenta (2021), when advising on cost allocation for the pre-implementation period and RP1 that different cost

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5 Refer to paragraph 8 below.
6 Telecommunications Act 2001, section 162.
7 That is, in this context the best proxy for a causal allocator that is available in the circumstances.

allocators were likely to be appropriate after the UFB had been delivered and Chorus returned to a more business-as-usual state:[8]

> *In terms of the list of default allocators, none of the allocators would be expected to provide a reasonable proxy for the effort that corporate service functions exercise in relation to expenditures between the copper and fibre services that reflect the current context, namely where one of the networks is being constructed. Where there were two networks in operation (i.e., already constructed), then relative customer connections may be a reasonable proxy for relative corporate effort. However, as customer connections will lag expenditures by some period where a network is being constructed, this allocator is not appropriate in the context of fibre services.*

1.3.2 The Commission's comments

10. The Commission did not appear to disagree with this economic framework; however, it expressed reservations about how it has been applied, and specifically that:

a. Our recommendations for changing the allocators were based on the assumption that Chorus's shared costs are likely to be principally (economic) common costs, and/or that we had assumed that Chorus has returned to a business-as-usual state

i. The Commission did not accept these assumptions – it thought there may still be UFB-related costs in shared costs (a cost that will be incremental to FFLAS) as well as costs associated with copper decommissioning (costs that will be incremental to non-FFLAS services)

ii. The Commission further explained its concerns in relation to the CTO systems cost, where the extent of direct attribution to non-FFLAS services has declined recently (which it interpreted to be a sign that copper decommissioning costs were being reflected in shared costs)

11. The Commission also criticised the judgement that we made about the trade-off between the extent of precision applied when allocating costs and the complexity (and potential reduction in robustness to change).[9]

12. Lastly, the Commission highlighted that Chorus's proposed allocators would cause an upward step change in the proportion of the relevant shared costs that are allocated to FFLAS.

1.3.3 Reply to the Commission's comments

13. In our view, most of the concern of the Commission over how Chorus's shared corporate and CTO systems costs are allocated are based on misapprehensions. However, in

8 Incenta (2021), p.15.

9 We proposed applying a relative revenue allocator to the whole of the corporate shared costs and the shared CTO systems costs. This recommendation was based on the finding that (i) the majority of costs were likely to be economic common costs, for which a relative-revenue allocator is appropriate, and that (ii) a relative revenue allocator is a reasonable proxy for a causal allocator for the cost items that were likely to be incremental costs (although there were often better allocators for these cost items).

relation to the concerns that are valid, the most appropriate response would be to extend our previous cost allocation work to apply more disaggregated and precise cost allocators, rather than replacing a relative revenue allocator with a totex allocator as the Commission has proposed.

14. The Commission's statement that we assumed that Chorus's shared costs would be principally (economic) common costs is a misunderstanding. Our review of the allocators for Chorus's shared corporate costs and CTO systems costs was based on a detailed analysis of the cost structure of the relevant cost centres (assisted by Chorus's experts).[10] However, we acknowledge that we did assume that Chorus had returned to a more business-as-usual state with the completion of the UFB roll-out.

15. In terms of the unusual UFB-related costs, we think it is unlikely that these have a material component in Chorus's forecasts (which are based the 2022 year). However, if these costs are still present, then it would mean that Chorus's proposed allocation would under-allocate these costs to FFLAS, which is the reverse of the result that the Commission is concerned about.

16. In terms of the potential copper decommissioning costs:

    a. Advice from the CTO experts is that it is very unlikely that these costs were present in the forecasts – the systems decommissioning costs will only occur after systems are able to be closed down, and the costs in question will be labour costs and so show up in another cost category.

    b. The potential does exist that copper decommissioning costs are being undertaken in the corporate area; however, these costs will be far less material and pervasive across the corporate area than the UFB related costs.

17. In terms of the Commission's observations about the trend in the proportion of CTO systems costs that are directly attributable to non-FFLAS services, our investigations suggest that the declining proportion of directly attributable costs is a product of Chorus maximising the efficiency of its IT systems. This includes switching copper service processes onto common IT systems when legacy systems are replaced, and running new non-FFLAS services on common IT systems. The considerable fall in Chorus's shared IT systems expenditure over recent years suggests that there has not been a new source of cost (such as copper decommissioning costs) included in these cost items.

18. The correct response to a concern that there are copper decommissioning costs in the corporate cost centres would be to isolate where those costs are likely to occur, and adjust the allocators accordingly. Similarly, the correct response to the Commission's concern that our allocation of costs in both areas overly trades-off accuracy for simplicity would be to apply a more complex allocation so that incremental costs are more accurately reflected in the allocators.

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[10] We did explain that several trends may have been observed that meant that a review of the allocators was justified (noting that a review is mandated by the Input Methodologies in any event), one of which was that the extent of direct attribution of costs may be expected to increase over time (as well as the fact that Chorus's activities had fundamentally changed). [11] Incenta (2023), section 2,2.1.

19. Finally, that the outcome of Chorus's proposal of an increase in the proportions of the shared costs being allocated to FFLAS should not in itself guide the choice of allocators. The outcome of the allocation is not relevant to the choice of allocators under the Input Methodologies. In addition, an alternative view is that the switch to a relative revenue allocator should have occurred at the start of RP1 (a change that would have had some justification and at that time would not have caused a step change) and the switch for RP2 now amounts to a correction of the RP1 allocators.

2. Cost allocation for the shared corporate costs and shared systems costs

2.1 Economic principles of cost allocation

20. We do not perceive a material disagreement between the Commission and ourselves about the relevant economic principles in relation to cost allocation. However, we think it is worth summarising the framework that we applied in our previous reports to reduce the potential for misunderstandings.

21. In our 2023 report, we observed that there are two forms of cost that are meaningful according to economic principles, which are:[11]

    a. incremental costs – being those costs that would not have been incurred without the provision of the group of services in question (e.g., regulated fibre services, FFLAS), assuming the other group of services (e.g., copper and unregulated services, non-FFLAS) is already being provided, and

    b. common costs – being those costs that would have been incurred if either one of the groups of services were provided, and do not change as a consequence of providing the second groups of services.

22. Our advice was that the appropriate outcome of the cost allocation exercise should be that:[12]

    a. each group of services is allocated its incremental cost, and

    b. each group of services is then allocated a share of the (economic) common costs

        i. we further said that the non-FFLAS group of services should be allocated the share of the (economic) common costs that are likely to be recoverable from those services

        ii. we concluded that this rule for sharing the (economic) common costs is consistent with the Purpose Statement (including the achievement of expected real NPV=0) and the Input Methodologies, and would avoid "double recovery" of (economic) common costs, and

        iii. the allocator that would best achieve this in the context of the non-FFLAS services is one that reflects relative revenue.[13]

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11 Incenta (2023), section 2,2.1.

12 Incenta (2023), sections 2.2.2, 3.2.

13 We also identified connections (subscriber numbers) as an alternative possible allocator for common costs; however, we viewed this as less preferable because there are non-FFLAS services that do not have associated subscribers. Consistent with this concern, using connections as a common cost allocator would result in a greater share of the common costs being allocated to FFLAS than when using a relative-revenue allocator.

23. We then observed that incremental costs and common costs are not typically observable from a firm's accounts. Whilst the portion of costs that can be directly attributed to a group of services will be incremental to that group of services, the costs that cannot be directly attributed ("shared costs") may comprise incremental costs, (economic) common costs or a mixture of the two. This means that the allocators that are used to allocate shared costs between FFLAS and non-FFLAS need to serve a dual purpose:[14]

a. For the shared costs (or part of shared costs) that are likely to be incremental to one service or the other, the allocator needs to identify the portion that is incremental to each – that is, the allocator will should reflect how costs in relation to the specific cost item are caused.

b. For the shared costs (or part of shared costs) that are economic common costs, the allocator should reflect the capacity for common costs to be recovered from each service, as noted above – this allocator will be the same for all common cost items.

c. It therefore also follows that, to allocate the shared costs in an economically meaningful way, a view is first required on whether the cost item in question is likely to be (principally) incremental to the services, (principally) economic common costs, or a combination (and, in that case, the approximate share of each).

2.2 Propositions about why a review of allocators is warranted

24. In our 2021 report, we observed that it is reasonable to expect that different allocators would be relevant during the period that the UFB was rolled-out compared to the subsequent business-as-usual operation. Specifically, one would expect there to be substantial additional activities associated with activities like risk-management, funding and business strategy related to the large capital programme that would then cease after the roll-out. This would mean that:

a. for some cost items that might ordinarily be economic common costs during business-as-usual operation may have additional costs included that are incremental to the UFB activities, and

b. the allocators that may provide a reasonable proxy for incremental cost during business-as-usual operation may not provide a reasonable proxy during the UFB rollout.

25. We note that the roll-out of the UFB was not just a very large expenditure. Rather, the roll-out was a very large expenditure on a new technology that would in a short time become the central asset underpinning Chorus's principal business activities.

26. We observed that an allocation that was based on totex would better capture the additional activities that were caused by the roll-out of the UFB build (and so FFLAS) during the rollout. However, as with all proxies, imperfections in this allocator would be inevitable, for example:

14 Incenta (2023), sections 1.2.2, 2.2.3.

a. A totex allocator would likely under-identify the planning and risk management costs that were incurred in advance of expenditure, which one would expect to have been principally during the initial years of the program.

b. In parallel, it would be expected that the planning and risk management expenditure would have been more heavily incurred at the front-end of the program, and so have tapered-off by the end of the program.

27. Our 2023 report built upon these considerations and identified changes in Chorus's business since the completion of the (main) UFB rollout that would warrant a review of the allocators.

28. First, with the completion of the roll-out, the additional corporate activities that were undertaken to prepare for, and implement, the roll-out would have ceased. This may mean, amongst other things, that:[15]

a. cost items that were related to the UFB rollout would return to being (economic) common costs in the business-as-usual environment, and

b. for cost items that are sensitive to the level of activity in the business (and so are likely incremental to the respective services), there may be a better allocator for isolating the portion of these costs that are incremental to the respective groups of services.

29. We also observed that as the business enters a more business-as-usual state, it would be possible to improve the precision with which costs are allocated. Some of the trends may include:[16]

a. an increase in the capacity to divide shared costs between those that are either principally incremental to the services, from those that are principally economic common costs, and so simplify the choice of allocators, and

b. for the cost items that are incremental to the services, an increase in the extent to which these are captured within the directly attributable costs (so that an allocator would not be required).

30. Lastly, with the benefit of time and further thought, preferable allocators to those applied for the pre-implementation period and for RP1 may be found. We read the Input Methodologies as requiring a process of continuous improvement so allocators should be refined over time where possible, irrespective of whether the nature of the business, or its structure, has changed.

15 Incenta (2023), section 3.1.
16 Incenta (2023), para.9, section 3.1.

2.3 Our review of the RP2 allocators for Corporate and CTO shared costs

31. Our 2023 report comprised a review of the allocators for certain corporate and CTO shared costs for RP2. The specific scope of this review was:

a. *Corporate costs* – the cost after removal of directly attributable costs, which are principally labour costs, and

b. *CTO systems costs* – which comprise the external costs incurred for the licencing, maintenance and like costs for the IT systems that Chorus employs. The labour costs incurred in the CTO cost centre appear elsewhere (and have a different allocator), and any costs incurred in using the systems appears in the cost centre for the user.

32. In relation to the corporate cost centre, our process was to:[17]

a. separate the corporate functions into 13 meaningful sub-functions, based around the structure of Chorus's operations

b. for each of the sub-functions, identify (with the assistance of subject matter experts) whether the "effort" required (as a proxy for labour cost) was likely to be principally an economic common cost (i.e., invariant to whether the second service is provided), or incremental to the services, or a mixture of both, and classify the sub-function accordingly, and

c. in relation to the incremental cost element in the sub-functions, identify (with the assistance of subject matter experts) the best proxy for the driver of those costs.

33. In relation to the CTO common costs, our process was to:[18]

a. breakdown the costs by IT platform and then cost element for each IT platform (there were 123 IT platforms with non-zero expenditure in 2024, each of which was further broken down into cost items)

b. obtain advice from Chorus subject matter experts as to how each of the line-item costs would change with a large change in output of either of the groups of services, and so classify the cost items into those that are:

i. principally economic common costs

ii. principally incremental costs, or

iii. a mixture of the two and the approximate shares of each (with cost items classified as approximately 25 per cent common, 50 per cent common and 75 per cent common), and

17 Incenta (2023), section 3.4 and Appendix B.
18 Incenta (20023), section 3.3.

c. for the incremental costs, obtain information from the subject matter experts regarding the best proxy for the driver of relevant cost items.

34. Our findings in relation to the corporate cost centre were that:[19]

a. the majority of the cost centres comprise what are likely to be economic common costs, and so should be allocated according to relative revenue, and

b. for the costs that are expected to be incremental, a relative revenue allocator is either the best or second-best proxy (in terms of capturing how costs are caused) that is available in the circumstances, and so is also a reasonable proxy allocator for these cost items.

35. We also observed that a simpler approach to cost allocation (i.e., one that applied allocators at a higher level of cost aggregation) would be more robust to changes in Chorus's corporate structure than a more complex (disaggregated) approach to allocation. We recommended applying the relative revenue allocator across the whole of the corporate cost centre's shared costs reflecting the conclusions in paragraph 34 and these perceived benefits of simplicity.

36. With respect to the CTO common costs, our findings were that:[20]

a. approximately 80 per cent of the costs are likely to be economic common costs (i.e., would be incurred irrespective of whether one or both sets of services were provided), and so should be allocated according to relative revenue, and

b. of the remainder, we identified allocators for each of the individual cost items that would be expected to provide the best proxy for a causal allocator that is available in the circumstances, concluding that most of these allocators are likely be to be related to relative revenue, and so relative revenue would be a reasonable allocator.

37. Again, we observed that a simpler approach to cost allocation (i.e., one that defines the allocator at a higher level of aggregation) would be more robust to changes in how Chorus structured and delivered its IT systems. We recommended applying the relative revenue allocator across the whole of the CTO shared systems costs reflecting the conclusions in paragraph 36 and these perceived benefits of simplicity.

38. However, in both cases, an alternative – albeit at the expense of some loss of robustness to change – would have been to:

a. apply a relative revenue allocator to the cost items that are likely to be (economic) common costs, or to the share of a cost item that is expected to be an economic common cost, and

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19 Incenta (2023), paras.65-67.

20 Incenta (2023), paras.60-63.

b. apply the allocator for the cost items (or parts of cost items) that is likely to provide the best proxy for a causal allocator (i.e., provide the best estimate of the incremental of each group of services that is available in the circumstances).

3. The Commerce Commission's comments on our advice

3.1 Analytical framework

39. The Commission described in some detail the analytical framework that we summarised in section 2. We observe that the Commission did not appear to disagree with any element of the framework that we proposed.

40. We note that the Commission's statements suggest that it would be sufficient in terms of meeting the requirements of the Input Methodologies if only the incremental costs of non-FFLAS services were allocated to non-FFLAS (i.e., with none of the economic common costs being allocated to non-FFLAS), for example, in the following:[21]

> *It is commonly accepted that incremental costs should be allocated to the service that caused them and common costs should be allocated in such a way that they are only recovered once. Incenta sets out a version of these cost allocation principles in its report. The implication of these is that at a minimum the value of the shared corporate and CTO costs allocated to each service should be at least equal to the incremental costs.*

41. For the avoidance of doubt, our advice was that the non-FFLAS services should be allocated an amount of operating expenditure that reflects:

   a. the incremental operating expenditure that is caused by providing these services, plus

   b. a share of the (economic) common costs that reflect the capacity to recover those costs from non-FFLAS services (for which we said relative revenue was the appropriate allocator).

3.2 Criticisms of our application of the economic framework

42. The Commission's principal comment about our application of the economic framework above was that we had assumed that:

   a. Chorus was in a "business as usual" position,[22] and

   b. Chorus's shared costs would comprise largely (economic) common costs, so that a relative revenue allocator was appropriate.[23]

43. The Commission considered these assumptions incorrect, specifically that:

   a. there may still be unusual UFB-related costs that are affecting costs being in the corporate and CTO cost centres,[24] and

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[21] Draft Reasons Paper, para.4.64.
[22] For example, Draft Reasons Paper, paras.4.67, 4.70.
[23] For example, Draft Reasons Paper, para.4.65.
[24] Draft Reasons Paper, para.4.82.

b. both the corporate and CTO cost areas are likely to be undertaking works associated with the decommissioning of the copper network.[25]

44. The Commission concluded that the presence of these costs means that:

a. it is not appropriate to apply the (economic) common cost allocator to shared costs – an allocator that can identify incremental costs from those shared costs needs to be found, and

b. it is not appropriate to apply an allocator for identifying incremental costs that assumes a “business as usual” position, rather an allocator is required that can isolate costs associated with the non-business as usual activities.

45. The Commission concluded that the above considerations mean that a totex allocator is preferable to a revenue allocator. In particular, the Commission concluded that if there was material incremental cost included in a shared cost item, then a revenue-based allocator would imply there was an under-allocation of cost to the service that gave rise to that incremental cost.

46. The Commission further illustrated its concerns about the CTO cost centre as follows.[26]

a. the Commission said that we predicted that the extent of incremental costs included in shared costs would decline over time as it would be increasingly possible over time to attribute costs to groups of services directly and so the residual that is shared costs would be smaller

b. but it noted that the proportion of directly attributable copper costs had in fact reduced over time, and

c. it inferred from this that the shared CTO costs may be inflated by incremental costs associated with the copper decommissioning, further evidencing why a shift to a revenue-based allocator is inappropriate.[27]

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25 For example, Draft Reasons Paper, paras.4.67, 4.70, 4.80.

26 The Commission also said that our proposal to change the allocators for the CTO systems costs was “based on an expectation that the extent of shared costs that are incremental would have fallen due to incremental costs becoming more likely to be directly attributed as cost granularity improves” (para.4.77). The Commission then suggested that its finding that the extent of direct attribution to non-FFLAS services had in fact fallen undermined our reasons for changing the allocators. However, as discussed in paragraph 10 above, the Commission’s statement that our proposed allocators were based on an assumed change in the extent of direct attribution is incorrect. Our recommended allocators were based on a detailed review of Chorus’s cost structure, assisted by Chorus subject matter experts. The possibility that more costs would be expected to be directly attributable to the two groups of service over time was one of the reasons that we provided as to why a review of allocators was warranted (although this comment in our 2023 report was largely directed to the cost centres that are comprised mainly of labour costs), alongside the observation that Chorus’s activities had changed fundamentally with the completion of the UFB rollout, and that cost allocation should be a process of continuous improvement in any event.

27 Draft Reasons Paper, para.4.77.

47. The Commission also concluded (in relation to the CTO systems costs) that our analysis was excessively imprecise in that we applied the revenue allocator to categories where a better causal allocator may be possible.[28]

48. Lastly, the Commission drew attention to the outcome that the change in allocators Chorus has proposed would lead to an "upward step change" in the proportion of the relevant shared costs allocated to FFLAS from the commencement of RP2.[29]

3.3 Reply to the Commission's comments

3.3.1 The assumptions that we made

49. The Commission is incorrect in saying that we assumed that all of Chorus's shared costs were wholly or principally (economic) common costs. Rather, as discussed in section 2.3, we disaggregated the relevant cost items to the extent possible, and then analysed (with the assistance of expert Chorus staff) the nature of costs in each cost item. From this analysis we:

a. determined whether the costs were principally (economic) common costs, or

b. partly or principally costs that were expected to be incremental to one of the groups of services.

50. For the second class of cost items, we then determined which cost allocators were likely to provide a reasonable proxy for how costs in the cost item are caused, and so provide a reasonable basis for allocating any costs that are incremental to a service to that service. We note that the Commission did not comment on this detailed analysis.

51. While we did recommend applying a revenue-based allocator to the whole of the relevant corporate costs and CTO systems costs, we did this on the basis that:

a. the majority of the cost was likely to comprise economic common costs, implying that a revenue allocator is appropriate, and

b. a revenue allocator is a reasonable proxy for a causal allocator for the remainder of the cost items (being either the best proxy for a causal allocator, or one that is likely to have a relationship to the best proxy).

52. We observe, however, that it would be possible to improve the precision with which incremental costs are allocated to the different groups of services by adopting better cost allocators in relation to the incremental portion of costs (i.e., in the instances where revenue is not the allocator that would provide the best proxy for a causal allocator that was available in the circumstances). This option is discussed further in section 3.3.4.

53. While we made observations about how the capture of information and accuracy of cost allocation may improve over time,[30] this discussion was part of an explanation about why

[28] Draft Reasons Paper, para.4.79.
[29] Draft Reasons Paper, para.4.45 and Figure 4.1.
[30] Incenta (2023), paragraphs 9 and section 3.1.

a review of cost allocators was warranted across some Chorus's cost centres, rather than the review itself. We observe that the discussion in our 2023 report was largely unnecessary because the Input Methodologies themselves mandate a review of cost allocators no less frequently than at 18 month intervals.

54. We accept, however, that we did assume that Chorus is in a largely business-as-usual position when we reviewed the allocators, and specifically that:

    a. we assumed the additional costs associated with the UFB rollout had disappeared by the time of the base year, and

    b. there are no unusual costs associated with the decommissioning of the copper network.

55. We discuss these issues next.

3.3.2 Non-business as usual costs

UFB related costs

56. It is a factual question as to whether there were still unusual levels of activity associated with the UFB in the base year. We observe that:

    a. the base year – 2022 – was after the delivery of the initial UFB program, and indeed was the last year of the delivery of the second extension to the UFB program, and that the rate of project expenditure on the UFB had reduced materially, and

    b. by this time, many of the key risks with the program and with the strategic issues to Chorus with respect to the transition to a new technology had passed (we discussed this in paragraph 26 above).

57. In addition, if there were material UFB-related costs falling into the shared cost categories, then the Commission's logic suggests that the use of a revenue allocator would result in an *under-allocation* of costs to FFLAS, rather than an over-allocation.

Copper decommissioning costs

58. As noted above, we accept the Commission's comment that we have assumed there are not material, unusual levels of activity in the relevant parts of the corporate and CTO cost centres associated with the decommissioning of the copper network.

59. This raises the important question, however, of where these costs are likely to be incurred, as well as their materiality. We address the two cost centres in turn.

CTO systems costs

60. In relation to the CTO systems costs, our understanding is that:

    a. the costs of decommissioning the systems associated with the copper network will be incurred in a separate cost area (CTO project), as the decommissioning costs will take the form of labour-related costs, whereas the CTO costs that we analysed related to the systems costs (i.e., licence fees, maintenance and like costs), and

b. in any event, those costs will not be incurred until the decommissioning takes place, which is expected to be around the end of RP2 (i.e., these activities could not have affected costs in the base year that is being used to forecast the RP2 costs).

61. Thus, the concern of the Commission – that there is a risk that (incremental) copper decommissioning costs may be present in the CTO systems shared costs – is not warranted.

Corporate costs

62. In contrast, we acknowledge that the potential exists for the copper decommissioning activities to cause some additional costs in the corporate shared costs, with the potential for a revenue-based allocator to under-allocate costs to non-FFLAS. The important question, however, is which parts of the corporate cost centre are likely to be touched by these activities.

63. In relation to the UFB roll-out, this was a very large expenditure that required substantial management of finances, as well as management of contractors delivering a new technology that will become the centrepiece of Chorus's ongoing business.

64. In contrast, whilst there will be issues and risks to manage for the decommissioning of the copper networks, it is reasonable to expect that these activities will be an order of magnitude lower than the UFB rollout, and less pervasive across the corporate activities. We note that:

a. the need to manage expenditure risk will be far lower, reflecting the lower level of expenditure, and that the activities will comprise removing and scrapping of assets (i.e., Chorus will have no ongoing interest in the functioning of the assets)

b. the strategic issues to be managed are much less significant – the decommissioning is simply a cost rationalisation exercise, rather than the creation of a new asset that represents a fundamental change in the organisation, and

c. decommissioning will not cause substantial financing-related (i.e., treasury) expenditure given the relatively small expenditure outlay, and the potential for some of the cost to be offset via sales of copper as scrap.

65. The appropriate course of action would be to identify which of the categories of shared corporate cost are likely to have a material requirement in relation to copper decommissioning, and to modify the allocator for these items. We recommend a totex allocator for these items.

a. Importantly, the focus for RP2 needs to be on the copper decommissioning related expenditure that may have been caused in the corporate areas in the base year (i.e., 2022). To the extent that costs may be caused more widely in the corporate cost centre as the decommissioning date draws nearer, and so affect the base year that may be applied for RP3, then that would be an issue to be considered for RP3.

b. We have considered which of the shared corporate cost areas are likely to be affected by copper decommissioning activities, drawing upon our previous work. We expect that the affected cost areas at this stage would largely be limited to the regulatory affairs and associated legal areas, given time before which decommissioning is to occur, the largely fixed nature of senior executive and board costs and the nature of the copper decommissioning activities.

3.3.3 Explaining the trends in CTO systems expenditure

66. First, we would like to clarify our views as there has been some confusion. Our view is that the accuracy with which it should be possible to allocate costs should increase over time, which should occur through routes such as:

a. being able to segment the shared costs between those that are incremental to a service and those that are (economic) common cost, and so provide better clarity over the objective for an allocator (i.e., whether the allocator should be focussed on the cause of costs, or is allocating economic common costs), and

b. for those costs that are incremental costs, the capacity may exist to increase the extent of these costs that are captured as directly attributable costs.[31]

67. There will be practical limits to these trends. As an example, it may be efficient for many support functions that are principally variable costs to be shared across services to deal with the variability in demand across services, and to provide a more varied work environment for employees. However, it may also be expected that, where incremental costs remain as shared costs, it will be possible to improve the allocators (i.e., in terms of how accurately the allocators capture how costs are caused) over time.

68. In terms of these trends, Chorus has been able to increase the extent of direct attribution of staff in the PSM and corporate cost centres, which it did through a detailed examination of the roles of individual staff in the relevant teams. In addition, our analysis of the corporate sub-functions suggested that many could be classified as principally incremental or as principally (economic) common costs, at least under the assumption that Chorus is in a business-as-usual position. Moreover, Chorus has been able to perform a survey of staff (people managers) in the organisation with respect to where the efforts of staff are directed to test the reasonableness of the allocations that it proposed.

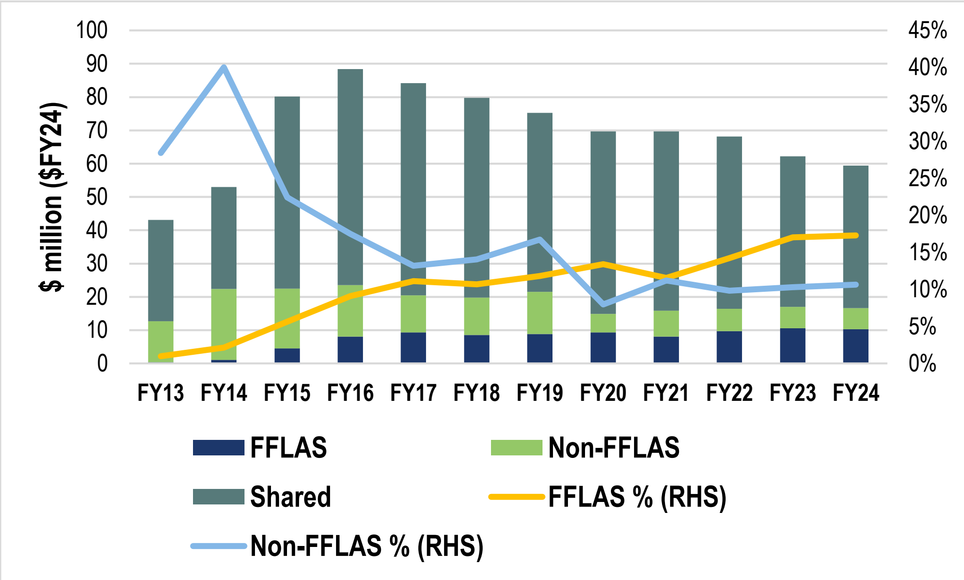
69. Importantly, the ultimate objective of improving the allocation of costs is to capture the true cost structure of the organisation as accurately as possible.

31 We acknowledge that the discussion in paragraphs 48 b and 49 of Incenta (2023) focus on the second of these two trends; however, paragraph 9 of that report provides a fuller summary of our position (which the Commission correctly summarised in paragraph 4.53 of the Draft Reasons Paper).

70. In terms of the CTO systems costs, the Commission's concern is that the extent of direct attribution of costs has fallen, which it considered unexpected and potentially an indicator of copper decommissioning costs entering into the shared systems costs.

71. We have sought information from Chorus about the trend in the CTO systems costs, which we have analysed back to 2013 to provide a longer-term view of these costs. This is set out as Figure 1, which sets out the total expenditures (left-hand scale) and the proportions for each group of services that are directly attributable (right-hand scale).

Figure 1 – Long term trend in Chorus's IT systems costs



Notes: this time series represents the historical actuals (and forecast for FY24) for the CTO systems costs whose allocations are addressed in this section. The values are financial years (ending 30 June). The costs have been converted to constant prices (financial year 2024) using CPI.

72. We note that it is apparent from this figure that.

a. the Commission is correct that the proportion of costs that are directly attributable to non-FFLAS has fallen over time, although the proportion of costs that are directly attributable to FFLAS has increased and the overall extent of direct attribution has remained fairly stable since 2015; however

b. while the total CTO systems costs as well as the shared component increased substantially in the early years of the UFB rollout, the costs (total and the shared component) have since declined substantially.

73. The trend in the shared component of the system costs supports the use of a totex allocator for these costs during the UFB rollout (because the shared costs increased substantially), but does not support the Commission's concern that there may be copper decommissioning costs appearing in the shared system costs (because the shared system costs have declined substantially in recent years).

74. We questioned Chorus as to what may explain the trend in the direct attribution to non-FFLAS services, and are informed that:

    a. Part of the trend reflects that, as the legacy systems that were specific to copper or fibre are decommissioned, the relevant activities / processes will be moved to common systems where possible (this is efficient because the cost of many platforms is largely fixed). Thus, the true cost structure of Chorus has become more heavily weighted towards economic common costs in relation to IT systems costs.

    b. A second driver of the trend is that the non-FFLAS category of costs is wider than copper and includes products adjacent to FFLAS services that have been growing in significance. These products will be supported on the same shared systems that support FFLAS.

    c. A third driver is that the legacy copper-specific (and so directly attributable) systems are generally those that are provided by Spark under the separation agreements. While the costs under these agreements are fixed charges (i.e., independent of copper volumes), they are typically not indexed for inflation. Thus, this portion of costs has a value that is being eroded by inflation over time.

75. These explanations suggest that there is nothing untoward in the observation that the proportion of costs that are directly attributable to non-FFLAS has declined. Rather, the observation suggests that Chorus is seeking to maximise the use it makes of its fixed cost items, which is efficient. A corollary of this is that Chorus's IT costs are becoming more weighted towards (economic) common costs.

76. Thus, we conclude that the change in the extent of direct attribution to non-FFLAS is the result of a change to Chorus's underlying cost structure, rather than a reduction in the precision with which its costs are allocated.

3.3.4 The alternative more precise (but more complex) allocation

Preferred alterative – a more precise application

77. As noted above, one of the Commission's criticisms of our advice was that there was a lack of precision in our recommendation to apply a revenue-based allocator to the whole of the costs that we analysed.

78. Our recommendation to apply a revenue-based allocator to the entirety of the relevant costs was based on the conclusions that:

    a. a revenue-based allocator was appropriate in relation to the (economic) common costs, and

    b. for the incremental costs, a revenue-based allocator was a reasonable proxy for a causal allocator, although not always the best proxy allocator, but

c. our recommendation to apply a revenue-based allocator to the shared costs in entirety placed value on simplicity and applying allocators at a more aggregated level of costs (as the latter is less sensitive to changes in corporate structure).

79. We acknowledge that the Commission may reach a different view on the appropriate trade-off between precision and simplicity / robustness to change.

80. However, if the Commission considers that it is desirable to improve the precision with which these costs are allocated, then it would be a misstep to simply replace the proposed revenue-based allocator with a totex allocator. Rather, the preferable step would be to retain a revenue-based allocator for the (economic) common costs, and to extend the analysis to apply proxy allocators for the incremental costs that are the best proxies for causal allocators that are available in the circumstances.

Applying to CTO systems costs

81. In terms of CTO systems costs, many of the variable cost items were related to staff numbers (e.g., staff numbers in total for items like security passes, phone plans and workspace software, or the number of staff authorised as users for a particular system). Other variable cost items were related to the business analysis activities that Chorus undertakes, so totex may be a better driver. Application of such allocators would be an improvement.

82. If a more precise allocation of costs is required, then an assumption is required about the extent of fixed costs (with the remainder being variable costs) in the cost items that are classified as partly fixed. For these items, Chorus subject matter experts indicated whether the fixed portion of costs was likely to be "high", "medium" or "low". In our previous report, we assumed that a "high" proportion was equal to 75 per cent, a "medium" proportion as 50 per cent, and a "low" proportion as 25 per cent,[32] so that the "low" and "high" values represent the outer bounds of the interquartile range, and "medium" is the median. While we labelled these assumptions as "arbitrary" in that earlier report, in our experience translating the qualitative responses high, medium and low as 75 per cent, 50 per cent and 25 per cent is reasonably common in risk assessment activities, and so is appropriate to apply in this case.

a. As an example, the "Risk Management Toolkit" prepared by MITRE sets out the following guide as to how qualitative statements about high medium and low can be interpreted in the form of probabilities:[33]

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32 Incenta (2023), para.61.

33 Available at: https://www2.mitre.org/work/sepo/toolkits/risk/StandardProcess/definitions/occurence.html.

Table 1 – Proportions corresponding to "high". "medium" and "low"

Risk Event Probability	Interpretation	Rating
> 0 - <= 0.05	Extremely sure not to occur	Low
> 0.05 - <= 0.15	Almost sure not to occur	Low
> 0.15 - <= 0.25	Not likely to occur	Low
> 0.25 - <= 0.35	Not very likely to occur	Low
> 0.35 - <= 0.45	Somewhat less than an even chance	Medium
> 0.45 - <= 0.55	An even chance to occur	Medium
> 0.55 - <= 0.65	Somewhat greater than an even chance	Medium
> 0.65 - <= 0.75	Likely to occur	High
> 0.75 - <= 0.85	Very likely to occur	High
> 0.85 - <= 0.95	Almost sure to occur	High
> 0.95 - < 1	Extremely sure to occur	High

Source: https://www2.mitre.org/work/sepo/toolkits/risk/StandardProcess/definitions/occurence.html

b. We note that our recommendation that "high" be interpreted as 75 per cent and "low" be interpreted as 25 per cent is consistent with the averages of the lower half of the segments labelled as "high", and the upper half of the segments labelled as "low" (the other segments can then be interpreted as referring to very high or very low). The average of the segments labelled as "medium" is 50 per cent, consistent with our recommendation.

Corporate cost areas

83. Similarly for the corporate cost areas, our 2023 report identified the allocators that are likely to be the best proxy for a causal allocator for the sub-functions where costs are likely to be variable, which included employee numbers (for HR costs) and net book value (for insurance and treasury functions). Applying these drivers instead of revenue for the cost centres in question would improve the precision with which costs are allocated. As discussed above, the further review of allocators in the corporate cost centre should also include a consideration of where copper decommissioning costs may have been present in shared costs.

3.3.5 Proportion of costs allocated to FFLAS

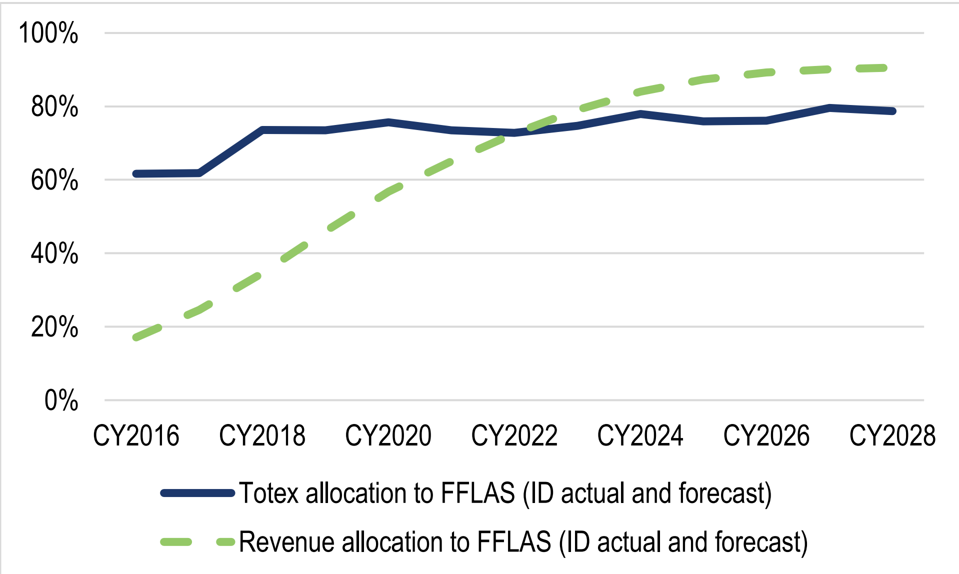
84. While the Commission highlighted that Chorus's proposed allocators for RP2 will imply a higher proportion of the relevant shared costs would be allocated to FFLAS than if the previous allocators had applied, it is not clear what weight the Commission placed on this observation.

85. In our view, the observation that the proposal will cause an upward step change in the rate of allocation does not provide any useful information for the choice of cost allocators.

86. First, there is nothing in the Input Methodologies that makes this outcome relevant to whether the change is approved. Rather, the requirement is for the allocators to be, amongst other things, "objectively justifiable and demonstrably reasonable" in the context of the Input Methodologies and the Telecommunications Act 2001.

87. Secondly, there is an alternative plausible interpretation that can be placed on the upward step change to which the Commission referred. Figure 2 shows the longer-term trend in the relative revenue and totex allocators.

Figure 2 – Trend in the totex and relative revenue allocators



88. It is apparent from this figure that the cross-over point for the allocators is around the start of RP1, so that Chorus was *worse off* from the totex allocator being applied in RP1 compared to RP2. As we discussed earlier, much of the unusual UFB related expenditure would have been completed before the start of RP1, given that the original UFB project had been delivered by that time,[34] the corporate strategy of Chorus around the new technology had become settled, and the remaining construction was by then a

34 Note that the opex forecasts for Chorus for RP1 were not based on a historical base year (as is being done for RP2), but rather were a bottom-up forecast of the expected expenditure over RP1.

well-known quantity. Accordingly, a plausible argument exists that the switch from a totex allocator to a relative revenue allocator should have occurred from the start of RP1.

89. Thus, an alternative plausible interpretation of the trend is that the upward step change is merely a correction to what may have been an under-allocation to FFLAS in RP1. Indeed, if the change in allocators had occurred from the start of RP1 then an upward step change in allocators would not have been observed.