

Cost of capital for regulated fibre telecommunication services in New Zealand: Response to submissions on the Input Methodologies Draft Decision

New Zealand Commerce Commission

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FINAL REPORT

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Contents

1. EXECUTIVE SUMMARY	4
2. ESTIMATING THE ASSET BETA.....	7
2.1. Comparator sample	7
2.2. Composition of the comparator sample	17
2.3. Other evidence.....	18
3. RELATIVE RISK ASSESSMENT	29
3.1. Impact of UFB arrangements and regulatory framework	29
3.2. Other risk factors	30
4. CREDIT RATING AND LEVERAGE	34
APPENDIX A ASSET BETA ESTIMATES	37
APPENDIX B REFERENCES	38

1. EXECUTIVE SUMMARY

The Commerce Commission (the Commission) is developing the upfront Input Methodologies (IMs) that will set the rules and processes that apply to the regulation of fibre fixed line access services (FFLAS). To inform development of the Cost of Capital IM, the Commission has asked CEPA to provide analysis and advice on the following two components of the weighted average cost of capital (WACC):

- An appropriate asset beta for the FFLAS that are regulated by the Commission. This includes consideration of whether it would be appropriate to estimate a different beta for Chorus and the Local Fibre Companies (LFCs).
- The long-term credit rating that would be appropriate for a FFLAS provider.

CEPA's first report on these issues was published by the Commission in May 2019, alongside its fibre regulation emerging views paper. The Commission received submissions and cross-submissions on CEPA's approach to estimating these WACC parameters, which we responded to in a separate report dated October 2019. Following publication of the Commission's draft decision in November 2019, stakeholders have provided a further round of submissions and cross submissions. We respond to these comments in this report.

The main themes emerging from the submissions relate to:

- The selection of the **comparator sample** used to derive the asset beta, leverage and credit rating estimates. In particular, Chorus, based on analysis by Sapere, has proposed an alternative approach to establishing the comparator sample.
- **Additional evidence** that could be used to cross check the asset beta estimates, including equity analyst reports, a decomposition of Chorus' asset beta and regulatory precedent from other jurisdictions.
- Our approach to assessing the **relative systematic risk exposure** of the FFLAS providers, compared to the comparator sample.
- The **consistency of the notional leverage and credit rating** for an efficient FFLAS provider adopted in the Commission's draft decision.

CEPA has considered the points raised in the submissions and cross-submissions, in relation to each theme described above. Our responses in relation to the main issues raised are summarised below.

Comparator sample

Based on analysis undertaken by Sapere, Chorus has proposed that the Commission adopt a larger comparator sample to derive the asset beta, in order to avoid the subjectivity that it considers to be inherent in a filtered comparator sample, such as that developed by CEPA. Sapere proposes a sample derived from industry classifications published by Professor Aswath Damodaran of NYU Stern School of Business. Aside from including firms that are only from countries that Damodaran classes as developed, no other filters are applied. Based on this sample, Sapere derives an asset beta range of 0.54 to 0.65.

The absence of directly comparable firms favours maintaining a relatively wide set of comparators, in order to ensure that the market evidence captures the experience of the communications sector as a whole. However, this does not imply that issues known to affect comparability should be entirely disregarded. In response to Sapere's report, we note that:

- Many of the filters we adopted (such as liquidity) address issues with the reliability of the underlying data on which the beta estimates depend. Such filters are important to exclude estimates that, while referring to suitable comparators, may suffer from thin trading volumes, among other data quality issues.
- The large sample approach proposed by Sapere still involves a degree of filtering and judgement. For example, Sapere decided to disregard the Telecom Equipment sub-category captured in Damodaran's

telecommunication sample. Our filtering approach extends the logic that the comparator sample should ideally reflect firms with similar characteristics to the FFLAS providers.

- Sapere states that the Commission has previously followed a large sample approach. However, we note that in the 2016 IM decision, while the Commission started with a very broad sample of energy utilities, the Commission nonetheless applied a series of filters to improve the relevance and robustness of the sample. The process that we have followed in developing our comparator sample for the FFLAS providers is consistent with the approach previously followed by the Commission.
- We have assessed whether taking Damodaran’s industry classification as our starting point, rather than the Bloomberg classification, would have resulted in a materially different comparator sample. After the application of the relevant filters, we have found that this would identify between three and seven additional comparators, but miss out two comparators from our original sample. Including the additional three/seven comparators in the sample would result in an average asset beta of 0.49-0.51, if we adopt the Commission’s approach to selecting a point estimate. This compares to the Commission’s draft decision proposal of 0.49.

Overall, we consider that the comparator selection approach described in our October 2019 report provides a sound estimate of the asset beta for an FFLAS provider. There is no evidence that Sapere’s ‘large sample’ approach is more robust or objective than this approach, nor more consistent with the methodology previously applied in regulatory decisions in New Zealand. Further details are available in **section 2**.

Other evidence

Several submissions argue that the Commission should consider a range of other evidence as a cross-check to its proposed asset beta. These proposals include:

- Evidence from equity market analyst reports;
- A decomposition of Chorus’ asset beta into business segments;
- An estimate derived from the asset betas for different segments of BT Group, based on a consultation paper recently published by Ofcom; and
- Other regulatory precedent, including a recent decision by the Belgian sector regulator BIPT.

In relation to **equity market analyst reports**, we note that most present asset beta estimates only as an input to their modelling, without detailing how the asset beta was derived or discussing why the fibre segment would merit a higher asset beta than Chorus as a whole. In one case, the analyst presents regulatory precedent and a brief relative risk assessment to support a higher beta for fibre. However, we have already responded to such arguments extensively in this and our previous reports, and we do not consider that they support a higher asset beta for fibre services. This is further discussed in **section 2.3.1**.

We note that the Chorus **beta decomposition** proposed by Sapere is based on a mix of asset beta estimates and revenue data from different time periods and sources. As asset beta estimates fluctuate depending on the period being considered, consistency across the components is therefore essential to ensure the robustness of the decomposition analysis. For example, if we were to update Sapere’s analysis to reflect the estimated Chorus group beta over 2014-19 (0.46), this would imply an asset beta for Chorus’ fibre services of approximately 0.50, rather than 0.61. Further, Sapere’s analysis relies on the asset beta derived from the Commission’s 2015 UCLL/UBA decision being a reasonable estimate for the copper services provided by Chorus. However, our view is that there is no evidence to suggest that the asset beta would be different for copper and fibre providers operating in New Zealand. For these reasons, and others elaborated in **section 2.3.2**, we do not consider that the decomposition analysis presented by Sapere can be used reliably to assess the asset beta of the FFLAS providers.

Several submissions refer to the asset betas proposed by the UK telecoms regulator Ofcom in its 2020 Wholesale Fixed Telecoms Market Review 2021-26 (WFTMR) for different segments of BT Group, and a recent determination by the Belgian sector regulator BIPT, as evidence that the asset beta of 0.49 adopted by the Commission is too low.

These submissions argue that the Commission should consider Ofcom's estimates as a benchmark. While other regulatory determinations can be useful to highlight relevant issues, we do not agree that this evidence can be relied upon to directly set cost of capital parameters. This is because estimates adopted by other regulators will naturally depend on the specific nature of their regulatory framework, the context of each regulator's previous decisions, and the characteristics of the services that are being regulated. Without careful consideration of these issues, relying on point estimates adopted by other regulators risks selecting parameters that are simply not relevant for New Zealand.

As detailed in **section 2.3.3**, we have reviewed **Ofcom's** recent decision on the asset beta for the services provided by BT, and consider that many submissions that commented on this precedent have not fully appreciated how the context of this decision affects the relevance for the FFLAS providers. In particular, we note that:

- Ofcom's asset beta estimate for BT's fibre to the premises (FTTP) services (0.65, included within the Other UK Telecoms segment) is based on an assessment of the systematic risk exposure of these services in Great Britain. A careful analysis of the evidence relied on by Ofcom indicates that the same conditions do not apply to the New Zealand FFLAS providers, for whom systematic risk exposure is likely to be significantly lower.
- Ofcom's asset beta estimate for BT's Openreach division (0.57, capturing its copper and fibre to the cabinet (FTTC) access services) is based on the mid-point between the BT Group beta (0.68) and a sample of regulated UK utilities (0.39), plus a small uplift (0.02). This estimate is therefore strongly anchored to the BT Group beta. We see no compelling reason why the asset beta for the FFLAS providers should be determined by placing such weight on the observed asset beta of the BT Group (as opposed to any other integrated telecommunication service provider).
- We do not consider that Ofcom's approach for setting the Openreach beta is appropriate for the New Zealand context, as it relies heavily on the observed asset beta of one firm. However, if we were to apply Ofcom's approach in New Zealand, by substituting BT's asset beta for the average asset beta of our integrated service provider sample (0.49) and replacing the regulated UK utility beta with the Commission's 2016 IM decision for energy networks (0.35-0.40, so a mid-point of 0.375), this would yield an asset beta estimate closer to 0.45.

We note that several submissions referenced the recent decision by the **Belgian communications regulator, BIPT**. This decision set an asset beta of 0.71 for services delivered over Proximus' legacy copper network, and an asset beta of 0.90 for Proximus' fibre to the home (FTTH) services. As discussed in section 2.3.4, we would caution against placing undue weight on this decision, without full visibility of the calculations underpinning the FTTH asset beta and when the market context is significantly different.

Other issues

Following our review of the submissions, we still consider that the **relative risk assessment** set out in our May 2019 and October 2019 reports captured the main relevant issues and provided a balanced view of the relative systematic risk exposure of the FFLAS providers relative to the comparator sample. Our detailed responses to submissions are contained in **section 3**.

Having reviewed submissions on the **credit rating and leverage**, we consider that the evidence still supports our original recommendation that a credit rating of BBB/BBB+ is appropriate for the FFLAS providers and broadly consistent with the average leverage of the comparator sample. Further discussion is provided in **section 4**.

2. ESTIMATING THE ASSET BETA

The Commission received a variety of comments on its proposed asset beta.² While the Commission's proposed value of 0.49 is at the top end of the range recommended by CEPA, some submitters, including Chorus, Cooper Investors, Enable and Ultrafast, Investor Mutual, and Telstra Super consider that this is too low. Other submitters instead argue that the estimate is too high.³

The remainder of this section addresses submitters' views on the asset beta, organised into three main topics:

- The approach to selecting a beta comparator sample.
- The inclusion of specific groups of firms in the comparator sample.
- Additional evidence on the asset beta, including analyst estimates, alternative methods to calculate a FFLAS-specific asset beta, and international regulatory precedent.

2.1. COMPARATOR SAMPLE

2.1.1. Our approach

Due to the absence of listed 'pure play' providers of wholesale fibre services directly comparable to the FFLAS, our asset beta estimates are based on a wide set of comparators – i.e. listed firms providing telecommunications services. Starting from this broad initial sample, we then apply a series of filters to exclude firms that are less likely to be appropriate comparators.

In our initial report for the Commission,⁴ we adopted the following approach to selecting the comparator sample:

- Step 1: Identify a broad set of telecommunications sector comparators, based on companies domiciled in New Zealand, Australia, North America the UK, and continental Europe that fall within the Bloomberg Industry Classification Standard (BICS) Level 3 Telecom Carriers / Telecom Resellers category.
- Step 2: Exclude telecommunication resellers and data centres (per the BICS Level 5 categorisation).
- Step 3: Exclude companies with market capitalisation below US \$100 million.
- Step 4: Exclude companies with less than two years of trading history.
- Step 5: Exclude other companies that: do not appear to own physical communication network assets; operate mainly in markets outside our target geographic sample; or were listed on over-the-counter (OTC) trading platforms rather than exchanges (these were excluded due to liquidity concerns).⁵

² We do not comment on submitters' views on the appropriate asset beta pre-implementation of the new regulatory framework, as the focus of our analysis is on the asset beta that will apply from the first regulatory period, i.e. from 2022 onwards.

³ See for example Vodafone (2020), p. 2. and Spark (2020a), p. 15.

⁴ CEPA (2019a).

⁵ Several satellite operators were also excluded because they provide mobile rather than fixed satellite services (and therefore serve very specific markets), or because we identified company-specific factors that may have distorted their asset betas.

- Step 6: Include mobile tower companies that, due to their corporate structure, are not included in the Bloomberg telecommunications category (these companies were also checked against the other filters described above).
- Step 7: Exclude companies with zero trading volumes on more than 20% of available trading days (liquidity filter).

This approach led to the selection of a sample of 59 comparators.

In our second report for the Commission,⁶ we provided updated asset beta estimates based on an updated comparator sample. The updated sample took into account the submissions received by the Commission in relation to the comparator selection.

The sample was expanded to include companies from developed countries in the Asia Pacific region (Japan, Singapore, and South Korea) and relevant firms drawn from a broader selection of Bloomberg industry classifications. Other companies were excluded, on the basis of further research, for the following reasons: the majority of their revenue appeared to be derived from activities outside of the telecommunications sector; anomalously high gearing; being owned by another company included in the sample; and unavailability or concerns over the accuracy of financial data.

The updated sample includes 63 comparators divided into two groups – 10 wholesalers and 53 integrated companies. For each group, CEPA considered the minimum and the maximum of four beta estimates: the mean four-weekly and weekly asset beta over the two most recent five-year periods (2009-2014 and 2014-2019).⁷ This provided an asset beta range for both the wholesale and integrated comparator groups. The mid-points of these two ranges set the overall asset beta range that CEPA recommended to the Commission: 0.41-0.49.

The Commission based its estimate on CEPA's sample but did not divide it into wholesale and integrated sub-samples. Rather, the Commission considered the average of four asset beta estimates for the entire sample: the mean four-weekly and weekly asset beta over the two most recent five-year periods (2009-2014 and 2014-2019), leading to an asset beta estimate of 0.49.⁸

2.1.2. Submitters' views

Chorus proposes that the Commission adopts a larger comparator sample to derive the asset beta, in order to avoid the subjectivity that it considers to be inherent in a filtered comparator sample.⁹ Chorus' position is based on analysis by Sapere.

Sapere argues that a company's asset beta varies with a range of factors, such as income elasticity of demand and operating leverage, but there are no established analytical relationships that can be employed to determine the degree of influence of any of these factors when selecting a comparator sample. In addition, some firms may be unsuitable for inclusion in the comparator sample because of issues such as their size, product and geographic diversification, or low frequency of share trading. This makes comparator selection a challenging task, which

⁶ CEPA (2019b).

⁷ Note that not all 63 comparators were included in both the 2009-14 and 2014-19 asset beta estimates, as in some cases the available trading data did not span the full period. In total, 52 comparators were included in the 2014-19 sample, while 44 firms made up the 2009-14 sample. All 63 were included in the asset beta estimated for the 2017-19 period, which was used as a cross-check to the five-year estimates.

⁸ Commerce Commission (2019), p. 280.

⁹ Chorus (2020), p. 41.

involves a degree of judgement.¹⁰ According to Sapere, this difficulty is illustrated by the differences between the sample initially selected by CEPA and Oxera's preferred sample.¹¹

Sapere notes that in CEPA's approach, filters are applied to the starting sample to remove companies that might have anomalous beta estimates because of poor data or for operational reasons. This implicitly assumes that the sample of companies undertake a similar business to the regulated provider. As an alternative to the comparator selection process followed by CEPA, Sapere proposes a 'large sample' approach:

*"... to take a larger set of companies that are broadly related to the entity in focus and to estimate the asset betas for that large set without detailed checking for comparability. Proceeding in this way assumes that any lack of comparability for particular companies included in the sample will average out across the sample."*¹²

According to Sapere, this approach was followed by the Commission in the 2010 and 2016 Input Methodologies Reviews. Sapere state that in these reviews, the Commission used Bloomberg classifications of industry groups relevant to gas and electricity, on the basis that using a broad sample of companies would avoid *"the need to make subjective judgement calls regarding whether each of the 74 companies from the draft comparator sample should be included"*.¹³

Sapere proposes a large comparator sample based on the industry classification published by Professor Aswath Damodaran, which includes information on a large set of global companies, with a geographic breakdown to US, Europe, Japan, Australia, New Zealand and Canada, and Emerging Markets. Sapere's analysis of Damodaran's data focuses on two industry groups: Telecom Wireless and Telecom Services. Sapere considers that a third group, Telecom Equipment, which does not include any company included within the CEPA sample, is not relevant to the estimation of the asset beta for Chorus.

Sapere found that of the 51 companies included in the CEPA sample for the period 2014-2019:

- None of the (six) wholesalers are included in Damodaran's telecommunications industry groups, except Chorus. In their view, this result reinforces the exclusion of the wholesalers from estimation of asset beta.
- Of the integrated companies, 13 are included in the Telecom Wireless and 30 in the Telecom Services group. Eight are not included in either group.¹⁴

Sapere presents asset beta estimates based on the whole set of companies in Damodaran's Telecom Wireless and Telecom Services groups (420 companies in 2019), as well as estimates limited to companies listed in developed countries (230 companies in 2019).¹⁵ Sapere considers the mean and median of the rolling annual average asset beta from 2012 to 2019 for each of the Telecom Wireless and Telecom Services groups and also for the

¹⁰ Sapere (2020), p. 25.

¹¹ Oxera (2019).

¹² Sapere (2020), p. 27.

¹³ Commerce Commission (2016), p. 62. Referenced in Sapere (2020), p. 27.

¹⁴ Sapere (2020), p. 27.

¹⁵ Sapere (2020), p. 48.

combination of these two groups. For the developed country sample, this leads to an asset beta range of 0.54 to 0.65.¹⁶

Based on this analysis, as well as other evidence, Chorus proposes that the Commission reviews its asset beta decision of 0.49. Chorus indicates that Sapere's large sample analysis suggests an asset beta of 0.60,¹⁷ which appears to be the midpoint of the developed country range estimated by Sapere.

Spark considers that it is unclear why the approach proposed by Sapere would provide further insight on the risk faced by the fibre networks, but notes that it will bring in more firms operating in competitive markets and increase the asset beta estimate. Spark argues that the Sapere approach results in a comparator set that is less representative of a regulated wholesale fibre provider:

*Using comparator sets to estimate beta suffers from the problem that there are frequently very few suitable candidates to put into the set. Adding a large number of unsuitable companies to increase sample size does not improve matters, but actually makes them much worse, [...].*¹⁸

According to Spark, the Sapere approach fails to ensure that informative data is considered. Spark considers that the Commission has an accepted methodology for building a comparator set that has informative value and the capability to consider the nature of risk. In Spark's view, this is supported by:

- The fact that the Commission considered the nature of regulation and commercial arrangements, and the impact this had on setting risk in the 2019 Fonterra determination. The Commission could apply a similar assessment to the Fibre Network, i.e. consider the unique Part 6 and UFB arrangements in light of their impact on revenue beta and operating leverage.
- The Australian Energy Regulator considers the nature of regulatory frameworks when setting the equity beta.
- Dr Martin Lally advises that changes in risk due different regulatory models can be addressed through careful selection of comparators. This point is discussed further in Section 3.1.1.
- The Commission considered the nature of risks faced in considering changes to the form of regulatory control (from a price cap to a revenue cap).¹⁹

2.1.3. Our response

Large sample approach

We disagree with Chorus' and Sapere's position that the asset beta should be estimated using a large sample of companies broadly related to the FFLAS providers, without conducting any further checks for comparability.

As noted in our first report for the Commission, we have not identified listed 'pure play' providers of wholesale fibre services.²⁰ This absence of directly comparable firms favours maintaining a relatively wide set of comparators, in order to ensure that the market evidence captures the experience of the communications sector as a whole. This is in line with the approach taken by the Commission to the industries regulated under Part 4 of the Commerce Act. However, this does not imply that issues known to affect comparability should be entirely disregarded.

¹⁶ Sapere (2020), p. 28.

¹⁷ Chorus (2020), p. 55.

¹⁸ Partington, G. and Satchell, S. (2019), p. 11. Referenced in Spark (2020b), p. 8.

¹⁹ Spark (2020b), p. 8-9.

²⁰ In forming the revised comparator sample for our October 2019 report, we identified NetLink NBN Trust, a wholesale-only provider of fibre access services which owns the only nationwide fibre network supporting Singapore's Next Generation Nationwide Broadband Network. However, the company had only listed in July 2017 and its beta could not be estimated over the same time periods of the other comparators.

Firstly, the process of applying filters is a widely adopted approach to excluding unreliable comparators that could otherwise lead to distorted asset beta estimates. For example, many of the filters we adopted (such as market capitalisation, liquidity, leverage, and excluding OTC traded companies) address issues with the reliability of the underlying data on which the beta estimates depend, rather than judgements on company characteristics. We consider that these filters are important to exclude estimates that, while referring to suitable comparators, may suffer from thin trading volumes (among other data quality issues).

Secondly, we consider that the best approach to identify companies that are likely to have similar systematic risk is to choose those that have similar characteristics to the fibre providers. A large set of companies drawn from the same sector as the FFLAS providers is therefore a reasonable starting point. However, we note that the Bloomberg industry classifications (and other classification systems) typically include a very broad range of companies. For example, our analysis indicated that the Bloomberg telecommunication carrier category included some firms that are primarily in the business of providing software or telecommunications equipment which we suggest have clearly different characteristics to the FFLAS providers. This type of judgement is consistent with Sapere's decision to disregard the Telecom Equipment category when considering Damodaran's sample (discussed further below).

Thirdly, Sapere argues that the difficulty of selecting a comparator sample is illustrated by the differences between the sample initially selected by CEPA and Oxera's preferred sample.²¹ We do not consider that differences of opinion on the composition of the comparator sample supports the view that no attempt should be made to control for comparability. If we consider regulatory decisions in the telecommunications sector of other jurisdictions, differences in comparator samples are relatively common. For example, the comparator sample used by NERA in its advice to Ofcom on BT's asset beta only includes three UK telecommunications companies and a group of 11 European companies, largely limited to incumbent telecommunications providers.²² This is much more restrictive than the sample CEPA has recommended to the Commission, which is based on regulatory precedent in New Zealand.

Finally, we note that in the paper referenced by Sapere, the Commission states that using a large sample of 74 companies would *limit* – rather than avoid – the need to make subjective judgement calls.²³ The Commission goes on to say that the sample of 74 firms was obtained by applying a series of filters to an initial broad set of potential comparators based on Bloomberg's industry classification. Filters used by the Commission included the availability of five years of trading data, a minimum of US\$100 million market capitalisation, relevance of the business based on Bloomberg's company descriptions, the inclusion of only one company between each pair of parent and subsidiary, and liquidity.²⁴ Therefore, the process that we have followed in developing our comparator sample for the FFLAS providers is consistent with the approach previously followed by the Commission.

Based on these considerations, Sapere's 'large sample' approach does not appear to be more robust or objective than one involving filters, nor more consistent with the methodology previously applied in regulatory decisions in New Zealand.

Damodaran's industry classification

Sapere propose that Damodaran's industry classification provides a more appropriate comparator sample. As noted above, we do not consider that it is reasonable to use this sample without undertaking a filtering process to remove companies that clearly have different characteristics to the FFLAS providers. Nonetheless, we have considered whether Damodaran's industry classification provides a better starting point than BICS.

To assess this, we analysed Damodaran's database by applying the same filters that we used in our previous report. Table 2.1 below illustrates the process of selecting a comparator sample starting from Damodaran's industry

²¹ We refer to CEPA (2019b) for a detailed discussion of Oxera's comments.

²² NERA (2018), Appendix G.

²³ Commerce Commission (2016), p. 62.

²⁴ Commerce Commission (2016), p. 63-64.

classification. The initial steps are in line with Sapere’s approach – considering only companies in the telecommunications wireless and telecommunications services groups and in developed countries. Then, we further refine the sample through additional filters.

Table 2.1. Comparator sample selection using Damodaran’s industry classification

Stages of selection	Rationale	Companies excluded	Companies in the sample
Initial sample: Damodaran’s Telecom Wireless, Telecom Equipment, and Telecom Services companies.	Broad sample of potentially relevant companies based on Damodaran’s industry classification.		894
Exclude Telecom Equipment companies.	As noted by Sapere, this category is not relevant to the estimation of an asset beta for fibre.	-474	420
Exclude emerging markets.	Conditions in emerging markets may not be comparable with New Zealand.	-190	230
Exclude if market capitalisation is below US\$100 million at 28/02/2019	Consistent with the approach taken by the Commission under the 2010 and 2016 Part 4 IM decisions. ²⁵ The cut-off date coincides with the cut-off period for the beta estimates.	-106	124
Exclude companies that: <ul style="list-style-type: none"> • Do not own network assets. • Obtain less than 60% of their revenue from relevant services. • Obtain the majority of their revenue outside the relevant geographic target of the comparator sample. • Have a majority share owned by another company in the sample. • Are traded in OTC markets. • Have an insufficient trading history to estimate the beta. • Have had zero trading volumes for 20% or more days during the observed period. • Have substantial missing or unreliable data. • Have extraordinarily high leverage. 	Companies with these characteristics may be irrelevant to the estimation of the asset beta for fibre services and/or provide unreliable estimates.	-73	51
Companies included in the CEPA sample.		-44	7

Most of the 51 companies included in Damodaran’s sample that pass all the filters have already been included in the CEPA sample. The seven remaining companies are listed in the table below.

²⁵ Commerce Commission (2010), p. 515, footnote 1155: “small firms may affect the empirical estimates of the asset beta due to the potential effect from thin trading volumes”.

Table 2.2. Potential additional comparators from Damodaran’s Telecommunications companies sample – excluding companies already included in the CEPA sample

Company	Country	Market Cap (US\$b)	Description
Netia	Poland	0.4	Netia S.A. provides fixed-line telecommunications services in Poland and owns the second largest fibre network in the country.
TELUS	Canada	21.8	TELUS Corporation provides voice, data, Internet, and wireless services to businesses and consumers in Canada.
Turkcell	Turkey	5.9	Turkcell İletişim Hizmetleri AS (Turkcell) is a converged communication and technology services player with regional assets and globally relevant services. The company provides mobile and fixed voice, data, television, and other services over its network in Turkey.
O2 Czech Republic	Czech Republic	3.4	O2 Czech Republic a.s. provides telecom services. The Company offers fixed line and mobile services, including voice and data.
TeraGo ²⁶	Canada	0.1	TeraGo provides cloud, colocation, and connectivity services and earns revenues primarily in Canada.
Türk Telekom	Turkey	3.6	Türk Telekomunikasyon A.S. is an integrated telecommunications services provider for businesses and individuals. The Company offers land and mobile telecommunications solutions, as well as Internet services.
United Internet	Germany	7.5	United Internet AG offers Internet access services. The company serves home users, small offices and home offices, and small-to medium-sized companies. The company owns Germany’s second largest fibre network.

Source: CEPA analysis, Bloomberg.

Four of these companies are based in countries (Czech Republic, Poland, and Turkey) that were excluded from our analysis, but are listed by Damodaran as developed countries. However, Damodaran’s classification of developed countries excludes Singapore and South Korea, while we included four companies from Singapore and South Korea in our sample and consider that investors are likely to view firms within these countries as reasonable investment substitutes for the FFLAS providers.

It appears that the three other companies (TELUS, TeraGo, United Internet) were not captured in our original sample due to small discrepancies in the Bloomberg categorisation system. For example, TeraGo is currently classified as a renewable energy equipment provider, while United Internet was listed as a data centre at the time of our initial analysis. While this indicates that the BICS system is not perfect, we do not consider that this undermines

²⁶ TeraGo shares had an average bid-ask spread of over 9% in 2009-2014 and over 5% in 2014-2019. These levels are materially above those observed for companies in our October 2019 sample and the other companies listed in Table 2.2 and may indicate scarce liquidity. In our October 2019 report, we considered Oxera’s proposal to exclude comparators with average bid-ask spreads above 1% but decided not to apply this filter, in line with the Commission’s 2016 Cost of Capital IM decision.

the overall reasonableness of taking BICS as a starting point for the comparator sample. Indeed, such observations could likely be made in relation to any classification system, including Damodaran's.

For example, in addition to comparators from Singapore and South Korea, 12 companies in the CEPA sample are not included in Damodaran's sample of telecommunications companies. All the companies from the CEPA sample that are not included in Damodaran's sample are listed in Table 2.3. The table also indicates whether the companies are listed by Damodaran in different industry groups.

Table 2.3. Relevant CEPA comparators excluded from Damodaran's developed country telecommunications companies sample

Company	Country	Wholesale/ integrated	Damodaran industry classification
Singapore Telecommunications	Singapore	Integrated	Telecom Services – but excluded from the developed countries sample
StarHub	Singapore	Integrated	Telecom (Wireless) – but excluded from the developed countries sample
LG +	South Korea	Integrated	Telecom Services – but excluded from the developed countries sample
SK Telecom	South Korea	Integrated	Telecom (Wireless) – but excluded from the developed countries sample
Manx Telecom	Isle of Man	Integrated	Not included in any industry group
Cable One	US	Integrated	Cable TV
Cogeco	Canada	Integrated	Cable TV
Liberty Global	UK	Integrated	Cable TV
Shaw Communications	Canada	Integrated	Cable TV
American Tower	US	Wholesale	REIT
Crown Castle	US	Wholesale	REIT
Eutelsat	France	Wholesale	Cable TV
Rai Way	Italy	Wholesale	Broadcasting
SBAC	US	Wholesale	REIT
SES	Luxembourg	Wholesale	Not included in any industry group
Uniti	US	Wholesale	REIT

Source: CEPA analysis, Damodaran.

Most companies listed in Table 2.3 could have been identified starting from the Damodaran database of industry classifications if the search was expanded to other relevant countries and industry groups.

This indicates that even the large sample proposed by Sapere²⁷ involves a level of selection, as relevant comparators listed under other industry sectors and countries are excluded. The approach of choosing two industry groups as the comparator sample without further refinements, in addition to letting a large number of irrelevant or unreliable comparators into the sample, does not provide the flexibility to consider at other industry groups or countries to find other suitable comparators.

After applying all filters and expanding the selection to include relevant companies listed under other industry groups (per Table 2.3), a comparator sample based on Damodaran's database would have had a very similar

²⁷ Based on Damodaran's set of companies that operate in developed countries and fall into the telecommunications wireless and telecommunications services industry groups.

composition to the CEPA sample. The sample based on the Damodaran database would have had seven additional companies (listed in Table 2.2). However, it would have missed two relevant comparators such as Manx Telecom and SES, which are not listed by Damodaran under any industry group.

Overall, the Damodaran's industry classification does not appear to be superior as a starting point compared to Bloomberg's industry classification.

We also note that including the additional comparators from the Damodaran sample does not have a material impact on the beta estimates. Table 2.4 compares 4-weekly, weekly and daily asset beta estimates over 2009 to 2019, with and without the additional comparators.²⁸ Note, we have included the four comparators from the Czech Republic, Poland, and Turkey in this comparison for illustration, although we do not consider that it is necessary to broaden the geographic spread of the sample to this extent.

Table 2.4. Asset beta estimates – Averages for the CEPA sample (October 2019) and the CEPA sample with additions from the Damodaran sample

Comparator sample	CEPA (October 2019)			CEPA + Damodaran (excluding Czech R., Poland and Turkey)			CEPA + Damodaran (including Czech R., Poland and Turkey)		
	4-Weekly	Weekly	Daily	4-Weekly	Weekly	Daily	4-Weekly	Weekly	Daily
Average – Wholesale comparators									
2014-2019	0.38	0.41	0.41	0.38	0.41	0.41	0.38	0.41	0.41
2009-2014	0.38	0.45	0.48	0.38	0.45	0.48	0.38	0.45	0.48
2017-2019	0.41	0.40	0.38	0.41	0.40	0.38	0.41	0.40	0.38
Average – Integrated comparators									
2014-2019	0.47	0.52	0.54	0.47	0.53	0.53	0.48	0.56	0.53
2009-2014	0.51	0.48	0.51	0.51	0.50	0.51	0.52	0.53	0.51
2017-2019	0.41	0.47	0.49	0.43	0.49	0.49	0.45	0.51	0.48
Average – Whole sample									
2014-2019	0.46	0.51	0.53	0.46	0.52	0.52	0.47	0.54	0.52
2009-2014	0.50	0.48	0.51	0.50	0.49	0.51	0.51	0.52	0.51
2017-2019	0.41	0.46	0.47	0.43	0.47	0.47	0.45	0.49	0.47

Source: Bloomberg, CEPA analysis. Estimates are calculated between the following date ranges: 1 March 2014 – 28 February 2019, 1 March 2009 – 28 February 2014, 1 March 2017 – 28 February 2019.

Estimates for the wholesale group are not affected, as all the additions are to the integrated company group. In the integrated group, the additional comparators generally cause an increase in the average beta, particularly the weekly beta. Additions have a similar impact on whole sample averages, which are largely driven by the integrated group, which is more numerous.

The impact becomes smaller when the various estimates are combined. Table 2.5 illustrates how the inclusion of the additional comparators from the Damodaran sample would have affected CEPA's recommendation to the Commission. The additions would have resulted in a range of 0.41-0.50 (instead of 0.41-0.49) and a mid-point estimate of 0.46 (instead of 0.45).

²⁸ The cut-off date for these estimates is 28 February 2019, in line with our original May 2019 report for the Commission. We have not been asked to refresh the estimates to take into account more recent data.

Using the approach followed by the Commission (i.e. taking the average of the whole-sample 4-weekly and weekly beta estimates, over the two most recent 5-year periods), the additions would have resulted in the same beta estimate of 0.49.

While the inclusion of additional firms from the Czech Republic, Poland and Turkey would have resulted in an increase in the Commission’s estimate (to 0.51), this would still have been much lower than the asset beta of 0.60 proposed by Chorus based on Sapere’s ‘large sample’ approach.

These ranges and midpoints are based on 4-weekly and weekly beta estimates from the two most recent 5-year periods (2009-14 and 2014-19). Below we discuss evidence from the daily beta estimates and estimates from the most recent 2-year period (2017-2019).

Table 2.5. Asset beta estimates (2009-14 and 2014-19) – Ranges and mid-point estimates for the CEPA sample (October 2019) and the CEPA sample with additions from the Damodaran sample

Comparator sample ¹	CEPA (October 2019)		CEPA + Damodaran (excluding Czech R., Poland and Turkey)		CEPA + Damodaran (including Czech R., Poland and Turkey)	
CEPA approach						
	Range	Mid-point	Range	Mid-point	Range	Mid-point
Wholesale comparators	0.38 - 0.45	0.41	0.38 - 0.45	0.41	0.38 - 0.45	0.41
Integrated comparators	0.47 - 0.52	0.49	0.47 - 0.53	0.50	0.48 - 0.56	0.52
Mid-point		0.45		0.46		0.46
NZCC approach						
Average of whole sample estimates		0.49		0.49		0.51

Source: Bloomberg, CEPA analysis. Note 1: These ranges and mid-points are based on the 4-weekly and weekly asset beta estimates over the two most recent 5-year periods (2009-14 and 2014-19), as reported in Table 2.4.

As noted above, the Commission’s point estimate is based on the average of the 4-weekly and weekly beta estimates for all comparators, for the two most recent 5-year periods (2009-14 and 2014-19). We consider that this point estimate is also consistent with the evidence from both the daily beta estimates, and the beta estimates for the most recent 2-year period (2017-19).

As illustrated in Table 2.6, placing equal weight on the daily beta estimates would increase the point estimate by only 0.01 (or not at all, if all seven of the potential new Damodaran comparators are included).

Table 2.6: Impact of including daily asset beta estimates in the whole sample average (2009-14 and 2014-19)

Asset beta estimate (average of whole sample) ¹	CEPA (October 2019)	CEPA + Damodaran (excluding Czech R., Poland and Turkey)	CEPA + Damodaran (including Czech R., Poland and Turkey)
4-weekly	0.48	0.48	0.49
Weekly	0.49	0.50	0.53
Average	0.49	0.49	0.51
Daily	0.52	0.51	0.51
Average	0.50	0.50	0.51

Source: Bloomberg, CEPA analysis. Note 1: The point estimates reported in this table are calculated as an average of the 2009-14 and 2014-19 asset beta estimates for all comparators, both wholesale and integrated.

While the daily estimates could point to a slightly higher beta estimate (relative to a point estimate based on 4-weekly and weekly data alone), the 2-year beta estimates point to considerably lower values. This is illustrated in Table 2.7. Therefore, we consider that taken together, the daily and 2-year evidence generally supports the point estimates established through the Commission’s approach (i.e. the average of 4-weekly and weekly estimates for all comparators, over the 2009-14 and 2014-19 periods).

Table 2.7: Comparison to 2-year asset beta estimates (2017-19) – Whole sample average

Asset beta estimate (average of whole sample) ¹	CEPA (October 2019)		CEPA + Damodaran (excluding Czech R., Poland and Turkey)		CEPA + Damodaran (including Czech R., Poland and Turkey)	
	4-weekly, weekly	4-weekly, weekly, daily	4-weekly, weekly	4-weekly, weekly, daily	4-weekly, weekly	4-weekly, weekly, daily
2009-14 and 2014-19	0.49	0.50	0.49	0.50	0.51	0.51
2017-19	0.44	0.45	0.45	0.46	0.47	0.47

Source: Bloomberg, CEPA analysis. Note 1: The point estimates reported in this table are calculated as an average of the asset beta estimates for all comparators, both wholesale and integrated, for the periods indicated in the table.

Finally, we also note that the difference between Sapere’s asset beta estimate of 0.60 and the 0.49 estimate adopted by the Commission (based on CEPA’s October 2019 sample) may be driven by methodological factors other than sample selection. Firstly, Damodaran’s approach to calculating the beta estimates is different from that adopted by CEPA and the Commission.²⁹ In addition, instead of aggregating estimates from the two most recent five-year periods (2009-2014 and 2014-2019), Sapere considers a single eight-year period (2012-2019).

2.2. COMPOSITION OF THE COMPARATOR SAMPLE

2.2.1. Submitters’ views

A number of submitters criticise the composition of the comparator group.

Cooper Investors is of the view that the Commission’s revised asset beta of 0.49 is too low, as the comparator group is not a like-for-like comparison to Chorus’ fibre network, given it includes listed vertically integrated telcos, mobile and wholesale companies with long-dated contracts (mobile tower companies).³⁰

Enable and Ultrafast note that the comparator set used by CEPA includes mobile tower companies and satellite operators, which face lower risks than pure play fibre providers. In their view, this underestimates the asset beta. They note that CEPA accepts that there are differences between tower and satellite companies and FFLAS providers, but disagree that these companies should be still included as comparators so as not to disregard relevant evidence completely.

²⁹ Sapere (2020), p. 27: “Damodaran reports the annual rolling average equity beta for each industry group formed by regressing weekly returns for each company against the market for 2 year and 5 years of data and weighting the two sets of results 2/3 for the two year betas and 1/3 for the 5 year betas. The average equity beta for the group is de-levered to an asset beta by application of the ratio of total debt to total equity for the group as the estimate of leverage and using the Hamada (1972) de-levering formula”. However, Sapere derives its estimates using the tax neutral de-levering formula.

³⁰ Cooper Investors Pty Ltd (2020), p. 1.

Enable and Ultrafast argue that betas for tower and satellite companies are irrelevant to establishing the asset beta for fibre, as factors that drive the systematic risk of tower and satellite companies are very different from those that drive the systematic risk of fibre service providers. For example:

“...ownership and management of real estate assets forms a key part of tower companies’ businesses. Real estate is widely considered as a unique asset class with returns that respond differently to macroeconomic cycles relative to other asset classes. In addition, tower companies are not exposed to the same level of competition as FFLAS service providers as they typically service all retail service providers (RSPs) and are therefore exposed to very little competitive risk.”³¹

Enable and Ultrafast consider that the Commission’s intended approach of weighting each company in the sample equally provides a more relevant and accurate estimate than CEPA’s approach, but note that assigning less weight to companies considered to differ materially from the target is arbitrary. Companies that are not appropriate comparators should not be included in the sample.³²

They also note that the large sample analysis undertaken by Sapere supports this view, as none of CEPA’s wholesale comparators other than Chorus are present in the three industry groups of Damodaran’s dataset related to telecommunications.³³

However, Sapere notes that despite the significant number of comments on the inclusion of the wholesale companies in the sample, their impact on the Commission’s asset beta estimate is actually relatively small. They note that if wholesalers were excluded from the sample, the asset beta would only increase from 0.49 to 0.50.³⁴

2.2.2. Our response

In our previous response to submissions, we assessed arguments put forward in relation to the suitability of the wholesale comparators and mobile network service providers. We do not consider that the latest round of submissions has raised new arguments or evidence on this issue.

As noted above, Enable and Ultrafast state that Sapere’s analysis of the Damodaran sample supports removing the wholesale companies from the comparator set, as apart from Chorus, none are represented in his sample. We note that Damodaran classes INWIT and Cellnex as telecommunication companies, both of which are represented in our wholesale comparator group (although data is only available for the two-year asset beta estimate from 2017-2019).

2.3. OTHER EVIDENCE

Sapere argues that since there are no suitable FFLAS-only providers to sample, the differences between the companies in the proposed sample and a pure-play FFLAS provider warrant consideration of other evidence.³⁵ In addition to estimating the asset beta using a large sample of comparators, Sapere proposes two possible methods of deriving a FFLAS-specific beta:

³¹ Enable and Ultrafast (2020a), p. 12-13.

³² Enable and Ultrafast (2020a), p. 13.

³³ Enable and Ultrafast (2020b), p. 2-3.

³⁴ Sapere (2020), p. 26.

³⁵ Sapere (2020), p. 26-27.

- decomposing Chorus’ asset beta estimate (derived from market analyst estimates) into business segments; and
- building up an estimate from the asset betas for different segments of BT Group, based on a consultation paper recently published by Ofcom.³⁶

In addition to Sapere, several submitters referred to recent decisions from Ofcom and other regulators. We consider these points in turn below.

2.3.1. Analyst estimates

Submitters’ views

A number of submissions refer to a survey of asset betas from markets analyst reports presented in the Draft Determination, which are reported below for ease of reference.³⁷

Table 2.8. Asset beta estimates from market analyst reports

Entity	Date	Asset beta estimate
UBS	February 2019	0.5
Deutsche Bank	February 2019	0.54
Forsyth Barr	March 2019	0.6
Macquarie	February 2019	0.64
Credit Suisse	February 2019	0.5
Woodward	February 2019	0.5
Jarden	August 2019	0.5

Source: Commerce Commission (2019)

The Commission observed that the majority of the estimates are at 0.5.

Black Crane Capital notes that the entire range of estimates is above the 0.49 figure adopted by the Commission and argues:

“Given that this survey had seven different data points which we would regard as reasonably comprehensive, it seems clear that the DDP’s 0.49 figure is quite clearly below what the market thinks the asset beta should be (including ourselves of course). We would also add that we have a more comprehensive and up to date survey of market analyst reports than was available to the NZCC at the time of producing the DDP, and the resulting average asset beta of our own survey is 0.57.”³⁸

Investors Mutual refers to a March 2019 research note from Forsyth Barr, which stated that 0.55 was *“toward the lower end of a reasonable expected range”*. Investors Mutual notes that Forsyth Barr’s is the only fibre-specific estimate, while the other figures are for the entire Chorus business.³⁹

³⁶ Ofcom (2020), Annex 21.

³⁷ Commerce Commission (2019), p. 283.

³⁸ Black Crane Capital (2020), p. 1- 2.

³⁹ Investors Mutual (2020), p. 2.

Chorus notes that the Commission’s list duplicates the estimate of Jarden (as also being for Credit Suisse) and omits the estimate of one analyst (New Street Research), which places Chorus’ beta at 0.7. After correcting for these errors, market analyst estimates average 0.57. Enable and Ultrafast Fibre support this evidence.⁴⁰

Considering that most estimates refer to Chorus’ overall business rather than the FFLAS, Chorus concludes that it is reasonable to assume that Chorus’ FFLAS would have a higher asset beta assessment across the board, in accordance with the estimate presented by Forsyth Barr (0.6).⁴¹

Our response

We consider that some of the submitters’ comments are not entirely accurate.

As Investors Mutual note, Forsyth Barr’s estimate is 0.55 rather than 0.6. However, Forsyth Barr’s is not the only estimate that refers to fibre, as another analyst also notes that their WACC estimate for Chorus applies also to Chorus’ fibre assets.

Most analyst reports present asset beta estimates only as an input to their modelling, without detailing how the asset beta was derived or discussing why the fibre segment would merit a higher asset beta than Chorus as a whole. In one case, the analyst presents regulatory precedent and a brief relative risk assessment to support a higher beta for fibre. We have already responded to such arguments extensively in this and our previous reports, and we do not consider that they would warrant a higher asset beta for fibre services.

2.3.2. Decomposition of Chorus’ asset beta

Submitter’s views

To calculate a FFLAS specific asset beta for Chorus, Sapere attempts a decomposition of Chorus’ asset beta into three segments: fibre, copper and ‘other’. The results are reported in the table below.

Table 2.9. Decomposition of Chorus’ asset beta

	Revenue mix	Asset beta (other = copper)	Asset beta (other = group)	Asset beta (other = fibre)
Fibre	33%	0.64	0.61	0.58
Copper	54%	0.43	0.43	0.43
Other	14%	0.43	0.50	0.58
Chorus ‘group’	100%	0.50	0.50	0.50

Source: Sapere (2020), p. 29.

The analysis assumes a ‘group’ asset beta for Chorus of 0.50 (i.e. the lower end of the market analyst estimates presented above) and 0.43 as the asset beta for Chorus’ copper segment, based on the Commission’s 2015 decision on UCLL and UBA.⁴² The fibre asset beta depends on the assumed asset beta for ‘other’ revenue.

Based on discussion with Chorus, Sapere considers that it is reasonable to use the group beta as the estimate for the ‘other’ component of Chorus’ revenue. In Sapere’s view, this implies a beta estimate for Chorus’ fibre services of 0.61.⁴³

⁴⁰ Enable and Ultrafast Fibre (2020b), p. 3.

⁴¹ Chorus (2020), p. 57-58.

⁴² Commerce Commission (2015), p. 7.

⁴³ Sapere (2020), p. 28-29.

Our response

We note that Sapere's decomposition of Chorus' asset beta is based on a mix of asset beta estimates and revenue data from different time periods and sources. For example:

- The Chorus 'group' beta is derived from a survey of analyst estimates from early 2019.
- The copper beta of 0.43 is derived from the Commission's 2015 UCLL/UBA decision, which was based primarily on evidence from 2005-2015.
- The revenue breakdown is the average for 2018 and 2019. We note that the contribution of fibre services to Chorus' total revenue will have been changing substantially in recent years.
- For all inputs to the analysis, the sampling period is different from that considered in our beta estimation (2009-2019).

Asset beta estimates fluctuate to some extent depending on the period being considered. Consistency across the components is therefore essential to ensure the robustness of the decomposition analysis, and to be able to compare the results to the estimates put forward in the Commission's draft decision. For example, we note that based on our asset beta estimates, the relevant group beta for Chorus is 0.46,⁴⁴ rather than 0.50. If this value were substituted into Sapere's analysis, the implied asset beta for fibre would have been approximately 0.50, rather than 0.61.⁴⁵ Note, we do not consider that modifying Sapere's decomposition in this way makes the analysis more relevant, as there are still discrepancies between the data periods. However, this illustrates the sensitivity of the calculation to the choice of inputs.

Further, this analysis relies entirely on the asset beta derived from the Commission's 2015 UCLL/UBA decision being a reasonable estimate for the copper services provided by Chorus. The methodology applied to set the copper asset beta for the 2015 decision was broadly similar to the approach we have taken to estimate the asset beta for the FFLAS providers, in that it drew on a broad range of international comparators.⁴⁶ As set out in our previous reports for the Commission, our view is that there is no evidence to suggest that the asset beta would be different for copper and fibre providers operating in New Zealand.⁴⁷

We also note that no evidence has been presented to justify the use of the Chorus group beta for the 'other revenue' category.

Overall, we do not consider that the decomposition analysis presented by Sapere can be reliably used to assess the asset beta of the FFLAS providers.

2.3.3. Recent decisions by Ofcom

Submitters' views

Several submissions refer to the asset betas proposed by Ofcom in its Wholesale Fixed Telecoms Market Review 2021-26 (WFTMR) for different segments of BT Group as evidence that the asset beta of 0.49 adopted by the

⁴⁴ The average of the 4-weekly and weekly asset beta estimates for the period 2014-2019.

⁴⁵ Assuming that the asset beta for 'other' is set equal to the Chorus group asset beta of 0.46, as Sapere have recommended.

⁴⁶ See Oxera (2014) for a description of their approach. There are differences between Oxera's approach and our methodology for the FFLAS providers. For example, we have adopted a wider comparator sample, including mobile telecommunication tower companies and satellite operators.

⁴⁷ As set out in CEPA (2019a), p. 25; and CEPA (2019b), p. 23.

Commission is too low. These submissions argue that the Commission should consider Ofcom's estimates as a benchmark.

Black Crane Capital, Cooper Investors, Enable and Ultrafast Fibre, and Telstra Super refer to Ofcom's proposed asset beta of 0.57 for Openreach, the wholesale access segment of BT Group.⁴⁸ Cooper Investors, Enable and Ultrafast Fibre, Investors Mutual, and Telstra Super also refer to Ofcom's 0.65 asset beta estimate for BT's Other UK Telecoms services.⁴⁹

Enable and Ultrafast consider that it is inconceivable that the risks faced by fibre-only wholesale providers in New Zealand could be so much lower than in the United Kingdom. They suggest that Ofcom's estimates present compelling evidence that the Commission should consider, given that Openreach is closely comparable to Chorus and the estimates were established independently in a similar regulatory setting.⁵⁰

Sapere calculates that applying the proportions of revenue Chorus obtained from its relevant FFLAS services to Ofcom's proposed asset betas for Openreach (0.57) and Other UK Telecoms (0.65) implies an asset beta for Chorus, as a FFLAS provider, of 0.63.⁵¹ Sapere explains the calculation as follows:

"Chorus' annual report provides separate revenue figures for P2P and GPON services (Chorus, 2019, p. 21). Based on our discussion with Chorus, we understand that P2P revenue relates to dark fibre and other services that Ofcom may attribute to either Openreach or Other UK Telecoms. Taking a conservative approach, we have assumed that all Chorus' P2P services are services Ofcom attributes to Openreach. GPON services are among the services categorised by Ofcom as Other UK Telecoms. Using 2019 revenue weights, the calculation is therefore: 20% x 0.57 + 80% x 0.65."⁵²

L1 notes that Ofcom has recently come out with a WACC significantly higher than Chorus (7.1% for Openreach vs 4.88% in the Commission's draft determination). L1 argues that the Ofcom decision is:

"a continuation of global regulation of wholesale fibre networks consistently acknowledging the need to apply WACC uplifts to next generation fibre networks in order to compensate capital providers for the unique risks taken."⁵³

Telstra Super note that Ofcom's assessment is consistent with Crown Fibre Holdings' (CFH) past analysis of an asset beta range of 0.5-0.8 and the asset beta range of 0.49 to 0.63 calculated by for integrated companies with at least 50% of revenues derived from a fixed line network.⁵⁴

⁴⁸ Black Crane Capital (2020), p. 2. Cooper Investors (2020), p. 1. Enable and Ultrafast Fibre (2020a), p. 13. Telstra Super (2020), p. 1. Black Crane Capital notes that the WFTMR was only published on 8 January 2020, after the Commission's Draft Decision Paper.

⁴⁹ Cooper Investors (2020), p.1. Enable and Ultrafast Fibre (2020b), p. 3. Investors Mutual (2020), p. 2. Telstra Super (2020), p. 1.

⁵⁰ Enable and Ultrafast (2020a), p. 13. Enable and Ultrafast (2020b) p. 3.

⁵¹ Sapere (2020), p. 29.

⁵² Sapere (2020), p. 29. The revenue breakdown is based on Chorus' annual report and is the average for 2018 and 2019. Sapere used the average on the basis that the estimates of Chorus' group beta were undertaken prior to the 2019 revenue data becoming public.

⁵³ L1 Capital (2020), p. 29.

⁵⁴ Telstra Super (2020), p. 1. Other submitters refer to estimates by CFH (now Crown infrastructure Partners), including L1 Capital (2020), p. 2.

Our response

If used judiciously, regulatory precedent from other jurisdictions can usefully inform decisions on the appropriate cost of capital for a regulated service provider. However, other regulatory determinations should not be relied upon to directly set parameters, but rather to highlight useful insights and thinking in relation to the service under consideration. Therefore, consideration of decisions made by other regulators needs to be grounded in an appreciation of the nature of their regulatory framework, the context of each regulator's previous decisions, and the characteristics of the services that are being regulated. Without this analysis, relying on point estimates adopted by other regulators risks selecting parameters that are simply not relevant for New Zealand.

We have reviewed Ofcom's recent decision on the asset beta for the services provided by BT. As set out below, we consider that many submissions that commented on this precedent have not fully appreciated how the context of this decision affects the relevance for the FFLAS providers. We first discuss Ofcom's segmentation of BT's business activities, and then the asset beta estimates themselves.

Business segmentation

In the 2020 WFTMR, Ofcom provides a three-way disaggregation of the BT Group WACC (and underlying parameters), similar to its approach in the 2019 Business Connectivity Market Review (BCMR) Statement and the 2018 Wholesale Local Access (WLA) Statement. Ofcom considers three constituent parts of the BT Group – Openreach, Other UK Telecoms and Rest of BT – and estimates an asset beta for each.⁵⁵ For the 2020 WFTMR, Ofcom has updated which parts of BT's business fall into the Openreach and Other UK Telecoms segments, as we outline below.

The **Openreach** segment includes services that Ofcom considers to have lower systematic risk than BT overall. Ofcom notes that this category is associated with *“fundamental connectivity, i.e. the basic building block for connectivity to customer premises”*.⁵⁶ In previous reviews Ofcom had drawn a distinction between the copper access services provided by Openreach, and services based on fibre to the cabinet (FTTC). The latter were considered to have more systematic risk exposure relative to copper access services, because they faced higher demand elasticity and a greater degree of operating leverage. Accordingly, FTTC services were previously included in the Other UK Telecoms category.

Based on evidence of the uptake of FTTC services and future capital expenditure requirements, Ofcom now considers that for both factors that contribute to systematic risk, convergence between copper and FTTC has largely been achieved. For example, Ofcom note that *“[a]s [superfast broadband] has now matured and become the mass-market way to consume broadband and as FTTC rollout is completed, we would expect the systematic demand risk of FTTC to have reduced.”*⁵⁷ Therefore, FTTC is included within the Openreach segment. As we discuss further below, Ofcom does consider that this merits a slightly higher asset beta for Openreach than their previous charge control decision.

The **Other UK Telecoms** category includes BT's fibre to the premises (FTTP) services, wholesale and retail leased lines, retail and wholesale voice, mobile, broadband and bundled services. Ofcom's WFTMR analysis considered differences between FTTP and FTTC. They noted that FTTP could still be considered a luxury product in the UK, as it continues to attract a retail premium. Further, while the FTTC roll out is largely complete, FTTP is in a build phase. Therefore, capex – and thus operating leverage (as defined by Ofcom) – is expected to be greater for FTTP relative

⁵⁵ Ofcom (2020), A21.9.

⁵⁶ Ofcom (2020), A21.41.

⁵⁷ Ofcom (2020), A21.45.

to FTTC.⁵⁸ Ofcom note that “[o]nce FTTP is rolled out and the copper network is decommissioned, we would expect the systematic risk of FTTP to reduce, since it would be the primary means of consuming broadband amongst residential and small business consumers. At that point in time, it might be appropriate to include FTTP services within Openreach.”⁵⁹

Understanding the distinction between these two segments is necessary to appropriately interpret the asset beta set for each by Ofcom. As noted above, a number of submissions consider that Ofcom’s asset beta estimate of 0.65 for Other UK Telecoms is a relevant point of reference for the FFLAs providers, as it includes BT’s FTTP services. For example, Enable Networks Limited and Ultrafast Fibre Limited state that “[w]hile Ofcom suggests an asset beta of 0.57 for Openreach, it identifies a higher beta of 0.65 for a fibre only service provider.”⁶⁰ Similarly, Telstra Super consider that “Ofcom helpfully identifies the asset beta of Openreach, a business closely comparable to Chorus even if it isn’t directly listed, and articulates the reasons why fibre to the premises services require a higher asset beta than copper services. Ofcom identifies Openreach’s asset beta as 0.57 versus 0.65 for a fibre service provider.”⁶¹ Similarly, Sapere uses Ofcom’s estimates for BT to derive an asset beta estimate of 0.63 for the FFLAS providers, based on the assumption that 80% of revenues from the FFLAS services provided by Chorus in 2019 are similar in nature to the Other UK Telecoms category for BT.

In our view, Ofcom’s statements do not indicate that its estimated asset beta for Other UK Telecoms is a relevant point of reference for the FFLAS providers. Ofcom’s WFTMR analysis states that they see demand elasticity and operational leverage as the key drivers of differences in systematic risk between services delivered via copper, FTTC and FTTP. An analysis of these two factors indicates quite different characteristics for FTTP services in the United Kingdom as compared to FFLAS in New Zealand. In particular:

- **Systematic demand risk.** Ofcom consider that demand elasticity is higher for FTTP than for FTTC or copper. One reason for this is the relevant immaturity of the market for FTTP services. As of the second quarter of 2019/20, approximately 2% of Openreach’s broadband lines are FTTP, while approximately 60% are FTTC and the remainder is accounted for by copper.⁶² In contrast, as of 30 September 2019 (the most recent published figures, but now nearly 6 months old), the take-up of ultrafast broadband in New Zealand was at 55%.⁶³ Further, Ofcom noted that a retail premium still applies to FTTP services, implying that they are perceived as luxury products. As explained in our October 2019 response to submissions, we have not found evidence of a retail premium being applied to fibre-based services in New Zealand.⁶⁴
- **Operating leverage.** As noted above, Ofcom’s assessment is based on the expectation that capex will be higher for FTTP over the determination period, relative to FTTC. We note that by the time the first regulatory period commences in 2022 (the time when our methodology for estimating the asset beta will apply), the ultrafast broadband roll-out is expected to be largely complete. Therefore, we do not consider that BT’s FTTP services are comparable to the New Zealand FFLAS in this respect. Our first report for the Commission set out further reasons why we do not consider operating leverage to be a determining factor in estimating the asset beta for the FFLAS providers.⁶⁵

We therefore do not consider that the systematic risk for the Other UK Telecoms segment (which includes BT’s FTTP services) is comparable to that faced by the FFLAS providers. This diminishes the relevance of Ofcom’s asset

⁵⁸ Ofcom (2020), A21.56.

⁵⁹ Ofcom (2020), A21.57.

⁶⁰ Enable and Ultrafast (2020b), p. 3.

⁶¹ Telstra Super (2020a), p. 1.

⁶² Ofcom (2020), figure A21.5. See also BT (2020), p. 9.

⁶³ Crown Infrastructure Partners (2019), p. 3.

⁶⁴ Ofcom (2020), A21.54.

⁶⁵ CEPA (2019b), p. 25-26.

beta determination for Other UK Telecoms. In the following section, we therefore focus on Ofcom's asset beta estimate for Openreach.

Openreach asset beta

In its previous determination, Ofcom set an asset beta of 0.55 for Openreach. In the 2020 WFTMR, this has been increased to 0.57. Ofcom explains this estimate for Openreach as follows:

"In the 2019 BCMR Statement we decided to use an Openreach asset beta of 0.55. This was based on the midpoint of BT Group (0.68) and listed UK network utility asset betas (0.39). Because of the changes to the services within Openreach and Other UK telecoms above, we propose to use an Openreach asset beta slightly above the midpoint of the range between that of the network utilities and BT Group. Based on otherwise unchanged benchmark company asset betas we propose to use a value of 0.57 in this consultation. This is because:

- a) Two competing access networks (i.e. copper + FTTC competing against FTTP during the transition period) would tend to increase the operating leverage of each; and yet,*
- b) we would expect the Openreach asset beta to be below the average asset beta of retail telecoms providers (0.63) as these companies offer services over access lines (which tend to face greater demand risk)." ⁶⁶*

We note that Ofcom's analysis is strongly anchored by the asset beta of BT Group (0.68). While Ofcom is tasked with estimating the asset beta for BT's services, the Commission is estimating the beta for a generic FFLAS provider in New Zealand. In our view, there is no reason why the asset beta for the FFLAS providers should be determined by placing such weight on the observed asset beta of the BT Group (as opposed to any other integrated telecommunication service provider).

In principle, alternative anchor points could be chosen to 'translate' Ofcom's approach to New Zealand's context. For argument's sake, we could replace BT with the average asset beta for our integrated service provider sample (0.49)⁶⁷ and replace listed UK utilities with regulated energy networks in New Zealand (0.35-0.40, so a midpoint of 0.375)⁶⁸. This would yield an asset beta estimate closer to 0.45 (based on the mid-point of 0.43, plus Ofcom's 0.02 increment). We note that to properly apply this approach, the beta for regulated energy utilities would need to be updated, as this is taken from the 2016 IM decision. We have not done this, as we do not consider that this approach is an improvement on the estimates we have set out in May 2019 and November 2019 reports.

Other asset beta estimates

We do not consider that the other asset beta estimates reported by Telstra are relevant reference points for the asset beta of FFLAS providers:

- The CFH beta range dates back to 2011 and is based on beta estimates from a variety of sources, including a 2010 McKinsey report for NBNC, earlier Ofcom estimates for Openreach, and an estimate of TCNZ's (now Spark) asset beta. The estimates are used as lower/ upper bounds for Chorus' beta under different

⁶⁶ Ofcom (2020), A21.74.

⁶⁷ Average 4-weekly and weekly beta for the 2014-2019 period.

⁶⁸ Based on the Commission's 2016 IM determination - Commerce Commission (2016), paragraph 263.

assumed levels of business risk.⁶⁹ We do not consider that these disparate sources provide more robust evidence than the estimates proposed by the Commission, which are based on up to date market data and a transparent comparator selection process.

- Our May 2019 report noted several important caveats when interpreting the estimated beta range for the companies with over 50% of revenue derived from fixed-line services: revenues may not be a suitable proxy for the value of network assets and will typically include value derived from associated customer service activities (as distinct from the underlying network service); the revenue breakdown focused on the most recent annual accounts, which may have been materially different over the full period of the beta estimate; and the precise proportion of revenue from fixed-line services is hard to pin down given differences across companies in reporting.⁷⁰ Therefore, we do not consider that the estimated beta range for this comparator sample sub-set provides a more relevant or robust beta estimate than the full sample. Further, we also noted that previous studies have not found a statistically significant relationship between observed asset betas and the proportions of revenues derived from mobile and fixed-line services.

2.3.4. Recent decisions by other regulators

Submitters' views

Some submissions have also considered regulatory precedent from other jurisdictions. For example, Cooper Investors and Telstra Super note that in Belgium, the regulator has recently determined an asset beta of 0.71 for copper and 0.90 for fibre.⁷¹

L1 Capital notes that other regulators have emphasised the importance of incentivising investment and aligning approaches between different regulatory regimes. According to L1, the Commission must consider whether its draft determination is reasonable in an international context and whether it will send a negative message to capital markets.

L1 Capital notes that the risk parameters used by global regulators to calculate WACC are consistently higher than the Commission's draft determinations with New Zealand's beta being one of the lowest in the world, across both copper and fibre assets.⁷²

Our response

L1's argument that risk parameters used by global regulators to calculate WACC are consistently higher than the Commission's is based on the comparison of WACC parameters across a range of jurisdictions. While we appreciate that L1's observation was broader than the Commission's proposed asset beta, the international precedent presented by L1 actually shows asset beta determinations that are on average quite similar to the Commission's decision for fibre, as illustrated in the table below. We note that for a number of decisions referenced by L1, no asset beta evidence was provided.

Table 2.10. International asset beta determinations

Jurisdiction	Asset beta
New Zealand fibre	0.49
New Zealand copper	0.43
UK Openreach (copper + FTTC)	0.57
Italy copper	0.53

⁶⁹ Crown Fibre Holdings (2011).

⁷⁰ CEPA (2019a), p. 40.

⁷¹ Cooper Investors (2020), p.1. Telstra Super (2020), p. 1.

⁷² L1 Capital (2020), p. 31-32.

Jurisdiction	Asset beta
Netherlands copper	0.45
Slovenia copper	0.52
Average (excluding New Zealand fibre)	0.50

Source: L1 Capital (2020), p. 30.

Other submissions referenced the recent decision by the Belgian communications regulator, BIPT. This decision set an asset beta of 0.71 for services delivered over Proximus' legacy copper network, and an asset beta of 0.90 for Proximus' fibre to the home (FTTH) services. In its final decision, BIPT noted that:⁷³

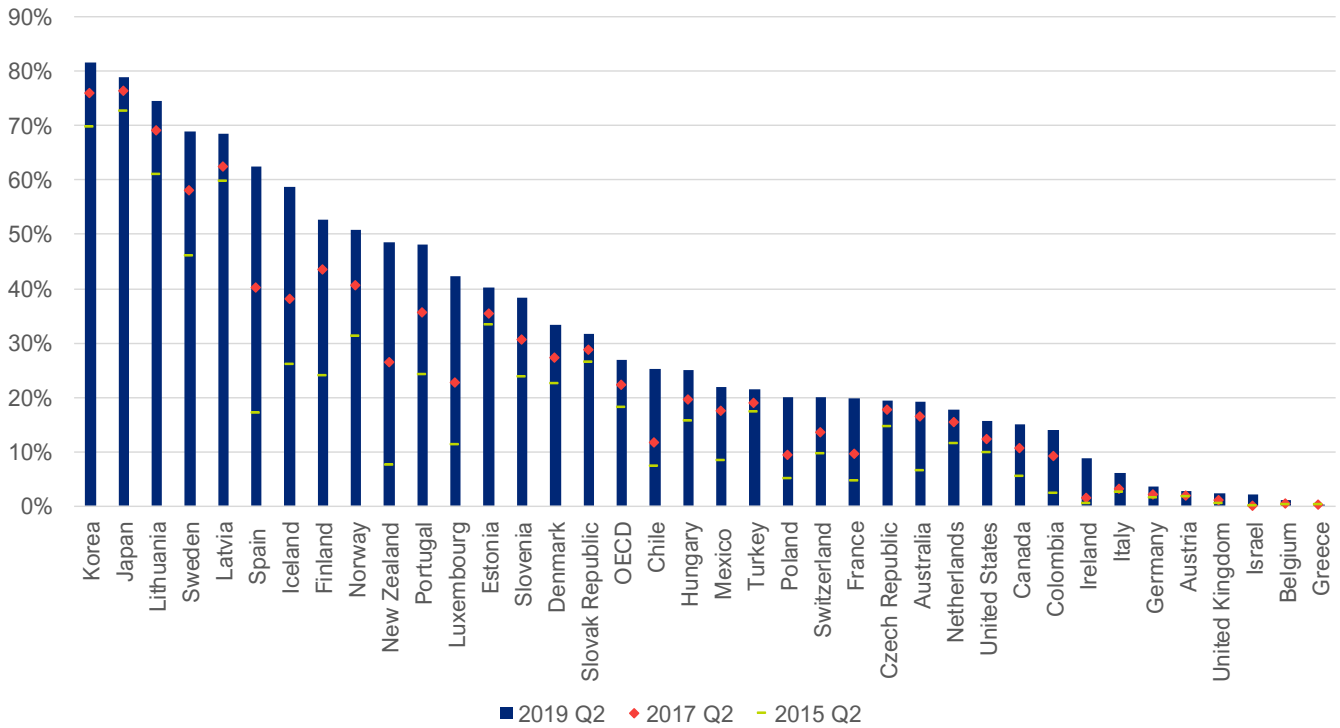
- Because FTTH services represent such a small proportion of Proximus' overall business (less than 1%), the FTTH asset beta could have taken almost any value and still been consistent with the overall Proximus group beta.
- Nonetheless, the BIPT noted that an asset beta of 0.90 was set for FTTH, in light of the following considerations:
 - On the one hand, FTTH investment being more expensive and riskier compared to other telecommunications services.
 - On the other hand, from both an operational and commercial perspective, investment in FTTH is no longer a 'leap into the unknown', given the experience with FTTC deployment. Further, the risks associated with FTTH are considered to be manageable over time (for example, there is a degree of flexibility in the speed and nature of the FTTH roll-out).

The decision did not otherwise elaborate on the source of the FTTH beta estimate and we have not been able to locate the details of this estimate from other publicly available sources.

We note that the current maturity of the FTTH market in Belgium is rather different to the New Zealand context. For example, the most recently available OECD data indicates that FTTH uptake in Belgium is extremely low, relative to New Zealand and elsewhere.

⁷³ Belgian Institute for Postal services and Telecommunications (BITP) (2020), Annexe 1: Determination Finale, p. 23 and p. 137. Note, the decision is available in French and Flemish only.

Figure 2.1. Percentage of fibre connections in total fixed broadband – OECD countries (June 2019)



Source: OECD (2020).

While we acknowledge this precedent, we would caution against placing undue weight on this decision, without full visibility of the calculations underpinning the FTTH asset beta and when the market context is significantly different. None of the submissions that referenced this decision have provided information to explain its relevance to the New Zealand FFLAS providers.

3. RELATIVE RISK ASSESSMENT

3.1. IMPACT OF UFB ARRANGEMENTS AND REGULATORY FRAMEWORK

3.1.1. Submitters' views

Spark argues that the approach proposed by the Commission overstates the required WACC, as it does not fully consider the benefits to the fibre providers associated with UFB arrangements and the regulatory framework, which comprises a revenue cap and washup.⁷⁴

Spark notes that CEPA considered the implications of these arrangements, finding that over several dimensions Chorus and LFCs have the same or lower risk than the comparator sets.⁷⁵

However, Spark argues that the draft comparator set, without specific consideration of the regulatory framework, is likely to skew results to a higher asset beta, and Sapere's proposed approach results in a further skewing of the comparator data set. Spark considers that

"The Fibre Network framework likely has less risk than a conventional revenue cap as Part 6 implementation – i.e. asset valuation at acquisition cost and past financial losses - shifts key cost related risks on to end users."⁷⁶

Spark observes that the Commission decided to give equal weight to each company in the comparator sample, instead of adopting the average of the wholesale only and integrated provider groups. According to Spark, the Commission, on the premise that wholesale comparators with long term contracts are likely to have a lower risk than UFB fibre providers, increased the weight given to vertically integrated companies, which have less in common with regulated fibre providers.⁷⁷

Spark argues that it is unclear why wholesale providers in a competitive market would face less risk than a UFB provider in partnership with the Crown with guaranteed expected regulated revenues, as PPPs are generally expected to result in a better sharing of risk and lower costs. The Crown also retained several key risks in UFB arrangements, and it said that it is unclear how these benefits have been factored into the Commission's draft decision.

Spark also notes that the Commission previously considered the impact on risk of applying a revenue cap and washup to Electricity Distribution Businesses (EDBs). In that occasion, Dr Martin Lally advised that revenue cap and wash up arrangements lead to less systematic risk than price cap regulation and advised that, while there was no clear evidence of the size of the difference, the Commission could address the difference through comparator selection.⁷⁸

⁷⁴ Spark (2020a), p. 2.

⁷⁵ CEPA (2019a), Table 2.2 and Table 2.4. Referenced in Spark (2020a), p. 14.

⁷⁶ Spark(2020b), p. 10-11.

⁷⁷ Spark (2020a), p. 14.

⁷⁸ Lally, M. (2016), referenced in Spark (2020a), p. 14.

Spark concludes that the UFB arrangements and regulatory framework point to a level of risk lower than the wholesale group of comparators. The Commission could have selected a point closer or lower than the wholesale group average, perhaps at the average EDB comparator set level.⁷⁹

Enable and Ultrafast consider that Spark has not presented compelling new evidence against the Commission's justification that wholesale companies are likely exposed to lower systematic risk than regulated fibre providers.⁸⁰

3.1.2. Our response

While Spark correctly identifies that CEPA has taken regulatory arrangements into consideration in its relative risk assessment, we do not consider that our analysis supports Spark's view that the asset beta for FFLAS providers should be set at or below the asset beta for wholesale comparators.

As stated in our initial report to the Commission, in certain respects (but not all respects), the wholesale comparator group is a reasonable reflection of the systematic risk faced by the fibre providers. We considered that this was particularly the case for a fibre provider operating under a revenue cap and wash-up mechanism, as these arrangements would provide a similar degree of stability and predictability as the long-term contracting arrangements that are held by the mobile tower and satellite companies.⁸¹

However, we also noted that tower and satellite services could be regarded as being closer to an undifferentiated access product than the FFLAS, and in that respect investors would view systematic demand risk for the fibre providers' services as falling between that of the wholesale-only service providers and the vertically integrated companies.⁸²

We also noted that as the LFCs are not regulated under a revenue cap and could face a higher degree of systematic risk relative to the wholesale comparators, relating to their shorter-term contracting arrangements and higher exposure to fluctuations in end-user demand. However, we also observed that while a point estimate is required to apply the price-quality regime, in the context of the information disclosure regime the Commission would be able to consider the asset beta range in monitoring the profitability of the LFCs.

3.2. OTHER RISK FACTORS

3.2.1. Submitters' views

Contrary to Spark's arguments discussed in the previous section, a number of submitters consider that the asset beta proposed by the Commission does not adequately reflect the FFLAS providers' risk profile.

ATLAS Infrastructure notes:

"The proposed asset beta does not seem consistent with the risk & return profile of Chorus when we compare it to global regulated assets where investor returns are often higher than allowed thanks to well established incentive and outperformance schemes. ATLAS believes that, since the Chorus shareholders are exposed to roll-out, demand, price and market structure risks to the downside whilst being limited by the revenue cap on the upside, there needs to be recognition of this asymmetry in the

⁷⁹ Spark (2020a), p. 2.

⁸⁰ Enable and Ultrafast (2020b), p. 3.

⁸¹ CEPA (2019a), p. 42.

⁸² CEPA (2019a), p. 23.

asset beta. We note that Ofcom has recognised this in allocating a higher asset beta for the proposed BT fibre access services (0.65) where the company faces similar risks during the construction and early growth phase of fibre access investment. We further note that regulated assets that face similar downside risks (large capital programs with uncertain demand and revenues) such as airports, have asset betas in the range of 0.55 to 0.6.”⁸³

Investors Mutual refers to the Ofcom’s position in WFTMR that it is appropriate to use a higher asset beta for fibre networks under construction than mature copper networks because:

- fibre networks have higher operating leverage due to the operating and capital costs being higher relative to the immature revenue streams;
- fibre networks will face higher competition from copper and wireless networks than copper historically faced; and
- high end fibre services are viewed by consumers as luxury items, which means fibre revenues will be more sensitive to economic conditions.⁸⁴

Enable and Ultrafast note that:

“... Ofcom proposes to apply a price premium of £1.10 for the 40/10 fibre to the premises services to reflect the higher broadband speeds and additional benefits consumers receive from a fully fibre service relative to fibre to the curb services (which utilise the copper connection from the curb to the premises). This is equivalent to a WACC premium for fibre services recommended in the Brattle Report, discussed at 6.9 – 6.11 of our 16 July 2019 EVP submission.”⁸⁵

Northpower considers that the proposed asset beta is inadequate because it is based on data which includes companies with substantially lower risks than the FFLAS providers, such as satellite and tower companies, and it ignores the additional risks faced by LFCs who are competing with Chorus.⁸⁶

Telstra Super, supported by Enable and Ultrafast,⁸⁷ argues that New Zealand’s relatively unique telecommunications industry structure means fibre networks face substantially higher competitive risk from vertically integrated mobile networks:

“We would also note that one of the risks identified by Chorus at the start of the rollout, mobile substitution, has indeed become a reality with Spark encouraging its customers on to its fixed wireless service since 2016. The Commission noted 10% of broadband customers were on fixed wireless in its Annual Market Monitoring Report 2018. This has obviously continued to grow in the time since. Vodafone is now reported to be planning to have 25% of its customers on fixed wireless within the next

⁸³ ATLAS Infrastructure (2020), p. 1.

⁸⁴ Investors Mutual (2020), p. 2.

⁸⁵ Enable and Ultrafast (2020a), p. 13.

⁸⁶ Northpower Fibre Limited and Northpower LFC2 Limited (2020), p. 4.

⁸⁷ Enable and Ultrafast (2020b), p. 3.

*few years. We cannot reconcile the Commission's proposed stranding risk uplift of 10 basis points with the real risk evident in these existing data points."*⁸⁸

According to Telstra Super, this is unlikely to be adequately reflected in the systematic risk of the comparator sample.

Finally, Chorus refers to the Commission making an adjustment for gas pipeline businesses when estimating its asset beta in 2016 to reflect relatively higher risk compared with the comparator sample.⁸⁹

3.2.2. Our response

We do not consider that the submitters have presented compelling new evidence to challenge the positions expressed in our May 2019 and October 2019 advice to the Commission.

ATLAS considers that Chorus' risk exposure is limited to the upside and therefore asymmetric and the asset beta should reflect this. We have not considered whether FFLAS providers face asymmetric risk, as it is generally recognised that such risks should not be compensated through the asset beta. We note that the Commission is considering Type-II asymmetric risks separately.

In relation to the operating leverage arguments raised by ATLAS and Investors Mutual, our first report for the Commission set out why we do not consider this to be a determining factor for the asset beta of the FFLAS providers. In summary, we note that we are considering an asset beta that will apply from the start of the new regulatory period in 2022, when the UFB roll-out is expected to be largely complete and uptake of fibre services substantially higher than it is today. In addition, there is no evidence to support the view that operating leverage in the comparator sample (as opposed to a hypothetical mature copper network) is substantially different to that of the FFLAS providers.⁹⁰

Enable and Ultrafast, Investors Mutual, and Telstra Super refer to the competitive threat posed by copper and/ or wireless services. We have previously argued that competition is not in itself a systematic risk, but rather a business or company-specific risk.⁹¹ In addition, some submissions to our first report indicated that some firms in our proposed comparator sample may face the same or greater competitive risk than the FFLAS providers.⁹² We do not consider that the last round of submissions presents any compelling new evidence to challenge this position.

Investors Mutual refers to Ofcom's position that it is appropriate to use a higher asset beta for fibre networks than copper, as they will face competition from copper and wireless. However, Ofcom's arguments appear to revolve mainly around systematic demand risk and operating leverage issues,⁹³ which, as noted in Section 2.3.3, are not as relevant for FFLAS in the post-implementation period as they are currently for FTTP in the UK. Instead, Ofcom notes that retailers are seeking to migrate copper customers to superfast broadband services, for example by offering free or automatic upgrades, meaning consumers have little incentive to downgrade to copper services.⁹⁴

⁸⁸ Telstra Super (2020), p. 2-3.

⁸⁹ Chorus (2020), p. 57.

⁹⁰ CEPA (2019b), p. 25-26.

⁹¹ CEPA (2019b), p. 33.

⁹² CEPA (2019b), p. 27-28.

⁹³ Ofcom (2020), A21.44.

⁹⁴ Ofcom (2020), A21.42d.

Ofcom also notes that demand for fixed lines in general held up strongly despite the significant growth in wireless connectivity via mobile networks.⁹⁵

We also note that the case for a fibre 'WACC premium' discussed by Brattle⁹⁶ and referenced by Enable and Ultrafast appears to be based on considerations around operating leverage, long-lived investments, and systematic demand risk. We consider that these issues have already been addressed above and in our October 2019 report.

Investors Mutual's view that fibre services are viewed by consumers as luxury items has already been considered and rejected in our previous report, on the basis that pricing in the market did not indicate that fibre plans are systematically more expensive than copper-based ADSL or VDSL plans.⁹⁷ No new evidence has been presented to the contrary.

In regard to the additional risk faced by LFCs, we maintain our position that while the systematic risk exposure of the LFCs could be above that of Chorus, we have not identified a robust basis to estimate a different asset beta for the LFCs.⁹⁸ Further, we note the different application of the asset beta in the context of the PQ and ID regimes.

In relation to Northpower's argument that satellite and tower companies have lower risk than FFLAS providers, we consider that we have already acknowledged the difference from a demand risk perspective and accordingly proposed an asset beta between the wholesale and integrated groups.⁹⁹ We also note that the Commission's approach of weighting all the comparators equally reduces the weight attributed to wholesalers, as this group is less numerous than the integrated companies in our sample.

The Commission has stated that it does not consider that the evidence concerning the systematic risk facing suppliers of gas pipelines services is relevant to regulated FFLAS networks.¹⁰⁰ We agree with this position, as explained in our May 2019 report.

⁹⁵ Ofcom (2020), A21.43.

⁹⁶ Brattle (2016), p. 12.

⁹⁷ CEPA (2019b), p. 23.

⁹⁸ CEPA (2019b), p. 34.

⁹⁹ CEPA (2019b), p. 22.

¹⁰⁰ Commerce Commission (2019), p. 388.

4. CREDIT RATING AND LEVERAGE

4.1.1. Submitters' views

The Commission proposes a credit rating of BBB+ as it considers that this provides a margin of safety from the minimum investment grade rating (BBB-) and is not inconsistent with the comparator sample.¹⁰¹

While Vodafone recommends retaining the BBB+ rating,¹⁰² a number of submissions consider that a credit rating of BBB would be more appropriate.

Sapere argues that at BBB would provide enough margin, as a company would have to be downgraded twice to be below an investment grade rating.¹⁰³

Chorus considers that that a BBB credit rating is more consistent with the notional leverage derived from the comparator set and the higher systematic risk for FFLAS relative to the comparator set.¹⁰⁴ Similarly, L1 Capital refers to CEPA's analysis that an investment grade rating "*indicates an average rating of BBB/BBB- for the wholesale group and BBB+/A- for the integrated group*".¹⁰⁵ According to L1, the fact that the vast majority of comparators are integrated companies suggests that the average credit metric is closer to BBB than BBB+.¹⁰⁶

Sapere argues that the Commission underweights the actual BBB rating of Chorus and other relevant comparators, and Ofcom's determination for BT. According to Sapere, the financial management choice made by Chorus is presumably efficient in terms of the required return on equity by shareholders, who would also be concerned to avoid financial distress. Chorus' actual credit rating is BBB and CEPA's analysis suggests this is consistent with average leverage of 31%, which the Commission has adopted.¹⁰⁷

L1 Capital observes that Chorus has never achieved a BBB+ rating during its time as a listed company due to technology risk, operating risk, regulatory risk, and gearing levels. A BBB+ rating would lower allowed returns, impairing the company's ability to invest and service debt. Additionally, decoupling the rating from real credit costs or that of the comparator set would send a negative signal to rating agencies that may contribute to a credit downgrade for the regulated entity.

L1 notes that the comparator sample incorporates the range of companies closest to Chorus with the most similar range of operating and technology risks. Some comparators cannot achieve investment grade due to operating challenges in their business or regulatory risk. If they are included in the asset beta calculation, it is inconsistent to exclude them from the calculation of the credit rating.¹⁰⁸

¹⁰¹ Commerce Commission (2019), p. 264.

¹⁰² Vodafone (2020), p. 3.

¹⁰³ Sapere (2020), p. 22.

¹⁰⁴ Chorus (2020), p. 13.

¹⁰⁵ CEPA (2019b), p. 42.

¹⁰⁶ L1 capital (2020), p.18.

¹⁰⁷ Sapere (2020), p. 22-23.

¹⁰⁸ L1 Capital (2020), p. 17.

Similarly, Chorus argues that choosing a credit rating on the sole basis of investment grade comparators results in an inconsistency, as the Commission has used BBB+ for estimating the debt premium, but proposed leverage consistent with a credit rating of BBB.¹⁰⁹

Sapere expands on this topic:

“Expert advisers to the European Commission (The Brattle Group, 2016) and the UK’s Ofgem (PricewaterhouseCoopers, 2009) recommend estimating the target credit rating from the target leverage or vice versa. This ensures that the estimated cost of debt is consistent with the asset beta and leverage assumptions.”¹¹⁰

Sapere notes that the proposed BBB+ rating is also inconsistent with the approach to calculating the avoided financing cost (i.e. the benefit of Crown financing), as this is based on Chorus’ actual credit rating of BBB. This implies that the benefit that Chorus is supposed to have received from Crown financing is based on a higher debt cost rate than the debt cost allowed in the Commission’s proposal.¹¹¹

L1 Capital argues that this is inconsistent, violates the principles of FCM and deprives Chorus of the opportunity to recover its costs during the build period. According to L1, the UFB contract already specified the minimum credit rating that CFH deemed necessary to protect the end consumer, i.e. an investment grade rating. Applying an even higher minimum credit rating after the build has been completed would amount to a rewrite of the CFH contract. The fibre Act gives the Commission wide powers to ensure appropriate investment is made, which are far more likely to incentivise the fibre operator than applying an impossible efficiency standard.¹¹²

Telstra Super notes:

“The Ofcom assessment is again instructive in this respect with Openreach (with its copper based services) said to be closer to a BBB+ credit rating, while Other UK telecoms (where fibre services were considered to sit) are proposed to share a BBB rating with BT Group given the higher systematic risk. Further, as Chorus noted in its 24 September presentation, the Commission’s use of BBB+ suggests a cost of debt assumption below Chorus’ actual cost of debt through the pre-implementation period. This hardly seems a fair approach, particularly when the cost of debt being used to finance the fibre rollout actually increased during the period because of regulatory impacts on the business.”¹¹³

According to Chorus and Enable and Ultrafast, the draft decision on leverage is inconsistent with the approach to estimating the debt premium.¹¹⁴ This is based on Sapere’s view that:

“The Commission proposes, as is its practice, to adopt the average leverage of the asset beta comparator sample based on the same time periods and averaging as the asset beta proposal. The Commission’s proposed leverage is 31%. This proposed leverage is consistent with a credit rating of BBB in the comparator sample (CEPA, 2019b, p. 44). A higher level of leverage (34%) would be consistent with the Commission’s proposed credit rating for estimating the debt premium.”¹¹⁵

¹⁰⁹ Chorus (2020), p. 58-59.

¹¹⁰ Sapere (2020), p. 23.

¹¹¹ Sapere (2020), p. 23.

¹¹² L1 Capital (2020), p. 17.

¹¹³ Telstra Super (2020), p. 2.

¹¹⁴ Chorus (2020), p. 60. Enable and Ultrafast (2020b), p. 5.

¹¹⁵ Sapere (2020), p. 29-30.

4.1.2. Our response

Our analysis of comparators with an investment grade rating indicates an average rating of BBB/BBB- for the wholesale group and BBB+/A- for the integrated group. This is in line with our May 2019 report conclusion that a rating of BBB/BBB+ appears reasonable for the FFLAS providers based on the comparator set.

We do not agree with L1 Capital's observation that since the majority of comparators are integrated companies, the average credit metric is closer to BBB than BBB+. On the contrary, this argument would support a higher credit rating of between BBB+ and A- (based on integrated companies with an investment grade rating).

As noted in our October 2019 response to submissions, it is important to note that the average leverage for each group includes companies that do not have a credit rating. Therefore, we cannot conclude – as some submissions have proposed – that the average credit rating of the comparator sample is consistent with the average leverage.

As a cross-check to the Commission's proposed credit rating of BBB+, we can assess what credit rating would be consistent with the average leverage of the full comparator set (and confirm that this is an investment grade rating). To do this, we have mapped the 2014-2019 average leverage of each rated comparator to their credit rating. This provides an average leverage value for all comparators at each credit rating level. This analysis indicates that:

- The most common rating and the average rating for all comparators with an investment grade rating was BBB+. This suggests that BBB+ represents a reasonable credit rating for the FFLAs providers, given the comparator set.
- Over 2014-2019, average leverage was 33% for comparators rated BBB+, 37% for comparators rated BBB, and 30% for comparators rated BBB-. This indicates that a rating between BBB- and BBB+ could be seen as broadly consistent with the average leverage of the comparator sample.¹¹⁶ As the Commission noted in their draft determination, there is no precise mapping between leverage and credit ratings, as ratings agencies will take a range of other factors into account.

As Telstra Super note, in the 2020 WFTMR Ofcom state that services with lower systematic risk, compared to the overall BT Group (i.e. Openreach), could attract a higher credit rating (and therefore lower cost of debt) at the same level of gearing. Accordingly, the cost of debt for Openreach is based on a credit rating of BBB+ (representing a one notch uplift to the current BBB credit rating of BT Group).¹¹⁷ However, we disagree with Telstra Super's conclusion that the systematic risk of the FFLAS providers is closer to the BT Group, which would support a rating of BBB. Rather, as explained in section 2.3.3, we consider that a closer analysis of Ofcom's conclusions suggests that the systematic risk exposure of the FFLAS providers is more akin to that of Openreach. This would point to Ofcom's decision on the notional credit rating for Openreach, BBB+, being a more relevant point of reference.

Based on the points outlined above, we remain comfortable with our original recommendation that a credit rating of BBB/BBB+ is appropriate for the FFLAS providers.

¹¹⁶ 31%, if calculated across all comparators for the 2009-14 and 2014-19 periods, based on CEPA's October 2019 sample.

¹¹⁷ Ofcom (2020), A21.77 and A21.78.

Appendix A ASSET BETA ESTIMATES

Table_Appx A.1: Five-year asset beta (2014-2019) – Additional comparators from Damodaran’s database

Company	4-weekly results	Standard error	Weekly results	Standard error	Daily results	Standard error
Telus	0.50	0.07	0.67	0.01	0.36	0.02
TeraGo	0.28	0.24	0.69	0.03	0.19	0.07
United Internet	0.69	0.11	0.85	0.03	0.73	0.03
Netia	0.37	0.13	0.80	0.03	0.19	0.04
O2 Czech Republic	0.33	0.37	0.92	0.05	0.56	0.06
Turkcell	0.90	0.09	0.91	0.03	0.73	0.03
Turkish Telekom	0.68	0.08	0.66	0.02	0.57	0.02

Source: Bloomberg

Table_Appx A.2: Five-year asset beta (2009-2014) – Additional comparators from Damodaran’s database

Company	4-weekly results	Standard error	Weekly results	Standard error	Daily results	Standard error
Telus	0.40	0.08	0.66	0.02	0.31	0.02
TeraGo	n/a	n/a	n/a	n/a	n/a	n/a
United Internet	0.69	0.11	0.86	0.03	0.69	0.03
Netia	0.72	0.11	0.91	0.03	0.41	0.03
O2 Czech Republic	0.57	0.08	0.89	0.03	0.43	0.03
Turkcell	0.68	0.08	0.89	0.03	0.62	0.03
Turkish Telekom	0.60	0.07	0.76	0.02	0.52	0.02

Source: Bloomberg. Note, TeraGo was listed in 2012 and is therefore excluded from the 2009-14 sample.

Table_Appx A.3: Two-year asset beta (2017-2019) – Additional comparators from Damodaran’s database

Company	4-weekly results	Standard error	Weekly results	Standard error	Daily results	Standard error
Telus	0.67	0.02	0.67	0.01	0.32	0.03
TeraGo	0.75	0.10	0.74	0.04	0.23	0.12
United Internet	0.83	0.06	0.85	0.03	0.82	0.07
Netia	0.84	0.07	0.84	0.03	0.12	0.06
O2 Czech Republic	0.92	0.04	0.92	0.02	0.47	0.08
Turkcell	0.77	0.04	0.77	0.03	0.70	0.05
Turkish Telekom	0.60	0.05	0.59	0.02	0.61	0.04

Source: Bloomberg

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