



COMPETITION  
ECONOMISTS  
GROUP

---

# Pricing at the legislated cost

FINAL REPORT

Jason Ockerby

February 2013



# Table of Contents

---

<b>1</b>	<b>Overview</b>	<b>1</b>
<b>2</b>	<b>Pricing at the legislated cost base</b>	<b>4</b>
2.1	The forward-looking cost principle	4
2.2	The information contained in benchmark prices	5
2.3	Adjusting prices to ensure they reflect forward looking costs (or the legislated cost base)	6
2.4	Arriving at a range of comparable forward-looking cost based prices	9
<b>3</b>	<b>Setting UBA prices equal to the legislated cost base</b>	<b>11</b>
3.1	How do the benchmarks recover the (forward-looking) current replacement cost	11
3.2	Prices need to be adjusted to recover the legislated cost base	13
3.3	Pricing 'outside' the range	16



# List of Figures

---

Figure 1	Price path required with and without fibre pricing constraint .....	14
Figure 2	Cumulative cost recovery with and without fibre pricing constraint.....	15

# 1 Overview

1. The Commerce Commission (the Commission) has asked interested parties for views on whether section 18(2A) warrants “an increase in the [unbundled bitstream access] UBA price above the legislated cost base”. In response, parties have indicated that whilst section 18(2A) may give the Commission discretion within the range of benchmarks that are consistent with the initial pricing principle, it does not allow the Commission to set a price outside the range.<sup>1</sup>
2. We have been asked by Chorus to provide our views on what it means to ‘price equal to the legislated cost base’. We interpret the legislated cost base to be the current (forward-looking) replacement costs of the assets used to provide a regulated service. Pricing equal to the legislated cost base requires that prices be set so as to allow expected recovery of the current replacement costs of the assets over their life given expected demand.
3. Setting prices equal to the legislated cost base using benchmarking<sup>2</sup> will likely require adjustments to the prices in other jurisdictions. Adjustments to benchmarks will be required in the following circumstances:
  - when services or network elements or architectures are not comparable to New Zealand – requiring an implicit adjustment to the base/underlying network being modelled – this may be done through econometrics based on country characteristics such as spatial density;
  - when the input costs (including cost of capital) are different in other jurisdictions and New Zealand – this adjustment is implicit in the currency conversions; and
  - when the price path set to recover the forward looking costs in other jurisdictions is not appropriate to New Zealand – this will require an implicit adjustment to the level of economic/competition depreciation in prices.
4. In our view it is only after these adjustments are made can it be reasonably said that the benchmark set is consistent with the requirement to benchmark prices based on forward-looking costs. It may then be relevant to consider issues such as the uncertainty around the forward-looking cost estimates and the point in the range of (adjusted) benchmarks that may be appropriate.
5. It is not correct in our view to characterise such adjustments as part of the process of picking a point within (or outside) the range of forward looking benchmarks (as reflected in the raw or unadjusted benchmarks). This is because the raw benchmarks

---

<sup>1</sup> See Vodafone Submission, page 4 and Telecom Submission, page 10.

<sup>2</sup> As is required by the initial pricing principle for the UBA service.

are not necessarily reflective of the forward-looking costs in New Zealand and not consistent with pricing equal to the legislated asset base.

6. We have been asked by Chorus to provide our views on whether our recommended increase to UBA prices because of the effect of the fibre rollout<sup>3</sup> would increase the price above the legislated cost base. In our view it would not. This is because:
  - the legislated cost base in New Zealand is forward-looking costs. The benchmarking exercise is meant to arrive at prices that allow recovery of the forward-looking costs (i.e., the current forward-looking replacement cost of the UBA assets) that would be incurred in New Zealand;
  - the benchmarks to be identified by the Commission should set an initial price in a price path that will recover the current estimate of forward-looking costs (the legislated cost base) in each jurisdiction. That is, whilst the benchmarks are a single (current) year price, this current year price is set at a level that will ensure that over the life of the assets the current costs of the assets will be recovered;<sup>4</sup>
  - the particular benchmarks selected by the Commission (i.e., Denmark and Sweden) do not, to our understanding, account for any expected reduction in demand or take into account any constraint on future copper prices that would arise from a fibre deployment such as occurring in New Zealand;
  - as a result without our proposed adjustment the future path of prices established by benchmarking forward-looking prices may set prices *below* the legislated cost base (i.e., they would not allow recovery of the current costs of the UBA service in New Zealand). This would occur in circumstances where the deployment and prices for fibre services constrains the pricing of copper services; and
  - with our proposed adjustment the price path set for the UBA service would be consistent with the legislated cost base (assuming other adjustments are also made, etc.). That is, it will establish a benchmark of forward-looking costs that provides an estimate of the outcome of a final pricing principle where prices are set based on the modelled TSLRIC costs in New Zealand, and in our view, would necessarily need to account for the effect of the fibre deployment on cost recovery (as described in our previous report<sup>5</sup>).
  
7. We have also been asked by Chorus whether our recommended increase to UBA prices because of the effect of the fibre rollout would involve setting prices outside the

---

<sup>3</sup> As outlined in our report, CEG Report – *Effect of fibre on copper bitstream prices*, January 2013.

<sup>4</sup> In fact, the current price is the first year in a price path or price trend that if followed will recover the current replacement value of the network given expected demand.

<sup>5</sup> CEG Report – *Effect of fibre on copper bitstream prices*, January 2013.

range of the benchmarks that are consistent with the initial pricing principle.<sup>6</sup> In our view it would not. This is because:

- in the initial pricing principle prices are to be established by benchmarking prices from comparable jurisdictions;
- our proposed adjustment is required to ensure that the single year prices identified in the benchmarks are *comparable* to the New Zealand circumstances. As observed above, the specific benchmarks identified by the Commission are prices that do not take into account the effect of a fibre deployment such as is occurring in New Zealand; therefore
- an adjustment is required to the benchmarks to establish a range that is consistent with the initial price principle (i.e., one that sets a prices that will allow expected recovery of the legislated cost base); and
- once that adjustment is made the Commission can pick a point within the range of benchmarks that are relevant and comparable to New Zealand.

8. This report is structured as follows:

- **section two** considers at a level of principle what it means to set prices equal to the legislated cost base. It also discusses the need to make adjustments to ensure that benchmarked prices are from comparable countries; and
- **section three** considers the adjustment proposed to the UBA service price for the effect of the UFB policy and why this is required in order for prices to be equal to the legislated cost base.

---

<sup>6</sup> Which parties have indicated is outside the discretion of the Commission. We have no view on whether the Commission has this discretion or not.

## 2 Pricing at the legislated cost base

9. In its Draft Determination the Commission has asked interested parties for views on whether section 18(2A) warrants “an increase in the UBA price above the legislated cost base”.<sup>7</sup>
10. In this section we discuss the information that is contained in the benchmarked forward-looking cost-based prices and what that means for whether prices in New Zealand are being set above or below the legislated cost base.
11. We conclude that it is essential that the Commission use the benchmarking information to set prices that provide an expectation that UBA prices will recover the current replacement costs of the assets (the legislated cost base) used to provide the UBA service.

### 2.1 The forward-looking cost principle

12. The initial pricing principle for the UBA service includes the requirement for benchmarks to be consistent with the forward-looking cost standard:<sup>8</sup>

*The price for the designated access service entitled Chorus's unbundled copper local loop network plus benchmarking additional costs incurred in providing the unbundled bitstream access service against prices in comparable countries that use a forward-looking cost-based pricing method*

13. In addition, a relevant factor in assessing the nature of the legislated cost base (or forward-looking costs) is the relationship between the initial pricing principle and the final pricing principle. We note the Commission has previously expressed the view that:<sup>9</sup>

*The price set under the [initial pricing principle] IPP should reflect the final pricing principle (FPP), as the IPP is designed to be a cost-effective and timely proxy for the price for the service that would result under the FPP. The FPP for the UCLL Service is total service long run incremental cost (TSLRIC)...*

14. Where the Telecommunications Act defines TSLRIC as follows:

*“TSLRIC” in relation to a telecommunications service, -*

<sup>7</sup> See paragraph 123 of Draft Determination.

<sup>8</sup> <http://www.legislation.govt.nz/act/public/2001/0103/latest/DLM127744.html>

<sup>9</sup> See paragraph 102 of the revised draft on UCLL benchmarking review, 4 May 2012.

*(a) means the forward looking costs over the long run of the total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, the service, taking into account the service provider's provision of other telecommunications services; and*

*(b) includes a reasonable allocation of forward-looking common costs...*

15. In practice the Commission is asked by the legislation to estimate a proxy for a TSLRIC modelling exercise using information contained in benchmarks. It is therefore critical that we understand what information is contained in the benchmarks based on forward-looking costs.

## 2.2 The information contained in benchmark prices

16. The benchmark prices identified by the Commission are the prices set by regulators for the equivalent service in other jurisdictions.<sup>10</sup> They are the output of a detailed costing of the equivalent service in each jurisdiction.
17. As the services are provided using long-lived assets<sup>11</sup> it is not a simple matter of adding up the expenditures that are (expected) to be incurred in the relevant year and dividing by expected demand. In order to arrive at a price for the service the total investment in assets used to provide the service must be converted into an *annualised cost* of providing the service for the relevant year.
18. This is important because whilst these prices are recorded and published as a single year price for a service, in reality they are the price for the first year in a price path that will allow the recovery of the (forward-looking) current replacement costs of the assets used to provide the service. This price path allows this current replacement cost to be recovered over the life of the asset given expected future demand (and an allowance for the owner's cost of capital).
19. For example, the benchmarked prices embody:<sup>12</sup>
- a particular implementation of the service which might include technology, geographic, topographical, demographic and quality of service features;

---

<sup>10</sup> We note that the Commission has based its Draft Determination on prices observed in Denmark and Sweden.

<sup>11</sup> That are shared with other services.

<sup>12</sup> This is not a comprehensive list but is designed to give a strong flavour of the assumptions and inputs underlying the observed prices for each year



- an estimate of the number and layout of assets used to provide the service, the utilisation of those assets and the extent to which those assets are shared with other services;
- an estimate of the replacement costs of the assets used to provide the service in the country. That is, the total expenditure that would be required today to build the assets at current input costs;
- a mechanism to annualise that total expenditure over the life of the assets, given expected demand, an assumed profile of depreciation and an allowed return on capital whilst the expenditure is unrecovered:
  - this is implemented as a tilted annuity that sets a path of prices (or price trend) for prices over time; such that
  - the initial price in the price path is dependent on the trend of prices. For example, if an upward trend in price included in the model the initial price is set lower (and vice versa);
- annual operating expenditures incurred in maintain those assets and providing the service; and
- mechanisms to allocate the annual costs and annual expenditures between services using the assets.

20. This means that it is simply not sensible to think of a current year price for the regulated service without considering the information (e.g., assumptions, inputs, etc) that is contained in that observed price. In addition, understanding that the observed prices embody all of the above characteristics allows one to properly consider why and how those prices may be adjusted to ensure they are comparable to the circumstances in New Zealand.

### **2.3 Adjusting prices to ensure they reflect forward looking costs (or the legislated cost base)**

21. The initial pricing principle includes a requirement to benchmark against prices in comparable countries that use a forward-looking cost-based pricing method. The requirement for prices to come from ‘comparable countries’ extends beyond general observations regarding national characteristics but to whether the observed prices are relevant to the particular circumstances in New Zealand.

22. In practice this will mean that observed prices may require adjustment before they could be regarded as being comparable to New Zealand. In other words, the prices could not be regarded as coming from ‘comparable countries’ unless they are adjusted to reflect the differences in circumstances between those countries/jurisdictions and New Zealand.

23. There are a wide range of areas where adjustments would be required to address different circumstances. In some cases reliable adjustments may not be able to be made and in these cases the observed prices may be considered to be not comparable (or not prices from ‘comparable countries’).
24. We set out briefly below some example of why and how observed prices may be adjusted for different circumstances using the information that is embodied in those prices.<sup>13</sup>
25. First, if the service provided in the other jurisdiction is materially different to the regulated service in New Zealand the raw price would not be appropriate to include in the benchmark set without adjustment. Such an adjustment may not be straightforward where the cost consequences of the differences cannot be easily quantified.
26. Second, when the geographic and demographic characteristics of the other jurisdiction are different to those in New Zealand to drive differences in cost an adjustment is necessary. Such adjustments are particularly important in the context of telecommunications network services where differences in line density across areas drives significant differences in requirements for network elements, the ability to share network elements across services and network deployment costs.
27. Adjustments for spatial density differences have been examined in great detail in previous proceedings in relation to the unbundled local loop service.<sup>14</sup> In those proceedings adjustments were made to prices to reflect the difference in the underlying network elements using econometric analysis. Notably, the adjustments were not made directly to the cost model for each jurisdiction to make it comparable to the New Zealand. Rather the adjustment was made indirectly using a technique to capture how much of the observed differences in prices across jurisdictions were explained by those differences.<sup>15</sup> Nevertheless, the purpose of those adjustments was to ensure the underlying networks being costed were comparable to the network required in New Zealand.
28. Third, as much as the number of network elements required per service may vary substantially across jurisdictions, the cost of deploying those network elements might be expected to differ (e.g., due to input costs, labour costs, regulation). In addition, the cost of financing the investment in those network elements will be different depending on expected variability in cash flows.

---

<sup>13</sup> In essence, these examples identify some cost drivers that would be expected to explain differences in observed prices across jurisdictions.

<sup>14</sup> We believe they are also highly relevant to the UBA service.

<sup>15</sup> For example, the price of the unbundled copper local loop was regressed against the national population density, urbanisation and tele-density.

29. In our view, the rate chosen to convert foreign denominated prices to New Zealand dollars is the appropriate forum to make this adjustment.<sup>16</sup> The rate used for currency conversion is the mechanism for putting prices on a like-for-like cost basis. Again, it is not an adjustment that is made directly within the cost model for each jurisdiction to make each network element comparably priced to that in New Zealand. Rather, it is made indirectly through adjustments to the resulting prices.<sup>17</sup>
30. Fourth, even if there are identical numbers of network elements and deployment (and other annual) costs across jurisdictions, observed prices may differ because these investment costs are annualised differently. As discussed above, the observed prices for a particular year from each jurisdiction are the starting price in a price path.
31. This starting price and price path are determined (typically) by a tilted annuity, where the starting price is dependent on the chosen price path. This is because whichever price path is chosen the prices must be expected to recover the current (forward-looking) replacement cost of the assets. The steeper the price path the lower the starting price (and vice versa).
32. If it is expected that the price path chosen by regulators in other jurisdictions is not appropriate (or not possible) for New Zealand then an adjustment to the starting prices is necessary. This is to ensure that the starting price and price path selected for New Zealand must also be expected to recover the implied current (forward-looking) replacement cost of an asset in New Zealand.
33. For example, if for some reason it is expected that labour costs were increasing more sharply in New Zealand than in other jurisdictions then the unadjusted price would not reflect the forward-looking costs in New Zealand (it would be too high).<sup>18</sup> This is because the knowledge that prices are going to rise sharply in the future means that future prices are going to be high to reflect this, therefore prices today need to be lower.
34. Similarly, if for some reason it is expected that the price path set in other jurisdictions cannot be charged in New Zealand, say because of some future competitive threat then the starting price will need to be adjusted to maintain the expectation of recovering the current (forward-looking) replacement cost of the assets.

---

<sup>16</sup> If it is not explicitly considered in the choice of rate then it is implicitly being decided.

<sup>17</sup> The ability to make such an adjustment indirectly to the observed prices is one of the advantages of benchmarking rather than cost modelling.

<sup>18</sup> Assuming labour costs represent a material proportion of costs.

## 2.4 Arriving at a range of comparable forward-looking cost based prices

35. A number of parties have interpreted the Commission's question regarding pricing above the legislated cost base in terms of whether it is appropriate to price within (or outside) the range. Relatedly, we note that parties have stated some concern with pricing outside the range of the raw (unadjusted) prices from the benchmarked countries.

36. For example, Network Strategies state:<sup>19</sup>

*When deriving an estimate based on benchmark data, that estimate should fall within the range spanned by the benchmark data. If it is believed that a New Zealand estimate falls outside this range, the sample data provides no guidance on how far outside this estimate should be. Any estimate of the relativity of a New Zealand estimate against the benchmark sample would therefore be arbitrary in nature.*

*Even if the estimate is derived by some form of benchmark model that adjusts for variation in the data, there is a high degree of uncertainty and associated risk if extrapolating 'outside the sample'. This approach is not recommended.*

37. In our view this is wrong as it places undue weight on the raw benchmark data which may not be comparable in the manner required by the initial pricing principle.

38. From an economic perspective it is only after the adjustments described above are made that it can be reasonably said that the benchmark set is consistent with the requirement to benchmark prices based on forward-looking costs. It may then be relevant to consider issues such as the uncertainty around the forward-looking cost estimates and consideration regarding the point in the range of (adjusted) benchmarks that may be appropriate. However, this can only be done after it is established that the prices are from comparable countries to New Zealand.

39. It is not correct in our view to view such adjustments as part of the consideration of picking a point within (or outside) range of the range forward looking benchmarks (as reflected in the raw or unadjusted benchmarks). This is because the raw benchmarks are not necessarily reflective of the forward-looking costs in New Zealand and not consistent with pricing equal to the legislated asset base. Adjusting prices to ensure the legislated cost base is recovered given the UFB initiative.

40. In the previous section we concluded that that it is essential that the Commission use the benchmarking information to set prices that provide an expectation that

---

<sup>19</sup> Network Strategies, *Benchmarking issues in the Unbundled Bitstream Access Draft Determination*, Final report for Vodafone, 30 January 2013, pages 9-10.

regulated prices recover the current (forward-looking) replacement cost of the assets used to provide the service.

41. This principle applies to the pricing of the UBA service. In our earlier reports we outlined a number of adjustments to the prices for the equivalent bitstream services in Denmark and Sweden (and other jurisdictions if they are included in the benchmark set).<sup>20</sup>
42. These included adjustments to capture differences in the underlying network architecture and utilisation of the assets used to provide bitstream access services. We used econometric analysis to explain the influence of spatial density on the annualised unit cost (price) of bitstream services. In our view these adjustments to the benchmark prices will ensure that they appropriately reflect New Zealand's spatial density characteristics.
43. In addition, we proposed an upward adjustment to the benchmarked prices because of the effect of the UFB policy. This adjustment is necessary if the benchmarked price (and the associated price path) set for the UBA service cannot be achieved because of the pricing constraint imposed by the deployment of competing fibre services. The adjustment is necessary for price to be based on forward-looking costs as it will ensure an expectation is set that revenues will recover the current legislated cost base.
44. In the following sections we elaborate on why this is necessary in the current proceedings.

---

<sup>20</sup> CEG Report – *Effect of fibre on copper bitstream prices*, January 2013; CEG Report - *Wholesale broadband cost drivers*, January 2013.

## 3 Setting UBA prices equal to the legislated cost base

45. In this section we apply the principles outlined above to the benchmarking exercise being undertaken for the UBA service. In particular, we discuss why the effect of the UFB policy must be translated into an adjustment in the price of the UBA service to ensure recovery of the legislated cost base.

### 3.1 How do the benchmarks recover the (forward-looking) current replacement cost

46. In its Draft Determination the Commission has used prices from Denmark and Sweden to benchmark the additional costs of the UBA service. The prices from each of these jurisdictions are outputs of a bottom-up cost model. In broad terms, the models calculate the number of network elements needed to provide the equivalent bitstream service and costs these elements on a current replacement cost basis. The current replacement cost of each network element is annualised and then allocated out amongst services that use those network elements.<sup>21</sup>
47. The upfront cost of each network element is annualised using a tilted annuity formula. The tilted annuity formula calculates the revenue required in each year (of the element's life) to return the owner to its initial investment in the network element and a return on capital. The annuity is called a 'tilted' annuity because the annual revenue requirement is not constant. In practice the tilted annuity calculates a constant trend in revenues, that is, the annual revenue requirement is set to rise (or fall) by a constant percentage each year.
48. We note that there are an infinite number of tilted annuity paths that can be set to allow recovery of the initial investment in the network element. The only constraint on the tilted annuity is that the net present value of the future revenues is set to recover the initial investment (using the cost of capital as the discount rate).
49. When modelling the forward-looking costs of the bitstream service, regulators explicitly decide on the desired tilt in future revenues. Typically the path is set based on the change in input costs of the network elements. As discussed in our earlier report this provides a proxy for economic depreciation. In any event, if an upward (downward) tilt in revenues is modelled the starting year revenue is set lower (higher) to ensure expected present value recovery of the initial investment.
50. Therefore, when we observe prices for equivalent bitstream services from the Swedish and Danish cost model what we are actually observing is the first year revenue

<sup>21</sup> Annual operating expenditures, overheads and other mark-ups are included.

requirement chosen by the regulator, divided by the expected demand for the service in that year. However, in order to understand whether this price is comparable to New Zealand we must also understand the future revenue path implied by that starting price.

51. In the Swedish case the model includes an average tilt of 0.35%. As above, this tilt is set to reflect the expected annual change in the average cost of replacing the network elements allocated to the equivalent bitstream service. The effect of a positive tilt is to lower the starting price (compared to a constant annual charge) on the expectation that, other things being equal; revenues are expected to rise annually at 0.35%.
52. As discussed below, the Swedish model does not adjust the tilted annuity for any expected change in utilisation. Therefore, it is assumed that future revenues will be able to be recovered from realised demand. For a constant utilisation this means that prices are expected to be able to be increased by 0.35% per year.
53. In the Danish case the model includes an average tilt of -0.65%. As with the Swedish model this tilt is set to reflect the expected annual change in the average cost of replacing the network elements allocated to the equivalent bitstream service. However, we note that the Danish model includes the capacity to ‘double tilt’ the annuity to reflect falling utilisation. That is, if demand for the equivalent bitstream service was expected to fall, applying an additional tilt would increase the starting price to ensure that prices are smoothed in the future (i.e., that prices do not rise as significantly as demand falls away).
54. Whilst the Danish model includes the functionality to include a utilisation tilt, the tilt is set to zero. Whilst this does not mean that the model assumes a constant level of demand in the future, it does mean that the Danish regulator has not adjusted prices for any expected reduction in bitstream service demand.<sup>22</sup>
55. In other words, both the Danish and Swedish models assume that the future revenues set by the tilted annuity formula will be able to be recovered from the equivalent bitstream service. We note that neither the Swedish or Danish models include any additional other adjustment to the profile of prices to reflect any constraint on future prices/revenues (beyond what is reflected in the tilted annuity) because of the impact of competing fibre networks.

---

<sup>22</sup> Regulators in other jurisdictions have applied utilisation tilted annuities. For example, the WIK model for the mobile termination access services include a positive utilisation tilt that had the effect of lowering the starting price but having higher future prices when demand was expected to be higher.

### 3.2 Prices need to be adjusted to recover the legislated cost base

56. In our earlier report we identified the issue that without adjustment to prices over the next period it may not be possible for Chorus to recover the current replacement cost of supply of the UBA service in the future. We stated that:<sup>23</sup>

*As customers migrate off the copper network and onto the fibre network, the opportunity to recover forward-looking costs from UBA customers will decline. This occurs because migration to fibre reduces scale on the assets used to provide the UBA service, pushing up prices. Chorus' ability to charge higher prices will be significantly constrained in the future because of the availability of fibre services at contracted prices.*

57. In that earlier report we identified a scenario in which the constraint from the pricing of fibre services that would limit Chorus' ability to increase its UBA prices in line with forward-looking costs. We modelled a tilted annuity revenue path for the network elements used to provide the UBA service to see whether they implied prices that were likely to be achievable by Chorus given the expected migration of services away from the UBA service to fibre services.

58. In fact we modelled a constant (non-tilted) annuity revenue path. That is, we modelled the revenue implied by the benchmarked prices and asked what price Chorus would need to charge for the UBA service to achieve that (nominal) revenue in future years as demand for the UBA service decline.

59. Figure 1 below shows (in red) the prices that would be required given the expected decline in demand for the UBA service.

60. In order to understand whether these prices would be achievable we modelled a 'cap' arising from the pricing of fibre services (arising from the ultra-fast broadband (UFB) policy).<sup>24</sup> As shown in Figure 1, the prices implied for the UBA service would not be achievable at the assumed level of the cap.

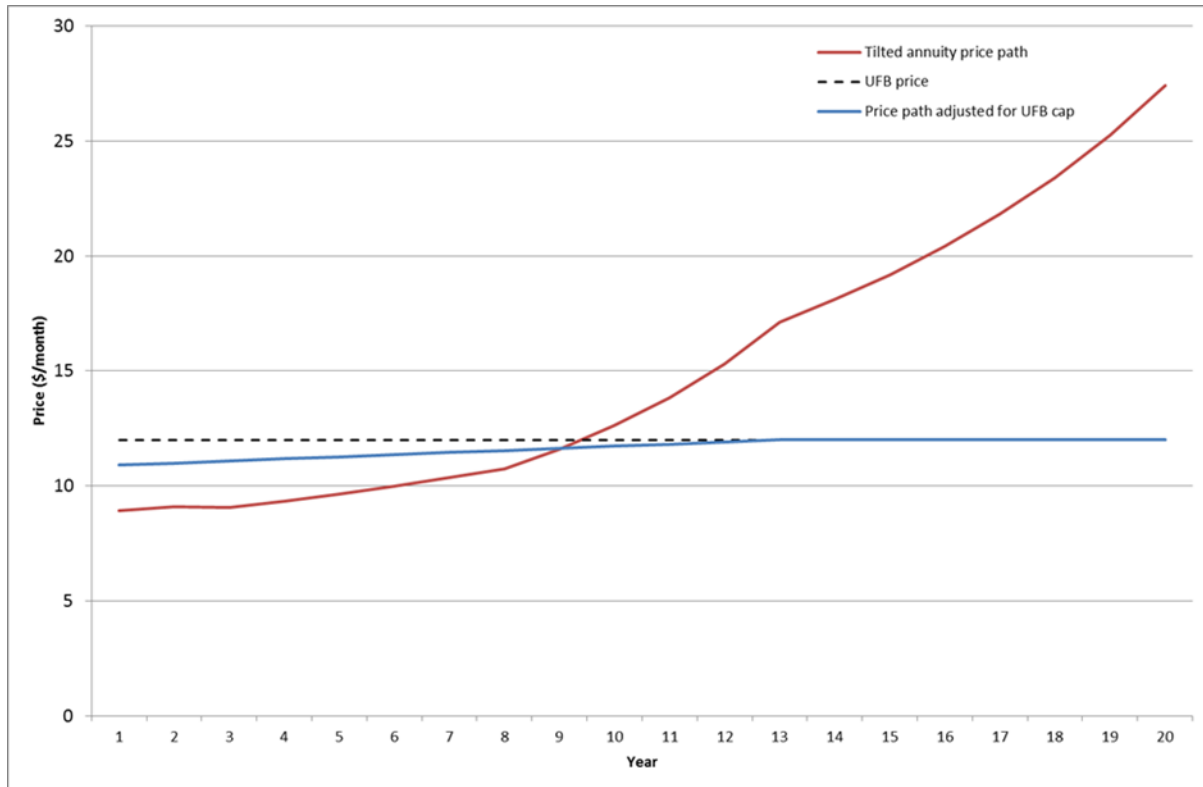
---

<sup>23</sup> Ibid, page 4.

<sup>24</sup> See, Ibid, Appendix A, for the assumptions in the modelling.



**Figure 1 Price path required with and without fibre pricing constraint**

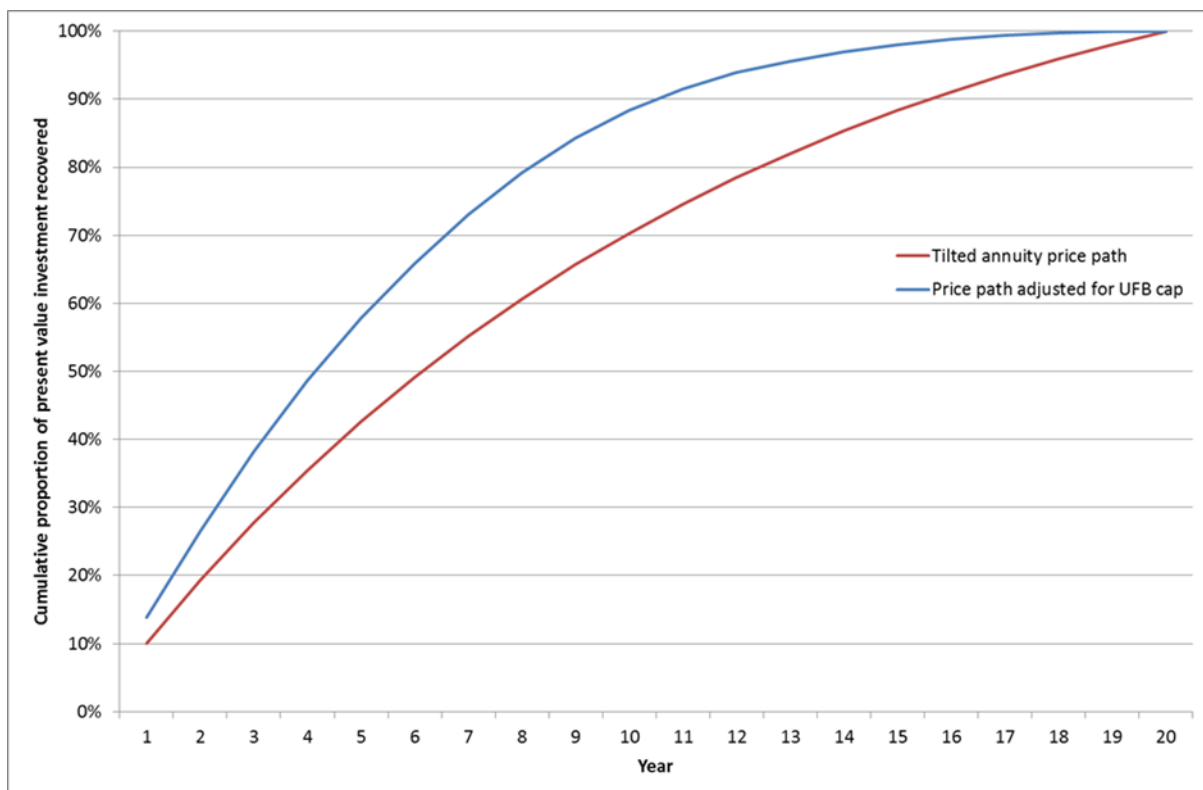


Source: CEG

61. In our view it is reasonable to conclude that it will not be possible (at full deployment) to price the UBA service above the fibre price given fibre services will have superior quality. For this reason, the constraint imposed upon UBA pricing by fibre prices would likely be significantly lower than the fibre price itself. In this case in order for Chorus to achieve an expectation of recovering the current costs of the assets used to provide the UBA service (as implied by the benchmarked prices) the prices must be adjusted upward. Figure 1 models the prices (in blue) that would be necessary given the constraint imposed by the pricing of fibre services.
  
62. We have modelled the cumulative cost recovery that would be expected by Chorus in two scenarios. The first scenario is where it can increase prices for the UBA service in line with the forward-looking cost implied by the tilted annuity path, despite declining demand. The second scenario is where it is able to charge higher prices now for the UBA service to reflect the case where it will not be able to charge a higher price in the future due to the constraint imposed by fibre prices.

63. Figure 2 shows the speed of recovery of the current replacement costs of the assets used for the UBA service (as is implied by the benchmarked prices) under each scenario.
64. It shows that at around year 9, when the fibre constraint begins to bite, we would expect that around 84% of the current cost will be recovered if prices are adjusted if Chorus was allowed to increase prices for the UBA service above those indicated by the raw benchmarks. However, if prices are not adjusted (and simply follow the tilted annuity price path) only around 66% of the current cost will be recovered at that time.

**Figure 2 Cumulative cost recovery with and without fibre pricing constraint**



Source: CEG

65. As indicated above, in the case where the pricing of fibre services constrains the pricing of the UBA service, the path of recovery of the remaining 34% of the current cost will not be achievable. If prices were reduced to the level of the fibre constraint (as assumed in the blue line) then 16% of the current cost could be recovered over the remaining life of the network. However, this still leaves 18% of the upfront cost that can never be recovered.

### 3.3 Pricing ‘outside’ the range

66. In response to the Draft Determination interested parties have indicated the discretion allowed under section 18(2A) does not extend to pricing outside the range of benchmarks consistent with the initial pricing principle.

67. We have no particular views as to the discretion allowed the Commission under section 18(2A), that is, whether or not it is allowed to set a price outside the range of prices consistent with the initial pricing principle. However, we do have a view as to whether our proposed adjustments to the benchmarked prices UBA prices would involve setting prices outside the range consistent with the initial pricing principle. In our view, it would not.

68. We note that Telecom stated in its submission that:<sup>25</sup>

*Ultimately, section 18 must be considered within the prescribed limits of the IPP. That is, while section 18 may provide the Commission with a mandate to exercise discretion when implementing the IPP, it does not provide the Commission with the power to operate outside of the relevant benchmarks or price points determined by a proper application of the applicable pricing principle – i.e. section 18 does not provide the Commission with a power to go beyond the pricing principles specified in the legislation in order to increase the UBA price beyond the benchmarks determined through the IPP process.*

69. For the reasons discussed in the previous section we believe that our proposed adjustments do not require exercising discretion beyond the initial pricing principle. This is for the following reasons:

- First, the initial pricing principle requires that prices are to be established by benchmarking from comparable countries. If prices are not from comparable countries then they do not comply with the initial pricing principle. In practice, it may be possible to adjust prices from countries so that they are comparable to New Zealand. It is only after that adjustment is made would we might regard them as complying with the initial pricing principle and establishing the range of benchmarks.
- Second, our proposed adjustment to the UBA service price for the effect of the UFB initiative is required to ensure that the single year prices identified in the benchmarks are *comparable* to the New Zealand circumstances. As observed above, the specific benchmarks identified by the Commission are prices that do not take into account the effect of a fibre deployment such as is occurring in New Zealand.

---

<sup>25</sup> Telecom Submission, page 10.

70. Therefore, an adjustment is required to the benchmarks to establish a range that is consistent with the initial pricing principle. That is, the adjustment is required so that the prices allow expected recovery of the comparable current (forward-looking) replacement costs of the assets used to provide the service.
71. Once that adjustment is made the Commission may reasonably consider it has established a range of prices that comply with the initial pricing principle. To the extent that this results in a range of prices the Commission may exercise discretion to pick a point within the range of benchmarks that it considers reasonable. We make no comment regarding the extent or scope of that discretion in this report.