3 September 2013

Public

Submission in response to the Commerce Commission’s consultation paper “Update on matters relevant to the UBA price review”

Chorus

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Executive Summary

EXECUTIVE SUMMARY

Introduction

1 This is Chorus' response to the Commerce Commission's (**Commission**) consultation paper "Update on matters relevant to the UBA price review" (**Consultation Paper**).

2 We support the further attention that the Commission has given to section 18 and section 18(2A). We also appreciate that the Commission is grappling with how to set a UBA price that is robust in the context of a potentially small benchmark set. The consequences of getting it wrong, and the incentives that the Commission's decisions set, cannot be understated. Particularly when the decision comes at a time of significant investment and a generational change and when there are real opportunities and benefits to come from the Government's UFB vision and Chorus' own vision for higher quality broadband across New Zealand.

3 During the UBA process, the Commission has been presented with numerous options for dealing with benchmarking, and the Consultation Paper presents further options. We have put forward a number of different paths that the Commission can take to deal with the high risk of regulatory error and uncertainty arising from using the two benchmarks proposed in the draft decision in December. In all cases, the current UBA price falls within the benchmark range. Using Chorus' proposed adjustments to the benchmark set would be consistent with previous Commission decisions, would avoid shocks in the market and avoid undermining the UFB vision. We consider that making those adjustments is more robust than the probability distribution proposed in the Consultation Paper to "solve" for a small benchmark set.

Framework, outcomes and incentives

4 It is not yet clear where the Government's regulatory framework reviews and the Commission's existing processes will ultimately land. We are seeking clearly defined outcomes, with a framework that is designed to support, and that enables the Commission to implement decisions consistent with, the defined outcomes. This is critical in order to incentivise investment at the wholesale level and if Retail Service Providers (**RSPs**) are to deliver, price and compete with innovative new services at the retail level to New Zealanders.

5 The Minister has recently reaffirmed the Government's UFB vision in her speech on 7 August 2013:

> "…to help New Zealanders take advantage of digital opportunities, we must ensure they have **early** access to high-quality, competitively priced services based on world-leading technologies."
>
> and
>
> "In general terms, if we do not have the regulatory settings right to enable infrastructure providers to invest in new replacement technology, we run the real risk that our consumers will not have access to those technologies or not have access to them for some delayed period of time.
>
> I do not think that can be viewed as being in the long-term best interests of end users."

6 Chorus is investing around $3 billion (of which up to $929 million is funded by, and is to be ultimately repaid to, the Crown) in its UFB areas alone to bring forward the significant fibre network upgrade to support this vision. Chorus is unique in its structural separation and the significant capital investment it is making – Chorus is re-investing around 65% of its revenues each year.

7 Chorus has also now included Telecom's former VDSL service within the UBA STD at the regulated price in order to improve the quality of broadband for New Zealanders (in UFB areas, this is as a stepping stone to fibre). Any regulatory decision will affect not only the UFB investment but any future investment incentives outside UFB areas given Chorus' nationwide reach.

8 On the demand side, the retail services and prices offered to end users turn on the incentives set by the regulatory framework and decision-making as well as innovation by RSPs using open access wholesale inputs.

9 While we appreciate the difficulties in having a legacy wholesale copper framework separated from the UFB contractual environment, our view is still that section 18 and section 18(2A) enable (and indeed require) the Commission to give significant consideration to the new industry landscape.

10 The Commission continues (understandably) to grapple with its views on whether UCLL *and* SLU are to be promoted under the current framework. While relativity is mentioned in the Consultation Paper, there is little explanation of the Commission's views on the outcome being sought, what is being incentivised or why and how "de-averaged" UCLL and SLU (whether urban/rural and/or cabinetised/non cabinetised) are being considered with a nationally averaged UBA. Yet the policy outcome being sought for New Zealand must be a key consideration in the exercise of the Commission's discretion.

Promoting legacy or fibre retail offerings

11 Professor Cave and Professor Vogelsang both suggest that the ladder of investment (promoting UCLL *and* SLU investment) has limited application in a world that is transitioning to fibre. Importantly, UCLL was de-averaged in the past to promote investment in urban areas. However averaging (which was required by the 2011 legislative reforms that were part of the UFB initiative) changes that focus.

12 This is supported by the Government's view that copper and fibre should not be seen as competitive alternatives and that transition to fibre to deliver early fibre services will deliver significant economic and social benefits for New Zealand. This outcome will only be achieved if the industry, the framework and the incentives all support the same outcome. All of these factors are reason for caution by the Commission – the risk of error from any decision coupled with the impact of any decision on incentives and outcomes.

13 Section 18(2A) was intentionally inserted into the Act at the time of demerger to provide a clear signpost that Commission decision-making is occurring within the structurally separated UFB investment environment.

14 In an environment where transition to fibre appears to have been left to the market (cf: Australia and Singapore's approaches) the incentives for uptake set by regulatory policy and implementation decisions are ever more critical. We are pleased to see express references to the market reality of structural separation and UFB transition and investment in the Consultation Paper. Working in the current framework, this requires much deeper consideration in any discretion ultimately exercised by the Commission. Both the Commission and the Government have emphasised the importance of considering the impact of price on UFB.

15 As the Minister also said on 7 August 2013, the private sector investment is:

> "… an order-of-magnitude larger than any recent telecommunications investment. At the same time, the companion RBI initiative is designed to lift connectivity to 86% of those living outside the UFB areas.
>
> During the transition period until 2020, while the legacy network is still being used and the replacement network is being built, fibre providers face a unique series of challenges.
>
> They are building a new network in the face of uneven and unpredictable demand, to make sure that the new capability is there when we need it. At the same time they are also promoting the transition of customers to fibre while the legacy copper network remains available."

Probability distribution alone does not solve for a small benchmark set

16 The Consultation Paper seeks comments on a proposed approach to derive a plausible range of forward looking costs of the UBA service using a probability distribution and, together with section 18, the use of that distribution to inform the choice of a price point for UBA.

17 We acknowledge that the Commission has a high degree of discretion which continues to be evidenced by the numerous options that have been put forward. In considering its discretion we agree that the Commission is right to place significant weight on the high risks of regulatory error and to be guided by s18 and s18(2A). In relation to the new options proposed in the Consultation Paper, Dr Neil Diamond of Esquant Statistical Consulting and Daniel Young of CEG have advised that the probability distribution proposed in the Consultation Paper is likely to be problematic with such a small benchmark set.

18 Accordingly, working in today's framework:

18.1 The best approach to estimating the forward-looking cost of the UBA service in New Zealand is to make adjustments to the price points so that the adjusted benchmarks are comparable to New Zealand (rather than placing greater weight on particular benchmarks);

18.2 The best approach to generate a plausible range is to add more benchmark countries to the data set, as relying on only two or three benchmarks is not a robust approach as the Commission itself has said in previous decisions. Unfortunately, the Commission's proposed approach to deriving a plausible range does not resolve this problem;

18.3 There is a need to apply section 18 to the choice of a price point for the UBA service. The economic costs of error in estimating the UBA price are asymmetric and the costs of under-estimating the price give rise to greater economic costs than over-estimating. Accordingly, these factors support a price point that is higher in the range rather than the median. A probability distribution in price point selection with a small benchmark set is not however a panacea;

18.4 We support the Commission's articulation of section 18 of the Act that section 18(2A) requires it to take UFB into account and that greater weighting should be placed on the long-term benefits and dynamic efficiency/investment incentives over static short term price drops;

18.5 The Commission's approach to relativity still being focused on the copper ladder of investment and how that fits as between UCLL, SLU and an averaged UBA is unclear and difficult to respond to on the information provided. The relativity condition in the UCLL and UBA service descriptions is specified as a consideration when applying section 18. This also now requires the Commission to consider the impact of its decisions on the transition to fibre as clearly signposted in s18(2A).

19 We set out our views on the matters above in more detail below.

Proposed option of greater weighting on benchmarks that are most comparable to New Zealand

20 While there are fundamental problems in determining an unbiased estimator when benchmarking with a small set, unfortunately we don't think placing a greater weighting on individual benchmarks will solve these problems. This is because the proposal still relies on drawing conclusions about UBA costs in New Zealand from a benchmark set with perhaps only two data points, which is not consistent with robust statistical techniques.

21 We consider the best way to estimate the forward-looking UBA cost is to make adjustments to the price points so the adjusted benchmarks are comparable to New Zealand. The recommended adjustments are summarised in our post-conference submission, *Chorus UBA Benchmarking Summary*.[1]

[1] This submission is available in spreadsheet form on the Commission's website: http://www.comcom.govt.nz/regulated-industries/telecommunications/standard-terms-determinations/unbundled-bitstream-access-service/section-30r-reviews-of-uba-std/uba-benchmarking-review/

Plausible range of the forward-looking costs of the UBA service

22 We agree that a small benchmark set is less likely to contain the true plausible range of forward-looking costs for New Zealand, and we have taken advice on the probability distribution approach proposed by the Commission. The advice we have received is that reliance on only two or three data points is problematic from a statistical perspective, and the probability distribution approach does not resolve this problem.

23 A better way to generate a plausible range is to expand the benchmark set by adding countries (with appropriate adjustments to the data points). In our previous submissions we have recommended the inclusion of Belgium, Switzerland, Greece and the UK, and potentially France and Spain. Our approach, which is summarised in Chorus' post-conference submission, *Chorus UBA Benchmarking Summary,* generates four plausible ranges for the forward-looking costs of the UBA service in New Zealand. The current price, $21.46, falls within the benchmark range in all cases.

Price point selection

24 We agree with Professor Vogelsang that investment incentives should be given greater relative weight when considering price point selection. As previously referred to, the economic costs of error in estimating the UBA price are asymmetric. The costs of under-estimating the price give rise to greater economic costs than over-estimating. These factors support a price point that is higher in the range rather than the median.

25 However, the use of the probability distribution approach to price point selection is unlikely to result in a robust UBA price as it is still based on a small benchmark set. If the Commission pursues this option then it is important that it consults on the assumptions that will feed into this framework. We would be happy to engage further with the Commission and the industry on those assumptions.

Application of section 18 of the Act and relativity

26 We agree with the Commission's interpretation of section 18 in a number of respects. In particular we agree that:

26.1 Section 18 expressly requires the Commission to have regard to efficiencies, including dynamic efficiencies/investment incentives, and that the Commission should be giving greater weight to dynamic efficiencies rather than static efficiencies;

26.2 UFB investment should be recognised under section 18(2A) and given significant weight by the Commission as a matter of law, economics, policy context and market reality; and

26.3 The potential benefits of the industry moving to competition on the UFB network are substantial and significantly outweigh the short term effects of potential price shocks and incentives on the copper network.

27 These statements support our position that the Commission should focus on the transition of the industry to the UFB network and point to the importance of the Commission focusing on the overall copper price.

28 However, the Commission appears to have limited its analysis of the relevance of the UFB investment to situations where demand impacts could delay further investment in the UFB network. The Commission's focus on the impacts on new investment is too narrow and appears to suggest that Chorus' UFB network investment is not relevant because it is effectively sunk. The wording of section 18(2A) is not limited in this way and, as a matter of economics and regulatory policy, it is important that the Commission signals it will consistently take a long-run, dynamic efficiency approach to network investments.

29 Both the Commission's and Professor Vogelsang's reports raise the possibility that further unbundling may have implications for an efficient migration path to UFB, but in both cases they do not consider this issue should impact on the application of section 18 to the pricing of UBA. In our view promoting significant increases in unbundling will not be in the long-term interests of end-users. The Commission's focus should be on transition to the UFB network.

30 While the Commission has said that the copper ladder of investment remains relevant, it has not properly clarified the Commission's view on how relativity and the ladder of investment framework are proposed to operate given:

30.1 To date unbundling has primarily occurred in high density exchanges;

30.2 It is important to ensure that the UBA price does not further defer network investment in rural and cabinetised areas;

30.3 Investment by RSPs requires choice and timing that is incentivised by a range of matters including significant signalling by regulatory frameworks and decision making towards legacy investment or fibre investment;

30.4 It has still not been explained how the Commission's framework fits with the fact that the Commission's own regulated prices for Layer 1 services seem higher than UBA prices in some areas and what this does to customers' incentives when choosing between Layer 1 and Layer 2 services; and

30.5 The UCLL final pricing principle review will also require application of this relativity requirement. Chorus sought that review as the only mechanism in today's framework to seek to achieve stability on the basis that the aggregate pricing of both UCLL/UCLFS and UBA was and remains appropriate as outlined previously and our view that the benchmarked UCLL price is itself below the costs of providing that service in New Zealand.

31 The Government's policy is to have an averaged UBA price, but relativity today needs to be considered against de-averaged urban and rural Layer 1 prices, and as against UCLL

and SLU lines. From 2014, relativity still has to be considered as between averaged UBA prices and “de-averaged” UCLL and SLU lines.

Response to specific points

32 In this submission we also address the following points:

Consultation Paper	**Chorus Response**
The Commission's proposed corrections to the Denmark and Swedish benchmarks: • Use of updated costs from the relevant cost model; • Correction of the an error in the Danish benchmark; • Use of weighted average speed; and • Use of updated exchange rates.	We agree with the corrections to the benchmarking set. However to ensure the recovery of all shared costs, the Commission should include all speeds when calculating the weighted average for Sweden and not just up to 24000. Even after the corrections to Denmark and Sweden, significant adjustments are still required to make the benchmarks comparable to New Zealand.
While the Commission has not sought to consult on the benchmarking sets supplied by Telecom and Network Strategies we consider that it is important to comment in case the Commission intends to put any weight on that information.	We agree with focusing on the recovery of common costs rather than selecting a particular speed in Denmark and Sweden. Including VDSL pricing in the benchmarking set is relevant, as it is a comparable service going forward and covered by the terms of the UBA STD. The Commission should expand the benchmarking set and include FDC countries.
The Commission has indicated that it prefers to only consider TSLRIC benchmarks, given a UBA FPP would be based on TSLRIC methodology.	The Commission is faced with a small benchmarking set that affects the credibility of the Commission's benchmarking approach. Expanding the benchmark set to ensure a robust benchmarking approach by including FDC data points is permissible and appropriate under the UBA IPP. The Commission should thoroughly investigate all options that would result in a more credible benchmark set.

Submission

PROPOSED OPTION OF GREATER WEIGHTING ON BENCHMARKS THAT ARE MOST COMPARABLE TO NEW ZEALAND

33 In this submission we explain why:

33.1 We think that giving a greater weighting to more comparable countries is problematic; and

33.2 A better solution is to estimate the forward-looking UBA cost by making adjustments to the price points so the adjusted benchmarks are comparable to New Zealand. The recommended adjustments are summarised in our post-conference submission, *Chorus UBA Benchmarking Summary*.[2]

34 The Commission has recognised that with a small benchmark set, it cannot be confident that the median of the set is an unbiased estimator of the cost of the UBA service in New Zealand. In order to resolve this issue, it has proposed a method for determining an unbiased estimator which involves placing a greater weighting on individual benchmarks which are considered most comparable to New Zealand.

35 We agree with the Commission that there are problems in determining an unbiased estimator when benchmarking with a small set. However, we do not think that placing a greater weighting on individual benchmarks will solve this problem.

36 We have asked Dr Neil Diamond and Daniel Young to review the Commission's proposed benchmarking approach. Their report is **attached** to our submission ("Estimating Benchmark Distributions"). The authors' view is that the proposed approach to determining an unbiased estimator is problematic because robust conclusions cannot be drawn from a small benchmark set.

37 Given the significant differences between the countries in the benchmark set (including Denmark, Sweden and the other countries under consideration) and New Zealand, we agree that the median of the set is most unlikely to be an unbiased estimator of the cost of the UBA service in New Zealand. We have proposed a number of solutions to this problem throughout the course of the UBA process that involve making adjustments to the raw benchmark set in order to provide a more robust result that more accurately reflects New Zealand conditions. We still think that these adjustments are the best way to deal with any bias. As we have previously noted:

37.1 ***Line density is only one of a number of adjustments*** - The line density adjustment required for Sweden is relatively small. However, Sweden is only one of a number of relevant benchmark countries, and differences in line density are only one of a number of potential sources of bias.

37.2 ***Other adjustments needed*** - Further adjustments may also be required for differences in handover point, for the significant investment in cabinetisation

[2] This submission is available in spreadsheet form on the Commission's website: http://www.comcom.govt.nz/regulated-industries/telecommunications/standard-terms-determinations/unbundled-bitstream-access-service/section-30r-reviews-of-uba-std/uba-benchmarking-review/

that Chorus has made in order to increase the speed of the UBA service, and for the accelerated migration to fibre services in New Zealand as a result of the Government's UFB policy.

37.3 ***Adjustment for accelerated migration to fibre is important*** - While the Commission has noted that there are similarities between the fibre roll-out in Sweden and New Zealand, this does not change the fact that an adjustment for New Zealand's accelerated migration to fibre is required. The transition to fibre means that the forward-looking cost of the UBA service in New Zealand will rise steeply as utilisation of the copper network declines, since the costs of copper based services will need to be spread over fewer end users in the future. An adjustment is needed to avoid this outcome and smooth prices over the transition period, while allowing recovery of forward looking costs. To the extent that the transition to fibre in Sweden (and other countries) is similar to that in New Zealand, the same issue would apply in those countries (that is, it would also be appropriate for the regulators in those countries to make the same adjustment). However, since the cost models in the benchmark countries do *not* apply the recommended adjustment, the Commission needs to make the adjustment itself, in respect of the Swedish price point as well as for other countries in the benchmark set.[3]

38 The recommended adjustments are summarised in Chorus' post-conference submission entitled Chorus UBA Benchmarking Summary.[4] As we noted at the UBA conference, we are happy to engage further on these adjustments.

PLAUSIBLE RANGE OF THE FORWARD-LOOKING COSTS OF THE UBA SERVICE

39 The Commission has recognised that with a small benchmark set, it cannot be confident that the set will contain the true plausible range of forward-looking costs of the UBA service for New Zealand. As a possible solution to this issue, the Commission has proposed an approach to deriving a plausible range using a probability distribution (relying on Professor Vogelsang's advice).

40 We agree that a small benchmark set is less likely to contain the true plausible range of forward-looking costs for New Zealand. However, the use of a probability distribution will not solve this problem. Dr Diamond's and Daniel Young's view is that the Commission's proposed approach to deriving a plausible range from a small benchmarking set is not robust because two (or even three or four) observations do not provide sufficient information about the shape of the distribution.

[3] It might also be argued that there is no need for the fibre migration adjustment if Sweden and Denmark already have low copper utilisation and therefore the prices might already reflect a migration to fibre. This is not the case. However (even if Sweden and Denmark already had low copper utilisation), the econometric adjustment recommended by CEG takes into account different utilisations across areas within countries, and as a result, different utilisations across jurisdictions as a whole. Therefore, when we econometrically adjust the price for Sweden and Denmark we have prices that reflect the utilisation in New Zealand. As a result it is correct to apply the fibre migration issue in full based on the normalised prices.

[4] This submission is available in spreadsheet form on the Commission's website: http://www.comcom.govt.nz/regulated-industries/telecommunications/standard-terms-determinations/unbundled-bitstream-access-service/section-30r-reviews-of-uba-std/uba-benchmarking-review/

41 Dr Diamond's and Daniel Young's conclusions suggest that it is not safe to draw conclusions based on a small benchmarking set. The Commission's proposed option to deriving a plausible range using a probability distribution does not resolve this problem.

42 If the Commission considers that the benchmark set cannot be expanded to a number which is capable of generating robust results, then a possible conclusion is that there is insufficient information available to disturb current prices.

43 We continue to believe that the best approach to generate a plausible range is to expand the benchmark set by adding appropriate countries (with appropriate adjustments to the data points). In our previous submissions we have set out the reasons for the inclusion of Belgium, Switzerland, Greece and the UK in the set, and we have recommended the Commission also investigate the inclusion of France and Spain (and Hungary, provided appropriate adjustments can be made based on derived transport charges). Further adjustments would also be required to these additional countries to eliminate bias. Our recommended approach, which is summarised in Chorus' post-conference submission entitled Chorus UBA Benchmarking Summary,[5] generates four plausible ranges for the forward-looking costs of the UBA service in New Zealand. The current price, $21.46, falls within the benchmark range in all cases.

PRICE POINT SELECTION

44 The Commission proposes to adopt a price point by combining its probability distribution for the UBA price with its view of the relative costs of over- or under-estimating the price prescribed in the Act.

45 The Commission's proposed approach to price point selection is problematic given that it relies on a probability distribution generated from a small benchmark set. As noted above, Dr Diamond's and Daniel Young's view is that it is not safe to draw conclusions about the shape of the distribution from a sample of only two or three benchmarks. It follows that the Commission's proposed probability distribution should not be relied upon for the purposes of price point selection.

46 However, if the Commission pursues this option further then it is should consult on the assumptions that will feed into this framework. Assumptions, including the estimates of relative cost from different errors and the subjective probabilities which are applied to those costs, would be critical if the Commission was to use this method in selecting a price point. While the Consultation Paper sets out the framework of the new option, it does not set out the proposed assumptions. The Commission should in general set out its proposed assumptions and explain its reasons for selecting them, and give interested parties the opportunity to submit on the assumptions before any final decision is taken in reliance on them.

47 We agree with the Commission's view that, in general, section 18 should be used to inform price point selection. Professor Vogelsang's position on the relative weight of

[5] This submission is available in spreadsheet form on the Commission's website: http://www.comcom.govt.nz/regulated-industries/telecommunications/standard-terms-determinations/unbundled-bitstream-access-service/section-30r-reviews-of-uba-std/uba-benchmarking-review/

investment incentives and other relevant matters for price point selection is consistent with Chorus' own position that the economic costs of error in estimating the UBA price are asymmetric. The costs of under-estimating the price give rise to greater economic costs than over-estimating. Accordingly, these factors support a price point that is higher in the range rather than the median.[6] (We consider that these factors should be applied to selection of a price in a range of benchmarks formed by expanding the benchmark set through the addition of further countries and by making appropriate adjustments to price points.) We discuss the application of section 18 further in the next section.

APPLICATION OF SECTION 18 OF THE ACT

Interpretation of section 18

48 The Consultation Paper explains the Commission's approach to section 18. We agree with some features of the Commission's approach but take a different view on others.

49 We agree with a number of important statements the Commission makes about the application of section 18. These include:

49.1 As the Act is concerned with the long-term promotion of competition the Commission should be giving greater weight to dynamic efficiencies (investment incentives) rather than static efficiencies. This is particularly relevant when considering regulatory decisions that might impact on major investments in telecommunications services;[7]

49.2 In particular, we agree that the dynamic efficiency focus of section 18 is reinforced by section 18(2A), which requires the Commission to consider the incentives to innovate that exist for, and the risks faced by, investors in new telecommunications services that involve significant capital investment;[8]

49.3 The UFB investment is relevant to section 18(2A);[9]

49.4 The Commission must consider what impact under- or over-estimating the UBA price may have on the risks faced by investors in the UFB network;[10]

49.5 An incorrectly low UBA price could affect the demand for the UFB network (a key risk faced by investors).[11] The total copper price (UCLL + UBA) will impact on demand for fibre services and migration;[12]

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6 This is consistent with the Sapere report, *Comment on how to best give effect to the purpose of Section 18 in relation to UBA pricing*, submitted in January 2013.

7 Consultation Paper, paragraph 81.

8 Consultation Paper, paragraph 82.

9 Consultation Paper, paragraph 83.

10 Consultation Paper, paragraphs 114 and 115.

11 Consultation Paper, paragraphs 117 to 120.

12 Consultation Paper, paragraphs 127 to 137.

49.6 When having regard to the impact of the UBA price on the promotion of competition, the Commission should give more weight to the dynamic efficiency considerations than the static efficiency considerations;[13]

49.7 The potential benefits of the industry moving to competition on the UFB network are substantial and outweigh the short term effects of potential price drops on the copper network.[14]

50 However we have a different view from the Commission on two other aspects.

51 First, the Commission has limited its analysis of the relevance of the UFB investment to situations where demand impacts could delay further investment in the UFB network. The Commission reasons that an incorrectly low UBA price could affect the demand for the UFB network (a key risk faced by investors), which could delay further investment in the UFB network, which in turn could harm competition in the longer-term. This would be a loss of dynamic efficiency contrary to the long-term benefits of end-users.[15]

52 While this is true, the focus on the impacts on new investment is too narrow. This could be interpreted as an argument that Chorus' UFB network investment is not relevant because it is effectively sunk.

53 We have addressed this issue in previous submissions. As a matter of law, section 18(2A) applies to new investments, and was clearly intended to apply to Chorus' UFB investment. The wording of section 18(2A) is not limited in this way and, as a matter of economics and regulatory policy, it is important that the Commission signals it will consistently take a long-run, dynamic efficiency approach to network investments.

54 Second, we do not agree with the Commission's assessment that promoting significant increases in unbundling will be in the long-term interests of end-users.

55 The Commission suggests that a scenario where a higher UBA price prompted large scale unbundling from Telecom, and the resulting competition drove price decreases and quality increases on the copper network, would be in the long-term interests of consumers.[16]

56 The Commission states that it cannot be certain that would result,[17] and the Commission does note its view that this would possibly conflict with migration to the UFB network.[18]

57 However our view is that promoting a significant increase in unbundling on the copper network will undermine the migration to the UFB network. We have explained our

13 Consultation Paper, paragraph 142.

14 Consultation Paper, paragraph 141.

15 Consultation Paper, paragraph 113 and 114; 120.

16 Consultation Paper, paragraph 106.1.

17 Consultation Paper, paragraph 104.

18 Consultation Paper, paragraph 144.

reasons for this view in our UCLL and UBA submissions, and this is discussed further in the context of applying section 18, below.

58 Other parties argue that increasing the industry focus on unbundling the copper network will assist the migration to the UFB network. We disagree. A very substantial proportion of the investment RSPs have made in unbundling on the copper network cannot be re-used for fibre unbundling on the UFB network. RSPs would need to make significant new investments in order to unbundle on the UFB network, even if they had already unbundled on Chorus' copper network. So RSPs that have unbundled on copper will have a reduced incentive to encourage any end user customers that they serve via UCLL to migrate to the UFB.

59 As the review discussion document released by the Government makes clear, the regulatory framework must be fit for the purpose of facilitating the transition to the UFB network. In this context, it is appropriate for the Commission to deal with uncertainty by making decisions that reduce the risk to the migration to the UFB network.

Application of section 18

60 In this section we comment on some of the discussion in the Consultation Paper as to how section 18 should be applied in the current UBA pricing context. In summary, we agree with the Commission's conclusion that when having regard to the impact of the UBA price on the promotion of competition, the Commission should give more weight to the dynamic efficiency considerations than the static efficiency considerations. We also agree that, based on the evidence before the Commission, this should lead to the Commission selecting a UBA price above the median.

61 In relation to unbundling, we consider that the Commission's focus should be on the transition to fibre rather than encouraging further unbundling for the reasons set out above. The level of the UBA price will affect the retail prices of the copper and UFB services and therefore the issue of relative prices is a very relevant section 18 consideration. For this reason the Commission should take care in moving away from the current UBA price.

62 We agree with the Commission's conclusions in relation to how it should have regard to dynamic efficiency. In particular, we agree that:

62.1 If the take up of UFB was harmed from incorrectly setting the UBA price below the "true" forward-looking costs of the UBA services this could harm investment which in turn can harm competition in the longer term. This would not promote competition for the long-term benefit of end-users due to the potential loss of dynamic efficiency that may otherwise result.[19]

62.2 A price point above the median may be appropriate to minimise the risk to investment and the dynamic efficiency gains from incorrectly setting a price below the "true" UBA cost.[20]

[19] Consultation Paper, paragraph 114.

[20] Consultation Paper, paragraph 115.

62.3 Increasing the UBA price above the median may lead to greater migration to the UFB. The asymmetric impact of setting a price that under-estimates the UBA price has greater negative impacts to investment and innovation than erring on a price which may over-estimate the UBA price. If the price is incorrectly set below forward-looking cost, this would adversely impact on returns to investment in new and innovative services and may act to discourage such investment. In turn this can impact on competition in the longer term which can be dependent on such investment.[21]

62.4 There is a direct benefit to end-users from accelerated migration where that would bring forward availability of highly valued innovative services.[22]

62.5 End-user incentives to migrate to fibre are likely to be influenced by the retail prices of both copper and fibre broadband services. The total wholesale copper bitstream prices (UCLL plus UBA) will influence the retail broadband copper price.[23] When UFB prices were negotiated this was against the back drop of the UCLL and UBA prices. UFB prices were the best commercial judgement at the time of a copper and fibre pricing structure to facilitate UFB migration. We also agree with the Commission that the UBA price will impact on demand for UFB services. While the extent of the impact may be uncertain, the direction of the impact is clear – the higher the UBA price the stronger the incentives on end-users to migrate to UFB.

62.6 On balance, the UBA price will impact on demand for fibre services although the extent of the impact is uncertain.[24] We agree the UBA price will impact on demand for UFB services. While the extent of the impact may be uncertain the direction of the impact is clear, that is the higher UBA price the stronger the incentives on end-users to migrate to UFB.

63 We recognise that the Commission faces a trade-off in setting the level of the UBA price consistent with promoting migration to UFB and possibly setting a higher UBA price for providing the UBA service in the immediate term. This trade-off in economic terms is a distinction between the static efficiencies (possible allocative inefficiencies of under-consumption of copper services now) versus dynamic efficiencies arising from the improved services available on UFB and the spill-over effects from widespread adoption of these services.

64 The Commission states in the Consultation Paper (paragraph 81):

> "As the Act is concerned with the promotion of competition over the long-term, we typically give greater weight to dynamic efficiencies rather than static efficiencies. Consideration of dynamic efficiency is particularly relevant to decisions that may affect major investment in telecommunications services".

[21] Consultation Paper, paragraph 120.

[22] Consultation Paper, paragraph 125.

[23] Consultation Paper, paragraph 128.

[24] Consultation Paper, paragraph 137.

65 The Commission has a framework for resolving the trade-off identified and we encourage the Commission to use that framework to do so. We also note that the TSLRIC cost to supply end-users in non-UFB areas is almost certainly above the nationally averaged UCLL + UBA prices, and therefore in these areas there is no trade-off, that is a UBA price above the median is more likely to be closer to the TSLRIC cost than the median.

66 We have not addressed all the remaining points the Commission comments on in relation to section 18 but note:

66.1 *The risk of unbundling* – we recognise that significant unbundling would work against the transition to UFB. Section 18 guides the Commission to focus on the transition to the fibre network, and the current relativity with fibre prices is important to that transition. For this reason the Commission should take care in moving away from the current UBA price;

66.2 *How is competition best achieved* – in making any assessment under section 18, there is a trade-off between short term incremental gains in competition on the copper network against the long term benefits from investment and innovation on the fibre network. As set out in Chorus' previous submissions, the benefits from competition on the fibre network are large, and outweigh any short term effects on the copper network. Section 18 therefore guides the Commission to focus on the long term benefits of investment and innovation on fibre;

66.3 *Telecom unbundling* – the Commission should not assume competition benefits from unbundling by Telecom, particularly in light of the migration to fibre (see above). The Consultation Paper highlights the complexity in trying to second-guess how Telecom might or might not behave, and whether there will be any short term benefits from unbundling. The Commission should be cautious in disturbing the status quo in the absence of any long-term competitive benefits;

66.4 *A UBA price above the median* - the long-term benefit of end-users is the best served through the transition to fibre, which will be impacted by the level of the UBA price relative to the fibre prices. This supports the selection of a UBA price above the median; and

66.5 *The relativity between UBA and UFB prices* - the relative retail prices of the copper and UFB services will have an impact on the choices many end-users make as to whether and when to migrate to UFB. Professor Vogelsang supports this view ("The pace of migration from DSL (or other copper products) to UFB will certainly be influenced by both the prices of the UFB prices and of the copper products", and "The Shinohara et al study does suggest a fairly robust sensitivity of migration w.r.t. the price difference between DSL and UFB…*"* (paragraph 45). The level of the UBA price will affect the relative retail prices of the copper and UFB services and therefore this issue of relative prices is a very relevant section 18 consideration.

Relativity

67 The Commission interpretation of relativity appears to be focused on promoting the copper ladder of investment and unbundling. We have concerns with how the Commission will achieve this objective under its proposed framework and consider that the appropriate approach is in fact to promote transition to the UFB network.

Copper ladder of investment framework

68 If the Commission sees the current framework as requiring it to drive unbundling then the Consultation Paper does not address how this would be achieved consistently in all areas of the copper network. As we have previously submitted, as a result of the prices the Commission has set to date, unbundling has occurred in high density/urban exchanges. It is important to ensure that the UBA price does not further deter network investment in rural and cabinetised areas.

69 In addition, the Government's policy is to have an averaged UBA price, but relativity today needs to be considered against de-averaged urban and rural Layer 1 prices, and as against UCLL and SLU lines. From 2014, the Commission will still need to consider relativity as between averaged UBA prices and "de-averaged" UCLL and SLU lines. We are unsure as to how the Commission intends to deal with this issue under a copper ladder of investment framework.

70 To be clear, we do not think focusing on unbundling is the approach to relativity that best advances the section 18 purpose. However if the Commission continues to use this framework it first needs to work through the current inconsistencies. The Act does not provide for relativity to be a consideration in some areas but not others.

Relativity needs to be considered in light of UFB migration

71 We disagree with the Commission's approach that the copper ladder of investment remains relevant under the relativity conditions ("Additional matters that must be considered regarding application of section 18") in the UCLL and UBA service descriptions.

72 Since the ladder of investment was first introduced, section 18 has been amended to ensure that UFB and investment incentives were given appropriate weight by the Commission. In addition, the market itself has been changed significantly by the fact that fibre is clearly intended to lead to a step-change going forward.

73 As the Act itself clearly indicates, the relativity conditions need to be considered in the wider context of section 18. In the current market relativity then must be directed at promoting the transition to the UFB network – not encouraging further investment in UCLL. As set out in our earlier submissions, the pricing of the UBA and UCLL services, relative to UFB pricing, is likely to directly impact on the success or failure of fibre uptake.

74 We also note the comments of Professor Vogelsang that the ladder of investment has limited application and in particular does not apply:[25]

74.1 To a technology that is on its way out so that the relevant investments are no longer warranted.

74.2 To (inter-modal) investments in a different technology than the one supported by the wholesale access technology. This holds, for example, for cable TV investments done by others than the wholesale access seekers.

74.3 To the case where duplicating investments are undesirable from a social welfare perspective even if they may be privately profitable. This could happen if the increase in costs from duplication outweighs the potential consumer benefits from price reductions caused by increased infrastructure competition.

75 Professor Vogelsang notes that his views on unbundling depend on whether copper unbundling investments can be reused in UFB unbundling. However, this qualification is not problematic, since a very substantial proportion of the investment RSPs have made in unbundling copper is effectively sunk and cannot be re-used for unbundling on the UFB. RSPs would need to make significant new investments in order to unbundle on the UFB network, even if they had already unbundled on the copper network. We consider that Professor Vogelsang's paper casts some doubts on the Commission's proposed approach.

CORRECTIONS TO THE DANISH AND SWEDISH BENCHMARKS

76 The Commission's proposed corrections to the Denmark and Swedish benchmarks:

76.1 Use updated costs from the relevant cost model;

76.2 Correct an error in the Danish benchmark;

76.3 Adopt a weighted average speed; and

76.4 Use updated exchange rates to convert the Danish and Swedish price points.

77 Chorus agrees with the corrections to the benchmarking set, however significant adjustments are still required to make the benchmarks comparable to New Zealand, as discussed in our previous submissions.

[25] See Professor Ingo Vogelsang's paper "What effect would different price point choices have on achieving the objectives mentioned in s 18, the promotion of competition for the long-term benefit of end-users, the efficiencies in the telecommunications services, that involve significant capital investment and that offer capabilities not applicable from established services?", 5 July 2013, page 8.

COMMENTS ON THE BENCHMARKING SETS SUPPLIED BY TELECOM AND NETWORK STRATEGIES

78 Chorus acknowledges that the Commission has only asked for submissions on the new views presented within the Consultation Paper and the attached paper prepared by Professor Vogelsang. However, since the UBA conference the Commission has released benchmarking material provided by Telecom and Network Strategies.

79 It is unclear to us whether the Commission intends to put any weight on the additional benchmarking information provided to expand the benchmark set, which the Commission states it is considering. However, the Commission does not suggest that there will be any further consultation opportunities prior to the Commission finalising the UBA pricing in October.[26] In that event, we consider it is important to note:

Denmark

79.1 We agree with Telecom's weighted average approach, as it is consistent with the Commission's corrected benchmarks and our previous submissions.

79.2 We disagree with Network Strategies saying the Danish average price across all bandwidths may be inappropriate for New Zealand, as it includes ADSL and SHDSL services. As discussed in CEG's report "Wholesale Broadband Cost Drivers", *Layer 2 ADSL Bitstream Access* is the total cost equivalent of the UBA service in New Zealand, and is the weighted average price point used by the Commission in their updated benchmarking calculations.

Sweden

79.3 Telecom's weighted average approach is consistent with the Commission's corrected benchmarks.

79.4 We disagree with Network Strategies suggesting VDSL speeds should be excluded. In the Swedish cost model, higher speed services have a greater allocation of shared costs. The only way to recover shared costs is to take a weighted average of all bitstream speeds, not just a selection.

Belgium

79.5 Telecom has excluded the VDSL price point, when monthly tariff information from Belgacom is available. For consistency VDSL should be included, as Telecom has done so in their benchmark calculations for Switzerland.

79.6 We disagree with Network Strategies saying Belgium's bitstream price needs to be adjusted for transport costs. As per our previous submissions, including Belgium at the parent node level is similar to the UBA service. However an additional adjustment is still required, as co-locating DSLAMs and First Data Switches (**FDA**) in Belgium is driven by line density.

[26] Consultation Paper, paragraph 44.

Greece

79.7 We disagree with Telecom's approach of applying a simple average across three ADSL speeds (2Mbps, 4Mbps, up to 24Mbps), as it places a higher weighting on lower speed services. We have made a significant investment in our network, resulting in higher speeds, and this needs to be recovered. Greece should be calculated on a weighted average of ADSL (up to 24Mbps) and VDSL.

79.8 We agree with Network Strategies' point that calculating an average across the three ADSL speeds will not provide a true picture of the total costs. However we disagree with excluding Greece on the basis that the cost model is not verified. The regulator participated during the cost model development and checked the model.

Hungary

79.9 As per our cross submission, we disagree with Telecom's proposal on how to adjust for retail minus transport between the DSLAM and FDS. If the Commission is wanting to increase the benchmark set and include Hungary, then a more robust approach would be to use the UCLL Backhaul price.

79.10 We disagree with Network Strategies suggesting an adjusted price point for Hungary could be used as a rough crosscheck. If the price point is adjusted using a robust approach, then it would make sense to include it in the benchmarking set.

Switzerland

79.11 We agree with Telecom's approach of including ADSL and VDSL price points, but disagree with a simple average. Due to higher speeds experienced on Chorus' network, a higher weighting on the VDSL price point should be taken into account.

79.12 We disagree with Network Strategies saying Switzerland should be excluded from the benchmarking set, as the model is not verified by the regulator. The cost model is open to challenge by access seekers, and even though the pricing has been in the market for some time, it has not yet been challenged.

FDC Countries

79.13 We disagree with Telecom and Network Strategies saying FDC countries should be excluded from the benchmarking set. As discussed in our cross submissions, UK should be included, and the Commission should give further consideration to including France and/or Spain.

THE COMMISSION SHOULD FURTHER INVESTIGATE EXPANDING THE BENCHMARK SET BY LOOKING AT FDC BENCHMARKS

80 The Commission indicates in the Consultation Paper that it is considering only benchmarks that are based upon a TSLRIC methodology.[27]

81 We acknowledge that the Commission notes it is considering submissions on variations to this approach and it is not looking for further submissions. Accordingly, we do not intend to reiterate our previous submissions here, but we do consider it important to note that we disagree with this approach. The Commission should be thoroughly exploring all options to expand the benchmark set as a small benchmark set lacks credibility – particularly if there are only two benchmarks in the benchmark set. The UBA IPP requires the Commission to consider forward-looking cost-based benchmarks, which potentially includes FDC benchmark countries.

[27] Consultation Paper, paragraph 33. "Given the FPP for the UBA service is based upon TSLRIC, we prefer to benchmark only against countries that set their prices using TSLRIC."