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Supplementary Submission on Commission's "Analytical Frameworks for Considering an Uplift to the TSLRIC Price and/or WACC"

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1. Executive summary

Primary submission on the uplift paper is our April Commentary

1.1 The primary submission on behalf of our clients on the Commission's April paper being submitted on is our *"Commentary on behalf of consumer interests on Commerce Commission paper dated 2 April 2015 as to TSLRIC and WACC uplifts".* That is our *"April Commentary"* in this submission, with the Commission's 2 April 2015 called *"the April paper".* The following points add to what was said there.

1.2 This submission should be read in conjunction with our other submission today, "*Cross-submission in response to CEG's application of the "Frontier-Dobbs" model"* as well as our earlier related submissions.

Section 18 and relativity between UCLL and UBA pricing

1.3 The Commission's April paper does not deal with the mandatory relativity requirement, and the s 18 analysis must ultimately do so. The conference has provided valuable clarification on the appropriate approach to dealing with the relativity requirement in this s 18 modelling, particularly as to how relativity is to be handled in the context of the broader s 18 and 19 requirements. We have set this out below.

1.4 Expanding on our April commentary and earlier submissions, the outcome of correct legal analysis is that:

- Prior to applying the mandatory relativity consideration, the price of the full UBA stack (i.e. the UCLL price and the UBA uplift price) cannot be increased above the central estimate of cost.

- The dominant feature, by a large margin, of that s 18 analysis must be promoting competition by unbundlers (both as to existing and new investments).

- Promoting migration to fibre likely harms not promotes competition, a point made by Commissioners Gale and Duignan. However, the Commission's April paper, without significant reason, and no reference to what they had said, takes a diametrically opposite position. But even if encouraging migration promotes competition, that is minor relative to unbundlers promoting competition, as the necessary real world evidence based quantitative CBA will show.

- The Vertigan report clearly and simply shows to the Commission (and to the Court) that benefits and detriments such as in relation to migration to fibre can be quantified, and that what is essentially a guess is not required, or legally available. That point is even stronger as the Vertigan report was able to do more than just one quantitative model on the same issues: it was able to do three separate quantitative models to come to the same conclusion. This is simple material for the court.

- The sole purpose (or primary purpose) of the obligation to consider relativity under s 18 is to promote competition by promoting unbundling (as above, both as to existing and as to future investments).

- There needs to be sufficient margin between the UCLL price and the UBA full price stack (UCLL plus UBA uplift) to make unbundling viable over current and future investments. This will require the Commission to use real world data – as it must for all the s 18 analysis – to feed into the CBA, in relation to relativity, to assess the necessary margin. This is likely to involve the Commission in doing a margin squeeze test.

- Legally, the UBA stack (that is, the full UBA service which is priced as UCLL plus UBA uplift) cannot exceed cost. Consequently, the only way a relativity change can be given effect is to make an adjustment that is cost neutral within the UBA stack. For example the UBA price could be increased by $n at the same time as reducing the UCLL price by the same $n. It cannot legally be achieved by only increasing the UBA uplift.

- Relativity is a special case and requires the Commission to take a different approach than that generally available under s 18 and 19. If necessary to achieve this, the price of UCLL can be reduced below cost and the UBA uplift can be increased above cost by equal amounts. Generally however, there will be mechanisms available within the cost framework to achieve the correct outcome.

1.5 We also explain why it is not in the interests of unbundlers to maximise the UBA price stack (UCLL plus UBA uplift) over cost. That is so even as to the largest unbundler – CallPlus – as its UBA lines greatly exceed its UCLL lines.

Consumer surplus test not total surplus test (and s 18(2A))

1.6 During the conference, Chorus, via Chapman Tripp, submitted that, somehow, s 18(2A) operated independently of s 18(1) and also that wealth transfers are excluded from the analysis as this is to be a total surplus test not a consumer surplus test.

1.7 We show why s 18 cannot be interpreted in this way, on its clear words. They are clear enough that background materials such as the Fletcher report are irrelevant.

1.8 We also show why s 1A of the Commerce Act (the purpose provision) and the cases under that Act, lead to the contrary conclusion to that submitted by Chorus and Chapman Tripp (that is, they show there is a consumer surplus test, not a total surplus test).

No migration tax

1.9 Karl-Heinz Neumann said it well at the conference. Uplifting the price is a “migration tax”, which is a variant on a copper tax. A “migration tax” would suffer from the same deficiencies and problems as the Government’s now aborted proposals to introduce a “copper tax”.

A sufficiently robust quantitative CBA remains essential

1.10 Nothing changes our April commentary confirmation that an adequate real-world evidence-based quantitative CBA is required by law. The Commission’s April paper is far removed from that, as we explain in our April commentary and before then. As noted above, the Vertigan report shows that quantification is possible where the Commission has said it is not (but the Commission had the view that only the Ofcom model was available).

1.11 As that quantitative CBA must first be done, the position remains as in our April commentary: our observations here are at a high level, aimed at helping frame the approach in the full CBA, and not to replace it.

A proper CBA would reduce not increase the price, if anything

1.12 If any adjustment to a central estimate of TSLRIC or WACC is justified it is likely to be to reduce, not increase, the copper prices (save for equal adjustment as between UCLL and the UBA price stack under the relativity provision).

1.13 The Commission has only addressed the prospect of an increase (after all, the headings in the April paper refer only to an "Uplift", despite submissions that any adjustment must be downward).

1.14 This applies to both WACC and the TSLRIC adjustments and continues to imply an upward bias.

Commission's April model also shows price should move down not up

1.15 The Commission's migration benefit model clearly shows, even though it is heavily weighted in favour of migration benefits, the detriment to end-users of higher prices would outweigh purported migration benefits by a substantial margin. It also shows, if a dollar price reduction is inputted rather than a dollar increase that there are net benefits to end-users from a price reduction.

1.16 A more robust modelling of migration benefits would show a much larger margin between the migration benefits and detriments to consumers through higher prices. Thus, even on the Commission analysis so far, a correct application would have the prices going down.

Examples of overstatement of migration benefits in the Commission model

1.17 We have set out in tabular form a number of the errors it is submitted have been made in the April paper.

Consumer surplus approach is correct

1.18 The Commission correctly concluded that it should adopt a consumer surplus approach (transparently separating out efficiency and wealth transfer impacts, as is the Commission's standard practice) when considering whether uplift or reduction is warranted, and its optimal size.

Factors to take into account, and the High Court IM decision

1.19 Adding to what has been submitted, we have summarised some (but not all) factors to take into account in the s 18 analysis, including as to the High Court IM merit appeal decision.

No international support for an uplift: to the contrary

1.20 It emerged at the conference that even the Ofcom example as to uplift for externalities was not viable. As noted in our April commentary, the Commission has a direct precedent to show that quantitative analysis can be done instead, from the Vertigan report completed for our nearest neighbour.

Observations about Oxera's assessment of optimal WACC percentiles in electricity

1.21 Given the Commission has decided to get Oxera to undertake quantitative analysis of the optimal WACC percentile, mirroring the work they did on the optimal electricity WACC percentile, there are a number of observations about the Oxera work and Oxera's views we consider it worth highlighting.

1.22 Principally, we would emphasise that Oxera should have regard to the relevant considerations and High Court precedents detailed here and in our earlier submissions.

2. Relativity – the legal position

2.1 The mandatory relativity issue is a key part of the required s 18 modelling and was not incorporated in the Commission's April paper, even though it was a live issue. The conference has been helpful in crystallising how, legally and in practice, the s 18 UCLL and UBA relativity requirement is to be applied in the s 18 quantified analysis, in the context of s19. To assist the required analysis, we now outline this, in the following order:

- We recap the position under s 18 and 19, prior to dealing with relativity.

- We then deal with the special s 18 case as to relativity.

Application of s 18 before applying relativity

2.2 Under s 19, when making its *"determination…..the Commission must consider the purpose set out in section 18; and make the ….determination …that the Commission ….considers best gives, or is likely to best give, effect to the purpose set out in section 18".*As we have submitted, there are few areas – other than as to relativity – where the law permits s 18 to have any application in the process, as the provisions of the Act do not permit any departure from what those provisions require: TSLRIC is a cost based exercise.

2.3 Where such departure is permitted, that must solely be *"to promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services"* (s 18(1)). That is because all provisions in s 18, including s 18(2A), are limited to what is in s 18(1).

2.4 In the next part of this submission, we outline in more detail why that is so. We also outline why the correct approach under s 18 is one of consumer surplus, and not total surplus, contrary to the Chorus submissions during the conference

2.5 Promoting competition is just that and is not per se about promoting migration to UFB. The Commission's April paper is not lawful in that regard and in any event focusses only on two dimensions of the required analysis (price and migration).

2.6 Migration to fibre is relevant only to the extent that this is demonstrated quantitatively to *"promote competition".* Commissioners Gale and Duignan agree with this, as they stated in 2012:[1]

[1] Along with two other Commissioners: Revised draft UCLL Benchmarking Decision, 4 May 2012, at [249].

> “The purpose of the Act is to promote competition in telecommunications markets, not to promote take-up of a particular technology over another.”

2.7 That correctly states the only legally available conclusion even though it is diametrically contrary to the approach in the Commission’s April paper.

2.8 What the Commissioners said was in a draft determination, but nothing subsequently changed this position in that process, and, critically, the April paper does not address what the Commissioners said earlier: it simply, with little reason given, assumes the diametrically opposite. At the very least, the relative positions need to be empirically analysed in a robust CBA. Such a marked about turn by Commissioners is consistent with a perception of upwards bias submitted upon in our April commentary.

2.9 There is a number of actions that can promote competition but the largest by far, as the required quantitative analysis will show, is unbundling.

2.10 As increasing the UCLL prices does not promote unbundling, and nor does reducing the UBA uplift below a margin that makes the UCLL service viable – it does the opposite – the Commission is not legally permitted to discourage unbundling by the way it sets UBA and UCLL prices.

2.11 There are other reasons why the Commission cannot legally increase the prices, including the scheme of the Act in its context, which is designed to be a competitive constraint on fibre, as Chorus’ expert, Dr Patterson has pointed out, correctly:[2]

> "The New Zealand policy is that copper will be a competitive constraint on fibre, with uptake determined by market forces. If copper prices are set above cost to encourage fibre uptake, they will no longer constrain fibre prices, and uptake will no longer be market driven."

2.12 It is inconsistent with that policy and statutory requirement to increase prices relative to cost. It is likewise unlawful to choose to move prices upwards to resolve an impasse between modelling choices (the Commission can use s 18 to resolve impasses).

2.13 That is the legal position: it is contrary to the Act to increase copper pricing beyond the central estimate as copper pricing is a competitive constraint on fibre.

2.14 As we submitted at [16.16] to [16.18] of our April commentary, setting pricing to discourage unbundlers is not a legally available option for the Commission. That is so, despite possible policy arguments favouring discouraging unbundlers. We acknowledge that such arguments exist e.g. there are Professor Cave’s views that copper unbundling should be discouraged and fibre migration should be encouraged. But the short point is that the Act applies a different policy approach and Professor Cave’s views are not legally available, however much the Commission might be attracted to his views.

2.15 UFB is an upstream open access platform available to all and thus does not have the same level of effects on promoting competition as unbundling. Again,

[2] http://www.stuff.co.nz/business/opinion-analysis/8058701/Government-interference-doomed

that needs to be quantified, and there will be some effects on competition, whether promoting or reducing competition.

2.16 Bearing in mind that Chorus is already contractually committed to UFB, it is expected the quantified analysis will show that Commissioners Gale and Duignan are correct when they stated (highlighting added):[3]

> "However, as identified by WIK-Consult and Professor Vogelsang, **higher UCLL prices would result in a very strong economic driver to limit fibre roll out, to the minimum switch-over necessary to meet contractual commitments.**
>
> 248. **In contrast, as noted by Vodafone, a higher UCLL price may incentivise Chorus to slow fibre roll-out to the minimum level necessary to meet their contractual commitments.**
>
> 249. ….The purpose of the Act is to promote competition in telecommunications markets, not to promote take-up of a particular technology over another.
>
> **250. A lower UCLL price could be expected to promote competition by:**
>
> > 250.1 incentivising further unbundling by access seekers
> >
> > 250.2 **providing greater incentives for fibre services to innovate, to exploit their advantages over copper.**

2.17 Thus, a lower UCLL price promotes competition, both as to unbundling and as to UFB. Contrary to the Commission's April paper, there is an overlap in this, given a lower price promotes competition by, as the Commissioners note, encouraging quicker roll out of UFB ahead of contracted dates. Again, there is no reference to what the two Commissioners said, in the diametrically opposed Commission April paper.

2.18 This implies that, where s 18 is applicable (which is rarely), a proper quantified analysis will show the copper price should reduce not increase. This highlights that no higher than a genuine central estimate (with mid-point WACC, including mid-point asset beta) can be justified.

2.19 Professor Vogelsang also makes largely the same point as Commissioners Gale and Duignan make, in response to the Government's "copper tax" plans, that higher copper prices reduces Chorus' incentives to invest in new technology:[4]

> … the wholesale revenue effect reduces the incentives to invest in the new technology because such investment cannibalizes profits. This effect calls for low wholesale charges for the old technology in order to make the old technology less attractive than the new technology.

[3] Revised draft UCLL Benchmarking Decision 4 May 2012 at [247]-[250].

[4] Ingo Vogelsang, *What effect would different price point choices have on achieving the objectives mentioned in s18, the promotion of competition for the long-term benefit of end-users, the efficiencies in the sector, and incentives to innovate that exist for, and the risks faced by investors in new telecommunications services that involve significant capital investment and that offer capabilities not available from established services?*, 5 July 2013.

2.20 Translated to the position where Chorus is contractually committed to roll out, this refers to the same incentives to which the Commissioners refer: incentives to roll out UFB ahead of contractually committed dates.

2.21 Additionally, the Commission cannot ignore what Chorus actually said about reduced VDSL pricing as a gateway to fibre, as quoted in our April commentary. It's a gateway drug moving customers from soft to hard. Both Chorus and the Commission are going directly against what came out of the horse's mouth, namely what Chorus said that is the opposite of what the Commission assumes in its hypothetical rather than, as required, a real world analysis based on actual evidence. There could hardly be more direct real world evidence than that, from the party seeking a price hike, contrary to what it specifically stated at the time.

2.22 Despite (a) Commissioners Gale and Duignan's statements above (and Professor Vogelsang's and the Chorus statement noted above), (b) our submissions seeking lower not higher prices relative to central estimates, and (c) the legal requirements:

- The Commission's April paper takes a diametrically opposed line which is not available to the Commission, giving little reason for doing so, and not making any reference to what those Commissioners had earlier said;

- the paper does not address the option of reducing not increasing the copper price (it is expressly confined as it states to an "Uplift" as headings show);

- the Vertigan report to the Australian Department of Communications demonstrates – in clear cut and simple fashion, to the Commission and to the Court (which has already firmly stated the legal need for quantification anyway) – that quantified analysis is both possible and appropriate, despite views expressed to the contrary;

- The Vertigan report was able to quantify efficiency effects not just in one way only: it could do it in three different ways as to the same conclusion thereby corroborating the conclusions. This further demonstrates simply to a court that the Commission, by not doing a full quantitative CBA (on the grounds that quantification is not possible, is unlawful;

- Among other things, the Vertigan report shows that currently available services (e.g. ADSL and VDSL based services) are sufficient to meet most consumers' needs well past the 5 year period under review here.[5] Whereas the April paper's specific example of the benefits of migration to UFB is HD video, the Vertigan report correctly concludes the diametric opposite: that the current services sufficiently support HD video over a period exceeding 5 years; and

- This small example well illustrates why the quantified and real world approach taken by the Vertigan committee is required, instead of the impressionistic and briefly stated approach in the Commission's April paper, which in reality is just guesswork and based on flawed assumptions.

[5] We explained in our April commentary why the treatment of the post 5 year period is incorrect.

2.23 Those deficiencies, it is submitted, will need to be rectified when the required analysis is done, along with the other matters referred to in our April commentary and in our earlier submissions.

Relativity requirement

2.24 This is a special case, requiring a different approach under s 18. The UBA service description contains this mandatory requirement (and the UCLL service description contains the same mandatory requirement but in reverse):

> Additional matters that must be considered regarding application of section 18: The Commission must consider relativity between this service and Chorus's unbundled copper local loop network service (to the extent that terms and conditions have been determined for that service)

2.25 This is interpreted within the scheme of the Act which includes an existing s18 and a s 19 obligation as to the FPPs. The relativity obligation cannot therefore be treated in the same way as the general s 19 obligation: it must be something that is in addition to that obligation, the more so as it is specifically stated within the service description in contrast with the general Part 2 purpose statement in s18. Otherwise it would have no effect and the Act will not be so interpreted.

2.26 As we have submitted, the general s 19 obligation has a limited role as the specific provisions of the Act determine most issues. For example, TSLRIC, interpreted in the context of TLSRIC practice internationally where the Act's words are insufficient, can generally be determined without resort to s 18: that contextual approach simply applies standard interpretation techniques, by interpreting by reference to international TSLRIC methodology. Taking that course fulfils the objective of the TSLRIC provisions (to determine a **cost** price), whereas applying s 18 efficiencies (that is, static and dynamic efficiencies) generally moves price away from cost. As we have noted earlier, cost (TSLRIC) feeds into s 18 dynamic and static efficiency analysis, but not the other way around.

2.27 However, as noted above, relativity is a special case, embedded as it is in the service descriptions. As to only relativity, this implies special considerations, where s 18 efficiencies take a greater role, possibly even allowing price movement away from cost.

2.28 The Act expressly states that relativity is considered only in the context of s18, which in turn means relativity considerations are confined solely to promotion of competition.

2.29 As outlined above, the primary means promotion of competition is by unbundling. It is also submitted, given context, that this means solely the promotion of competition by unbundling; that the Commission must set the relative prices of UCLL and UBA so as to promote competition by unbundlers. In context, that is what the relativity requirement must refer to.

2.30 Whether or not unbundling is the sole or primary factor, unbundling strongly dominates the analysis.

2.31 This in turn points to:

- Lower UCLL prices (not higher as proposed); and

- Sufficient UBA uplift above the UCLL price to enable:
  - Investment in unbundling and/or
  - Continued services by unbundlers over existing unbundled exchanges.

2.32 That last point is emphasised because, as CallPlus has submitted, including detail in confidential submission, as customer numbers serviced from an unbundled exchange fall, the unbundling service becomes less viable, and ultimately cannot be provided (thereby reducing not promoting competition). This attenuation happens rapidly, as CallPlus has demonstrated. Therefore, this is not just about encouraging new investment in unbundling: it is also about enabling continued unbundling services over existing assets.

2.33 The relativity that the service description addresses is the relativity between the full UBA service (that is, the service that is priced based on $UCLL plus the price of the UBA uplift), vis-à-vis $UCLL. It is important not to lose sight of this as the "UBA price" is generallyh used as short hand for the UBA uplift price. When we refer below to the "full UBA service" we refer to just that, where the price is made up of the UCLL price plus the UBA uplift price.

2.34 The Commission cannot increase the price of the full UBA service above cost. That is for a number of reasons, some of which are identified above (for example, copper pricing is statutorily designed to be a constraint on fibre pricing).

2.35 For that and other reasons, any movement in relativity between the price of the full UBA service and and $UCLL is to be achieved by decreasing the UCLL price and correspondingly increasing the price of the UBA uplift (so that the price of the full UBA service does not increase above cost).

2.36 For example, when the Commission corrects the MEA to model the UBA uplift on fibre, this may produce a UBA uplift price that does not provide sufficient margin to make unbundling viable (essentially a margin squeeze). That is because the Layer 2 cost component of fibre (the lit component) is small relative the Layer 2 copper cost component (although we note that there are substantial Layer 1 components in the UBA uplift so this may not be such a significant issue). The Commission should do a margin squeeze test to check the effectiveness of relativity: it is necessary for the Commission to do that as part of the full CBA that is required.

2.37 There is likely to be a number of solutions via the relativity obligation to enable this to be remedied e.g. as to allocation of cost between UCLL and the UBA uplift services. But given the special position of relativity (compared with the general s 18 and 19 position), the Commission can reduce the UCLL price by $n and increase the UBA uplift price by the same $n, even if that departs from cost. This still leaves, as is required, the price of the full UBA service as not exceeding cost.

Unlimited increases in the UBA price are not in the interests of unbundlers

2.38 A superficial view would be that it is in the interests of unbundlers to have a UBA uplift that is as high as possible, in order to maximise its return on its unbundled investments. That in fact is not so. It is not in the interests of any unbundler to maximise the UBA price stack above cost. Therefore, while that is not available as an option under the statutory framework anyway, as outlined above, it is also not even in the interests of unbundlers, let alone end-users. We now outline why that is so.

2.39 All parties, even the largest unbundler, CallPlus, make extensive use of UBA services especially over exchanges and cabinets that cannot viably be unbundled. In the case of CallPlus for example, it uses far more UBA lines than UCLL lines. For that reason, it is not in any RSPs' interests, including CallPlus as the extreme example relative to say Spark and Snap which haven't unbundled, to increase the $UBA-price-stack beyond cost. While that would benefit unbundlers over unbundled lines, it does the opposite over lines that cannot viably be unbundled (unless the margin is such as to incentivise further unbundling in marginal exchanges).

2.40 Therefore $UCLL price should be sufficiently below SUBA-price-stack to enable unbundlers to provide services with a sufficient margin, but the UBA uplift should not be increased beyond cost.

3. The Commission's draft TSLRIC migration benefit uplift spreadsheet model shows price reduction not an uplift is justified

3.1 The Commission's draft TSLRIC migration benefit uplift spreadsheet model does not support uplift of TSLRIC prices above a genuine central estimate (but it supports reduction).

3.2 The model shows that a $1 uplift would result in NPV of $94 million in extra charges (consumer detriment) versus benefits of $19 million NPV due to migration from copper to fibre. The costs are approximately five times the benefits.

3.3 This provides a prima facie illustration of the importance of determining a genuine central estimate of TSLRIC and of not allowing any generosities.

3.4 While the modelled benefits of migration are very low, they are substantially over-stated. A more robust quantitative analysis would demonstrate a larger gap between the costs of uplift and the purported migration benefits. The Vertigan report shows that this robust real world evidence based quantitative CBA can be done

3.5 Critically, the Commission just assumes migration benefits would be 25% of annual UFB expenditure. This is not an estimate of the benefits. It is simply an assumption the benefits will be large. It is a guess when it is not necessary to make a guess, as the Vertigan report shows. The Electricity Authority faced the same type of criticism of its CBA for its 2012 TPM proposals and has subsequently acknowledged that the method was not suitable, including issuing a CBA method working paper for consultation.

3.6 This is exacerbated by the fact the Commission has failed to provide even qualitative evidence of potential migration benefits.

3.7 Even the example the Commission uses in the April paper (UFB to support HD Video) of itself shows the erroneous approach by the Commission.[6]

3.8 The Commission should not assume positive migration benefits mean UCLL and UBA prices should be higher. They could justify lower prices, as two of the Commissioners have squarely stated in the past and yet that is not referred to in the April paper when the diametrically opposite conclusion is stated in the April paper with hardly any reasoning.

3.9 The model also does not take into account the welfare impact of end-users including for example:

- disconnecting or downgrading their copper broadband service, in response to an increase in copper prices; and/or

- Switching to mobile broadband (particularly if they are low-usage customers) rather than switching to more expensive fibre services.

3.10 It is unclear why the Commission has not yet attempted to quantify these factors.

4. Section 18: Consumer surplus v producer surplus, and incentives to invest

Introduction

4.1 Chorus, mainly via Chapman Tripp, argued at the conference that:

- The analysis under s 18 needs to be based on a total surplus test instead of a consumer surplus test. Therefore wealth transfers from Chorus to consumers are removed, thereby eliminating the consumer detriment for higher prices in the April paper and its successors; and

- The investment purpose in s 18(2A) is somehow decoupled from s 18(1) which focusses on promotion of competition.

4.2 They rely upon a strained interpretation of s 18 which clearly is not available on straightforward analysis. They unnecessarily seek to rely upon background materials such as the Fletcher report when s 18 is unequivocally clear without needing that. When an Act is capable of clear interpretation, background materials cannot be used (and would anyway not change the clear meaning of the words).

4.3 They also rely on an analogy between:

- s 18 of the Telecommunications Act: and

- s 1A of the Commerce Act and judgments under that section.

4.4 However, to the contrary, the difference between the Commerce Act provisions (and those judgements) and s 18 shows the position is to the contrary: the

[6] Wigley and Company, *Commentary on behalf of consumer interests on Commerce Commission paper dated 2 April 2015 as to TSLRIC and WACC uplifts*, 13 April 2015, paragraph 12.3.

consumer surplus test applies and a total surplus test is irrelevant and not applicable.

4.5 We will first interpret the section in the usual way (we have done this already but we outline this taking into account what has been said at the conference).

4.6 We will then show why the Commerce Act and the judgments under it show that solely a consumer welfare test is available.

A critical preliminary point

4.7 We are addressing only those circumstances where the Commission is called upon to use s 18 and 19 to make a decision: we have submitted that this is rare (but there is the special case of relativity, dealt with below). We have submitted that it is critical for the Commission to be clear and sequential in the approach it takes.

Interpreting s 18

4.8 Section 18(1) is clear. There is a single purpose and no more. The sole purpose is “to promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services…”. We will call that the “sole s 18 purpose” in this submission.

4.9 Critically, s 18(2) and (2A) expressly do not deviate from or add to that sole s 18 purpose. Thus:

- Efficiencies (s 18(2)) are only relevant as to fulfilling that sole s 18 purpose.

- Incentives to innovate for and risks faced by investors in new services (s 18(2A)) are only relevant as to fulfilling that sole s 18 purpose.

4.10 Chapman Tripp cannot be correct when they say, for example:[7]

> So I guess what I'm saying is that it seems to me that if Parliament specifies in 18(2A), that for the avoidance of doubt when considering 18(1) you should take into account investment incentives, it seems to somehow degrade from that proposition to say, oh, but we only take into account section 18(2A) if we can demonstrate the link between promoting competition. Effectively Parliament is suggesting that for the avoidance of doubt that is a relevant consideration.

4.11 To the contrary, the unequivocal words of s 18 require that, to use Chapman Tripp words, “we only take into account section 18(2A) if we can demonstrate the link between promoting competition.” There is no way of getting around this, including as to s 18(2). After all, if Chapman Tripp were correct, the link between s 18(1) and s 18(2A) would be unnecessary. If it was axiomatic that new investment always promoted competition, the link to s 18(1) would be superfluous.

4.12 Thus s 18(2) and (2A) are only material if and to the extent they impact promotion of competition for the LTBEU.

[7] At page 431 of the conference transcript.

4.13 There is no need to use words like “gateway” or “subset” or to struggle to find metaphors. The above is the simple and unarguably correct interpretation. Use of “subset” (ie a subset of s 18(1)), as conceded by Chorus in the Court of Appeal,[8] however, is a convenient description. Section 18(2) and (2A) state matters to be taken into account when addressing the sole s 18 purpose.

4.14 Of course, s 18(2) and (2A) must be given meaning, given that interpretation.

4.15 It is readily apparent that the s 18(2) “efficiencies” are static and dynamic efficiencies, implicitly including the benefits of investment for example (and thereby showing that promotion of competition is not just about static and current day infrastructure and services). But, to take that investment example, the benefits and detriments of such investment are solely material only if it also promotes or erodes competition in the LTBIE. If the effect is neutral it is irrelevant under s 18.

4.16 For the same reasons, the same applies to s 18(2A) investment.

4.17 The benefits and detriments of such investment (assuming it promotes or erodes competition in the LTBIE:

- Must be quantified with real world evidence;
- Must be assessed in terms of overall benefits and detriments faced by end users (for example, the position as to unbundling, as to LFC networks and so on, must also be included in the CBA). Considerable care is needed in this exercise: for example, like Chorus and UFB, the LFCs are also contractually committed to roll out their networks and thus there are no incentives to invest in those networks, to be supported by higher copper prices.

Consumer surplus v total surplus

4.18 Before turning to the Commerce Act and the judgment, we note that, again unequivocally, s 18 is solely a consumer welfare provision, including as to s 18(2) and 18(2A). Everything in s 18 comes back solely to s 18(1) with its sole purpose of promoting competition for the LTBEU. If competition is not promoted (or eroded) for the benefit (detriment) of end users, factors such as efficiencies and investment are irrelevant.

4.19 As this is solely about end users and therefore consumer welfare and consumer surplus, total surplus is irrelevant.

4.20 We turn now to the Commerce Act. Section 1A is very similar to s 18(1). But that is where the similarity between the Commerce Act and the Telecommunications Act ends. As noted above, the efficiency provisions in s 18(2) and (2A) are expressly limited to and tied to s 18(1) with its sole focus on end users.

4.21 The efficiencies provision in the Commerce Act is separate from s 1A. s3A provides:

> Where the Commission is required under this Act to determine whether or not, or the extent to which, conduct will result, or will be likely to

[8] At [42] of the *Chorus* Court of Appeal judgment.

> result, in a benefit to the public, the Commission shall have regard to any efficiencies that the Commission considers will result, or will be likely to result, from that conduct

4.22 The key point is that s 3A:

- is not directly linked to s1A (contrary to the position as to s 18) and
- it expressly refers to efficiencies being considered in relation to “a benefit to the public” (ie the reference is to something different from end-users of telecommunications services per se).

4.23 The courts have concluded that s 1A, after it was enacted in 2001, did not change *“the Commission’s practice of treating as neutral any wealth transfers between New Zealand consumers and producers…… The inclusion of ad hoc wealth transfers, which are not losses to society, would distort the efficiency assessment by assuming additional economic harm to the public of New Zealand.”*[9]

4.24 S 3A of the Commerce Act focusses on “the public” (where there was established history of that referring to total surpluses) whereas s 18 focusses solely on end-users of telecommunications services. This different approach, and the different approach of making the efficiencies provisions (s 18(2) and (2A)) expressly part of the s 18 regime with its sole s 18 purpose, shows that the sole focus is the end user of telecommunications services and not the wider society (NZ Inc). Thus it is the benefits and detriments only incurred by end users of telecommunications services that are material.

4.25 We note also that s 1A and s 18 were both enacted in 2001. Moreover, the regime in the Telecommunications Act was a major and deliberate departure from the status quo, namely the Commerce Act dominating regulation of telecommunications. That emphasises the deliberate approach of Parliament to distinguish how the Telecommunications Act applies from how the Commerce Act applies.

4.26 Therefore, the different approach in the Commerce Act, far from supporting a total surplus test, supports the opposite conclusions: that there is only a consumer surplus test under s 18.

What the Chorus experts said

4.27 The Commission has concluded a consumer surplus test is appropriate and this was supported by Chorus’ economic experts, CEG and Professor Hausman, as noted at the recent hearings:

> JASON OCKERBY: I think the implication, what I'm saying is to look at both the consumer welfare effect and the total welfare effect of those pricing increases, and I think in your paper you've looked at $1 increase sort of arbitrary increase, I think you're just testing the numbers etc.
>
> CHAIR: Yes.
>
> JASON OCKERBY: but I think you'd look at both measures.

[9] *Air New Zealand v Commerce Commission (No. 6)* 11 TCLR 347, followed by the Court of Appeal in *Powerco v Commerce Commission* (CA56/08 11 August 2008).

> CHAIR: So, for somebody who's not present, Professor Hausmann made a submission to these proceedings and stated very categorically that the entire matter was a consumer surplus test and that's how an economist treated regulation.

5. Examples of overstatement of migration benefits in the Commission model

5.1 Details of some examples of modelling assumptions in the April 2015 paper that have resulted in overstatement of migration benefits are set out in the following table. These are additional and/or more refined examples over and above what has already been submitted. These need to be addressed in the required robust quantitative CBA:

Modelling assumption	Wigley and Company comment
Assumption that increase in UCLL prices would not impact on retail fibre prices.	**Alternative 1 – Retailers maintain price relativity:** Suppose that a $1 increase in UCLL and UBA prices would result in an increase in copper and fibre retail prices of $1 (retailers preserve price relativities between different quality services). Suppose also that copper and fibre broadband services have an on price elasticity of -0.951% (Spark used this assumption for copper). The migration benefits from a $1 increase in UBA and UCLL prices would reduce from $19.4 to -$15.9m. Put another way, a $1 decrease in UBA and UCLL prices would result in migration benefits of $15.3m. **Alternative 2 – Retailers partially maintain price relativity:** Suppose that a $1 increase in UCLL and UBA prices would result in an increase in fibre retail prices of 50c. The migration benefits from a $1 increase in UBA and UCLL prices would be $2m.
Size of the migration benefits	Migration benefits are assumed to be 25% of UFB build costs. No evidence is provided to support this figure. It is just assumption. All the Commission has done is to guess, on the assumption that there would be large migration benefits.

Modelling assumption	Wigley and Company comment
	As we have noted previously,[10] Vertigan provided use CBA of FTTH benefits to the Department of Communications in Australia, in October 2014.[11] The Vertigan report quantified the benefits from ultrafast broadband. It estimated that direct private benefits (for which there is no market failure) accounted for 94% of the total benefits, and the benefits to the public sector and from externalities accounted for 5 and 1%, respectively. The Vertigan report referenced other analysis which quantified the benefits from ultrafast broadband. The analysis commissioned by Corning (Cartesian 2014) estimated most of the benefits were private in nature, except for the e-health and e-learning elements. Together, these were estimated to account for 4.8% of the total benefits. Data collated by Sandvine (2014) further verifies the finding that most household internet use is for private purposes. In 2014 real-time entertainment accounted for 47% of internet traffic in the Asia-Pacific region while for the US the figure was 59%. Other major traffic categories were also likely to be for private benefits. In the US, peak period downloads were dominated by one entertainment provider, Netflix (34.2% of downstream traffic). The report by Communications Chambers also considered the breakdown of demand into private and public benefits. It estimated that public benefit was likely to be limited to 5%.d If the modelling assumers a 5 (1)% benefit the migration benefits would be $3.9m ($780,000).
Length of the period used to quantify the benefits	The Commission has estimated the migration benefits from a $1 uplift in the UCLL price for the current determination, and the benefit from deciding to provide an uplift in its 2020 re-determination. As we previously noted "The Commission, it is submitted, has incorrectly applied the effects of earlier adoption, to have a full CBA up to 2029.

[10] Wigley and Company, *Commentary on behalf of consumer interests on Commerce Commission paper dated 2 April 2015 as to TSLRIC and WACC uplifts*, 13 April 2015, paragraph 7.9.

[11] Vertigan, *Independent cost-benefit analysis of broadband and review of regulation: Volume II – The costs and benefits of high-speed broadband*, August 2014.

Modelling assumption	Wigley and Company comment
	The Cambini point, correctly applied, is that earlier migration in the 5 year period to be regulated, leads to welfare benefits after the 5 year period. Critically, only those incremental benefits are to be modelled, and not the full CBA until 2029, assuming current pricing. Prices after the 5 year period are to be decided later and a full CBA for then is irrelevant (and taking it into account is an error of law) e.g. any benefits from UCLL uplift after 2019 are an incremental benefit from a decision on post-2019 pricing and not a benefit of 2015-2019 pricing”.[12] If the modelling is limited to the regulatory period (5 years only) the migration benefits would be $5.3m.
100% pass-through assumption.	The Commission has not made 100% assumption in similar analysis e.g. pass-through of mobile termination rate reductions if mobile termination was regulated. The Commission has ignored actual evidence when taking its hypothetical approach and the analysis must be real world not hypothetical. If pass-through is 50% the migration benefits reduce to $9.7m.
UFB penetration is 80% now.	But penetration is presently only around 50%. This will inflate the migration benefits by 60% (reducing as UFB penetration increases).
Cross-elasticity of 1.2%.	Cross-elasticity of 1.2% is at the higher end of potential cross-elasticity estimates. Application of 0.6% cross-elasticity reduces migration benefits from $19.4m to $9.7m.
Discount rate of 10%	The application of a discount rate of 10% results in a net cost of a $1 uplift of $74m. If the discount rate is 8% the net cost is $80m and so on.
The Commission has implicitly assumed that Chorus will price at the maximum allowed TSLRIC price in all areas.	If Chorus ‘prices to the market’ to compete against Northpower, Waikato and Enable the models $1 increase (as per the approach taken in response to Saturn roll-out of cable in Wellington and Christchurch) would only apply to 70% of areas with fibre. This can be remedied by scaling down the migration benefits by 30%.
Broadband uptake is assumed to start at 100,000 and to grow by 100,000 per annum.	It is unclear why the ComCom has assumed 100,000 increase in Annual Growth in Broadband demand (separate from cross-elasticity affects). In the year to December 2014, fibre connections in New Zealand grew from 19,000 to 69,301 (OECD).

[12] Wigley and Company, *Commentary on behalf of consumer interests on Commerce Commission paper dated 2 April 2015 as to TSLRIC and WACC uplifts*, 13 April 2015, paragraph 3.5.

Modelling assumption	Wigley and Company comment
	The model is very sensitive to assumptions about Annual Growth in Broadband demand (separate from cross-elasticity affects) e.g. if there is assumed to be no growth the migration benefits become $2.9m. If the model assumptions are changed to reflect OECD figures for 2014 (fibre uptake is approx 69,000 (not 100,000) and growth in connections was 50,000) the migration benefits reduce to $10.9m).

6. The Frontier-Dobbs model

6.1 We note also our other submission today, and this is to be read together.

6.2 The starting point is, as we have submitted, that movement above a central estimate of TSLRIC and WACC (that is an estimate without regard to s 18 efficiencies) can only be legally justified where TSLRIC and WACC methodology and evidence does not provide an answer to TSLRIC to WACC cost. That will rarely happen and where it does, it needs to be carefully identified. (The exception is as to the special case of relativity).

6.3 We and others have detailed how the 2 December 2014 draft decisions already include generosities. As Network Strategies sums up:[13]

> “the Commission has in its modelling approach adopted a number of conservative assumptions, the combined effect of which implies that the calculated point estimates in fact approach an upper bound”.

6.4 This includes in both the cost calculation and determination of aspects of WACC. For example, at the conference:

> ROB ALLEN: Just one comment which is, you noted before that the selection between the range of 0.3 and 0.45 was at the 0.4 which was at 67th percentile of that range, and just had a query about the efficacy of moving away from a central estimate. There's no particular reason to believe a lower number or a higher number than the midpoint of those would be appropriate, whether that consideration should be part of a decision on asset beta or around WACC percentiles more generally? And building on that, what is the evidence to suggest something higher in the range would be appropriate? It's important that any decision to deviate from a central estimate is strongly evidence based.[14]
>
> COMMISSIONER DUIGNAN: … we did end up taking a beta above the mid point of the range, so, you know, when you say we haven't kind of allowed for things elsewhere, and that when we come to our debt premia we are very systematic about it and we pick up a range of

[13] Network Strategies, *Final report for Spark New Zealand and Vodafone New Zealand, Commerce Commission Draft Determination for UCLL and UBA, A review of key issues*, 20 February 2015, section 10, and page 87.

[14] At page 327.

> companies and some would say that the way we do it is certainly not ungenerous …[15]

6.5 The evidence that has been presented, to date, through the UCLL and UBA FPP process suggests the Commission should err on the low side in setting prices. This includes, for the avoidance of doubt, the CEG adaption of the Frontier-Dobbs model if it is corrected to recognise the distinction between sunk, non-deferrable and deferrable investments.[16]

6.6 While Dobbs does not consider his model should be relied on to determine a particular optimal WACC percentile, he does agree it is helpful for indicating the direction of any particular uplift or reduction. Given Chorus' copper network is worth $2,398m (sunk cost), with new investment (2014) of $61m (much of which is just maintenance/refurbishment ("network sustain") rather than genuine new investment),[17] the Dobbs model suggests WACC should be below mid-point even if a total surplus rather than consumer surplus test was adopted. [18]

6.7 For clarity, we agree with CEG that *"Where we refer to a cost of capital uplift … we could equivalently express this as a price uplift".[19]* Our comments against uplift to WACC are, accordingly, equally applicable to any generosities or uplift to the TSLRIC prices, and vice versa. The main difference between applying uplift through TSLRIC modelling assumptions versus uplift (or reduction) in WACC percentile is that the pricing impact of the latter tends to be more transparent (which is required to assess of whether the uplift or reduction is optimal). This is essentially because it is simple to calculate the impact on prices from use of different WACC percentiles, but uplifts through generosities are not so easily measurable. For example, if the uplift is due to limited application of FWA the Commission would need to model full application of FWA to determine the pricing implications. The Commission has not done this extra modelling, to date.

6.8 To illustrate the inter-relationship between uplift in WACC and TSLRIC, consider the following hypothetical example:

- WACC uplift analysis indicates that a WACC percentile should be adopted that translates to a 50 cent increase in TSLRIC price

- Migration benefit analysis indicates that an uplift of $1 should be added to the TSLRIC price to encourage migration to UFB.

6.9 In these circumstances, the optimal uplift would be $1 in total (which would deliver the migration benefits in full, and over-compensate for the optimal WACC).

[15] At page 332.

[16] We detail in our cross-submission on the CEG WACC uplift report how CEG has misapplied the Frontier-Dobbs model, and correction would support a WACC percentile below mid-point.

[17] Chorus, Chorus Annual Report, 2014, page 34.

[18] This point is discussed in more detail in our cross-submission on the CEG WACC uplift report.

[19] Wigley and Company, *Cross-submission to the Commerce Commission in response to the Commission's expert reports on the cost of capital for the UCLL and UBA price reviews* AND *Submission on the Part 4 review of WACC uplift*, 4 August 2014.

6.10 If, alternatively, the migration benefit analysis indicated prices should be reduced by $1 there would be a tension between the WACC uplift and TSLRIC reduction that would need to be assessed. The optimum adjustment to TSLRIC prices (cumulative effect of WACC uplift and TSLRIC reduction) could be anywhere from a reduction in price between 50 cents and $1.

6.11 The above reiterates the point that fulsome and quantitative modelling is required.

7. Relevant factors

7.1 We summarise some but not all relevant considerations to determination of whether uplift or reduction (to either WACC or TSLRIC) is justified (subject to the key caveat that this is no substitute for a robust evidence based quantitative CBA):

- As Vogelsang has noted, the Government has already provided Chorus (and LFCs) with a UFB subsidy to accelerate migration from copper to fibre;

- The Commission is required to undertake an evidence based quantitative CBA;

- There is an absence of any evidence that the draft decisions (or prices substantially below the drafts) would preclude Chorus from earning (at least) a normal return on its prudent and efficient investment;

- The existence of generosities/implicit uplifts (relative to actual cost) in the TSLRIC draft decisions;

- The balance between sunk ($2.398 billion) and new ($61 million (including "network sustain" which is not genuine new investment) in 2014) copper investment; Chorus has made commitments, as part of its Network Infrastructure Project Agreement (that is the construction and roll out contract) with CFH, limiting the extent to which it will invest in copper.[20]

- The impact on competition of an uplift (including the extent to which copper acts as a competitive constraint on fibre);

- The impact of higher prices on consumers (including potential for higher copper prices to act as a barrier to take up of broadband and impact on consumers where there fibre is unavailable); and

- The extent to which there are other mechanisms for encouraging efficient investment in Chorus' copper network (including tighter service quality standards).

[20] Crown Fibre Holdings, Network Infrastructure Project Agreement, Telecom New Zealand Limited and Crown Fibre Holdings Limited, 24 May 2011, Schedule 11, paragraph 4.

8. High Court Part 4 IMs Merit Appeal decision provides useful precedent and direction

8.1 We have covered this in prior submissions, but we would emphasise the High Court's Part 4 IMs Merit Appeal decision provides useful precedent and direction on a number of matters, including:

- The onus is on regulated suppliers to produce evidence and analysis to support their submissions, including claims about impact of prices on their incentives to invest;[21]
- Decisions must be evidence-based and an impressionistic or qualitative judgment kept to a minimum, so that it applies only in the limited aspects that cannot be quantified;[22]
- The Commission's approach of differentiating between sunk and new investment (the so called "line in the sand" on asset valuation) was justified;[23]
- The link between limiting prices and replicating workably competitive market outcomes;[24]
- Higher prices do not result in greater efficiency, let alone greater dynamic efficiency;[25]
- Lower prices would result in better/more efficient asset utilisation;[26] and
- A higher WACC on sunk investment is not justified to promote incentives to invest in new assets.

8.2 Despite the High Court precedent, Chorus and its consultants have repeatedly argued a high WACC percentile/TSLRIC price for copper services is required to incentivise investment in fibre.

8.3 Access providers will have incentives to invest as long as they reasonably expect to earn a normal return on their prudent and efficient investment. Chorus has, at no stage, claimed or provided evidence that the Commission's draft

8.4 We reiterate, the observation we made at the UCLL and UBA FPP conference that Chorus is repeating the same mistakes regulated suppliers made in the High Court IMs Merit Appeal case:

[21] *Wellington International Airport and others v Commerce Commission* [2013] NZHC 3289, paragraphs [774] and [775].

[22] For example, *Wellington International Airport and others v Commerce Commission* [2013] NZHC 3289, paragraphs [1440], [1462], [1470] and [1745].

[23] For example, *Wellington International Airport and others v Commerce Commission* [2013] NZHC 3289, paragraphs [597] – [599].

[24] For example, *Wellington International Airport and others v Commerce Commission* [2013] NZHC 3289, paragraphs [14] to [22].

[25] *Wellington International Airport and others v Commerce Commission* [2013] NZHC 3289, paragraphs [1472] to [1476].

[26] *Wellington International Airport and others v Commerce Commission* [2013] NZHC 3289, paragraphs [601] to [602].

> ROB ALLEN: … there's been a lot of discussion today about incentives to invest on Chorus' part, less so on the part of access seekers, and the incentives to invest in Chorus is somewhat of a red herring. It's clear from the merit appeal decision in Part 4 where the regulated suppliers were saying the same thing, we need a higher RAB to give us incentives to invest, and the High Court position was to demonstrate that you need a higher RAB to have incentives to invest, you need to be able to demonstrate that the RAB that the Commerce Commission set is not going to enable you to earn at least a normal rate of return, and the regulated suppliers were unable to do so. And again here, Chorus has provided no such evidence that the price that the Commerce Commission is proposing, or even a price substantially lower than that, would prevent it from earning a normal rate of return, and if it can earn a normal rate of return, it will have incentives to invest.[27]
>
> ROB ALLEN: … I just want to emphasise in terms of the concerns that Chorus keeps on raising about incentives to invest, the important thing is that investors have confidence that they can expect at least normal return on their efficient and prudent investment, and Chorus has provided no evidence to date that the Commerce Commission's draft decision would not provide that, and there has been a fair bit of evidence that the TSLRIC draft decision will actually provide a price that will be well above Chorus' costs. So, if Chorus wants to persuade the Commerce Commission that there should be a higher, an uplift in the WACC or anywhere else, then the onus is on Chorus to demonstrate that the draft decision would preclude it from earning a normal return. And, as I mentioned on Monday, exactly the same issue came up in the Part 4 merit appeal where the RAB was challenged because it was too low and because it would not incentivise investment, and the High Court decision was that if that argument was going to be persuasive, then the regulator to suppliers needed to provide evidence that the RAB or the Commerce Commission decisions would preclude them from earning a normal rate of return. As with Chorus the regulated suppliers did not or were unable to do so.[28]

8.5 Chorus hasn’t and won’t provide such evidence because the Commission’s draft decisions won’t result in below cost prices (quite the opposite).[29] We reiterate further from the conference:

> ROB ALLEN: In contrast to say Part 4, the Part 2 TSLRIC is more focused on achieving an efficient price whereas Part 4 is focused on achieving a price that recovers the forward looking costs of the regulated suppliers, and one difference that can mean is you can end up, as we have with the draft determination where the TSLRIC price ends up being something that's substantially higher than is required to enable the regulated supplier to recover its costs and that in itself has a number of implications. For example, under Part 4 an uplift in WACC was provided because of the risk that regulated suppliers would not be

[27] Day 1, at page 43.

[28] Day 3, at pages 368 - 369.

[29] If the copper access pricing resulted in Chorus’ not being able to recover a normal rate of return on its efficient and prudent investment it would invoke clause 7 of the TSO Deed. Clause 7 provides that “If Chorus considers that the overall profitability of Chorus’ fixed business has been, is being or will be unreasonably impaired … and wishes to increase the price for TSO network service … above an amount equivalent to the regulated price … for Chorus’ unbundled copper low frequency service to remove or avoid that unreasonable impairment, Chorus shall notify the Crown …”

> able to recover their costs, but if the TSLRIC already ensures price is well above cost, then that risk doesn't exist for Chorus.[30]
>
> ROB ALLEN: I would add to that given the reference to the fact that I do some work in Part 4. The Part 4 situation is quite different in that the Commerce Commission is setting a price based on projected costs of the regulated suppliers to set the price at a normal rate of return over a five year period, and during the transition to the new Part 4 regime if the Commerce Commission hadn't applied clawback it would have meant that the Commission and some regulated suppliers would have expected to earn, sorry, some regulated suppliers would expect to earn below a normal rate of return which isn't the case in this instance.[31]

8.6 Vogelsang's comments are also relevant e.g.:[32]

> From an actual cost perspective the TSLRIC method currently proposed by the NZCC is likely to be substantially more than needed by Chorus for covering the cost of its copper access network. Thus, the copper access network is likely to remain highly profitable. This bodes well for Chorus' decisions regarding copper upgrades and copper investments in maintenance …

9. Absence of international precedent to support uplift

9.1 International precedent, including the approaches to TSLRIC modelling the Commission considers to be "orthodox", do not support uplift. At the Commission's hearings, Chorus' experts were asked for examples where uplifts have been provided internationally, and the only example their experts could come up with was hopelessly out-of-date, and no longer applied (this is also the example used by the Commission in its April paper):

> **JAMES ALLEN:** ... In terms of uplifts to TSLRICs, of course the network externality surcharge was applied to some Mobile termination rates in some European countries for a period and you could also argue that any kind of TSO funding is also some kind of uplift applied. I know we have TSO and it's specifically out of scope here.
>
> So, on the choice of parameters point I might want to look at the UK Competition Appeals Tribunal because Ofcom was roundly criticised for not picking a point. At one point in one of their mobile terminations they published 40 data points and the CAT said no, you've got to pick one.
>
> **TOM THURSBY:** Can I add too that Ofcom no longer use those approaches in setting MTRs.
>
> **JAMES ALLEN:** Yes, absolutely, it is no longer used and no longer used in almost all countries I think.
>
> **TOM THURSBY:** And they said that they accepted a mark-up on MTRs in the way it was proposed there has been found to be an inefficient way to support the expansion of mobile take-up.[33]

[30] Day 1, at page 7.

[31] Day 3, at page 281.

[32] Ingo Vogelsang, *Current academic thinking about how best to implement TSLRIC in pricing telecommunications network services and the implications for pricing UCLL in New Zealand*, 25 November 2014, paragraph 24.

[33] At page 386.

9.2 In any event, such modelling was only broadly estimated on an impressionistic basis. That contrasts with the ability of the Vertigan committee to quantify benefits and detriments in its report to the Australian Department of Communications.

10. Observations about Oxera's assessment of optimal WACC percentiles in electricity

10.1 We have previously made detailed reference to the extent to which the Commission's Part 4 WACC percentile review and decision for electricity and gas networks is relevant to the copper pricing decisions.[34]

10.2 Given the Commission has decided to get Oxera to undertake quantitative analysis of the optimal WACC percentile, mirroring the work they did on the optimal electricity WACC percentile, there are a number of observations about the Oxera work and Oxera's views we consider it worth highlighting.

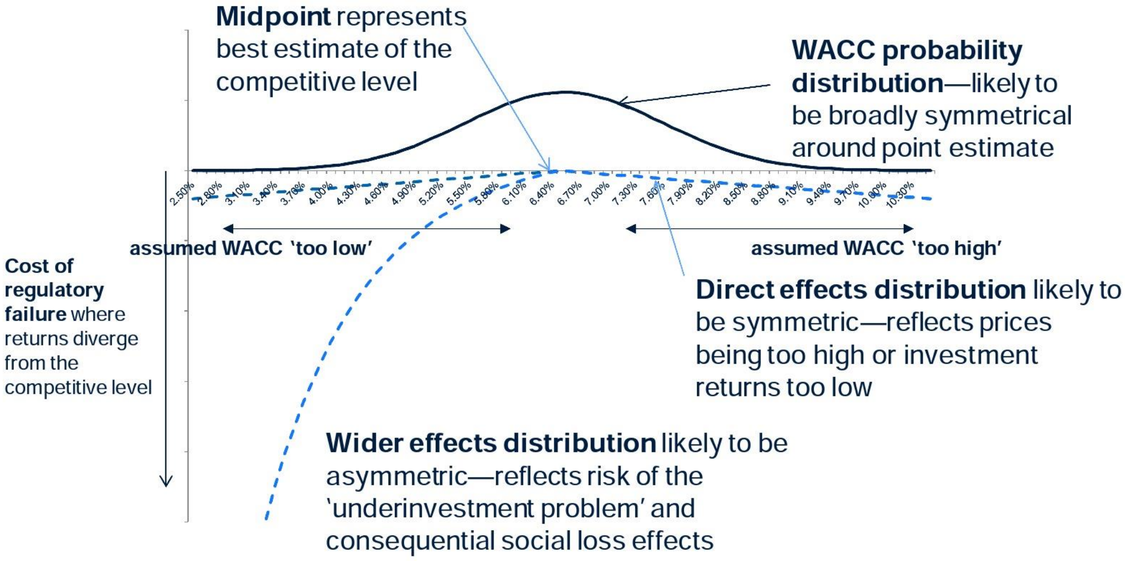
10.3 Principally, we would emphasise that Oxera should have regard to the relevant considerations and High Court precedent detailed above and in our earlier submissions.

10.4 Oxera should not simply assume the cost of under-investment (from setting prices too low) is asymmetric, as it did in the electricity context (see figure below). A particular factor that distinguishes electricity from copper is that there is a much higher ratio of sunk to new investment in copper, and new investment is predominantly in fibre. We are not aware of any electricity or gas network that has made a commitment to minimise investment.

10.5 Investment in copper could potentially crowd-out fibre investment (and uptake). In this respect, we note Oxera's observation that 50th percentile would be optimal only where "the consequences of under-investment are low, or where the link to WACC is low".[35]

[34] For example: Wigley and Company, *Cross-submission to the Commerce Commission in response to the Commission's expert reports on the cost of capital for the UCLL and UBA price reviews AND Submission on the Part 4 review of WACC uplift*, 4 August 2014.

[35] Oxera, *Review of the '75th percentile' approach*, 23 June 2014, page 3.



Midpoint represents best estimate of the competitive level

WACC probability distribution—likely to be broadly symmetrical around point estimate

Cost of regulatory failure where returns diverge from the competitive level

Direct effects distribution likely to be symmetric—reflects prices being too high or investment returns too low

Wider effects distribution likely to be asymmetric—reflects risk of the 'underinvestment problem' and consequential social loss effects

Source: Oxera[36]

10.6 Consistent with this, Oxera's conclusion "*a point estimate around the 60th and 70th percentile appears to provide a suitable balance between the costs and benefits of the appropriate of setting a higher percentile in mitigating the risks associated with the underinvestment problem" was specific to the "circumstances of electricity transmission and distribution".*[37]

10.7 Ingo Vogelsang made the following observations about Oxera's analysis:

> The Report argues against the use of a case-by-case approach to the WACC percentage, but leaves open if a different approach should be used for different industries. Such openness is, in my view, warranted by differences between regulated industries and may even extend to differences between electricity distribution and transmission grids. Further case-specific differences may be warranted for different indirect effects of investments, such as innovation effects in contrast to the reliability effects treated exclusively by Oxera.[38]
>
> … the investment shortfall itself has strong consequences for the policy assessment. If it is large relative to the benefits then it weighs heavily in the static welfare assessment. If it is small relative to the benefits then other policies may provide cheaper ways of reaching the same result. This leads to the paradox that the WACC policy may be bad if it is associated with small investment effects and may be just as bad if it is associated with large investment effects. My personal view is that a higher than midpoint WACC is likely to be good policy mainly when the

[36] Oxera, *Review of expert submissions of the input methodologies*, 27 October 2014, figure 2.1.

[37] Oxera, *Review of the '75th percentile' approach*, 23 June 2014, page 6.

[38] Ingo Vogelsang, *Review of Oxera's Report, Input methodologies - Review of the '75th percentile' approach*, 10 July 2014, paragraph 8.

> associated investment increase produces sufficiently large net beneficial effects and if there are no better substitute policies.[39]
>
> A sound WACC-related policy requires a further analysis of its benefits and drawbacks as a policy tool relative to other policies dealing with investment-related market failures. This is important (a) because these policies run parallel and (b) because they determine if and to what extent there is a current investment problem. For example, we do not currently know if because of other policies New Zealand's electricity grid reliability is at, above or below its optimal level.[40]
>
> … Oxera uses a plausible informal model ...[41]
>
> Using the allowed WACC percentage is a crude policy instrument that is not well targeted and is likely to generate quite uncertain results relative to a targeted policy. At the same time, it can give the regulated firm discretion to find the best solution for a policy problem. Thus, the WACC policy is potentially less interventionist than other regulatory policies, such as the direct regulation of network reliability. It is therefore important to evaluate the WACC percentile policy against other policy instruments.[42]

10.8 We also emphasis the following comments made by Oxera:

> applying a premium to new investment only, or reassessing the premium to reflect the investment risk in each period, is therefore less likely to provide sufficient certainty of returns …[43]
>
> **the WACC may not be the most effective mechanism for promoting unusual forms of investment, such as true innovation**, given that, in traditional network assets, any premium would also need to be applied to the significant majority of the capital base [emphasis added][44]
>
> The incentive to invest may be reduced as a result of the WACC being set at the higher percentile. For example, assume that a downstream firm is considering making a capacity enhancing investment but the higher transmission and distribution cost has lowered the profit the firm would make on the additional output. If the decision to go ahead would have been marginal with the midpoint WACC, the implementation of the 7 5th percentile approach might result in the firm deciding not to make the investment because the return would no longer be sufficient.[45]

[39] Ingo Vogelsang, *Review of Oxera's Report, Input methodologies - Review of the '75th percentile' approach*, 10 July 2014, paragraph 11.

[40] Ingo Vogelsang, *Review of Oxera's Report, Input methodologies - Review of the '75th percentile' approach*, 10 July 2014, paragraph 13.

[41] Ingo Vogelsang, *Review of Oxera's Report, Input methodologies - Review of the '75th percentile' approach*, 10 July 2014, paragraph (3).

[42] Ingo Vogelsang, *Review of Oxera's Report, Input methodologies - Review of the '75th percentile' approach*, 10 July 2014, paragraph (23).

[43] Oxera, *Review of expert submissions of the input methodologies*, 27 October 2014, page 2.

[44] Oxera, *Review of expert submissions of the input methodologies*, 27 October 2014, page 2.

[45] Oxera, *Review of the '75th percentile' approach*, 23 June 2014, Box 4.2.