MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
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CONVERGENCE

Telecommunications Act Review: Options Paper

New Zealand Government

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Executive Summary

Access to digital communications technologies is transforming the way New Zealanders live, work and do business.

At December 2015, 60 per cent of the Ultra-Fast Broadband (**UFB**) network had been completed. Over 20 per cent of those who can connect to UFB have done so – and we expect that number to increase significantly by 2020. We also have increasing coverage and capacity in our mobile networks. By 2020, over 75 per cent of New Zealanders will have access to UFB services and 90 per cent of New Zealanders will have access to 4G networks. This technology is allowing us to communicate, do business, and consume and create content in new ways. It is allowing us to connect to the world and compete on the global stage.

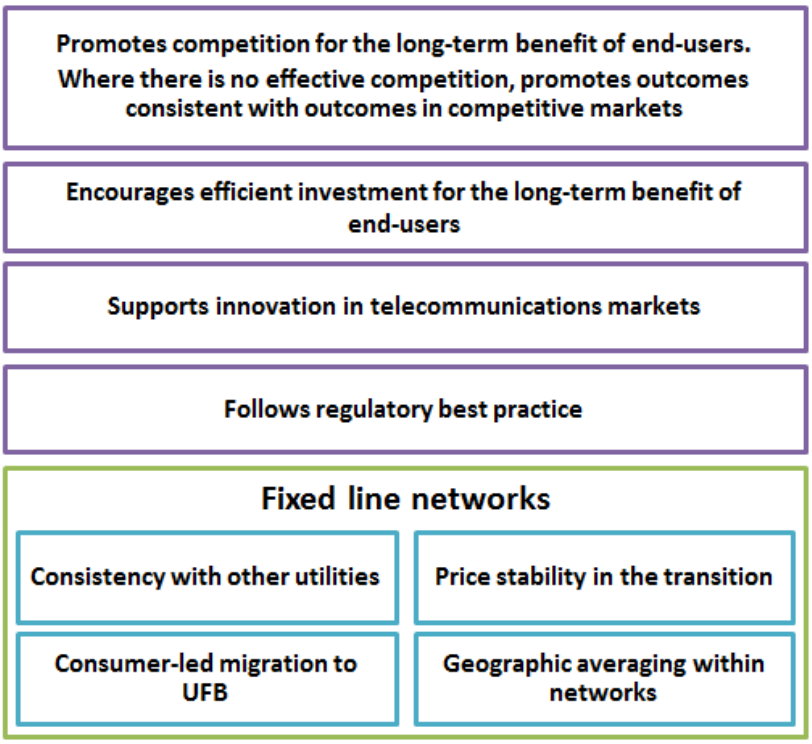
Our long term vision is a vibrant communications environment that provides high quality and affordable services for all New Zealanders, and enables our economy to grow, innovate and compete in a dynamic global environment. In October 2015, the Government announced a bold new connectivity target: virtually all New Zealanders, regardless of where they live or work, will be able to access broadband at peak speeds of at least 50 Mbps by 2025.

Last year, the Minister for Communications released a discussion document, *Regulating Communications for the Future*, as part of the statutory review of the Telecommunications Act 2001 (the **Telecommunications Act**) and the Government's Convergence work programme. In that discussion document, we took a broad look at the communications sector and suggested that there was a case for change to communications regulation as we head beyond 2020. Your feedback has supported that view.

It is now clear that we need a new approach for the regulation of fixed line communications networks. The market for fixed line services is vastly different to the market in 2001, when the Telecommunications Act was introduced. Following the separation of the former fixed line incumbent Telecom New Zealand into Chorus and Spark and the creation of 'local fibre companies' (**LFC**s) for the UFB rollout, open access wholesale-only fixed line networks now allow retailers to compete on a level playing field. New Zealand has been one of the first countries in the world to move to a structurally-separated market for fixed line services. We refer to Chorus and the LFCs collectively as **UFB providers** in this paper.

The old approach, which was unique to telecommunications and was designed primarily to regulate Telecom New Zealand and the copper network, is no longer fit for purpose. Instead, we are looking to utilities regulation using a 'building blocks' pricing model (**BBM**) as a well-known and predictable alternative. It will be designed for a post-2020 world: delivering benefits for end-users through a competitive retail market, preventing monopoly profits and incentivising ongoing efficient investment in high quality networks.

Our objectives for digital communications regulation are:



This paper

The submissions to *Regulating Communications for the Future* have informed us in developing a high level model for fixed line regulation from 2020. Through this more detailed options paper, we will set out the Government's way forward for fixed line regulation, and seek feedback on options for implementation and design. We are also seeking your views on ways to reform the regulatory toolkit for communications; and how we should continue to support competition and encourage infrastructure sharing in mobile markets.

This review is part of the Government's Convergence work programme, which looks at the impact of convergence and digital disruption on government policy and regulation. The Convergence work programme is progressing across government. You can find more information and updates at www.convergencediscussion.nz.

Policy decisions

Regulating fixed line services

In April 2016, the Government announced that it would be moving towards a utility-style regulatory framework for fixed line services, with price-quality regulation based on the BBM. Fixed line communications networks now increasingly resemble utilities like electricity lines and gas pipelines. We now have an opportunity to move towards a utility-style approach that is well known and understood.

The new regulatory framework for fixed line services will include the following features:

- A system of **price-quality regulation** based on BBM, which will mean that UFB providers cannot make excess profits at the expense of consumers.
- A clear value will be set for the **regulated asset base**, with a predictable process for updating this over time.
- There will be a clear **process for approval in advance of new investments**, similar to that which applies to the electricity grid operator Transpower.
- The Commission will be required to set **clear rules** (**input methodologies**) before 2020 that outline its approach to how assets will be valued and costs recovered.
- All UFB providers will be subject to an **information disclosure** regime from 2020.

A key focus of the new regulatory framework is protecting consumers from monopoly pricing. This approach will also produce a more stable regulatory framework over time. It will encourage investment and innovation in communications networks.

The model is designed to be consistent with the way Transpower, electricity lines and gas pipelines are regulated under Part 4 of the Commerce Act 1986 (**Part 4**). We propose to take advantage of past experience in utility regulation by replicating the Part 4 approach wherever it makes sense to do so. However, we intend to set out the key regulatory settings for fixed line services in the Telecommunications Act rather than the Commerce Act.

We also propose that a new purpose statement be introduced within a new Part of the Telecommunications Act, modelled on the Part 4 purpose, which would apply specifically to the regulatory framework for fixed line services. The new purpose would be to promote outcomes consistent with those in competitive markets. This would allow regulation to address monopoly pricing directly, and draw on precedent from Part 4 where relevant.

This framework should apply consistently to Chorus' UFB and copper access services.

Design of the framework

To meet our goals, getting the design and implementation right is vital. Through this options paper we are seeking your input on the next steps.

Under Part 4, the Commerce Commission (the **Commission**) has a high level of discretion in making decisions in relation to implementing the framework. As a general principle, we intend to follow this model, with implementation decisions left to the Commission unless there are particularly strong policy reasons for the matter to be resolved or guided by Government. This should provide the Commission with the flexibility it needs to achieve the outcomes set in legislation, even if there are changes in the market and technology. We are seeking your views on whether this approach provides enough certainty for the transition to the new framework.

The diagram below outlines the process for Government and the Commission implementing the framework, as proposed in this paper.

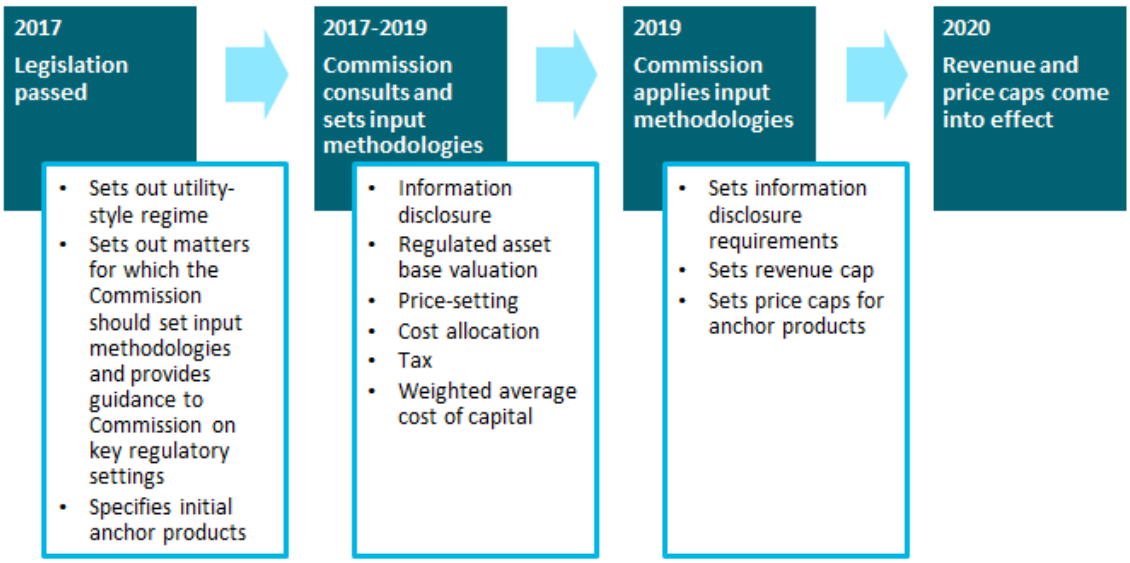


Figure 1: Outline of proposed implementation process

Regulatory asset base

BBM price-quality regulation will give UFB providers an opportunity to recover their costs and earn a fair return on their assets. This is done by establishing (and then updating) the regulatory asset base (**RAB**). The new framework will be designed to encourage ongoing investment in fibre infrastructure.

Similar to Part 4, we see an important role for the Commission in:

- deciding the valuation approach and initial value of the RAB;
- defining what assets would fall within the scope of the RAB; and
- assessing the efficiency and prudence of expenditure (within some broad bounds set by Government).

The Commission would also have a range of functions broadly mirroring those in Part 4.

We propose that there would be a single RAB for Chorus' copper and fibre assets for revenue- and price-setting purposes, because:

- a single RAB is the best means of ensuring there is sufficient flexibility built into the framework to manage a unique period of transition, with demand shifting from copper to fibre technology;
- regulatory processes would be more straightforward and less costly, as there would not be a need for a cost allocation of common assets and expenditure between copper and fibre assets when setting revenues; and
- it accommodates the provision of technology-neutral anchor products, which will support price stability for basic services in the transition and support the eventual withdrawal of copper infrastructure.

We note that the new framework should not incentivise Chorus to keep end-users on copper services in areas where there is a choice of UFB services available.

Form of price-quality regulation

Under Part 4, there is no single approach to the form of price-quality regulation – the Commission has implemented price-quality regulation using both a revenue cap and a weighted average price cap, and the detailed approach to price-setting varies by sector.

Revenue cap and price-capped anchor products

We have considered applying:

- a revenue cap;
- price caps for individual services (including a weighted average price cap); or
- a revenue cap with price-capped anchor products.

On balance, our preference is to apply a revenue cap to the UFB provider's RAB, with price caps in place for some basic services (anchor products). We think this approach is appropriate as it manages the risks arising from uncertain demand forecasting during the unique period of shifting demand from copper to fibre, through a wash up mechanism.

Anchor products can address the price shock risk to end-users that might be incurred under the 'pure' revenue cap approach. They also mean that the basic services (and the layer 1 UFB service that UFB providers must offer by 2020) can act as 'anchors' to the rest of the service set.

We note that the 'next best' alternative would be a 'weighted average price cap' approach, a variant of the price cap approach that is less focused on individual service pricing. It is less vulnerable to inaccurate forecasting than price caps for individual services (though still requires forecasting).

Although BBM is generally applied in markets where there is little or no competition, it is possible that UFB providers will face a degree of competition from other services (for example from 4G fixed wireless services). We intend to ensure the new framework recognises and responds appropriately to any competition that emerges.

The revenue cap approach combined with anchor products should provide incentives for regulated suppliers to innovate and offer premium products (along with unbundling of UFB services). We are seeking your views on whether the proposed model has the right incentive effects.

The categories of regulated services supplied by UFB providers will be as follows:

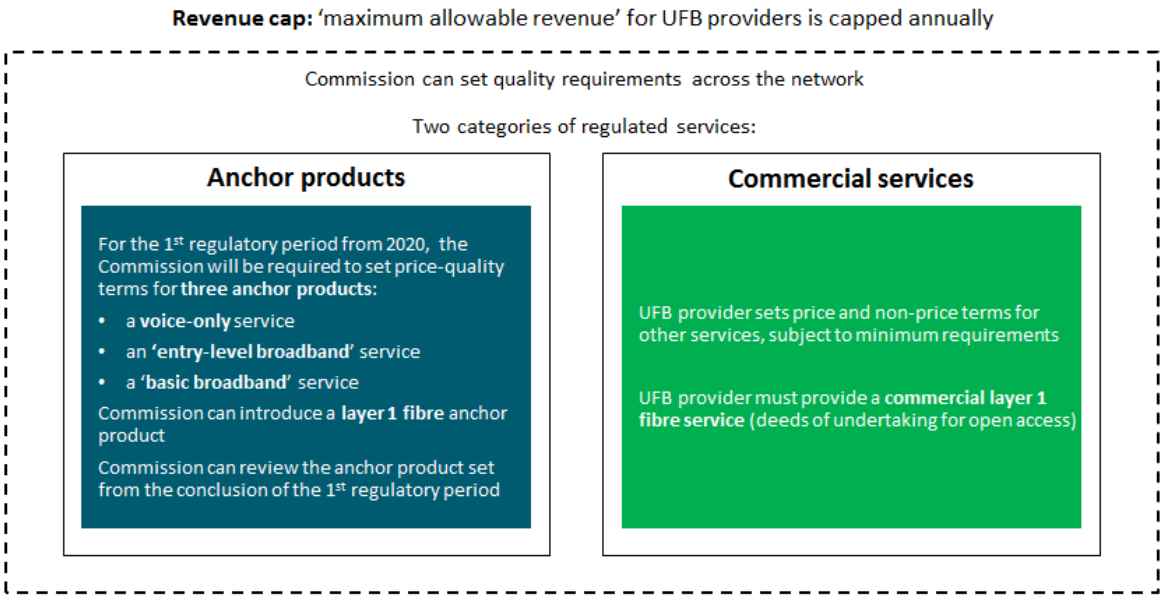


Figure 2: Outline of proposed service categories for price-quality regulation of fixed line services

The proposed form of price-quality regulation will initially require three technology-neutral anchor products to be supplied by UFB providers from 2020:

- a *voice-only input product* (to ensure a fixed line telephone service remains available);
- an *'entry-level broadband' product* (expected to provide speeds of up to 15/1Mbps, to ensure a baseline broadband service is available, particularly for rural end-users who may not be able to access UFB); and
- a *'basic broadband' product* (expected to provide speeds of up to 100/20Mbps, to cover a typical broadband user's needs (as at 2020) and to act as an economic 'anchor' for other products).

Each anchor product will have a single wholesale price irrespective of the underlying technology.

In addition, the Commission will also be able to classify a layer 1 (i.e. unbundled) fibre service as an anchor product with cost-oriented pricing, if a statutory test is met.

Anchor product pricing will be geographically averaged within each UFB provider's network, to ensure comparable pricing for all customers and to protect against the risk of anti-competitive pricing on a geographic basis.

The Government will prescribe the initial set of anchor products in legislation, and any changes in prices would be subject to a glide path. We are seeking views on how anchor products should be priced by the Commission.

For future regulatory periods, the Commission would also review the anchor product set and consider whether to update the product specifications to keep it in line with changing end-user expectations. This should create incentives for UFB providers to continue providing the services that end-users want, and to continue to invest and innovate as end-user preferences evolve.

The Commission will also have the power from 2025 to recommend to the Minister a shift to a 'price cap' approach to the regulation of fixed line services. This will ensure the framework is flexible for the long term.

We suggest that Commission decisions be set out in determinations (similar to section 52P determinations under the Commerce Act), rather than utilising an access undertakings regime.

Commercial services

The price and quality terms for commercial services will be at the UFB provider's discretion, subject to the revenue cap, the requirement to provide a commercial layer 1 UFB service (pursuant to the deeds of undertaking for open access) and some minimum requirements:

- UFB providers must conduct industry consultation on price and non-price terms for commercial services and give at least 12 months' notice of price or material non-price changes;
- prices for commercial services must be geographically averaged within that UFB provider's network (for the same reason as anchor products); and
- UFB providers will be subject to a commitment to ongoing service development and RSP engagement.

Implementation

One important decision is whether price-quality regulation of fixed line services should come into effect immediately or whether we can rely on the threat of regulation.

We are proposing that the Commission is required to develop input methodologies and an information disclosure regime prior to 2020. Price-quality regulation could be implemented from 2020; alternatively, it could remain as a 'backstop' until an intervention test is satisfied (under this approach only information disclosure would apply until price-quality regulation is triggered; we call this the **'backstop' option**).

On balance, we prefer applying price-quality regulation for Chorus immediately from 2020 (the **2020 option**). This option provides a high degree of certainty and reassurance that end-user interests will be addressed. We remain open to the 'backstop' option for Chorus, if it can deliver meaningful benefits over the 2020 option in achieving our goals. This paper provides an opportunity for stakeholders to state their case for a backstop model for Chorus. The backstop option would still require input methodologies to be developed to support information disclosure.

Local fibre companies (**LFC**s – NorthPower, Ultra-Fast Fibre and Enable) face more competitive pressure than Chorus, in particular from Chorus' copper services. We propose they be subject to the backstop option from 2020. We think this more proportionate approach is justified in the case of the LFCs.

Importantly, under the backstop option price-quality regulation could be introduced relatively quickly for any UFB provider if an intervention test is triggered. We are seeking feedback on a new intervention test. In addition, if the backstop option is implemented for Chorus, we are seeking feedback on how to manage regulated copper prices while UFB is priced commercially. We ask whether there is a case for the Commission to 'freeze' copper prices temporarily in that instance.

Other issues

Mobile

In *Regulating Communications for the Future*, we noted that competition and current regulatory settings for mobile markets are delivering benefits for end-users. However, we were concerned that this competition was vulnerable. Since then, 2degrees and Vodafone have reached a long term agreement on national roaming. However, we are still concerned about whether there are sufficient incentives for efficient infrastructure sharing, including the availability of competitively-priced national roaming arrangements. We are seeking views as to whether there is still a case for intervention, for example by streamlining the Schedule 3, Part 2 process for recommending a 'specified' (non-price regulated) service become a 'designated' (price-regulated) service. Such a change would support a quicker intervention path for the Commission if problems emerge with the national roaming or colocation specified services.

Net neutrality and convergence

We sought submissions on net neutrality and convergence issues in *Regulating Communications for the Future*. Responses did not highlight any areas of significant concern. However, since that consultation the proposed Sky Television/Vodafone merger has been announced.

We think that the current regulatory framework has sufficient safeguards in place to manage any net neutrality issues that may arise in New Zealand, including those that might arise from the current wave of merger activity – however, we are seeking views on this in light of these recent market developments.

Telecommunications dispute resolution

In *Regulating Communications for the Future* we asked whether there is a need for a consumer disputes resolution system with legislative backing that can be applied to all industry participants, irrespective of Telecommunications Forum membership. Respondents did not highlight significant concerns in this area. However there appear to be ongoing issues with how the industry is managing consumer complaints. We are concerned that the Consumer Complaints Code (the **Code**) does not currently provide for wholesale-only UFB providers to be directly accountable to consumers under the Telecommunications Dispute Resolution scheme. We think that the Code needs to be modified to ensure that retail customers have an opportunity to hold wholesale-only providers accountable for poor service delivery.

Schedule 3 investigations

The current Schedule 3 process for the Commission to investigate and recommend regulation has been lengthy. Harm can occur in the market during this process, especially when an access seeker is already operating in the market. We are considering reforms to that process more generally: introducing a 'hard' deadline, moving to a 'one-shot' process for undertakings in lieu of regulation, and giving the Commission the power to set an 'interim' regulated price that applies while a Schedule 3 investigation is under way. Schedule 3 will not apply to fixed line services (instead, a process for adding and removing regulated suppliers to the new fixed line framework will be introduced).

Radio spectrum allocation

In *Regulating Communications for the Future* we consulted on options to improve the framework for radio spectrum allocation and compliance. We do not address those matters again here, but the Government will take your submissions into account as it looks to make policy decisions later this year.

Your views

We received valuable feedback from end-users, businesses, iwi and industry on *Regulating Communications for the Future*, and it has informed our high level policy decisions. We know it is important to get the detail right. We will use the feedback received on this document to inform policy consideration and finalise the design of a new framework before moving to legislative change.

You are invited to make a written submission on the issues raised in this paper. Specific questions are listed at the end of relevant sections, and the full set of questions is listed at the end of this document. We are seeking specific examples, evidence and quantitative data in your submission to inform our final policy decisions. The closing date for submissions is Friday, 19 August 2016.

Part I: The Review

1. The process so far

1.1 Your views

In September 2015, the Minister for Communications released the discussion document *Regulating Communications for the Future*. It took a broad look at the underlying regulatory settings for communications markets, and set the scene for reform after 2020.

We received responses from a variety of submitters representing users, iwi, businesses, access seekers and network owners. The document and submissions are available on MBIE's website at www.mbie.govt.nz/telcoreview.

Submitters agreed that the communications sector is a critical enabler of economic growth in the twenty first century. These regulatory settings will support economic growth for all New Zealanders by encouraging innovation, investment in high quality networks, and competitive and efficient services. There was widespread agreement with the Government's view that access and pricing regulation for fixed line services is not fit for purpose as we head towards 2020. Submitters overwhelmingly supported a move to a 'building blocks model' (**BBM**) for the regulation of fixed line services.

We have developed some initial policy proposals taking into account submissions and experience in other jurisdictions. Now, we are consulting further on the design and implementation of the framework. In this paper, we set out the Government's proposals for the fixed line framework, and seek feedback on options for implementation and design. We are also seeking your views on ways to reform the regulatory toolkit for communications more generally and how we should continue to support competition in mobile markets.

Convergence

This Review is part of the Government's Convergence work programme, which reviews New Zealand's policy and regulatory settings in light of the convergence of the telecommunications, information technology, media and entertainment sectors. The common delivery of functions such as broadcasting and telecommunications over shared digital infrastructure has blurred the boundaries between previously separate industries. You can find more information and updates at 10.3 and at www.convergencediscussion.nz.

2. Where we are heading

2.1 Long term outcomes

In *Regulating Communications for the Future*, we set out the Government's long-term vision: a vibrant communications environment that provides high quality and affordable services for all New Zealanders, and enables our economy to grow, innovate and compete in a dynamic global environment.

In the future:

- high quality fixed and mobile broadband connectivity at competitive prices should be readily available to all New Zealanders, and to sectors critical for growth (for example, business, education, health and government);
- players in the communications environment should be able to innovate, invest and compete, without being tied down by out-of-date regulatory approaches;
- business and the broader economy should be able to take advantage of the opportunities provided by high speed connectivity to expand and compete in new markets; and
- key communications infrastructure and networks should be reliable, secure and resilient.

These goals were widely supported. Some submitters – particularly user groups and end-users – encouraged a focus on enabling *all* New Zealanders to have access to high speed connectivity, and the Government shares this ambition. In October 2015, the Government announced a new connectivity target for areas outside the UFB footprint. Under this target virtually all New Zealanders, regardless of where they live or work, will be able to access broadband at peak speeds of at least 50 Mbps.

By 2025, the Government's vision would see:

- 99 per cent of New Zealanders able to access broadband at peak speeds of at least 50 Mbps (up from 97.8 per cent getting at least 5 Mbps under the Rural Broadband Initiative); and
- the remaining one per cent able to access at least 10 Mbps (up from dial-up or no access).

2.2 The need for change

In *Regulating Communications for the Future*, we identified key areas where the communications market is evolving beyond the original focus of the regulatory system:

- Following the structural separation of Telecom and the creation of wholesale-only UFB providers, many of the problems in fixed line markets the Telecommunications Act was designed to solve have now been resolved. Discrimination against competitors is now less of a problem than limiting monopoly profits.

- The copper pricing framework is based on promoting infrastructure competition in the fixed line network. Post-2020, after the completion of the original UFB programme build, that outcome is no longer our priority for the fixed line regulatory framework.
- UFB infrastructure has natural monopoly characteristics, and Chorus is unlikely to face significant competitive pressure that could constrain its pricing post-2020.
- There is a need for continued investment in communications networks to meet the growing needs of end-users and businesses, to support innovation, and to meet the Government's ambitious broadband targets.
- There is uncertainty as to the commercial and regulatory environment for UFB networks post-2020.

The vast majority of submitters agreed that the current framework needs updating as we move towards 2020.

In April 2016, the Minister for Communications announced that we would be moving towards a utility-style regulatory framework for fixed line services, with BBM pricing, from 2020.[1]

2.3 Regulatory objectives

In *Regulating Communications for the Future*, we set out certain goals, objectives, and principles for regulation of the communications sector. The review is also required to consider the policy framework for regulating telecommunications services in New Zealand against certain statutory requirements set out in section 157AA of the Telecommunications Act 2001 (the **Telecommunications Act**).

Based on the statutory requirements, further analysis, experience in other jurisdictions, and feedback from submitters, we have established the following general objectives for the regulatory framework. Achieving these objectives will enable us to meet our long-term goals for the communications sector.

[1] See https://www.beehive.govt.nz/release/telco-review-sets-new-direction-regulating-broadband-and-phone-services.

Objectives	Description
Promotes competition for the long-term benefit of end-users	Promotes competition where possible
Where there is no effective competition, promotes outcomes consistent with outcomes in competitive markets	In markets where there is little or no effective competition and little or no prospect of future competition, promotes outcomes consistent with outcomes in competitive markets: • incentivises regulated suppliers to innovate, invest, and improve efficiency; and • limits their ability to charge monopoly prices and extract excessive profits Restricts the ability to deter competition in downstream markets (such as retail services)
Encourages efficient investment for the long-term benefit of end-users	Provides sufficient regulatory stability, transparency, and certainty to enable businesses to make long-term investments Promotes the legitimate commercial interests of access providers and access seekers by allowing regulated suppliers to make a fair return on investment
Supports innovation in communications markets	Supports the delivery of high quality and innovative communications services Innovation, investment and market entry are not held back by out-of-date or unpredictable regulatory approaches Policies and regulations are platform- and technology-neutral to support digital innovation and respond to technological change
Follows regulatory best practice	*Clear necessity* – regulation is only imposed where it is clearly justified, and deregulation considered where sufficient competition exists *Predictability* – as much as possible, the regulatory framework is predictable and should not send conflicting signals *Proportionality* – the burden of regulatory rules and their enforcement is proportionate *Transparency and accountability* – the development and enforcement of regulatory rules is transparent. The regulator is held accountable for its decisions and subject to public scrutiny *Flexibility and technology neutrality* – the underlying regulatory approach can be administered flexibly, with non-regulatory measures being used wherever possible. Where possible, policies and regulation are platform- and technology-neutral

2.3.1 Policy objectives for regulating fixed line services

Advances in fixed line broadband

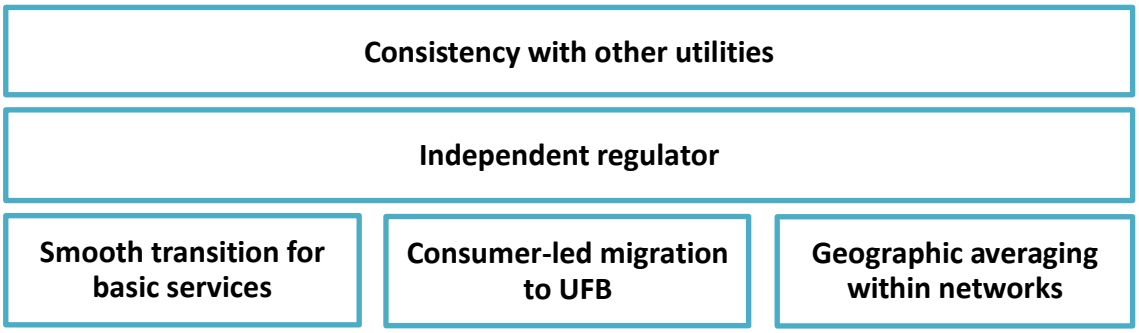
The Government's Ultra-Fast Broadband (**UFB**) Initiative will bring world-class connectivity to over 75 per cent of New Zealanders by 2020. The extension to the UFB programme will expand the reach of fibre broadband even further.

Over 60 per cent of the build in the original UFB areas has now been completed. Demand is growing quickly – by the end of February 2016, uptake had hit 20 per cent. Retail competition is thriving, with 89 Retail Service Providers (**RSP**s) now selling UFB services.

New Zealand continues to climb the international broadband rankings. The OECD's Broadband Subscriptions report to end of June 2015 placed New Zealand second in the world for machine-to-machine connectivity, fourth for mobile broadband (up from ninth), and fourteenth for fixed broadband (up from fifteenth), moving us ahead of the US for the first time.

To keep this momentum up, we need to get the regulatory settings right to promote continued retail competition, innovation and investment in our networks.

In *Regulating Communications for the Future*, we set out some initial policy positions specifically for the regulation of fixed line services. These have been refined and have guided our thinking in developing a proposed framework for post-2020 regulation. We will consider these policy objectives when making final decisions about the design of the fixed line regulatory framework.



Consistency with other utilities: The design of the new fixed line regulatory framework should be consistent with utility-style regulation under Part 4 of the Commerce Act 1986 (the **Commerce Act**), unless there is a compelling reason to deviate from that framework. This consistency will mean that the framework is familiar to participants and investors; and supports predictability by providing an important source of precedent for Commission decisions. Through this paper, we are seeking your input on areas where a different approach is needed for communications services.

Independent regulator: Consistent with Part 4 of the Commerce Act, implementation decisions should generally be left to the Commission. Through this paper, we are seeking your input on whether some issues should be resolved by the Government through legislation to provide greater certainty before 2020.

A smooth price transition for basic services: Limiting price volatility for basic services during the transition is a priority for Government as we move to a new framework. We are also considering how the framework will allow for price and revenue smoothing if needed, to minimise disruption to regulated entities.

Consumer-led migration to UFB services: The Government's policy is for consumers to lead the transition away from copper services towards fibre. We are not seeking to impose any timeframes on the withdrawal of the copper network, as long as end-users are protected in the transition.

Geographic averaging: We support maintaining geographically averaged wholesale prices for all products within a UFB provider's network. Especially within Chorus' nationwide network, averaging is an important way to ensure that rural users are not disadvantaged. However we are seeking views on whether this could have unintended consequences as the market evolves.

Part II: New regulatory framework for fixed line communications

3. Policy decisions on the framework

This chapter explains our decisions on key components of the proposed framework: pricing methodology, information disclosure and input methodologies.

3.1 Utility-style framework

In April 2016, the Government announced it will move towards a utility-style regulatory framework, with a BBM pricing methodology, for fixed line services.

The utility-style framework considered in this and the following chapters will apply to fixed line services (both copper and fibre) provided by UFB providers.

A utility-style framework is increasingly relevant to, and appropriate for, these fixed line networks. UFB providers are structurally separated (similar to electricity lines businesses and other utilities in New Zealand), wholesale-only, and offer services in markets with little or no competition.

What is utility-style regulation?

'Utility-style' regulation is traditionally applied to utilities such as electricity, gas, major airports and water, where there is little or no competition and little or no scope for a substantial increase in competition.

Utility-style regulation is usually only applied to vertically separated monopolies where the monopolist has no incentive to discriminate between access seekers. For this reason these regimes normally focus on price-setting (and some quality aspects). Because of vertical separation, the main problem for utilities has been pricing and service quality rather than mandating timely access to bottleneck assets.

Various forms of utility-style regulation under Part 4 of the Commerce Act have been applied to electricity lines, gas pipelines, and specified airport services in New Zealand.

Our proposed framework would be similar in design to the utility-style framework in Part 4 of the Commerce Act. Key features, which are discussed in more detail later in this chapter, are:

- **Information disclosure**: a set of requirements providing for disclosure of financial and other network-related information by regulated suppliers.

- **Input methodologies:** binding methodologies for determining the various inputs into the calculation of regulated prices and other matters, set at the outset of the framework.
- **Price-quality regulation**: regulation of revenues and the quality of services (with the option of setting a cap on the overall revenues of the regulated business and/or on individual service pricing).

Regulation of fixed line access services will be consistent with Part 4 of the Commerce Act, unless there is a strong reason to diverge.

The fixed line access market

Chorus is a wholesale-only fixed line network operator, managing both the existing copper fixed line network, which serves most of New Zealand, and rolling out the bulk of the UFB network build. Chorus' copper services are already subject to price regulation under the Telecommunications Act. The UFB network is also being built and operated by Enable Networks in Christchurch, Ultra-Fast Fibre in the central North Island, and Northpower in Northland. These companies are known as Local Fibre Companies (**LFC**s). UFB pricing for both Chorus and the LFCs is currently controlled by the build contracts, which expire at the end of 2019.

A competitive tender process for an extension to UFB is now underway. This may result in additional fixed line providers being subject to the regulatory framework in respect of their new UFB networks.

Throughout this paper, we refer collectively to the above entities (Chorus, LFCs and any future UFB providers) as **UFB providers**. For clarity, we note that the scope of the proposed fixed line access regulation includes both Chorus' copper and fibre access networks.

We are not contemplating regulation of commercial fixed line services like those provided on Vodafone's Hybrid Fibre-Coaxial (**HFC**) network or other commercial fibre services. These services generally face competition from UFB and copper services. The Commission could recommend regulation of these services if required (pursuant to the new process for introducing suppliers to the utility-style framework for fixed line access services), and we are not proposing any additional regulation.

We refer to the fixed line access services supplied by UFB providers as '**fixed line services**' in this document.

Other telecommunications services (like mobile services and national backhaul) will continue to be subject to the existing provisions in the Telecommunications Act, with the Commission able to recommend regulation if required. Mobile services are discussed in chapter 9.

3.1.1 Price-quality regulation

Access seekers, network owners, investors and end-users will all benefit from a regulatory framework that provides more certainty about how regulated prices for UFB and copper services will eventually be set.

An approach to price-quality regulation using the BBM will be set in legislation. This method of regulating prices is already used for utilities in New Zealand, and for telecommunications in Australia, and we think it is the best approach to fixed line services from 2020. A move to a BBM pricing approach was overwhelmingly supported by submitters to *Regulating Communications for the Future*.

BBM will limit the ability of UFB providers to generate excess profits, while also providing the stability and incentives needed to encourage efficient investment post-2020. This is because BBM takes as its starting point the actual costs faced by a regulated firm. After the initial valuation and price-setting exercise, subsequent pricing decisions should be much more routine, with proposed new investments explicitly considered when setting prices and allowable revenue. This is different to the way prices are set for copper services now, where prices enable the network operator to recover the costs associated with a hypothetical efficient operator.

In chapter 7 we seek your views as to whether price-quality regulation should come into force immediately from January 2020 or remain as a backstop available to the Commission. Regardless of when price-quality regulation is implemented, we propose that fixed line services supplied by UFB providers will be subject to information disclosure and input methodologies, from 2020.

3.1.2 Consistency for copper and fibre

When BBM price-quality regulation is introduced, it should apply to Chorus' copper and UFB networks.

Few submitters to *Regulating Communications for the Future* commented in depth on copper pricing. Those that did said that the approach to the copper network should be consistent with UFB networks. We agree – adopting one methodology for fixed line services also acknowledges the practical reality that the networks share a significant proportion of assets and costs, and that end-users are focused on services and not technology. The TSLRIC approach to copper pricing is focused on promoting infrastructure competition and providing signals about when new entrants should 'buy' access, rather than 'build' their own networks. It will not be fit for purpose for fixed line services post-2020.

Other benefits of moving to BBM price-quality regulation for both copper and UFB services are:

- it would be costly and complex for both the Commission and industry to manage two different pricing processes on an ongoing basis;
- a model where UFB is regulated using BBM but copper is regulated using TSLRIC may overcompensate Chorus; and
- a combined model with a joint regulated asset base (**RAB**) would link the pricing of access for the two technologies.

It is important to make sure that a change to copper pricing does not prolong the period of uncertainty we have seen in copper pricing processes to date. Promoting price stability for basic services is a priority for Government in the transition to a new framework, and in chapter 8 we discuss options for mitigating risks of price and revenue volatility.

In a scenario where UFB is not price-quality regulated at 2020, the approach to copper pricing becomes more complex, although we would still propose to move to a joint BBM price-quality regulation model if and when UFB is price-quality regulated. These issues are discussed in chapter 7.

3.2 The role of input methodologies

The Commission will be required to set input methodologies for the regulation of fixed line services, mirroring the requirement under Part 4 of the Commerce Act.

The key means by which Part 4 manages regulatory predictability is by requiring the Commission to set upfront 'input methodologies' that bind it to the approach it will subsequently take in applying the regulatory framework. Having input methodologies developed under the framework would provide regulated suppliers, RSPs, investors, end-users and others with a transparent and predictable guide to how regulated assets will be treated.

As in Part 4, the input methodologies would be subject to merits review in the High Court and need to be reviewed by the Commission not later than every seven years.[2] The Commission is currently reviewing input methodologies set for regulated Part 4 sectors in 2010.[3]

We propose to mirror section 52T of the Commerce Act, which would require the Commission to set upfront input methodologies for matters such as:

- methodologies for evaluating or determining:
  - cost of capital;
  - valuation of assets, including depreciation, and treatment of revaluations;
  - allocation of common costs (if necessary); and
  - treatment of taxation;
- regulatory processes and rules (including requirements for expenditure proposals); and
- pricing methodologies and other matters relating to price-setting.

We are also proposing to require input methodologies for network and service quality matters, discussed later at 6.3.2.

For many of these matters, the Commission already has an established approach under Part 4 (for example, in the treatment of taxation). Largely replicating the input methodology requirements from Part 4 (in addition to the purpose statement – discussed later at 7.6) should lead the Commission to take a consistent and predictable approach to fixed line services.

Under the 'backstop' option discussed in chapter 7, having input methodologies set in advance would allow the Commission to introduce price-quality regulation if needed and provide a transparent and predictable picture of how UFB providers' assets will be treated.

[2] We discuss the use of merits review in the new framework at 7.8.

[3] See http://www.comcom.govt.nz/regulated-industries/input-methodologies-2/input-methodologies-review/.

Questions

1. **Please comment on the set of matters that you recommend input methodologies should cover, with reference to the examples above.**

3.3 The role of information disclosure

We propose the current information disclosure obligations be amended to mirror the Part 4 requirements for information disclosure.

Under an information disclosure regime, the Commission would develop input methodologies regarding key disclosure components and require all regulated suppliers to publish information consistent with those methodologies. A robust information disclosure regime would provide standardised and transparent evidence of the historic and forecast performance of regulated suppliers. It would ensure sufficient information is available to assess whether regulatory objectives are being met.

Chorus and LFCs are already subject to requirements to disclose financial and non-financial information about the costs and characteristics of their UFB networks and the services provided over those networks. The requirements were set by the Commission following the 2011 amendments to the Telecommunications Act.[4] The Commission's powers are similar to its ability to require disclosure from regulated suppliers under Part 4 of the Commerce Act. However, information is not disclosed publicly by UFB providers or the Commission at present.

The Commission would undertake summary and analysis of the disclosed information for the benefit of interested parties, and publish reports and summaries of non-commercially sensitive information. As is typical in such regimes, commercially sensitive information will be withheld from public release by the regulator.

If the 'backstop' option is adopted, the Commission, the public and other interested parties will have information indicating whether there is a case for the introduction of price-quality regulation.

We are proposing that the information disclosure obligations be in place from 2020 for all UFB providers, whether or not price-quality regulation is applied.

Given that we are proposing any eventual price-quality regulation would cover both copper and UFB networks, the new information disclosure regime should mirror that model and also cover both copper and UFB. We are seeking your views on whether there may be any particular challenges in applying information disclosure to copper services.

[4] See: http://www.comcom.govt.nz/regulated-industries/telecommunications/regulated-services/ultrafast-broadband-information-disclosure/. The disclosures are required to employ standard layouts to achieve consistent reporting across the entities. Chorus is subject to a separate set of requirements which recognise that Chorus uses existing assets to provide fibre services, including in areas where other LFCs will build competing networks.

Questions

2. **Should information disclosure apply even if price-quality regulation is applied to Chorus and/or LFCs at 2020?**

3. **Should the information disclosure requirements apply to Chorus' copper services? Should there be any differences in the information required for the copper network?**

Part III: Design and implementation

In this Part, we focus on detailed options for the design and implementation of the framework. For most issues, we have specified a preferred option for your consideration, but we have not made final decisions on these matters. We are seeking submissions on these options and any benefits or risks that we might not have considered. This Part covers:

- the RAB (the number of RABs, RAB valuation methodology, scope of the RAB and treatment of assets);
- assessing the efficiency and prudence of capital expenditure;
- form of price-quality regulation, including anchor products;
- implementing price-quality regulation (applying regulation from 2020 or a 'backstop' option); and
- managing the transition and minimising price shocks.

4. The role of the regulator

This chapter outlines our thinking on the role of the regulator, including the Telecommunications Commissioner, in the new framework.

Throughout this Part, we discuss several issues that together will make up the key features of the regulatory framework for fixed line services. As a general principle, we think that it is appropriate that Government signal or provide guidance on its policy intent and establish the policy framework, but that the framework should be implemented by the Commission. As well as being independent, the Commission has the regulatory expertise to make these decisions, given its experience in implementing both Part 4 and the current Telecommunications Act.

In the main, we intend to follow this model unless there is a particularly strong reason for the matter to be resolved or guided by Government. This should provide the Commission with the flexibility it needs to achieve the outcomes set in legislation, even if there are changes in the market and technology. We are seeking your views on whether this approach provides enough certainty for the transition to the new framework.

4.1 Telecommunications Commissioner role

No changes are proposed to the Telecommunications Commissioner role in the short term. We are proposing that there should be a scheduled review of the Telecommunications Commissioner role by government after 2020, to ensure that the role is still relevant.

In *Regulating Communications for the Future*, we asked whether the institutional basis for the Telecommunications Commissioner's role should continue to be distinct from the roles of the other Commissioners, or whether communications issues should be dealt with by generalist Commissioners.

While most submitters supported the continuance of the current arrangements, some suggested there is little reason to continue with the current structure. It could be argued that the requirements for the role of Telecommunications Commissioner could just as well be carried out by a general Commissioner and that in practice Commissioners tend to work across divisions in any case. In addition this would be consistent with the approach of mirroring Part 4 in the new regulatory framework for fixed line services.

The telecommunications sector is going through a period of transition as users migrate from copper to fibre services. Having a Telecommunications Commissioner during this period will be important, as a number of unique issues are likely to emerge which will require specialist understanding of the sector. However we propose that there be a scheduled review of the role by government after 2020, to ensure that the role is still relevant.

Questions

4. Do you agree that the role of the Telecommunications Commissioner should be reviewed after 2020?

5. Regulatory Asset Base (RAB)

In this chapter we consider the approach to the Regulatory Asset Base (RAB). We propose that the Government should specify in legislation that revenue caps will apply to the fixed line access assets of each UFB provider, with a single RAB maintained for each UFB provider. Chorus' RAB would include fibre and copper access assets for revenue- or price-setting purposes.

We propose all other decisions on the RAB be resolved by the Commission, including the approach to valuing the RAB, the scope of assets in the RAB, the treatment of UFB assets, and the treatment of decommissioned copper assets. The Government may provide some guidance on the parameters for these decisions.

A BBM framework should provide a regulated supplier with an opportunity to earn a fair return on its assets. It allows the regulated supplier to earn a return that is sufficient to cover its efficiently incurred costs, but prevents it from generating excessive profits. At a basic level, this works by:

- initially, setting the scope and value of a regulated supplier's RAB;

- adjusting the RAB value over time for actual capital expenditure and depreciation; and
- providing a mechanism for earning a fair return on that value (together with operating expenses) through wholesale prices.

This means the valuation of the RAB is one of the most significant factors in determining what is a 'fair return' and what revenue regulated suppliers can generate. The valuation is only done once, and then it is updated over time based on CAPEX and depreciation.

5.1 Revenue cap and number of RABs

We propose that, for revenue and price-setting purposes, each UFB provider should have a single RAB. All of Chorus' copper and fibre access infrastructure should be included in a single RAB, and each LFC's fibre access infrastructure would be included in its RAB.

5.1.1 Revenue cap

Later in chapter 6, we discuss how a regulated supplier can earn its revenue under a price-quality regulation model – that is, whether it is subject to a revenue cap and/or price caps. We propose a model that uses a revenue cap for the whole of the supplier's regulated business, with some individual price caps for basic anchor products.

The diagram below shows how the RAB valuation impacts on a supplier's revenue cap, or maximum allowable revenue (**MAR**), through calculation of the supplier's capital costs (both the return *of* capital and return *on* capital) in the BBM model.

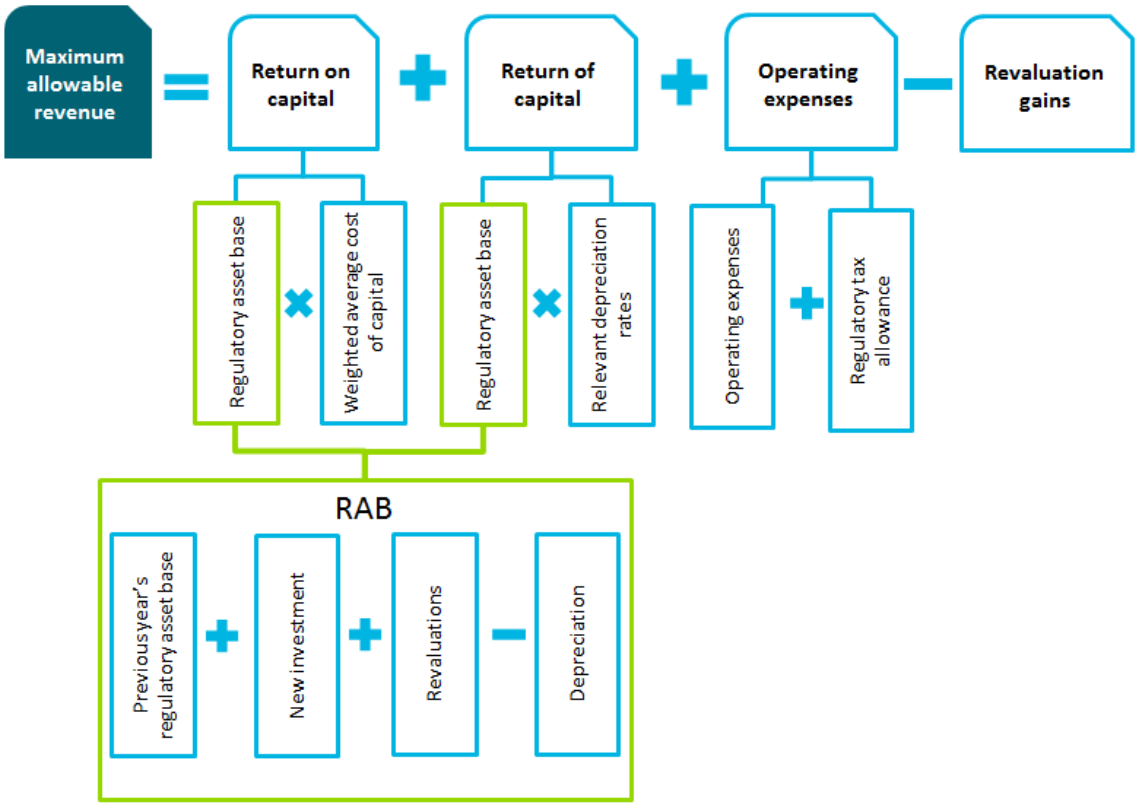


Figure 1: Building blocks in the BBM

Here we consider the *number* of RABs from which the MAR is derived. The options are to have:

- a single RAB across all access assets (regardless of technology);
- separate RABs for Chorus' copper and UFB assets; or
- separate RABs for active and passive assets.

How revenue (or price) caps are derived from the RAB is closely linked to how or whether the framework should reflect cost-recovery for particular services, or cost-recovery across the network as a whole. For example:

- Calculating revenue and/or price caps from separate RABs for copper and fibre assets would mean that the costs of the copper network could only be recovered from copper end-users, and fibre costs could only be recovered from fibre end-users.
- By contrast, having a single RAB would mean that Chorus would earn no more than a fair return from all end-users across all of those assets. It would have greater flexibility as to how end-users of copper or fibre would contribute to that cost-recovery.

When considering the number of RABs to maintain for revenue- or price-setting, it is also important to have regard to likely changes in end-user demand for different technologies. If separate copper and UFB RABs are maintained for price-setting purposes, then falling demand for services to which a RAB relates would result in the same revenue being recoverable from a smaller group of end-users (and so prices could go up). Conversely, increasing demand would result in falling prices, all other things being equal.

5.1.2 Approach to number of RABs

We have considered whether this issue should be determined by the Commission or whether it is one that the Government should address. Determination by the Commission would be consistent with the approach under Part 4 of the Commerce Act, but as the Government has an interest in minimising price volatility under the new regulatory framework (and generally in a stable transition to the new regulatory framework), we think there is a special case for the Government to determine this issue. This is also a decision which has significant policy implications for the design of, and outcomes from, the regulatory framework.

Our preference: Single RAB

We propose specifying in legislation that price-quality regulation be based on a single RAB for each UFB provider. Chorus would have a single RAB covering both copper and UFB assets, and each LFC would have one RAB that applied to all its UFB access assets.

This approach would mean that Chorus would earn no more than a normal return across all its access assets and would not necessarily require the price for copper and fibre services to reflect their respective capital costs.

The pros and cons of this approach include:

- ✓ It should reduce the risk of price shocks during a period when end-user demand will be moving from copper to fibre services (this risk is also addressed in other areas, such as the

treatment of 'stranded' copper assets, discussed below at 5.3.1)

- ✓ Regulatory processes would be more straightforward and less costly, as there would not be a need for a cost allocation of common assets and expenditure between copper and fibre assets when setting revenues (e.g. allocating portions of ducts to separate RABs)
- ✓ It is reasonable to treat Chorus' fixed access infrastructure as a single network for revenue-setting: end-users purchase services based on service quality, not the underlying technology
- ✓ From Chorus' perspective the two asset groupings are part of a single network with shared costs (e.g. ducts and exchanges) and common costs (e.g. corporate overheads), and investment decisions are not made separately for each network
- × Prices for individual services may diverge from their underlying copper or fibre costs, which could adversely affect investment incentives in the wider sector
- × Depending on the form of price control, revenues from a technology with high-utilisation may subsidise services on the network with low utilisation

We propose a single RAB because:

- a single RAB is the best means of ensuring there is sufficient flexibility built into the framework to manage a unique period of transition, with demand shifting from copper to fibre technology;
- regulatory processes would be more straightforward and less costly, as there would not be a need for a cost allocation of common assets and expenditure between copper and fibre assets when setting revenues; and
- it accommodates the provision of technology-neutral anchor products, which will support price stability for basic services in the transition and support the eventual withdrawal of copper infrastructure.

These are sufficiently important policy considerations for the Government that we think this parameter needs to be decided now.

Questions

5. Do you agree that the number of RABs for price-quality regulation purposes should be set in legislation, or should it be a matter for the Commission?

6. Do you support a single RAB for copper and fibre? Please explain how your preferred approach would meet our policy objectives.

5.2 RAB valuation methodology

Our preference is for the RAB valuation methodology to be determined by the Commission, consistent with the approach under Part 4 of the Commerce Act. However, we are seeking views on whether the Government should provide some guidance to the Commission on this matter.

As noted earlier, the initial RAB valuation is very important because it sets the overall value of regulated assets that the regulated supplier is able to recover under utility-style regulation. Unlike under the TSLRIC model, this valuation is not re-opened, so has even more importance when considered in the context of its longevity and impact. As submitters to *Regulating Communications*

for the Future noted, there is a range of methodologies that can be adopted by the regulator for carrying out the RAB valuation.

The valuation of UFB assets is, in principle, likely to be a relatively straightforward exercise, as the deployment of the networks has been supported by a robust information disclosure regime that has captured the actual costs of the build. However, it may be more challenging to assign an appropriate value to copper assets that are, in some cases, decades old, have been overbuilt by new fibre assets, and for which it is unclear whether accurate actual historic cost information is available.

RAB valuation methodologies: three contrasting approaches to valuing assets

Historic costs approach: Depreciated actual cost (DAC)

A DAC valuation would value network assets based on the actual cost of the investments made by the regulated entity, less any value they had already recovered. In principle, this approach is not controversial; however, it is often not possible in practice as accurate information on historic costs, revenues, and rates of recovery may simply not be available. This approach to valuing copper and UFB assets was supported by the LFCs, Spark, Vodafone and Network Tasman.

Replacement costs approach: Optimised depreciated replacement cost (ODRC)

An ODRC valuation methodology is quite similar to TSLRIC: it would consider what modern assets would be deployed today in order to provide the same functionality as existing assets, but would then depreciate those assets to a level equivalent to existing assets. That depreciation would reflect the extent to which regulated suppliers have recovered asset costs to date and would also not assign any value to surplus assets, such as those copper assets that are made redundant by the deployment of UFB.

'Line in the sand' approach

A 'line in the sand' approach is considered by many to be a pragmatic approach to RAB valuation by relying on existing regulated prices or valuations as a reasonable starting point for future regulation. Chorus' preference was for the Government to specify the use of a 'line in the sand' valuation.

Below, we briefly look at the options for managing the approach to setting the RAB valuation methodology, including the extent to which the Government should provide the Commission with guidance on the matter.

Option 1: Specify the valuation methodology in legislation

The Government could specify the use of a particular methodology for valuing fixed line assets. Specifying the RAB valuation methodology would:

- ✓ Speed up the regulatory process, by addressing the most contentious issue ahead of time
- ✓ Provide a degree of certainty now for all stakeholders as to the likely outcomes from the BBM model post-2020
- × Risk 'hard wiring' a methodology in legislation that the Commission cannot depart from if the methodology produces unanticipated outcomes
- × Carry other risks because RAB valuation is a highly technical matter that would benefit from consideration by the Commission through a structured and consultative process

Most submissions to *Regulating Communications for the Future* supported the Government specifying the valuation methodology that should apply; although UFB providers and RSPs supported different valuation methodologies.

Option 2: The Commission decides on the appropriate methodology

Alternatively, the decision could be made by the Commission. This would mirror the Part 4 regime, which is silent on the approach to valuation methodology, and under which the Commission has made previous decisions on the appropriate methodology for Part 4 regulated sectors. Under this option, the Commission would be required to develop an input methodology on RAB valuation that would specify the approach it will take to valuing assets.

Option 3: Provide the Commission with legislative guidance to assist its decision on a valuation methodology

The Government could provide legislative guidance on the selection of the RAB valuation methodology, but leave the actual decision to be made by the Commission.

For example, the Government could specify that with respect to any valuation of copper access assets:

- the Commission must select the methodology that best promotes stability of the revenue cap and avoidance of price shocks for end-users (this would mean the valuation methodology would be chosen primarily on the basis of stability and continuity); or
- the Commission may adopt previous regulatory valuations or regulated prices for services in the market prior to the framework coming into effect in 2020 as inputs to the RAB valuation if sufficient data on costs is not reasonably available (this would enable the Commission to adopt a 'line in the sand' approach if sufficient cost information is not available); or
- the Commission must not adopt a 'replacement cost' valuation methodology for RAB valuation (this option would be consistent with our position that TSLRIC is no longer appropriate in a post-2020 environment and would remove the option of a new replacement cost valuation but would not necessarily prohibit the use of a previous TSLRIC valuation).

Our preference: Option 2 (Commission decides on the methodology)

Our preference is for option 2 – the RAB valuation methodology to be decided by the Commission.

However, we are seeking views on whether there is a need to provide guidance to the Commission in order to create more predictability, and if so what level of guidance would be of use to industry and investors.

In addition, we note that there is now Commission and High Court precedent on the Part 4 RAB

valuation decisions.[5]

The Commission would be required to complete input methodologies prior to 2020, so regulated suppliers should gain sufficient certainty about the approach to RAB valuation before the new regulatory framework kicks in.

Questions

7. Do you agree that decisions on the RAB valuation methodology should be made by the Commission?

8. If you think the Government should provide legislative guidance, what form of guidance do you recommend?

5.3 Other decisions for the Commission

We propose that the Commission should determine the scope of assets that are included in the RAB, based on the use of those assets in providing the 'fixed line access services' regulated under the new framework. We also propose that the treatment of the Government's financial contributions to UFB; the approach to decommissioned assets; and the treatment of initial losses should be managed by the Commission. We are seeking views on whether the Government should provide guidance to the Commission on these matters, to support predictability.

5.3.1 Scope of the RAB and treatment of assets

Scope of the RAB

We propose that the BBM framework should apply to the 'fixed line access services' of regulated suppliers (which would include copper and fibre access services).[6] The rationale is to include fixed line access assets because these are used to provide services in markets with little or no competition and little or no prospect of a substantial increase in competition. By contrast, domestic backhaul assets (for example) operate in markets that are competitive or have potential for competition. As in Part 4 of the Commerce Act, the Commission would be required to define what assets would fall under the scope of the BBM model when developing input methodologies. For example, the Commission would determine whether the RAB should include exchanges (and if so, what proportion of exchanges). We propose including a specific definition of 'fixed line access services' in legislation, to provide a basis for this.[7]

We expect that Chorus' RAB should include all of its access assets. We are seeking views on whether

[5] *Wellington International Airport Limited & Ors v Commerce Commission* [2013] NZHC (11 December 2013) and see http://www.comcom.govt.nz/regulated-industries/input-methodologies-2/judgments/.

[6] For Chorus this would also likely include radio access assets used as part of the copper fixed line access network.

[7] This definition will likely be structurally similar to the definition of 'electricity lines services' in section 54C of the Commerce Act. It will also need to include non-premise access point fibre (for example the Direct Fibre Access Service which can be used to access cell sites).

its RAB should exclude assets in areas where there are competing LFC networks.

Consistent with Part 4 of the Commerce Act, a regulated supplier will be able to earn revenue from non-regulated services (where those services do not utilise assets in the RAB) and that will not count towards that supplier's revenue cap.

Treatment of UFB financial support

All UFB providers received financial support from the Government to assist with their network deployment. These contributions have been effective in bringing forward network investment that otherwise would not have occurred within the timeframes desired by the Government. While the contributions need to be repaid (and therefore represent costs that need to be recovered at some point), they also represent low cost financing that should be taken into account in the BBM.

The regulatory treatment of Government financial support may generate debate in a future regulatory process.[8] We are therefore seeking views on whether the Government should provide guidance to the Commission on this matter, to support predictability.

Decommissioning of copper assets

A key principle underlying the use of BBM is that regulated suppliers should have an opportunity to earn a normal return on their investments – which is a reason why, once set, the initial RAB valuation is not revisited by the regulator.

Under the standard application of BBM, Chorus would continue to be able earn a normal return on its sunk copper assets until they are fully depreciated, regardless of whether they are in fact being used to serve end-users.[9] The corollary is that the opportunity to earn returns will cease once the assets have been fully depreciated, even if the assets can still be used to provide services.

We note that the new framework should not incentivise Chorus to keep end-users on copper services in areas where there is a choice of UFB services available. We propose to provide guidance to the Commission that it should implement its functions in a way that does not create such incentives.

There should be no incentive for Chorus to delay the migration of end-users to UFB or otherwise prolong the operation of the copper network unnecessarily, because the total returns it recovers from its copper network are not dependent on when migration occurs, nor on how long its copper network is operated for.

However, if end-users migrate to UFB in advance of the copper network being fully depreciated,

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[8] For example, the issues could arise in the initial valuation of the RAB, when setting the relevant WACC for UFB providers, or when determining the depreciation profile for UFB assets.

[9] These issues have been considered in detail elsewhere. See for example, Commerce Commission, '*Input Methodologies Review: invitation to contribute to problem definition*' (16 June 2015) http://www.comcom.govt.nz/dmsdocument/13312 and ACCC, '*Public inquiry into final access determinations for fixed line services*', Final Decision (October 2015), https://www.accc.gov.au/system/files/FSR%20FAD%20Final%20Decision%20Report%20-%20Public%20Version.pdf.

Chorus' allowable revenue would include amounts for the recovery of copper investments without there being end-users of those assets.

Treatment of initial losses

In response to *Regulating Communications for the Future*, we received submissions from the LFCs, Chorus and Unison, who argued that the initial RAB should incorporate the initial losses made by UFB providers prior to the new framework coming into force in 2020.

Submitters noted that, to ensure regulated suppliers can earn a normal return over the life of their assets, their initial losses would need to be recovered by way of being capitalised into the RAB. This approach is used in the BBM model adopted for the NBN in Australia. Initial losses are typical for major infrastructure projects where a gradual increase in demand means providers often need to carry forward costs from early years to recover once demand has increased.

Our view is that the regulatory framework should allow UFB providers the opportunity to earn normal returns over the lifetime of their investments (consistent with the concept of financial capital maintenance). However, the issue of how the past recovery of investments should be treated is bound up with the decisions on how to value RAB assets. As such, we do not consider it prudent to direct the Commission as to the approach it should take when accounting for any initial sub-optimal returns.

The Commission's past commitment to financial capital maintenance in the context of Part 4, and the fact that UFB is a recent investment supported by an existing information disclosure regime, indicate that the Commission should be in a position to ensure UFB providers are able to earn a normal return over the lifetime of their investments.

Questions

9. Do you agree with our proposed approach to enable the Commission to determine the scope and treatment of assets in the RAB?

10. Please comment on any matters Government should take into account when developing a definition of "fixed line access services".

11. Do you think Chorus' assets in LFC areas should be excluded from its RAB?

12. Do you agree the Commission should decide on the treatment of UFB financial support? Do you support the Government providing guidance? If so, please comment on the guidance or approach you recommend.

13. Please comment on our proposed approach to provide guidance to the Commission that it should implement its functions in a way that does not create incentives on Chorus to keep end-users on copper services in areas where there is a choice of UFB services available.

14. Do you agree the Commission should decide on the treatment of UFB initial losses?

5.3.2 Assessing the efficiency and prudency of capital expenditure

There should be a role for the Commission to assess the extent to which infrastructure has been efficiently deployed. However, given the nature of the UFB and RBI initiatives as public/private partnerships driven by Government policy objectives, the Commission will be required to take into account Government economic policy statements (as it must currently do under Part 4). As with the treatment of Transpower under Part 4, the Commission will play a key role in pre-approving future major capital expenditure by regulated suppliers (post-2020).

In a BBM pricing model, the initial asset valuation is updated over time based on actual CAPEX and depreciation. In order to mitigate the risks of over-investment and inefficient spending, the regulator can have a role both in considering the *prudency* and *efficiency* of past investments when setting the initial RAB, and in pre-approving future prudent and efficient expenditure and investments. We think there should be a similar mechanism in the framework for fixed line services for future investments, but consider there is a case for the Government providing guidance as to how past UFB and RBI investment should be treated by the Commission.

We note that under Part 4, the Commission must have regard to Government statements of economic policy in the exercise of its functions – which would include in the development of input methodologies and setting of revenue/price caps. We propose to mirror the approach in Part 4 and require the Commission to have regard to government economic statements when exercising any function with respect to the BBM framework.[10]

Prudency of past UFB and RBI capital expenditure

The deployment of UFB and RBI infrastructure was made pursuant to a Government decision that there were social and economic benefits from accelerating the deployment of particular infrastructure. In light of the Government's policy decision, we propose that the legislative framework make clear that the Commission should not revisit whether it was *prudent* for regulated suppliers to deploy UFB or RBI infrastructure.

Efficiency of past UFB and RBI capital expenditure

The UFB and RBI programmes were structured to place the risks associated with deployment and cost-overruns on the private sector partners, meaning they should have strong incentives to minimise their costs and any deployment inefficiencies. However, there is always the risk that the regulator may take the view that aspects of the initial UFB deployment were inefficient.

We consider the initial RAB valuation needs to reflect that the deployment of UFB programme was made pursuant to a Government investment programme that set reasonably rigid requirements for UFB providers' investments. In particular, UFB providers have been under contractual commitments to undertake a rapid, large-scale deployment of a new technology and face financial penalties for failure to meet deadlines.

[10] This would be a change to the current Telecommunications Act, where the Commission is only required to have regard to Government economic policy statements when deciding whether to regulate/de-regulate a service under Schedule 3 (section 19A).

The Commission will be required to take into account Government policy statements on this matter.

UFB capital expenditure: treatment of 'non-standard' UFB installations

We consider the regulatory framework should provide clear direction to the Commission as to how it should treat 'non-standard installations' for the purpose of the initial RAB valuation.

The BBM model can provide a useful means of promoting UFB uptake by allowing regulated suppliers to recover the costs of providing 'free' installations to end-users. However, there will likely be some instances where the cost of the investment made to install UFB to an end-user premise is unusually high. We consider that such disproportionately high costs should be recovered directly through a connection charge rather than being added to the RAB and then being effectively paid for by all end-users through a monthly charge.

We propose there should be a presumption that 'non-standard' connections should be included within the RAB; but that there should be a threshold (e.g. distance from the road) after which connection costs should instead be recovered through a per-user connection charge. We propose that the Government transmit an economic policy statement to the Commission on the approach it should take to the treatment of non-standard installations.

Future capital expenditure: pre-approval process similar to that for Transpower

The BBM framework should provide regulated suppliers with strong investment incentives, but we want to avoid providing incentives to over-invest. We therefore intend that the Commission play a key role once roll-out of the UFB network has been completed in pre-approving future major capital expenditure, as it currently does for Transpower.[11]

However, the Commission's pre-approval process for infrastructure could impact on the ability of future governments to undertake large-scale co-investment programmes similar to UFB and RBI. For example, a future government might want to support improvement of rural broadband, but regulated suppliers may be unwilling to co-invest without some level of assurance that the Commission would include the resulting infrastructure in their RAB.

Given governments are ultimately accountable to the public for their social and economic policy decisions, we consider the transmission of an economic policy statement to the Commission can be used to ensure any future government-backed programme of infrastructure improvement is given due weight by the Commission when assessing investment pre-approval and changes to the RAB.

Questions

15. Do you agree with our proposed approach to the treatment of networks rolled out under the Government's UFB and RBI programmes?

16. Do you agree with our proposed approach to the treatment of non-standard installations? What threshold do you propose for charging end-users for non-standard installations?

[11] See sections 54R and 54S of the Commerce Act.

17. **Do you agree there should be a pre-approval mechanism available to regulated suppliers for future major capital expenditure based on the Transpower model?**

18. **Does the proposal to require the Commission to have regard to economic policy statements provide sufficient certainty to support any future government broadband infrastructure initiatives?**

6. Price-quality regulation

In this chapter we seek views on a proposed form of price-quality regulation. We propose a model with a revenue cap and price caps for a limited set of basic anchor products.

6.1 Considerations for this chapter

The BBM methodology involves the regulator calculating the maximum revenue that a regulated supplier can earn that is sufficient to cover its efficiently incurred costs, but prevents it from generating excessive profits. This chapter considers the forms of regulation that could be used based on the BBM methodology. Below we consider several options for the form of regulation:

- price cap approach;
- revenue cap approach; or
- revenue cap combined with price caps for basic services.

Under Part 4 of the Commerce Act, the Commission has implemented price-quality regulation using both a revenue cap approach and a weighted average price cap. There is no single solution under Part 4, and the detailed approach to price-setting varies by regulated sector.

Regulation of fixed line services under an utility-style framework will likely be more complex than in Part 4 regulated sectors. Communications is a dynamic industry, with different tiers of service available on the regulated infrastructure. End-user transition from copper to UFB services will also make demand forecasting more challenging than in other more mature utility markets.

What is price-quality regulation?

Price-quality regulation is a type of incentive-based regulation that applies in markets where there is little or no competition. It is used in New Zealand under Part 4 of the Commerce Act, as well as in Australia, the United Kingdom and Europe. It is designed to ensure that regulated suppliers face similar incentives and pressures to those of suppliers operating in competitive markets to innovate, invest and improve their efficiency. It also aims to limit the ability of suppliers to earn excessive profits, while also ensuring that end-user demands for service quality are met.

A price-quality path would typically be set for a period of 3 to 5 years within which regulated suppliers must observe limits on revenues and/or prices, and demonstrate compliance with quality measures. Penalties or other financial incentive measures may apply to suppliers where price or revenue caps are breached. During a regulatory period the annual rate of change of prices or revenues can be limited to no more than the rate of inflation less a certain number of percentage points.

Approaches to regulating quality vary, but can include minimum quality standards such as speed and reliability of service, and financial incentives for suppliers to maintain or improve quality.

6.2 Form of price-quality regulation

Our preference is that an approach to price-quality regulation is specified in legislation where the Commission sets a total revenue cap that would be binding on revenue across the UFB provider's regulated assets. UFB providers would also be subject to price caps for basic anchor products.

The Government proposes to set the form of control (revenue or price cap) for the first regulatory period in legislation. This is to limit the degree of uncertainty that will arise from moving to a new regulatory framework.

Below we examine the three main options for the form of price-quality regulation that have informed our proposal.

6.2.1 Option 1: Price cap approach

Under a price cap approach, the Commission would set cost-oriented price caps for services provided by a regulated supplier using assets in the provider's RAB. Alternatively, it could set a single weighted average price cap where the regulated supplier would still have flexibility to set individual prices for specific services. It would also set quality requirements for each service.

There would be no overall binding revenue cap under this approach. We note that under this model, actual revenue is a product of demand, which is not known with certainty at the time prices are set. Because of this uncertainty, there is a risk of the regulated supplier either failing to meet, or exceeding, the level of revenue required to cover its efficiently incurred costs.

In their submissions, both Vodafone and Spark supported a price cap approach. Both stated that if Chorus and LFCs were allowed too much flexibility in setting their prices (e.g. under a revenue cap model), then layer 1 services would likely be priced at a level that makes unbundling uneconomic. Chorus and the LFCs submitted that having cost-oriented price caps for layer 1 services would lead to higher prices for entry-level products (i.e. those services may be currently below the cost of a layer 1 service) and that the price differentiation for layer 2 services would likely collapse.

Demand forecasting risk

Under the standard price cap approach, the regulated supplier bears the risk of demand for particular services not meeting forecast volume rather than the end-user. If this occurs, then they will not receive sufficient revenue to cover their costs. A wash up between regulatory periods can be used to adjust prices in the next regulatory period to compensate for under- or over-recovery of costs in the previous period. However this is typically not applied under a price cap approach.

From end-users' and RSPs' perspective, prices will be stable within each regulatory period, providing some comfort that there won't be unpredictable changes during a period. But, there could be over- or under-recovery of costs within regulatory periods by the regulated supplier. This could lead to excess profits being earned, or windfall losses leading to a reduction in investment over time.

The exposure could be reduced by shortening the regulatory period over which demand is forecast. For example, a 3 year period could be adopted instead of a 5 year period.

Incentives

The price cap approach would incentivise the regulated supplier to exceed demand forecasts by connecting new end-users and 'upselling' existing end-users to premium services. However, it may be difficult for regulated suppliers to influence demand to exceed their forecasts, because UFB providers are restricted from selling services to end-users and rely on RSPs to market services.

If demand forecasts are persistently not met then there is a risk regulated suppliers will reduce investment as they are not receiving sufficient revenue to cover their efficiently incurred costs. This would ultimately be a negative outcome for end-users.

Pros and cons

The pros and cons of this approach include:

- ✓ UFB providers should have incentives to maximise demand – having regard to end-user demand and ensuring that service offerings are highly valued by end-users
- ✓ Compared to a pure revenue cap, it produces stable prices within the regulatory period for all regulated services, which would provide some certainty for RSPs and end-users
- ✓ Cost-oriented price caps would support efficient unbundling
- ✓ There would be some continuity with existing pricing constructs in the Telecommunications Act
- × Relies on accurate forecasts of service demand being developed, which for some communications services will be challenging (especially during a transition to UFB services)
- × Involves administrative complexity and may be more costly than other approaches
- × May stifle innovation and limit the ability of UFB providers to quickly respond to changing end-user demand and restructure prices
- × Can result in windfall gains and losses, with the regulated supplier able to generate more or less than their maximum allowable revenue

6.2.2 Option 2: Revenue cap approach

A revenue cap approach means that the regulated supplier is permitted to earn no more than its defined maximum allowable revenue, and that in theory it has flexibility in pricing individual services in order to generate this revenue. There would not be a regulatory focus on setting price caps for individual services. However, under a revenue cap model the regulator may specify a set of pricing principles with which the regulated supplier must comply. The regulator would typically set quality requirements across the network rather than in relation to individual services.

As under Part 4, we would anticipate the need for an incentive mechanism to ensure regulated suppliers have incentives to innovate and continually improve service quality. Unbundling may be a key lever in this regard. Furthermore, as UFB suppliers are required to offer a layer 1 fibre product on an 'equivalence of inputs' basis from 2020, they would still face some broad pricing constraints under a revenue cap model.

The revenue cap approach was supported in submissions by Chorus, the LFCs, and Unison. They submitted that this approach offers stable and predictable regulation and ensures UFB providers

have the flexibility to respond to technological developments and changing end-user preferences, while ensuring that the UFB providers earn no more than a fair return.

Demand forecasting risk

Under a revenue cap approach, the regulator calculates the maximum allowable revenue for a regulated supplier. The regulated supplier then has freedom to determine its service and pricing mix in order to achieve the revenue cap (subject to any pricing principles, and in the case of UFB services a requirement to provide a commercial layer 1 UFB service from 2020). Typically if the revenue cap is exceeded because of higher-than-expected demand, then this is reflected in a reduction in the next regulatory period's cap via a wash up. If the regulated supplier does not reach its revenue cap due to lower demand than expected, the cap for the next period can be increased. In this way, the regulated supplier should not be exposed to the risk of demand forecasts.

However, we do not think that the regulated supplier should be automatically immune from the risk of under-recovering its revenue cap. For example, if the regulated supplier did not achieve its revenue cap because it faced competition at the fringes of the network, it is arguable that there should be no adjustment for the next period. This is discussed further below at 6.2.6.

Incentives

The revenue cap approach would incentivise the regulated supplier to reach its revenue cap by providing a portfolio of services at prices that end-users are willing to pay. We note however, that a pure revenue cap model does not impose any requirements on the supplier to supply particular services within certain price caps. For example, this means that if a UFB provider could meet its revenue cap by selling only expensive premium services, it could in theory choose not to sell a basic product that was affordable for end-users.

Pros and cons

The pros and cons of this approach include:

- ✓ Ensures that the regulated supplier does not make excessive profits
- ✓ Removes risks of windfall gains and losses
- ✓ UFB provider has flexibility to change services and prices to meet end-user demand
- × On its own, a pure revenue cap means the regulator would have less control over the way that UFB providers define, price and sell services. This could be a concern in relation to 'basic' services, vulnerable end-user groups and for affordability
- × Risk that end-users could face significant price changes within a regulatory period
- × Limited price certainty for RSPs if regulated suppliers change services and pricing frequently
- × Risk of strategic behaviour to deter competition: prices for services facing limited competition might be increased in order to lower prices for services facing more competition

Commission's input methodologies review: Form of control

The Commission recently published its draft decision proposing a move away from a lagged weighted average price cap approach for electricity distribution businesses (**EDB**s) to a pure revenue cap model.[12] The Commission observed, amongst other aspects, that a revenue cap model removes risks associated with demand quantity forecasting, removes potential disincentives for regulated suppliers to restructure their tariffs, and removes potential disincentives for regulated suppliers to undertake demand side management. Wellington Electricity had submitted to the Commission that forecasting volume growth as part of the price cap approach leads to windfall gains and losses to EDBs and end-users, and neither situation promotes the long term interests of end-users.

The Commission also noted that quantity forecasting is likely to become more difficult over time due to uncertainty regarding the uptake of emerging technologies and how these will impact on energy volumes. This thinking is also applicable to fixed line services, particularly in a time of demand moving from one technology to another. It is not clear what UFB service end-users will settle on – initially the 30/10Mbps service has had most uptake but this is now shifting to the 100/20Mbps service. Service-by-service demand volume forecasting in this context could be difficult.

6.2.3 Option 3: Revenue cap and price capped anchor products

The third option is to have a revenue cap (as described above), but where the Commission also sets price caps for some of the basic services provided by the regulated supplier. The regulated supplier would have pricing freedom for its other regulated services, subject to the overall revenue cap and some minimum requirements.

Anchor product approach

Under this approach, in addition to the revenue cap, price caps could initially be in place for a limited set of anchor products – for example voice-only and basic broadband services. The primary purpose of this would be to protect end-users who use the most affordable and basic services, and the secondary purpose would be to 'anchor' the pricing of other services higher up the value chain.

What are anchor products?

Anchor product regulation can be designed to both protect end-users on basic services from the risks of price shocks (anchoring essential services) and to indirectly constrain the prices and quality of other services (anchoring premium services). Anchor product regulation should provide incentives for UFB providers to innovate and 'upsell' end-users to premium services and should support greater product differentiation by RSPs at the retail level.

[12] Commerce Commission, *Input methodologies review draft decisions - Topic paper 1: Form of control and RAB indexation for EDBs, GPBs and Transpower* (June 2016). See http://www.comcom.govt.nz/dmsdocument/14330.

Why only price caps on some services?

The rationale for requiring price caps on a limited set of anchor products provided by the regulated supplier is:

- from a policy perspective it enables control over the pricing of basic services where end-users may be most vulnerable to price shocks. For example, a basic voice service will continue to be required for Telecommunications Service Obligation (**TSO**) purposes;
- as a general construct, it is a proportional approach where regulatory scrutiny of individual service pricing only applies to services that have particular policy significance, and allows discretion outside this set of services; and
- it enables the regulatory framework to influence the overall portfolio of pricing tiers and services, without intrusively controlling every single service and price. This should support flexibility.

The concept of anchor products was supported by Chorus and the LFCs. Plum Consulting, on behalf of Chorus, proposed the use of anchor products whereby the price of the 30/10 Mbps UFB service would be fixed in real terms from 2020 onwards and the price of copper ADSL and a new 15/1 Mbps UFB service would be pegged to each other during the transition from copper to UFB.[13]

Demand forecasting risk

Under this approach, the regulator would calculate the revenue cap for a regulated supplier and set price caps for anchor products. As with the traditional application of a revenue cap, a wash up would apply (subject to the discussion at 6.2.6 below). As regulated suppliers would be able to adjust the pricing of non-anchor services in response to changes in demand (subject to 'non-discrimination' and 'equivalence of inputs' obligations), this approach would largely avoid the problems inherent in demand forecasting.

Incentives

Compared to a revenue cap only, this approach would incentivise the regulated supplier to reach its revenue cap by upselling from the anchor products to higher value products. There would be more emphasis on flexibility and adaptability of the non-anchor products, as these are the ones that the regulated supplier could control in order to achieve its revenue cap.

Pros and cons

The pros and cons of this approach are similar to the revenue cap approach, but this approach can also protect vulnerable end-user groups and ensure basic services are affordable.

6.2.4 Our preferred model: Option 3 (revenue cap with price capped anchor products)

Our preferred model is Option 3: a revenue cap with price caps for anchor products.

[13] Plum Consulting, '*New Zealand's Telecommunications Policy – A Way Forward: a report for Chorus*' (October 2015), page 1.

On balance, we prefer a model that limits both overall revenue and the prices of certain basic services, while allowing some commercial flexibility on the balance of services. This approach manages the forecasting risk, and addresses the price shock risk to vulnerable end-users under the revenue cap approach. It also means the basic services (and the layer 1 UFB service that UFB providers must offer by 2020) can act as 'anchors' to the rest of the service set.

These features are discussed in detail below.

6.2.5 Alternative is to adopt a weighted average price cap approach

We consider the 'next best' alternative to our preferred approach would be a weighted average price cap approach. This is a price cap approach where the regulated supplier must only comply with a weighted average price cap, and within this constraint the regulated supplier has discretion to set individual service prices.

As noted, we think a pure price cap approach could be problematic for fixed line services in the short-to-medium term, given the rapid and unpredictable shifts in demand that are likely to occur as end-users migrate from copper to fibre. However, a weighted average price cap approach is less vulnerable to inaccurate forecasting than price caps for individual services (though we note it still requires forecasting). It also has the key advantage that a regulated supplier is strongly incentivised to maximise service demand.

We are interested in views on the alternative of a weighted average price cap approach and whether it has any advantages (or downsides) compared with our preferred model. We are also interested in views on how a weighted average price cap approach could accommodate the protections afforded by anchor products under our proposed approach.

6.2.6 How the model manages the impact of competition 'at the fringes'

We also note that the approach to the form of control can be impacted by the potential for some competition 'at the fringes'. For example, there could be some loss of fixed line revenue from Chorus' copper services to LFCs' UFB services, or from any UFB providers' services to other technologies such as fixed wireless or 4G services.[14]

Under a revenue cap approach, the impact of competition and loss of fixed lines would be likely to show up as the regulated supplier earning less revenue than it might otherwise have. That might result in a UFB provider failing to achieve its maximum allowable revenue for a given regulatory period.

Under a typical application of a revenue cap approach this would result in a wash up commensurately increasing the next regulatory period's maximum allowable revenue by the amount of maximum allowable revenue not achieved in the recent period.

[14] We note that although there is potential for some competition, we do not think that competition from a competing network or technology would develop to the point where it constrained the pricing of UFB providers overall. The lack of competition or potential for substantial increase in competition remains the basis of the fixed line regulatory framework, underpinning the BBM approach.

However, this may not be appropriate in the fixed line services context. Increasing the revenue cap could mean higher prices for end-users. Alternatively, it may just result in more revenue being lost (if some end-users regard the new prices as unaffordable and 'go without' or opt for different forms of broadband services where available). It may also not have appropriate incentive effects if it means the end-users of a regulated supplier bear the risks of any successful competition against a regulated supplier.

This issue is closely linked to the earlier discussion on the decommissioning of copper assets and whether a regulated supplier should continue to be able to earn a return on underutilised assets. We are considering whether the application of a wash up could be asymmetric: if the revenue cap is exceeded then there is a wash up, but if there is under-recovery then there would be no wash up.[15] This approach would avoid insulating regulated suppliers from the effects of competition, and would possibly impose a greater incentive on regulated suppliers to be responsive to market demands. We are seeking views on this position.

Questions

19. What is your preferred option for the form of price-quality regulation – price caps, a revenue cap, or our preferred option – and why?

20. How could your preferred option be implemented to manage the risks identified above?

21. If you prefer a price cap approach, how should the demand forecasting risk be managed?

22. Is there any way to make sure that the UFB provider is not wholly insulated from competition under a revenue cap model? For example, could an asymmetric wash up be applied?

23. Are there any risks or benefits of Option 3 that we have not identified? Will this option have the incentive effects we are seeking? How could these be addressed?

24. Do you agree the impact of competition 'at the fringes' should be managed? If so do you agree with our proposal for an 'asymmetrical wash up'?

6.3 Categories of regulated services

6.3.1 Two categories of services

Under our proposed model, there are two broad categories of regulated services to be supplied by UFB providers:

- *Anchor products* – As discussed above, UFB providers would be required to supply certain basic services on price and quality terms set by the Commission.
- *Commercial services* – UFB providers would be free to provide any other services on price

[15] We note the Commission considered this approach in its review of the form of control in input methodologies under Part 4. It considered imposing limits on rolling over under-recovery as a way to mitigate the exposure of end-users to demand risk under a pure revenue cap approach. (Commerce Commission, *Input methodologies review - Emerging views on form of control* (February 2016). See http://www.comcom.govt.nz/dmsdocument/14109).

and quality terms set at their discretion, subject to some minimum requirements. UFB providers will be required to provide a commercial layer 1 UFB service under their deeds of undertaking for open access.

The aggregate revenue from all regulated services will be subject to the UFB provider's revenue cap.

6.3.2 Quality and reliability requirements

Service and network quality and reliability requirements will be structured as follows:

- the Commission will set specific quality and reliability requirements for each anchor product;
- the Commission may set generic quality and reliability requirements for each UFB provider's network; and
- apart from any generic network quality and reliability requirements, UFB providers will have discretion to set specific quality and reliability requirements for commercial services as they see fit.

For example, generic quality and reliability requirements could cover:

- requirements relating to throughput on services;
- the time it takes to provision a new connection to the network;
- the time it takes to respond to network faults;
- the quality of network deployment and installation;
- provision of information on reasons for and the likely duration and the extent of a network outage; and
- providing sufficient notice of planned outages.

The Commission would establish its approach to setting these quality and reliability requirements in input methodologies.

Conceptually the model would be structured as follows:

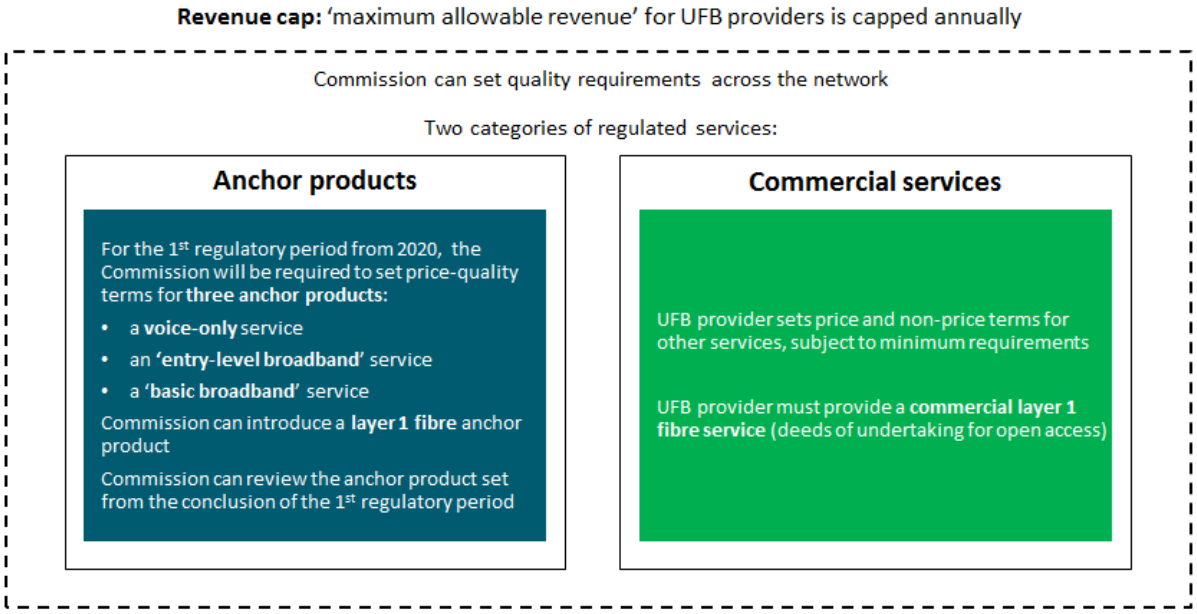

Figure 2: Outline of proposed service categories for price-quality regulation of fixed line services

Below, we examine each category of service in greater detail.

6.4 Anchor products

We propose three initial anchor products – a voice-only product, an entry-level broadband product and a basic broadband product. The Commission would also have the power to introduce a fourth anchor product if necessary – a cost-oriented layer 1 fibre input service.

6.4.1 Initial anchor products

We propose to initially prescribe three technology-neutral anchor products that must be supplied by UFB providers under price-quality regulation:

- a *voice-only input product* (to ensure a fixed line telephone service remains available);
- an *'entry-level broadband' product* (expected to provide speeds of up to 15/1Mbps, to ensure a baseline broadband service is available, particularly for rural end-users who may not be able to access UFB); and
- a *'basic broadband' product* (expected to provide speeds of up to 100/20Mbps, to cover a typical broadband user's needs (as at 2020) and to act as an economic 'anchor' for the other products in the value chain).

Each anchor product will have a single wholesale price irrespective of the underlying technology.

As an indication of the scope of this initial set of anchor products, we observe that, as at 31 December 2015, the equivalents of these three anchor products represented 87 per cent of Chorus' fixed line connections. We would expect the proportion of lines covered by anchor products

(and the proportion of revenue generated from those services) to decline by 2020 with the uptake of the faster UFB products.

In UFB areas, the availability of the broadband and voice-only anchor products would help facilitate any future withdrawal of copper services by:

- allowing for the technology-neutral delivery of the TSO;
- allowing Chorus to meet its obligations for anchor products by supplying the anchor products by either UFB or copper; and
- ensuring end-users on the anchor products do not face higher prices as a result of a change in the underlying technology.

We acknowledge that the two fixed line technologies used to deliver the anchor products are necessarily different and will deliver a different quality of service.[16] This means that for example on the 'basic broadband' product (which could be delivered using VDSL2 copper technology or UFB fibre), end-users on VDSL2 will be receiving lower speeds than end-users on the UFB technology. We note that this is already the case with copper services. We think the benefits of a simple anchor product set at common prices outweigh any inconsistencies of this kind.

We note that our preferred model relies on selecting the right mix of anchor products that will incentivise regulated suppliers to continue innovating and upselling end-users in order to meet their revenue caps, while also promoting the interests of vulnerable end-users. If anchor products soak up too much demand, the regulated supplier might need to charge higher prices for its other products to achieve its revenue cap. We propose to manage this risk by:

- limiting the initial anchor products to the minimum set that we think is required, and allowing the Commission to introduce a layer 1 fibre anchor product if necessary;
- in later periods, enabling the Commission to review the specifications of the anchor products to ensure they keep pace with end-user expectations; and
- maintaining flexibility by allowing the Commission to recommend moving to a price cap form of control in future.

Questions

25. Should the following services (as defined above) be anchor products from 2020? Why or why not?

a. voice-only service;

b. 'entry-level broadband'; and

c. 'basic broadband'.

[16] Although each anchor product will have a single price cap regardless of technology, there will still be a need for technology-specific wholesale standards covering the range of technologies used to deliver the two services. The content of these may be similar to existing STDs and wholesale agreements, but in the future will be set out in the Commission's determinations.

6.4.2 Pricing of anchor products

We are seeking views on how anchor product prices should be set by the Commission. We consider it important that price caps for anchor products during the first regulatory period (from 2020) are set in a way that minimises price volatility. We also propose anchor product prices must be geographically averaged within networks.

We do not have a preference at this stage on how anchor product prices should be specifically set, and we are seeking views on this. We would like anchor product pricing to be consistent with certain general principles:

- end-users of anchor products should not face sharp increases in pricing of anchor products;
- anchor product prices in the first regulatory period (2020-2025) should be set with regard to prices for similar products in the market in 2019 (for example, these prices could be used as reference points for setting the initial anchor product prices, and for determining the glide path over the duration of the regulatory period); and
- anchor product prices should be broadly reflective of the quality of the particular anchor product (so, we would expect the 'entry-level broadband' product to be cheaper than the 'basic broadband' product).

We expect that anchor product price changes would be 'smoothed' consistent with the approach in section 53P(8) of the Commerce Act.

We note that, at December 2019, wholesale prices for relevant products will be:

- $32.68 for the voice-only copper product (UCLFS), and $25 for the voice-only UFB product.
- $42.35 for Chorus' copper UBA service;[17] and
- $45.00 for Chorus' 100/20Mbps UFB service.[18]

As Chorus will have different prices in 2019 for voice-only inputs on copper and UFB, we are interested in views on how a single voice-only anchor product could be priced.

Geographically averaged anchor product prices

In all regulatory periods, anchor product prices would be required to be geographically averaged within networks to ensure comparable pricing for all customers and to deal with the risk of anti-competitive pricing by UFB providers on a geographic basis. The same requirement will apply to UFB providers' other regulated services (see below). In other words, UFB providers would need to provide their regulated products at the same price within each of their networks. We are however interested in views on whether this requirement could result in unanticipated or negative outcomes.

[17] We note this price includes both ADSL2+ and VDSL2 unbundled bitstream access services. As noted above, we would expect that the 'entry-level broadband' anchor product would include ADSL2+ whereas the 'basic broadband' anchor product would include VDSL2, so the Commission will need to develop price caps for these separate anchor products with reference to the single UBA price in the market in 2019.

[18] The 100/20 UFB service is a commercial product so proposed prices are subject to change prior to 2020; there is also a UFB 100/50 service, which will be price capped at $50 by December 2019.

In addition, it may be the case that the general provisions of the Commerce Act against anti-competitive conduct would be sufficient to address this risk.

Questions

26. How should anchor product prices be determined?

27. Do you have any comments on the following principles?

a. end-users should not face sharp price increases;

b. prices in the initial regulatory period should be set with regard to 2019 prices; and

c. anchor product prices should be broadly reflective of the quality of the particular anchor product.

28. Are there any other matters that need to be addressed regarding the pricing of technology-neutral anchor products?

29. Do you think there would be any negative outcomes from the requirement to provide anchor products on a geographically averaged basis? Do you think the Commerce Act provisions would be a sufficient alternative in the absence of this requirement?

6.4.3 Layer 1 anchor product

In April 2016, the Government announced that it would retain the existing obligations on UFB providers to provide unbundled access to their networks from 2020.

After December 2019, Chorus and LFCs are required to offer unbundled access to their Gigabit Passive Optical Networks (**GPON**)[19] so that RSPs can purchase dark fibre services on point-to-multipoint parts of the UFB network.[20] This is a requirement of the open access deeds of undertaking for fibre services. The deeds do not impose any price controls on these services.

Consistent with this, the initial position will be that layer 1 UFB services will be 'commercial' services not subject to price caps.

[19] A fibre connection between end-users and the Central Office whereby fibre capacity between the cabinet and the Central Office is shared out between multiple end-users through the use of optical splitters in cabinets. As the infrastructure is shared between up to 32 users in a GPON branch, it is more challenging (but not impossible) to unbundle such networks.

[20] Dark fibre services are already available on the point-to-point parts of the UFB network.

GPON unbundling

Unbundling allows RSPs to access 'unlit' fibre and add their own equipment to provide their own service. This means an RSP would no longer be reliant on purchasing layer 2 services from a UFB provider (in relation to the unbundled line). Physical unbundling of GPON generally requires an RSP to acquire its own backhaul from the exchange to the street cabinet and to install a splitter to serve end-users from that cabinet (or another distribution point near the cabinet).

Layer 1 fibre service (dark fibre)

We propose that the Commission have the power to introduce a price-capped UFB layer 1 (i.e. unbundled) anchor product if market conditions require it. A legislative test will need to be in place for the introduction of this anchor product – for example, if UFB providers are not innovating at the layer 2 level.

The Commission would have power to set *cost-oriented* prices for this layer 1 anchor product. The Commission could require this UFB layer 1 anchor product for any regulatory period (including the initial regulatory period from 2020-2025), if the test is met. We propose to 'carve out' the layer 2 anchor products from the 'equivalence of inputs' requirements (pricing only) under the deeds of undertaking for open access applicable to UFB providers. This is discussed further below at 6.6.

UCLL copper service

We are proposing that Chorus will no longer be required to supply the Unbundled Copper Local Loop (**UCLL**) service as a regulated service from 1 January 2020. Including UCLL as an anchor product would mean it would continue to be subject to a regulatory price cap[21] and might support ongoing investment in unbundled copper services by RSPs. If it was combined with the layer 1 fibre anchor product, we would have a technology-neutral layer 1 anchor product, consistent with the layer 2 anchor products.

However, while UCLL has served a useful purpose in promoting competition on the copper network, we query whether it will have the same utility in a post-2020 environment where demand will be moving to UFB services.[22] RSPs appear unlikely to invest in unbundling new exchanges after 2020 and we consider they will likely have recovered any legacy investments well before 2020. Furthermore, removing an obligation to provide UCLL means that Chorus would be free to invest in vectoring technology, which could result in significantly improved outcomes for those end-users who do not have access to UFB.[23] Access seekers will be able to buy price-capped anchor products and

[21] UCLL is currently regulated as a 'designated' service in Schedule 1 of the Telecommunications Act.

[22] Chorus reports UCLL lines fell from 127,000 to 116,000 in the year to December 2015. We expect this decrease in UCLL lines to accelerate through to 2020 in light of the migration to UFB in urban areas, the increase in monthly UCLL price from December 2015 following the FPP decision and the availability of a cost-based bitstream service.

[23] Vectoring technology can result in significantly higher broadband speeds by reducing cross-talk between copper cables in a bundle. However, the technology only works when it is applied to an entire bundle of copper cables, which means the technology is currently incompatible with allowing RSPs to provide their own broadband services using unbundled lines.

commercial layer 1 products. For these reasons we are not proposing that UCLL be an anchor product under the new framework (nor will the Commission have the ability to introduce it as an anchor product in the future). However we are seeking views on this position.

Potential challenges in having single-technology layer 1 anchor product alongside technology-neutral layer 2 anchor products

We acknowledge that having a single-technology (UFB only) layer 1 anchor product may create some challenges for UFB providers in also having to supply technology-neutral layer 2 anchor products. Therefore, despite our views on UCLL above, we are interested in whether there is a need for the Commission to be able to recommend introduction of a technology-neutral layer 1 anchor product including UCLL as well as UFB layer 1. Our current view is the complexity of this would outweigh any benefit from having a technology neutral layer 1 anchor product.

Wavelength unbundling

We are aware that other forms of unbundling are likely to emerge as fibre-optic technology continues to develop worldwide, such as 'wavelength' unbundling. Wavelength unbundling is a form of unbundling where individual end-user premises are assigned a particular wavelength at the Central Office and this can be allocated to an unbundling access seeker, instead of physical unbundling which requires optical splitters for each access seeker. This avoids the need for access seekers to install additional splitters in cabinets or fibre nodes and potentially expands the addressable market for unbundling access seekers. Such an approach may better promote ongoing innovation.

However, we are aware that this is still an evolving area internationally. We are interested in the potential regulatory treatment of wavelength unbundling; however we are also aware that providing this functionality may require upgrades in the access network by the UFB provider, incurring additional costs. We are seeking views on how this issue should be managed.

Questions

30. Should the following services be anchor products from 2020? Why or why not?

a. layer 1 fibre service; and

b. any other services.

31. What test should the Commission be required to apply to determine whether to introduce a layer 1 fibre anchor product?

32. Would there be any problems with a technology-specific layer 1 anchor product? Should the layer 1 anchor product include UCLL, and therefore be technology-neutral?

33. Should the layer 1 anchor product include both point-to-point and point-to-multipoint configurations? How do you recommend the Commission should calculate a cost-oriented price for the layer 1 anchor product?

34. Should the Commission have the power to require services based on other forms of unbundling (such as wavelength unbundling) to be provided?

6.4.4 Updating anchor products

We propose that prior to each subsequent regulatory period, the Commission must review and update the anchor products so that they keep pace with changing end-user expectations.

Before each subsequent regulatory period (likely from 2025 onwards), the Commission would be required to review and update the anchor product set.[24]

We consider there should be a limited set of anchor products. The revenue cap, along with the 'anchoring' effect of the anchor products, should provide sufficient incentives for a UFB provider to offer reasonably priced and innovative premium services.

We therefore propose there should always be a voice-only anchor product (at least until voice-only products cease to be relevant) and at least one broadband anchor product, and the Commission will be tasked to ensure the specifications of those products reflect the typical needs of end-users and act as an economic anchor throughout the value chain. Legislation would set criteria for the review and selection of anchor products, informed by more detailed rules to be set in input methodologies.

Questions

35. How should the regulatory framework provide flexibility for the Commission to update anchor products over time? What criteria should be used for the selection of anchor product specifications?

36. Should there be a limit on when the Commission can review and update the anchor product set? What frequency of reviews do you recommend?

37. Should there be a limit on the number and type of anchor products, as proposed?

6.4.5 Consistency of anchor product pricing

We are seeking views on the desirability of requiring all UFB providers to have the same price caps for the anchor products.

There may be some advantages for end-users and RSPs in having nationally consistent pricing for basic anchor products. Consistent pricing between UFB providers could be achieved by requiring the basic anchor product set to be available from all UFB providers at the same price caps. Overall revenue caps for each UFB provider could differ, and UFB providers would need to make up the difference in their other (non-anchor) products.

This construct could be applied within price-quality regulation, or alternatively it could be a requirement imposed even if UFB providers are not subject to price-quality regulation but only information disclosure. This is discussed in more detail in the context of implementation of the framework at 7.2.5.

[24] In order to promote stability and predictability, we propose that this review of the anchor products only occurs prior to each regulatory reset (for example, it must occur prior to a regulatory period but the process must start no earlier than one year prior to the reset). However, we recognise that there could be market developments within a five-year regulatory period that render anchor products out of date, so we are seeking views on the frequency for this review.

We have considered but do not prefer the suggestion of having nationwide prices with a wash up account between UFB providers. This would be a highly complex process and is unlikely to be feasible.

Questions

38. Do you think that anchor products should be priced consistently across LFCs and Chorus?

39. Please comment on any alternative ways to achieve consistency of pricing between Chorus and LFCs.

6.5 Commercial services

Price and quality terms for commercial services supplied by UFB providers would be largely at the provider's discretion, subject to the revenue cap, the requirement to provide a layer 1 UFB service commercially from 2020, and some minimum requirements.

All services provided using assets in the RAB, other than anchor products, would be categorised as 'commercial' services. The price and quality terms for commercial services would be at the UFB provider's discretion, subject to the revenue cap, the requirement to provide a layer 1 UFB service commercially after 2020, and some minimum requirements.

While service quality would be at the UFB providers' discretion for commercial services, we note that the Commission would still have the ability to set generic quality standards for the entirety of the UFB providers' regulated businesses (for example, relating to installation timeframes or reliability of the network). This is consistent with Part 4 of the Commerce Act.

We are also proposing the following minimum requirements for all services:

- UFB providers must conduct industry consultation on price and non-price terms for commercial services and give at least 12 months' notice for changes to price or material non-price terms or withdrawal of a service. Such a requirement would support the business planning of RSPs and enable them to continue to provide favourable terms to contract end-users;
- prices for commercial services must be geographically averaged within that UFB provider's network (the same requirement as for anchor products in this regard). Such a requirement would ensure comparable pricing for all customers and protect end-users and suppliers from some of the risks associated with a revenue cap; and
- UFB providers will be subject to a commitment to ongoing service development and RSP engagement. Such a requirement would require UFB providers to publish a 'road-map' of future product development and to monitor changing end-user demands.

Given that the anchor products only have basic features, we would expect UFB providers to have strong incentives to supply higher-priced premium services that reflect the needs of a range of end-users. In this context, failure to meet end-user needs would likely mean a UFB provider would be unable to earn a normal return on its asset base.

We note that other regulated communications services provided by UFB providers (for example backhaul) would remain outside the new framework for fixed line services, without any change. For example the backhaul services will remain in Schedule 1,[25] regulated using the existing processes in Part 2 of the Telecommunications Act. These services remain subject to competition or the potential for competition.

Questions

40. Should commercial services offered by UFB providers be subject to any requirements?

41. Do you agree with our suggested requirements, including geographic averaging (noting the question earlier on this point in relation to anchor products) and the requirement that 12 months' notice must be given of any changes to price or material non-price terms for commercial services?

6.6 Deeds of undertaking for open access

The deeds of undertaking for open access will remain in place.

Although the primary concern post-structural separation is in avoiding excessive profits, the open access deeds of undertaking need to remain in place. These serve an important function in guaranteeing continued non-discriminatory access to assets and services and 'equivalence' standards.[26]

One issue that may arise in this context is whether the requirement to provide initial layer 2 anchor products at particular price caps would be inconsistent with the 'equivalence of inputs' obligations that begin in 2020 for UFB providers. For example, requirements for the Commission to smooth any price increase and for prices to reflect quality may mean anchor product prices are capped at levels close to the expected layer 1 price, which may not be consistent with equivalence in a strict sense. Accordingly we propose to carve the initial layer 2 anchor products out from the 'equivalence of inputs' obligations on pricing given the policy significance of these anchor products.[27]

Questions

42. What is your view on our proposal to carve the initial layer 2 anchor products out from this obligation?

[25] Chorus' unbundled copper local loop network backhaul (telephone exchange to interconnect point); Chorus' unbundled copper local loop network backhaul (distribution cabinet to telephone exchange) and Chorus' unbundled bitstream access backhaul designated services.

[26] The Deeds as currently drafted would only apply to UFB services that are required to be provided pursuant to a determination under Part 2 of the Telecommunications Act, a registered undertaking under the Telecommunications Act, or the UFB contract. We propose to legislate that these deeds would also apply to all services provided under this new framework (including anchor products and commercial services).

[27] This issue may be more acute if a cost-oriented layer 1 anchor product is introduced, as discussed above.

6.7 Retaining flexibility as the market matures: the Commission can recommend changes to the form of control

We are proposing that, subject to meeting a legislative test, the Commission should in the future be able to investigate and recommend to the Minister that changes are needed to the form of price control, including potentially moving to a price cap approach.

We think that the revenue cap, along with the basic anchor products, should provide sufficient incentives for UFB providers to offer reasonably priced and innovative services. However, there needs to be some flexibility in the framework and a regulatory threat of moving to a more restrictive form of control.

Our concerns with a price cap model are influenced by the likely stage of market migration from copper to UFB services at 2020. It is difficult to forecast demand accurately in a time where end-users are switching from one technology to another and this will remain the case at 2020. It is not yet clear where end-user preferences will lie in terms of particular UFB products and we consider that regulated suppliers should have some flexibility in pricing services to encourage uptake. However, these matters may become clearer with the passage of time, and a price cap model may present fewer risks as demand becomes more stable.

We think that it is important the Commission has the ability in the future to consider whether a shift to a price cap model is warranted. We therefore propose that the Commission have the power to investigate and recommend to the Minister whether the form of control should change – including whether a price cap model is desirable (this could be under price caps or a weighted average price cap). This power would start from the beginning of the second regulatory period (from 2025). The Commission could begin consideration of whether to make such a recommendation any time that the circumstances require, and would be able to recommend the date from which the price caps approach should apply (most likely from the beginning of the subsequent regulatory period).

We recognise that this would be a significant change to the approach to regulation of fixed line services. We intend to develop a set of criteria for the Commission's assessment, so that it should be clear the conditions that would need to be met before such a recommendation to change is made. We expect that this should be a reasonably high hurdle. For example, the Commission might need to conclude the alternative regulatory model was 'materially better' in terms of promoting the purpose of the Telecommunications Act.

A similar power already exists in Part 4 of the Commerce Act. For example, the Commission has the power under Part 4 of the Commerce Act to implement either revenue or price caps. As noted earlier, the Commission's draft decision in its review of input methodologies relating to the form of control was that price-quality regulation of electricity distribution business should change from a

lagged weighted average price cap to a revenue cap approach.[28]

Questions

43. Do you agree the Commission should have the power to recommend changes to the form of price control (including moving to a price cap regime) if certain criteria are satisfied? If so what criteria would you propose?

44. Should the Minister make the final decision, or should this matter be delegated entirely to the Commission?

6.8 Setting price and non-price terms

6.8.1 Determinations

We propose that price and non-price terms for anchor products are set by the Commission in determinations, similar to section 52P determinations in the Commerce Act. We are seeking your views on this matter.

We propose that the Commission should set the revenue cap, price, non-price and quality terms for anchor products and generic quality requirements for a UFB provider in a determination. Determinations would be expected to replace Standard Terms Determinations (**STD**s) for fixed line services.

We expect that this determination would be modelled on that made under section 52P of the Commerce Act. That is, it would contain:

- how regulation applies to each UFB provider;
- the revenue cap for each UFB provider; and
- price-quality paths and generic quality requirements for each UFB provider,

for the next regulatory period.

6.8.2 Undertakings

We note that some submitters to *Regulating Communications for the Future* proposed an undertakings model, similar to the 'special access undertaking' model used for the NBN in Australia. We have considered this model, but we think in a scenario where price caps are only set for anchor products, the undertakings model could add unnecessary complexity. However, we welcome your views on this, including whether the use of undertakings might provide a low-cost and efficient means of setting prices for the anchor products.

[28] Commerce Commission, *Input methodologies review draft decisions – Topic paper 1: Form of control and RAB indexation for EDBs, GPBs and Transpower* (June 2016). See http://www.comcom.govt.nz/dmsdocument/14330.

Questions

45. Do you agree that regulated terms should be set by Commission determination?

46. If so, do you agree that mirroring the approach to section 52P determinations in the Commerce Act is appropriate?

7. Implementing price-quality regulation

In this chapter, we consider options for when and how price-quality regulation of fixed line services should be implemented for each UFB provider: from 2020, or under a 'backstop' approach.

We then look at consequential decisions that arise under the 'backstop' approach: the intervention test and the treatment of regulated copper services. Finally this chapter seeks your views on some key decisions for the new framework: the legislative vehicle; a new purpose statement; adding and removing suppliers; appeal rights including merits review; and backdating and claw-backs.

In *Regulating Communications for the Future*, we noted that the Government had not made a decision on when price-quality regulation of fixed line services should occur.

We identified two main implementation options: UFB providers could be deemed to be subject to BBM price-quality regulation from 1 January 2020 (**2020 option**), or alternatively the implementation of any BBM price-quality regulation could be dependent on a Commission recommendation that it has become necessary (**backstop option**).

UFB providers could be treated differently under these options – we are proposing that price-quality regulation applies to Chorus at 2020, with a backstop regime applying to LFCs.

Figure 3 provides an outline of the options.

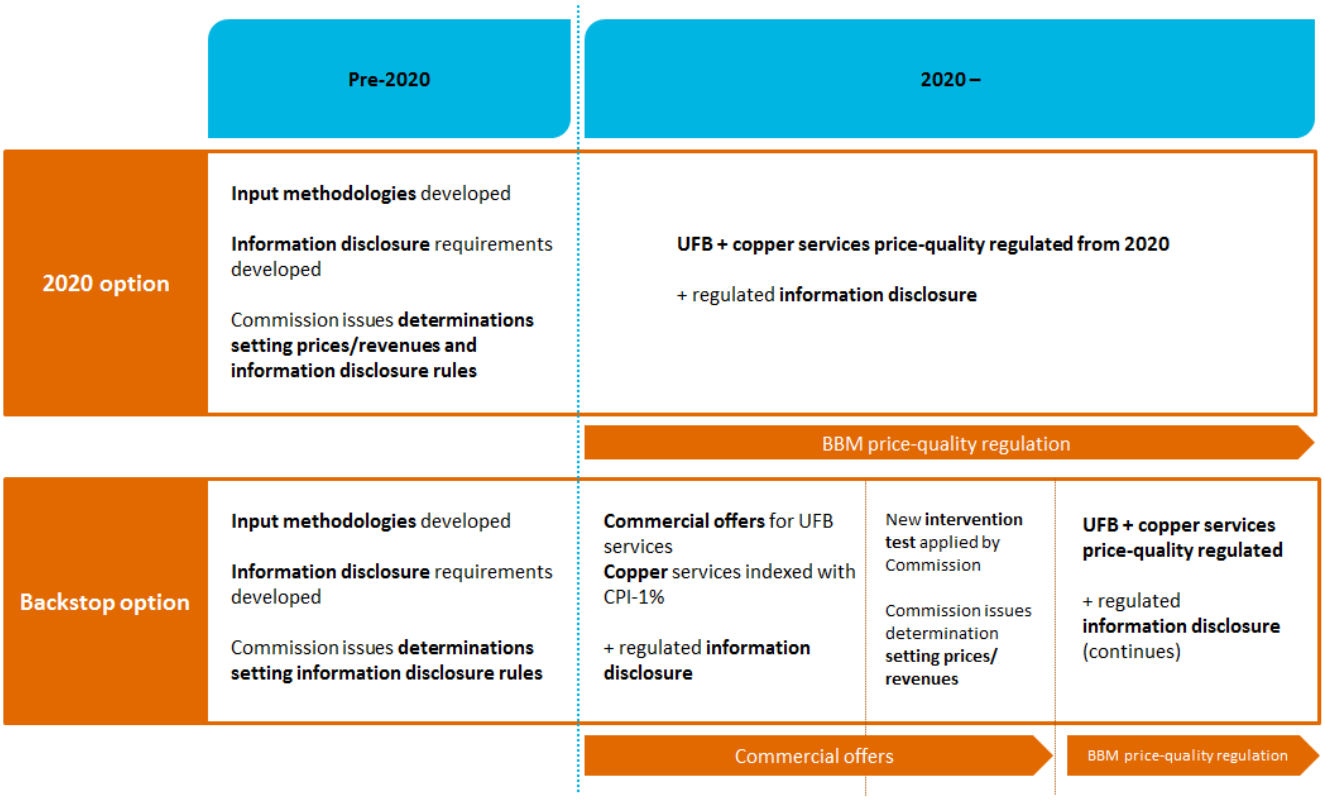

Figure 3: Options for implementation timing

Application of utility-style framework

Under all the options discussed in this chapter, the Government would initially declare fixed line services supplied by UFB providers to be subject to the utility-style framework in legislation.[29] The Commission would be required to develop input methodologies and an information disclosure regime prior to 2020. We expect the Commission would move to prepare and consult on input methodologies after legislation comes into force.

Developing input methodologies can be complex and take time. Further, we expect that input methodologies would be subject to merits review, which could add to the time for implementation (though we note that some processes can continue in parallel to any such review). We recommend submitters take these matters into account when considering and commenting on the options below for implementing the new framework. Considerable preparatory pre-2020 work would be needed, even if price-quality regulation is not implemented from 2020.

7.1 Options for implementing price-quality regulation: Chorus

The Government's preference is for Chorus' copper and fibre access services to be subject to information disclosure and price-quality regulation from 2020. However, we are also seeking your views on a 'backstop' option. We will consider a backstop option for Chorus if there is evidence that it can provide significant benefits over the '2020' option, particularly in delivering on end-user interests.

Below we examine each option in turn.

7.1.1 Option 1: 2020

Under the 2020 option, information disclosure and price-quality regulation would be implemented by the Commission from the beginning of 2020. In previous chapters, we discussed how this framework would be designed.

We are proposing that the initial regulatory period would start in 2020 and finish in 2025, followed by another regulatory period of up to five years, and so on.

The pros and cons of the 2020 option include:

- ✓ Through the use of a revenue cap, this option would avoid the risk of Chorus generating excessive profits after 2020
- ✓ Would protect end-users by allowing for stable anchor product pricing for basic services, and smoothing any potential price shocks (avoiding the risk of price and quality terms for basic products that do not meet the interests of end-users)

[29] For example, in a way similar to the declaring of electricity lines services in sections 54E, 54F and 54G of the Commerce Act.

- ✓ Role of the Commission would ensure that an independent party is considering the interests of end-users
- ✓ Submitters agree that Chorus' access services have natural monopoly characteristics
- × Regulation can only mimic the effects of competition – regulated prices might not be set at efficient levels at a time of technological change
- × Any change in the framework comes with some risks, including the risk of price and revenue shocks. We discuss options for mitigating these risks at 8.1
- × This option may be challenging to achieve given the amount of work that would need to be done to get the framework into place by 2020. There is a risk that it would not be ready, and so RSPs and end-users would face the risks of no price-quality regulation for Chorus after 2020 under the status quo. However, we consider transitional arrangements to mitigate this risk at 8.2

7.1.2 Option 2: Backstop

Under the backstop option, information disclosure would apply to Chorus from 2020, but price-quality regulation would not be implemented unless an intervention test is triggered. A specific intervention test is discussed below at 7.4. Chorus would make commercial offers for the provision of UFB services during this period, in lieu of price-quality regulation.

Information disclosure would support this option by providing transparency of cost and revenue information. It should support ongoing commercial arrangements during the backstop period and would assist interested parties to assess whether Chorus is making excessive profits. The transparency of information disclosure, combined with the threat of price-quality regulation, should limit Chorus' ability to extract excessive profits.

- ✓ The credible and timely threat of price-quality regulation could be sufficient to constrain pricing and prevent Chorus from extracting excessive profits
- ✓ A commercial offer could provide greater flexibility for industry to reach suitable arrangements, and could enable commercial innovation
- ✓ Parties may be able to agree to commercial prices more quickly than the regulatory pricing process under the 2020 option
- ✓ Through commercial negotiations, parties may have incentives to agree prices that support the goal of minimising price volatility in the transition
- × Commercial offers may not give sufficient weight to end-user interests. Parties may have little incentive to consider the absolute level of prices given non-discrimination means all RSPs face the same input prices
- × Without a revenue cap in place, there is a risk that Chorus could generate excessive profits
- × The treatment of copper services is more difficult under this option. This is discussed below at 7.1.4

7.1.3 Preferred option for Chorus: 2020

The Government's preference is for information disclosure and price-quality regulation to apply to Chorus from 2020.

In our view, it is the option that most transparently protects the interests of end-users given the size and nature of Chorus' business. Moving to price-quality regulation would allow Chorus' copper and UFB services to be regulated consistently, which would achieve the best outcomes both in the transition and longer-term.

This view is influenced by the scale and nature of Chorus' fixed line business. Chorus operates the entire nationwide copper network and by 2020 will operate around two thirds of the UFB network nationally.

If Chorus could make commercial offers for fixed line services that are in the interests of end-users, then the backstop option could be attractive. However, we are not sure that Chorus and RSPs have the right incentives to do so. We welcome comments from submitters, including end-users and end-user representative groups, on this point.

The considerations around LFCs are slightly different, and we discuss these below at 7.2.

7.1.4 Copper pricing under a backstop model

We propose that, if Chorus is subject to a backstop regime from 2020, regulated copper prices be subject to an interim 'freeze', rather than have continued TSLRIC reviews.

Under the backstop option, the approach to Chorus' copper pricing becomes more complex. This is because copper prices are already regulated under the Telecommunications Act.

If Chorus is subject to a backstop regime, we prefer a statutory 'freeze' on regulated copper service prices from 2020 until such time as price-quality regulation is introduced for both UFB and copper services. On balance, this option would deliver the greatest certainty during a period where demand is moving from copper to fibre.

To mitigate the risk of a 'frozen' price becoming out of date, we propose that there would be a CPI-1% adjustment in such prices annually.

Chorus is likely to withdraw parts of the copper network in due course and this will limit the negative impacts (i.e. they will not necessarily be enduring over a long time period in most of the country). However, it is difficult to predict if or when the copper network would be superseded in rural areas.

We acknowledge that this is a relatively simple approach; but on balance we think this is the best of the available options.

Questions

47. Do you support implementing price regulation for Chorus at 2020, or as a backstop?

48. What benefits would a backstop approach have over a 2020 model of the type described in this paper?

49. How could a backstop approach ensure that the interests of end-users are taken into account?

50. Under a backstop approach, how do you suggest copper services be treated? Please comment on the preferred option of 'freezing' the copper price.

51. Under this option, how do you propose managing the risk of copper prices becoming out of date over time? Is a CPI-1% adjustment appropriate?

7.2 Options for implementing price-quality regulation: LFCs

The Government's preference is for LFCs' fibre access services to be subject to information disclosure from 2020 under the 'backstop' approach.

7.2.1 Particular considerations for LFCs

Alongside Chorus' role, the UFB network is being built and operated by Enable Networks in Christchurch, Ultra-Fast Fibre in the central North Island, and Northpower in Northland. Collectively, these companies are known as 'local fibre companies' or LFCs. Depending on the outcomes of the competitive process for the extension to the UFB programme, additional LFCs could be established.

LFCs face a different competitive landscape, level of market power and corporate structure to Chorus.

LFCs are more likely to have their pricing constrained by the market. They compete against Chorus' copper network (and in the case of Enable in Christchurch, Vodafone's HFC network). They also face some countervailing buyer power from the large national RSPs.

Due to their ownership structures, LFCs have fewer incentives to derive excessive profits than Chorus. Both Northpower Fibre and Ultrafast Fibre are partnerships between Crown Fibre Holdings (**CFH**) and end-user-owned electricity distribution businesses, which are only subject to information-disclosure obligations under Part 4.[30] Enable Services Limited (CFH's UFB partner for the Enable Networks LFC) is fully owned by Christchurch City Council.

It is unclear exactly how *much* market power LFCs will have at 2020 and beyond. It will only increase over time as UFB services become the norm and copper services are less able to compete. The International Data Corporation has predicted that UFB take-up at 2020 could be 50 per cent[31] (though we note again the difficulty in predicting precise uptake levels at 2020). However, competition from the HFC network may continue for some time in Christchurch.

7.2.2 Option 1: 2020

Under the 2020 option, information disclosure and price-quality regulation would be implemented for all LFCs from the beginning of 2020, in the same way as proposed for Chorus above.

[30] The rationale for not subjecting end-user-owned companies to price-quality regulation was given by the Ministry of Economic Development as *'…the case for economic regulation is relatively weak. This is because the incentive of trusts to charge excessive prices is relatively low because excess profits are returned to the customer.'* http://www.mbie.govt.nz/publications-research/publications/business-law/ris-review-4-4a-commerce-act.pdf.

[31] International Data Corporation study: *When Will Fibre Take Off in New Zealand?* (2012).

The benefits of the 2020 option for LFCs mirror those discussed for Chorus:

- ✓ Through the use of a revenue cap, this option would avoid the risk of LFCs' generating excessive profits after 2020
- ✓ The role of the Commission would ensure that an independent party is considering the interests of end-users

However, some of the reasons a 2020 implementation is appropriate for Chorus do not apply in the same way for LFCs:

- × LFCs face some competition from Chorus' copper services and their prices are more likely to be constrained by the market without the need for price-quality regulation
- × As LFCs do not operate copper networks, considerations around migration from copper do not apply

7.2.3 Option 2: Backstop

The credible and timely threat of regulation, plus some competitive pressure, could be sufficient to constrain LFC pricing. Requiring information disclosure with a backstop of price-quality regulation may be a more proportionate approach in this context. The intervention test is discussed below at 7.4.

In addition to the benefits to a backstop model for Chorus, as discussed above:

- ✓ The credible and timely threat of regulation, competition from Chorus and other providers, and the nature of the community-owned LFC partners should be sufficient to constrain pricing and prevent LFCs from extracting excessive profits
- ✓ LFCs are likely to have incentives to commercially offer consistent prices, supporting the goal of minimising price volatility in the transition
- × Over time, LFCs' market power is expected to increase as more end-users switch to UFB, and copper services are less able to compete

7.2.4 Preferred option for LFCs: Backstop

The Government's preference for LFCs is the backstop approach. We think this is appropriate given the different competitive landscape facing the LFCs, their relative size and their ownership structures.

Importantly, under the backstop approach any LFC could become subject to price-quality regulation at any time after 2020 if the intervention test is met. This threat of regulation should add to the incentives considered above.

As discussed at 10.1.4, in order to protect end-users at the more vulnerable end of the market, Chorus would not be able to withdraw copper services in an LFC area unless (amongst other requirements) anchor products are available at equivalent prices on the UFB network. Therefore, our preference for an initial backstop approach for LFCs has some implications for Chorus' copper withdrawal in these areas.

7.2.5 Consistent pricing across UFB providers

Above at 6.4.5, we discussed whether there should be some national consistency in prices under a scenario where price-quality regulation applies to more than one UFB provider. We note that, although there are benefits in nationally consistent pricing such as simplicity for end-users and RSPs, consistency is a challenge because UFB providers all face differing costs.

We have considered a range of options for implementing consistent pricing:

1. If all UFB providers are subject to price-quality regulation:
    a. *Consistent nationwide regulated price caps* – this would require price cap regulation and a wash up account between UFB providers to account for their differing costs.
    b. *Consistent anchor product price caps, but retaining individual revenue caps for each UFB provider* – in this scenario, overall revenue caps for each UFB provider could differ, but anchor product price caps would be consistent. UFB providers could make up the differences in their individual costs in their commercial products. This would rely on market incentives for consistent pricing of commercial products.
    c. *No specific requirement for consistent price caps* – rely only on a legislative direction to the Commission to minimise price volatility, and market incentives for LFCs to price at a similar level.
2. If LFCs are initially subject to a backstop, and Chorus is subject to price-quality regulation:
    a. *Require LFCs to provide anchor products at consistent price caps* – in this scenario, LFCs would be subject to a backstop regime as discussed above, with the additional requirement to offer anchor products within the same price cap as Chorus. This would rely on market incentives for consistent pricing of commercial products.
    b. *No specific requirement for consistent price caps* – rely on market incentives for LFCs to price at a similar level.

Other than implementing option 1(a) above, which would be intrusive and complex, there is little scope for having consistent wholesale price caps across the entire product set for all UFB providers because each UFB provider has different input costs.

On balance, we think that there is a case for consistent anchor product price caps in a scenario where all UFB providers are subject to price regulation (option 1(b)). This would support the transition from the current regulatory framework, where Chorus and LFCs are already required to provide certain basic UFB services at the same price caps up to 2019. However, over time this may not be sustainable.

In a scenario where LFCs are subject to a backstop regime, we do not think there would be significant additional benefits to requiring anchor products to be provided with consistent price caps. The LFCs' services are likely to be subject to some competition from copper services. If this competition is not effective, and LFCs are able to (for example) significantly increase the price of low-end products, that would likely be an indication that the backstop approach is no longer appropriate and the remedy would likely be to move to price-quality regulation.

Questions

52. Is there a case to implement a backstop model, with information disclosure, for LFCs?

a. To what extent do you think LFCs will be subject to competitive pressure from 2020?

b. Do you expect that they will need to be subject to price-quality regulation at some point? When might this occur?

c. Are there any other risks or benefits to a lighter touch approach for LFCs?

(Refer to questions 38 and 39 on consistent pricing)

7.3 Registered undertakings

Some submitters to *Regulating Communications for the Future* recommended an approach involving a different form of light touch regulation, where a commercial offer is provided to the Commission or the Government for approval, but full price-quality regulation is not imposed.

We do not support a model that would require Government or the Minister (rather than the Commission) to endorse pricing proposals or enter into contracts.

We have considered the option of a registered undertakings approach managed by the Commission. Under this approach, UFB providers could negotiate commercial offers with their customers, which would then form a draft undertaking (or similar instrument) submitted to the Commission for approval. The Commission could be required to apply a simple test, such as 'reasonableness', to determine whether to approve the undertaking.

Pros and cons of this option include:

- ✓ There are benefits to a model where the onus is on regulated suppliers to develop a reasonable pricing proposal, which the Commission can then approve if appropriate
- ✓ If designed in a way that allowed the Commission to make a quick decision on undertakings, this could be a quicker and lower cost form of regulation
- ✓ Commission approval of undertakings could reduce the risk of uncertainty around regulatory intervention, compared to the backstop option
- × In practical terms, Commission approval of an undertaking would probably require a significant amount of effort and resourcing to determine whether the undertaking is acceptable. This may end up taking just as long and requiring just as much effort to implement than price-quality regulation, and introduce significant regulatory uncertainty. This has been our experience with other regulatory "short cuts", like benchmarking
- × If the Commission could later recommend regulation to overturn a registered undertakings arrangement, this option may not provide the certainty that is sought by industry
- × With no revenue cap in place, UFB providers could be in a position to earn excessive profits
- × This approach, if only applied to UFB, would raise the same questions about regulating copper services as the backstop option

We do not support a registered undertaking approach as outlined here. It would have less transparency and rigor, and would not provide reassurance that end-users' interests are being protected. It would be uncertain, and could end up taking as much time and resource as price-quality regulation.

7.4 Intervention test

If any UFB providers are subject to the backstop approach, a specific intervention test should be set in legislation for the introduction of price-quality regulation. We are proposing a test based on the application of the new purpose statement.

In response to *Regulating Communications for the Future*, most submitters agreed that a bespoke intervention test would be needed to trigger price-quality regulation of UFB services under a backstop approach.

For the specific intervention test, we propose to mirror the test used in Part 4 for applying price-quality regulation to consumer-owned electricity distribution businesses that are only currently subject to information disclosure regulation – namely, that price-quality regulation could be imposed following a report from the Commission to the Minister that 'the purpose of this Part would be better met if price-quality regulation is imposed on the supplier under this Part'.[32] The rules and inputs for this analysis would be developed in input methodologies.

A purpose statement-based analysis would enable consideration of moving to price-quality regulation against the relevant backdrop of commercial offers.

An alternative would be to adopt the test in section 52G of the Commerce Act, which would include consideration of the level of competition in fixed line markets, whether there is scope for the exercise of substantial market power and a cost-benefit analysis.[33]

[32] This mirrors the test in section 54H(2)(b) of the Commerce Act for consumer-owned suppliers of electricity lines services losing exempt status.

[33] Our concern with this alternative is that matters such as a cost-benefit analysis can take quite some time to develop and can be subject to lengthy debate.

52G When goods or services may be regulated

(1) Goods or services may be regulated under this Part only if—

(a) the goods or services are supplied in a market where there is both—

(i) little or no competition; and

(ii) little or no likelihood of a substantial increase in competition; and

(b) there is scope for the exercise of substantial market power in relation to the goods or services, taking into account the effectiveness of existing regulation or arrangements (including ownership arrangements); and

(c) the benefits of regulating the goods or services in meeting the purpose of this Part materially exceed the costs of regulation.

(2) In any consideration of this test, the part of the test in subsection (1)(c) need not be considered unless the parts of the test in subsection (1)(a) and (b) are satisfied.

We propose that the Commission be required to consider whether there are reasonable grounds to intervene no later than every five years. The Commission could intervene sooner if it thinks there are reasonable grounds – this might include for example where there are complaints from RSPs.

Questions

53. Please comment on the proposed intervention test based on the purpose statement.

a. What are the risks and benefits?

b. Would another type of test be more appropriate, such as that in section 52G of the Commerce Act? Why?

7.5 Legislative vehicle – Telecommunications Act

We intend to establish fixed line regulatory settings within a new part of the Telecommunications Act, which replicates appropriate settings and provisions from Part 4 of the Commerce Act.

We are not proposing to regulate fixed line services under Part 4 of the Commerce Act, which applies to electricity, gas and airports sectors. However, the key benefits of Part 4 regulation can still be achieved through the Telecommunications Act.

Telecommunications is a more diverse industry than those regulated under Part 4, and we are only proposing significant changes to the way the fixed line part of the industry is regulated. The current pricing principles in the Telecommunications Act still remain appropriate for some parts of the industry – for example, for mobile services, where infrastructure competition remains important as three national networks compete with one another. It would be awkward to accommodate two contrasting approaches to infrastructure regulation within Part 4, and it would be administratively challenging to have the communications regulatory framework separated across both Part 4 and the Telecommunications Act.

Using the Telecommunications Act as a vehicle to implement the fixed line regulatory framework will allow for a cohesive Act that covers all telecommunications regulation (fixed and mobile). This approach will minimise disruption in transitioning to a new framework and will enable the Telecommunications Commissioner to take a holistic view of the application of regulation across the sector.

In designing a fixed line regulatory framework, we are seeking consistency with utility-style regulation under Part 4, unless there is a compelling reason to deviate from that framework. This approach means that investors with knowledge of Part 4 markets are likely to be familiar with the utility-style approach regardless of the legislative vehicle. It also means that the Commission will be able to apply valuable experience and precedent in implementing Part 4 for other sectors to the implementation of the fixed line framework.

7.5.1 Interaction with the existing regulatory framework for communications

We expect that the fixed line regulatory framework will be embedded in a new Part of the Telecommunications Act, and will be limited to regulation of fixed line services. It flows from this that the existing framework for communications services will not apply to fixed line services.[34]

This will mean, for example, it will be necessary to exclude the Schedule 3 investigation processes from application to fixed line services. Rather, introduction and removal of fixed line regulation will be done pursuant to the process discussed at 7.7 below.

Questions

54. Do you have any comments on our proposal to establish the fixed line regulatory settings within the Telecommunications Act?

7.6 Purpose statement

We recommend that a new purpose statement be introduced for the regulatory framework for fixed line services, based on the existing purpose statement in section 52A of the Commerce Act.

In *Regulating Communications for the Future*, we proposed that there would need to be a new purpose statement governing the fixed line regulatory framework. We said that the section 18 purpose statement is unlikely to be suitable for a post-2020 environment in its current form – structural separation has created a fundamentally different environment.

Promoting competition will remain a key focus for the general communications regulatory framework. However, the current purpose statement may not be appropriate for the main policy objective of protecting end-users from monopoly pricing in the structurally separated environment for fixed line services.

[34] With the exception of provisions relating to the open access deeds of undertaking and some other specific parts of the existing framework that will need to continue to apply to fixed line services. These will either be retained or moved into the new Part for fixed line services.

Most submitters agreed there needs to be a new purpose statement for fixed line services. The discussion document set out a preliminary proposal to incorporate two new purpose statements – one focussed on promoting outcomes consistent with competition, and the other focused on promoting 'growth, innovation and investment in communications markets for the long-term benefit of end-users.' We agree with some submitters that this latter approach would introduce uncertainty and would already be considered under the primary purpose statement.

Instead, we propose a distinct purpose provision applying exclusively to fixed line services, likely in a new Part of the Telecommunications Act.

Given structural separation, the purpose statement from Part 4 is likely to be suitable. The purpose statement at section 52A of the Commerce Act reads:

52A Purpose of Part

(1) The purpose of this Part is to promote the long-term benefit of consumers in markets referred to in section 52 by promoting outcomes that are consistent with outcomes produced in competitive markets such that suppliers of regulated goods or services —

(a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and

(b) have incentives to improve efficiency and provide services at a quality that reflects consumer demands; and

(c) share with consumers the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices; and

(d) are limited in their ability to extract excessive profits.

(2) In this Part, the purpose set out in subsection (1) applies in place of the purpose set out in section 1A.

We propose to largely replicate this statement, subject to the following considerations:

- We propose replacing "consumers" with "end-users" in the first sentence in subsection (1), because the primary recipient of long-term benefit in this context should be end-users in fixed line markets. The Telecommunications Act already uses "end-users" as a defined term. However, we are aware that "consumer" has a particular meaning in Part 4 of the Commerce Act and so we are interested in views on whether adopting "end-user" instead might cause uncertainty.

- We note that unbundling is one aspect of fixed line communications where access concerns can arise (even after structural separation), and so it could be necessary to align the new purpose statement more with section 18 of the Telecommunications Act. However, on balance, we favour a single purpose statement for this Part.

Questions

55. Do you agree that it is most appropriate to set out a new purpose statement separately to the existing one, in a new Part to the Telecommunications Act?

56. Do you agree with our proposal to largely replicate section 52A? Will this achieve the outcomes we have outlined?

a. Do you agree with the terminology, including the use of "end-users"?

b. Do you think a single purpose statement derived from section 52A will be adequate to deal with access issues associated with unbundling?

c. Are any other definitions needed?

7.7 Adding and removing suppliers

There should be a process within the new Part that provides for introducing new regulated suppliers of fixed line services to the regulatory framework in the future, and for removing them. This would be limited to any suppliers of fixed line services that have a substantial degree of market power.

7.7.1 Introducing and removing suppliers to and from the framework

We think there should be a process within the new Part that provides for introducing new regulated suppliers of fixed line access services in the future. We are proposing to broadly replicate the process and test used for adding or removing regulated gas pipeline suppliers under section 55A of the Commerce Act.[35]

Given that fixed line access services will already be declared to be regulated under the new framework, the system we propose is as follows:

- initially, the new utility-framework will only apply to those fixed line providers that Government identifies in a new Schedule to the Telecommunications Act. We propose the current UFB providers (Chorus and LFCs) would be declared as regulated suppliers by a legislative amendment that includes them in the Schedule; and
- following enactment, suppliers could be added or removed from the new Schedule by an Order in Council by the Minister following a recommendation from the Commission. Inclusion in the Schedule would mean the supplier becomes a regulated supplier.

The legislation would need to set a test for including (or excluding) regulated suppliers, which will likely be as follows:

- the supplier is providing fixed line services (as defined); and

[35] We note that section 55A relates to a Schedule that grants exemptions to particular gas pipeline suppliers from regulation, but we are proposing here a Schedule that would *apply* regulation to particular suppliers of fixed line services.

- those services are being supplied in a market where the supplier has a substantial degree of market power. This is the same test for adding or removing gas suppliers from Part 4 under section 55A(6) of the Commerce Act.

We are interested in views on whether this is the appropriate process and test, and on any required modifications. We are particularly interested in whether the test would be problematic given the potential for 'pockets' of competition from cellular, wireless or other broadband services (however we have previously noted that this competition is unlikely to constrain the overall pricing of UFB providers over the long term).

7.7.2 Framework only to apply to fixed line services

We have considered but decided against making the new regulatory framework generic in its application to services. For example, the framework could be set up in a way that allows for future regulation of communications services other than fixed line services.

We have decided against making the framework generic for several reasons:

- the current focus is solely on fixed line services supplied by UFB providers (which we have identified as having natural monopoly characteristics) and the framework is being designed with these services in mind;
- certain decisions are being made in relation to the new framework that apply only to fixed line services (for example on the approach to defining the RAB, as discussed in chapter 5); and
- Part 4 of the Commerce Act is already generic, and so it is unnecessary (and indeed could be problematic) to have another generic utility-style regulatory framework. Uncertainty may arise as to which framework should be adopted for a potentially regulated service.

Questions

57. Do you agree with our proposed process and test for introducing a new supplier to the framework (or removing a supplier from the framework)? Please provide additional comments on any other aspects you think should be considered.

58. Do you agree that the new framework should only apply to fixed line services?

7.8 Appeal rights

We propose that merits review rights mirroring those in Part 4 of the Commerce Act be introduced as part of the new framework for fixed line services. We do not propose any change to existing appeal rights relating to processes in the Telecommunications Act.

Part 4 of the Commerce Act specifies a number of different forms of appeal rights:

Appeal rights for the framework in Part 4 of the Commerce Act

Section 52Z	Section 91	Section 91(1B)
Merits appeal for input methodologies on the 'pure appeal' model. This involves a rehearing of the case on the merits, with any new or amended input methodology substituted by the Court – or referred back to the Commission – required to be 'materially better'. No new material may be introduced to the appeal process.	Merits appeal for some Commission section 52P determinations on the 're-hearing' model.[36] Given that this appeal process does not cover input methodologies,[37] these appeals are relatively narrowly focused. However, in contrast to input methodology appeals, the 'materially better' threshold does not need to be met, and new material is permitted to be introduced into the appeals process.	Right of appeal on a question of law for all Commission determinations.

The Telecommunications Act currently has appeal rights only on questions of law.[38]

[36] Only on section 52P determinations for customised price-quality paths and individual price-quality paths.

[37] Section 91(1A). The appeal right for input methodologies is in section 52Z.

[38] Section 60 provides a right of appeal on questions of law relating to certain determinations made under Part 2 (which relates to designated and specified services).

The Productivity Commission looked closely at the forms of appeal available within New Zealand regulatory systems in its 2014 report and identified several forms that might be considered 'merits review'.[39]

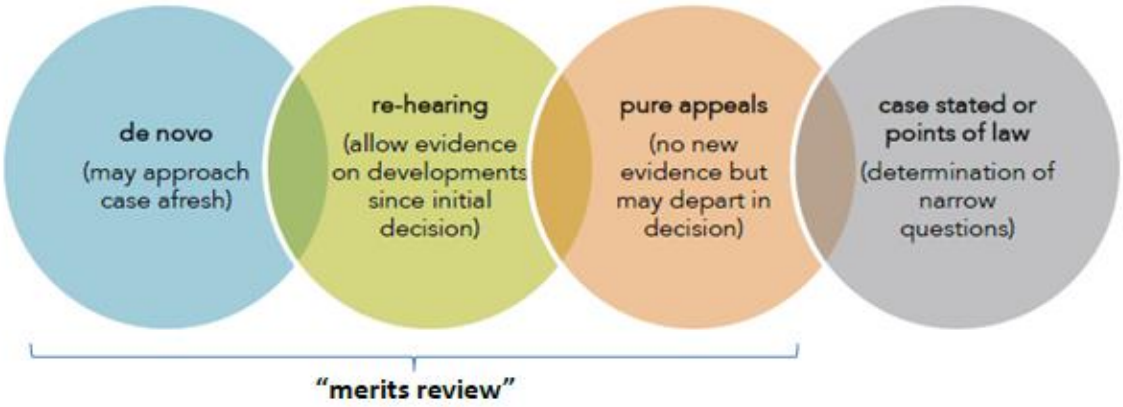

Figure 4: Merits review within the legal scope of appeals (reproduced from Productivity Commission)

7.8.1 Mirroring the Part 4 approach

Almost all submitters to *Regulating Communications for the Future* supported a merits review process for some of the Commission's decisions under a utility-style model, because of the increased accountability it would bring to the decisions and given the long-term nature of some of these decisions. Some submitters however argued that merits review processes could have negative consequences.

On balance, we propose to mirror the system in the Commerce Act and adapt it to the framework for fixed line services. This proposed approach:

- ✓ Would increase the accountability of the regulatory system
- ✓ Improves the incentives for the regulator to get important decisions right
- ✓ Retains useful precedent from Part 4 of the Commerce Act
- × May slow down the finalisation of the overarching pricing process (particularly the first time the system is tested)
- × Introduces the risk that parties may game the system in an attempt to delay unfavourable decisions

We note that MBIE is separately evaluating the merits review processes in Part 4 of the Commerce Act. We will take into account the findings of this evaluation, and reflect any changes where possible. At this stage, we are proposing that the Part 4 merits review processes be either replicated or referred to in the Telecommunications Act, and that any eventual amendments to merits review in Part 4 arising from the review would then also be incorporated into the Telecommunications Act.

[39] Source: Productivity Commission, *"Regulatory Institutions and Practices"* final report (2014), available at http://www.productivity.govt.nz/inquiry-content/1788?stage=4.

7.8.2 Merits review only to apply to fixed line services framework

We note that we are only proposing that merits review be available within the fixed line regulatory framework. We are not proposing that merits review be extended to the existing regulatory framework in the Telecommunications Act.

We think that there is justification for merits review of fixed line regulatory decisions given their long-term implications (particularly input methodologies). The framework under the remaining part of the Telecommunications Act is more dynamic and we do not think merits review is justified.

7.8.3 Design of the merits review system

Ultimately the particular design of a merits review system will be contingent on the specific design of the utility-style framework. Based on our current proposed model, the following appeal processes would be available:

Input methodology determinations	'Pure appeal' merits review with 'materially better' threshold, same as section 52Z of the Commerce Act
Final determinations on information disclosure	Question of law appeal only
Final determinations on price-quality paths	'Re-hearing' merits review, same as section 91(1) of the Commerce Act

Consistent with Part 4, we propose that input methodology determinations would be subject to merits review on the 'pure appeal' basis (but adopting a 'materially better' threshold).

Consistent with Section 91(1A) of the Commerce Act, to avoid the issue of multiple reviews of the same subject matter, we propose that reviews of final determinations on price-quality paths would be limited to matters not already reviewed under an input methodology review (therefore this would be a 're-hearing' approach for these determinations).

Questions

59. Do you agree with the proposed approach to merits review? If not, are there any characteristics of fixed line services which mean that Part 4 merits review processes are inappropriate, or any changes are needed?

60. Do you agree that merits review should not be introduced for the existing regulatory framework in the Telecommunications Act?

7.9 Backdating and claw-backs

To maintain consistency with Part 4 of the Commerce Act, we propose that mandatory 'claw-backs' should be in place for some decisions relating to fixed line services under the new framework. We do not think they should be extended to the existing framework, but we are seeking views on this.

Backdating in the Telecommunications Act context generally involves an initial regulated price being replaced by a revised price which is either higher or lower. The revised price is then extended back to some point in the past, necessitating a reconciliation. Reconciliation would typically involve a lump sum payment to or from suppliers and other parties. Claw-backs, as defined in the Commerce Act, do not involve lump-sum payments, but rather involve the regulated supplier reconciling necessary changes either through higher-than-normal or lower-than-normal prices in subsequent regulatory periods. For consistency with the Commerce Act, we refer here to *claw-backs*.

The Telecommunications Act is silent on the question of claw-backs. This has created uncertainty for the industry, most evident in relation to the recently concluded copper Final Pricing Principle process.

Under Part 4 of the Commerce Act, the meaning and application of claw-back is set out in section 52D. The Commission must apply claw-back when resetting price-quality paths if input methodologies change due to court-ordered changes in an appeal process, and the amended input methodology would have resulted in a materially different price path (section 53ZB). Section 52D of the Commerce Act specifies that when the Commission specifies a claw-back will occur, it must not place undue financial hardship on the supplier and any price shocks to end-users must be minimised.

For fixed line services, we think the most likely situation in which claw-backs would occur is if an input methodology was overturned in a merits review process.

Submissions were mixed on the appropriateness of claw-backs. Some submissions opposed claw-backs except in specific circumstances (i.e. where a clear error had been made by the regulator, or where the regulator considers it is necessary to address anti-competitive or delaying behaviour). Some RSPs argued in the Final Pricing Principle process for copper services that they are constrained by the competitive market from pricing-in any claw-back risk, and therefore the threat of claw-back is a source of uncertainty which they cannot mitigate.

In the interests of being consistent with Part 4, we believe that mandatory claw-backs should be introduced for utility-style regulation of fixed line services. We do not think that there is a need to specify in legislation that claw-back should apply within the existing regulatory framework in the Telecommunications Act.

Questions

61. Do you agree that mandatory claw-backs should be introduced for utility-style regulation of fixed line services under the Telecommunications Act?

8. Managing the transition

Any transition to a new regulatory framework carries some risks. In this chapter, we seek your views on how to most appropriately manage the transition from existing arrangements to the new fixed line regulatory framework. We look at managing the risk of revenue and price shocks, and implementation timing.

8.1 Minimising price and revenue volatility during the transition

The legislative framework should establish an explicit policy objective of minimising revenue and price volatility during the transition to the new framework. This should minimise the impact of implementing the new price-quality regulation model.

In the transition to a new regulated pricing model, there is always some risk of price or revenue volatility. This refers to a sudden and material increase or decrease in allowable revenues or product prices. Such 'step changes' are difficult to plan for. RSPs and potentially end-users would generally experience unexpected rises in prices if allowable revenue increases, whereas an unexpected decrease in allowable revenues may cause financial hardship for UFB providers. However, there are ways to manage these shocks under a utility-style model, which we discuss here.

8.1.1 Minimising revenue volatility

The nature of the revenue volatility risk is largely tied up with where the initial RAB valuations land. Until the Commission determines the approach it will take to valuing fixed line assets, it will be challenging to narrow down the outcomes for the RAB that might eventuate under BBM.[40]

While significant revenue changes are unlikely to be problematic over the long-term (when entities have time to plan and adjust for the changes), sudden changes in revenue and/or prices can be highly destabilising in the short-term – for regulated suppliers, RSPs and end-users. This is particularly true if industry does not have sufficient notice through the development of input methodologies to predict the impact on revenue.

Proposed approach

The legislative framework should establish an explicit policy objective of minimising revenue volatility for the transition to the new framework, along with an explicit policy objective of smoothing any price increases for anchor products.

This transitional objective of minimising revenue volatility would not influence any of the Commission's decisions on the key building blocks (e.g. WACC, forecast investment or operating

[40] We note however, that various analysts have already considered this question and will have identified sensible upper and lower bounds.

expenditure). Rather, we propose that, once those decisions are made, and if it becomes apparent that they would have a material impact on revenue, then the Commission would be required to smooth that impact. This smoothing could occur over several regulatory periods.

The Commission can achieve this by altering the timing of cash flows that make up the revenue cap. For example, it can tilt the rate at which costs are recovered (depreciation) within the BBM model so that cash flows are front-loaded or back-loaded. Front-loading cost recovery could be used to protect regulated suppliers from an initial sudden fall in revenue, while back-loading cost recovery could be used to reduce price shocks for end-users and should help smooth prices over the life of the asset.

The Commission has discretion under Part 4 to use price-setting levers to smooth revenue flows during regulatory periods. One such mechanism is contained in section 53P(8) of the Commerce Act, where the Commission can alter the rate of change to prices during a regulatory period if this 'is necessary or desirable to minimise any undue financial hardship to the supplier or to minimise price shock to end-users'.

Our proposed approach would defer the impact of any revenue rises or falls from the shift to BBM during the transition and would provide time for UFB providers, RSPs and end-users to adjust. Over the lifetime of the network assets, the outcomes for UFB providers, RSPs and end-users should not be different.

8.1.2 Minimising price volatility

A key consideration in applying a new regulatory framework is to manage the risk of end-users facing material price increases – particularly in the short term.

Our choice of regulatory model has been developed with a clear focus on protecting end-users. We think that the following components of the new model should act together to minimise the risk of price volatility during the transition to the new regulatory framework:

1. *Smoothing the revenue cap for regulated suppliers:* As discussed above, to the extent that BBM would otherwise result in material revenue volatility (and by implication, price volatility), then our proposal to require the Commission to minimise revenue volatility should indirectly remove much of the risk to end-users of price volatility.

2. *Focus on anchor products*: As discussed above, in order to protect users on basic services, a glide path should be used to smooth the effect of any increases in anchor product prices.

Questions

62. In your view, do our proposals around smoothing the revenue cap and minimising price volatility for anchor products provide enough protection in reducing the risk of price and/or revenue shocks?

8.2 Transitional arrangements

If the 2020 implementation option is adopted, but the Commission is unable to implement regulation by 2020, price and non-price terms for wholesale products in the market in December 2019 could be temporarily "frozen" with indexation.

There may be a need for legislation to prescribe transitional arrangements that should apply in the event the Commission determines it will be unable to complete and implement information disclosure and price-quality regulation by 2020.

The Commission should be able to have the information disclosure regime operating for UFB providers prior to the expiry of the UFB contracts in 2020. The Commission's experience in completing the Part 4 input methodologies suggests it is feasible to have price-quality regulation in place from 2020. However, there is still a risk the Commission will not have enough time to implement the new regulatory framework prior to the expiry of the UFB contracts.[41]

To minimise disruption, we propose that the Telecommunications Act contains a mechanism for temporarily "freezing" the price and non-price terms for certain wholesale products in the market in December 2019 (likely the equivalent of the initial anchor product set) – to be triggered upon the Minister accepting a written recommendation from the Commission that such an action is necessary.

Questions

63. Do you agree that a transitional arrangement should be in place in case the new framework is not able to be implemented with enough notice before 2020?

64. Do you agree with the proposed model of a temporary freeze? Are there any other risks or benefits of this approach?

[41] By way of example, when the new Part 4 regime was introduced in October 2008 it took the Commission 26 months to publish its input methodology determinations for Transpower, electricity lines companies, gas pipeline companies and airports.

Part IV: The current regulatory framework

In this Part, we look at potential reforms to the current provisions in the Telecommunications Act: the approach to mobile services and the regulatory toolkit.

9. Mobile competition and infrastructure sharing

In this chapter, we consider mobile infrastructure sharing arrangements that could promote future growth. We seek your views on options for supporting infrastructure sharing and competition in mobile services. We do not have a preference on these options at this stage.

9.1 Mobile market performance

The mobile market appears to be performing well, driven by three mobile network operators competing for subscribers. As at June 2014, the market shares of the mobile network operators was 41.6 percent for Vodafone, 35.9 percent for Spark, and 22.5 percent for 2degrees.[42] There is a low level of reselling of mobile services by providers that do not have their own mobile networks, referred to as mobile virtual network operators (**MVNO**s).[43]

Currently New Zealand has one of the highest levels of investment compared to sector revenue in the OECD,[44] but it is unclear if this rate of investment by all three mobile network operators is sustainable as it moves further into rural areas.

On 31 March 2016 the Commission released '*Competition for Business Customers in the Mobile Industry*'. Overall, the report did not uncover any evidence of anti-competitive behaviour and/or structural, legal or systemic factors existing in the retail market that are inhibiting the competitive dynamics of the business segment.[45] However, the report noted 2degrees has a significant share of

[42] New Zealand Telecommunications Forum, *Telecommunications Industry Sector Report*, 24 October 2015, Figure 51, page 71.

[43] Although we note there has been movement in this space, with 2degrees providing an MVNO offering to The Warehouse.

[44] New Zealand Telecommunications Forum, *Telecommunications Industry Sector Report*, 24 October 2015, Figure 1, page 12.

[45] UMR Research, *Competition for Business Customers in the Mobile Industry: A Report for the Commission*, December 2015, page 79.

the end-user segment (around 25 per cent), but a negligible share of the business segment (around 3 per cent). The report noted that 2degrees loses heavily on perceptions of coverage and confidence.[46]

9.1.1 Our view

We consider that the regulation of the mobile market has largely been effective. This regulation has supported growth in competition and investment in mobile networks. In addition, the processes under the Telecommunications Act enable the Commission to monitor and investigate developments in the market, and for regulation to be imposed, amended or removed as market conditions change.

9.2 Infrastructure sharing

We note that 2degrees and Vodafone have reached a long term agreement on national roaming. However, we have some remaining concerns about whether there are sufficient incentives for efficient infrastructure sharing, including the availability of competitively-priced national roaming arrangements.

In *Regulating Communications for the Future*, we noted that competition and current regulatory settings for mobile markets are delivering benefits for end-users. However, we were concerned that this competition was vulnerable. Since then, 2degrees and Vodafone have reached a long term agreement on national roaming. However, we are still concerned about whether there are sufficient incentives for efficient infrastructure sharing, including the availability of competitively-priced national roaming arrangements.

9.2.1 National roaming

Because of the large sunk investments in building a mobile network, existing mobile network operators should have incentives to enter into commercial agreements for national roaming on their network if they have excess capacity, or if they face competition for offering national roaming services and risk losing market share to another mobile network operator. However, if competition is weak and the mobile network operator considers that they may earn higher returns from providing their own retail services, they may have incentives to delay or not offer reasonable price terms for roaming (this is the problem of 'hold-up'). We have however seen Vodafone and 2degrees recently reaching a long term agreement on national roaming. Any 'hold-up' problem has significantly diminished as a result.

Despite this, we remain concerned about whether there are sufficient incentives for efficient infrastructure sharing, including the availability of competitively-priced national roaming arrangements. We are seeking views as to whether there is still a case for intervention, for example by streamlining the Schedule 3, Part 2 process for recommending a 'specified' (non-price regulated) service become a 'designated' (price-regulated) service. Such a change would support a quicker intervention path for the Commission if problems emerge with the national roaming or colocation

[46] *Ibid*, page 4.

specified services.

The risk of 'hold-up' discussed above does not arise to the same extent in relation to colocation. In general, an access seeker will have some choice of locations for placement of mobile transmission and reception equipment. The Commission's determination of non-price terms for colocation facilitates commercial agreements. Therefore the lack of price-quality regulation, or a timely regulatory backstop, may not raise the same concerns.

Accordingly the main option we propose to rely on for this issue is the recommendation discussed below at 10.2.1 to streamline the process for the Commission to investigate changing a 'specified' to a 'designated' service.

9.3 Other issues for mobile regulation

9.3.1 Wholesale mobile markets

In response to last year's consultation, some RSPs and user groups recommended that the Commission undertake a study to better understand the dynamics of wholesale mobile markets. In particular, these submissions called for further investigation into barriers to wholesale access to capacity on mobile networks for MVNOs.

We note that the Commission has powers to initiate such a study under the Telecommunications Act. We consider that the Commission is well placed to determine if or when such a study is desirable without further Government direction.

Much of the end-user benefit that has been achieved in mobile markets has come from infrastructure-based competition, particularly following the entry of the third mobile network operator in 2009. If there is workable infrastructure-based competition, this should provide a choice of access providers for MVNOs to negotiate commercial arrangements. If at any stage infrastructure-based competition is considered to be insufficient, the Commission is able to commence an investigation under the Telecommunications Act.

9.3.2 The Commission's powers to intervene in retail markets

Some submissions suggested that the Telecommunications Commissioner should take a more hands-on approach to promote competition in retail markets. Suggested measures included facilitating end-user switching and preventing anticompetitive strategic behaviour. We consider that the Commission has the tools to address the most significant issues that give rise to anticompetitive conduct in telecommunications markets.

9.4 Radio spectrum

In *Regulating Communications for the Future* we consulted further on options to improve the framework for radio spectrum allocation and compliance. Submissions suggested measures to:

- increase transparency and certainty in the spectrum allocation process, including the appropriate interface between the Radiocommunications, Telecommunications and Commerce Acts on competition matters; and
- strengthen the monitoring and enforcement of spectrum assignment terms and conditions.

The Government will take these submissions into account as it looks to make decisions on these matters later this year.

Questions

65. Please comment on any other measures you recommend to address mobile infrastructure sharing (outside of changes to Schedule 3, which are discussed in the next chapter).

66. Do you agree with our views on MVNOs and tools to manage competition in retail markets?

10. The regulatory toolkit

In this chapter, we look at options for updating the Telecommunications Act to better suit the new environment.

10.1 Managing copper to fibre migration

We propose that Chorus leads any future withdrawal of copper services according to its own timeframes. The Government would set minimum requirements that would need to be satisfied before Chorus could withdraw copper services in a given area. This could be achieved through a regulated code.

10.1.1 Objectives for the transition

A transition away from copper services should be simple, predictable, fair and efficient for all stakeholders: for end-users, but also telecommunications suppliers, and providers of other services that use fixed line networks. End-users should retain the ability to choose the services that best meet their needs (including basic phone and/or broadband services), RSPs should be treated consistently in migration and disconnection arrangements with wholesalers, and there should be minimal risk of disruption for end-users.

The Government's policy is for end-users to lead the transition away from copper services towards fibre. In practice, this policy position means that:

- Government will not impose any timeline compelling Chorus to withdraw copper services;
- Chorus should not be compelled by regulation to offer copper services where it (or potentially an LFC) can offer anchor products over UFB; however, Chorus should be required to meet certain minimum requirements (for example a notice period) before withdrawing copper services; and
- prices for anchor products should not be set at a level that creates a hurdle for end-users to migrate from copper services.

Here, we focus on end-user protection issues. If the regulatory and technical barriers are overcome, any future withdrawal of copper services should be simple, predictable, fair and efficient.

10.1.2 Submitter views

Submitters generally supported an end-user-led transition to fibre, but varied on whether or not to place requirements on Chorus to ensure a smooth transition. Some submitters suggested that because the transition is likely some time away, the industry has the time and incentives to manage this transition well. Local Government New Zealand and user groups however supported requirements such as having an equivalent price for copper and fibre services, a period of notice before withdrawal, and only withdrawing copper once a threshold of fibre uptake has been reached.

10.1.3 Our views

We note that industry has successfully managed the withdrawal of other services, like CDMA. However, we think there are unique and more widespread risks around the withdrawal of the copper network, which has long been the basis of phone and broadband services for the majority of New Zealanders. The main issues around the withdrawal that we are considering are:

- ensuring end-users do not lose access to vital services such as medical alarms and other related services;
- making end-users aware that battery backup is needed to maintain a fibre service in the event of a power outage. More information about this, including options for a battery backup system, should be available for end-users; and
- in a situation where Chorus wishes to withdraw a copper service it has been providing to a premise, we would not expect Chorus to charge for a replacement fibre installation (except in some cases of 'non-standard installations').

These are likely to be expressed as minimum requirements that must be satisfied before Chorus can withdraw copper in a given area.

We note that we would not support Chorus withdrawing copper services in LFC areas unless LFCs are providing UFB anchor products. In this scenario, voice-only and basic broadband services, including TSO inputs, could be provided by LFCs.

Technical constraints to offering services over fibre

In *Regulating Communications for the Future*, we questioned whether certain copper services (such as monitored fire and building alarms, medical alarms and lift phones) can be delivered over a fibre network.

Generally, submitters responded that there are already replacement products on fibre or wireless technologies for these services. By the time copper withdrawal occurs, this is not likely to be a problem. Some consideration will be needed to ensure unnecessary risks are not created for businesses and end-users. End-users who are required to move will also need to be aware that, without a battery backup or a mobile alternative, these services may not work in a power outage.

Chorus has proposed making its testing facilities available to the providers of these services (e.g. medical alarms, house alarms, Sky Television) and allow them to run pilots to test for effective solutions. We support this proposal.

10.1.4 Our preference: A regulated code

Our preferred option for protecting end-users in the event of copper withdrawal is a regulated code that applies to RSPs as well as Chorus and LFCs. The Government would provide for this code in legislation, and specify minimum requirements that must be included in the code:

- the availability of UFB services and the ability to install a UFB connection (if necessary) at no cost (except in the case of 'non-standard installations') to all affected premises in a reasonable time frame, to ensure end-users do not face a 'gap' without service when copper is withdrawn and before UFB is connected;

- notice to be provided by Chorus, followed by a reasonable period of time to enable end-users and RSPs to prepare before copper is withdrawn;
- all services currently able to be provided over copper must be available over UFB;
- information to be provided to end-users about the change and the availability of services after the change (including in relation to the need for battery back-up on UFB services in the event of a power failure); and
- availability of anchor products at equivalent prices on the UFB network.

This code would be developed by the Commission in consultation with industry and end-users.

The pros and cons of this option include:

- ✓ End-users would be assured that minimum requirements are in place to ensure a smooth transition. All telecommunications providers would be required to adhere to this mandatory code, meaning end-users are protected regardless of their RSP
- ✓ A code could promote a focus on protecting vulnerable end-users in the transition phase to fibre
- ✓ A Commission-operated scheme could be more effective in considering end-user interests than an industry process
- × Costs of development and enforcement could be passed on to market participants

Questions

67. Would a regulated code, applying to RSPs as well as UFB providers, be the best way to protect end-users in the transition from copper to UFB services?

68. If a regulated code is not your preference, what mechanism do you propose to ensure end-users are protected in the transition?

10.2 Recommending regulation and deregulation

10.2.1 The Schedule 3 process

We make several proposals for streamlining the Schedule 3 process:

- changing the requirement for the Commission to make reasonable efforts to prepare and deliver its final report to the Minister within no more than 120 working days to a 'hard' deadline;
- changing the Schedule 3, Part 2 process for investigating whether a specified service should become a designated service to be more streamlined; and
- changing the process under Schedule 3A for undertakings to a 'one shot' process.

We also make a proposal to minimise potential harm during a Schedule 3 process, where the Commission would have the power to set an interim regulated price. The Commission should also have the power to recommend a one- or two-stage pricing process for a service recommended to be regulated under Schedule 3.

Schedule 3 sets out a process for the Commission to investigate and report to the Minister on whether a particular communications service should become a designated (price regulated) or specified (non-price regulated) service.

In *Regulating Communications for the Future*, we proposed that there should be a simpler and timelier intervention test in some circumstances, to replace the current lengthy Schedule 3 process for introducing regulation under the Telecommunications Act. Most submitters agreed that there is a need to make changes to the Schedule 3 process – either generally or specifically in the context of fixed line services. Submitters argued that the current Schedule 3 process is protracted and inefficient, and that harm can occur in the market during the long process. This is particularly the case where an access seeker is already operating in the market, and the nature of the Schedule 3 process could have negative impacts on the access seeker's business in the interim.

We have proposed introducing a specific intervention test (applying under the backstop approach) at 7.4. However, we are also proposing some more general changes to streamline the Schedule 3 process. The Schedule 3 process will remain in place for all communications services other than fixed line services which will be dealt with separately under the new utility-style framework.[47]

[47] We note this will mean that fixed line services will be excluded from the application of Schedule 3, and will instead be subject to the new intervention test and test for introduction/removal of regulated suppliers.

Streamlining the processes

First, we recommend that the requirement in section 4(1) of Part 1 of Schedule 3 for the Commission to make 'reasonable efforts' to prepare and deliver its final report to the Minister no later than 120 working days after public notice is given at the start of the process be changed to a 'hard' deadline.

We propose changing the wording to say "the Commission must prepare and deliver its final report…". We do not propose changing the 120 working day limit. This would mean consequential deletion of section 5 of Part 1 of Schedule 3.

This would have the effect of making the overall 120 working day limit fixed, and the Commission would not be able to exceed this time frame.

We think this would avoid extensions beyond 120 working days and would have desirable incentive effects across the entire process. All parties to the process would know there is no potential for extension of the deadline, and this would mean they have a strong incentive not to 'game' the process or go slowly for strategic reasons.

Second, we recommend streamlining the Commission's process for carrying out investigations into changing a 'specified' service to a 'designated' service under Part 2 of Schedule 3.

In our view, changing how a regulated service is regulated is more of a technical matter that does not require the same level of investigation and scrutiny as investigating the *introduction* of regulation.

We propose removing section 10, therefore removing the potential for conferences or public hearings. These can add considerable time to the process, and their objectives can be achieved by other means including provision of written or oral submissions, or holding smaller-scale or informal workshops or meetings. We also propose changing section 11(1) of Part 2 to include a 'hard' time limit of 60 working days.

Third, we recommend changing the process under Schedule 3A for undertakings to include a requirement that an access provider is only able to have one attempt at providing an undertaking to the Commission in lieu of regulation being imposed.

In other words, the undertakings process in Schedule 3A would become a 'one shot' process. This would reduce any incentive to delay the overall Schedule 3 process by adopting a strategy of proposing and then counter-proposing undertakings, thereby tying up the Commission's resources in assessing undertakings. If there is only the potential for one attempt to persuade the Commission that an undertaking is preferable to regulation, then an access provider will have a strong incentive to put its best offer forward in the first attempt.

Mitigating the risk of harm during a Schedule 3 process

We propose that the Commission should have the power to set an interim price for a potentially regulated designated service that applies during a Schedule 3 investigation. Some form of wash up would be necessary after the investigation.

Significant harm can occur in a market during the time a Schedule 3 investigation is underway. Even with the streamlining changes proposed herein, we think there is a need for a greater level of protection for potential access seekers during a Schedule 3 investigation.

Our primary concern is with the prices charged for a potentially regulated service before such regulation kicks in. A potentially regulated access provider could in theory raise prices to such an extent that it could drive smaller or new entrant access seekers out of the market. This would be of particular concern. We think this risk justifies a regulatory response.

We propose providing a power for the Commission to set an interim price for a potentially regulated designated service that applies during a Schedule 3 investigation. Some form of wash up would be necessary after the investigation if the service is regulated and the STD sets a price different to the interim price (or if the service does not end up regulated at all).

It is important that any process for setting an interim price is not protracted; leading to the same problems we are trying to solve. We are interested in views on how to develop a quick and low-cost process for setting interim prices. We are not considering approaches involving benchmarking against comparable services.

10.2.2 Flexibility to adopt a one- or two-stage pricing process

The Commission should be provided the discretion to recommend whether a newly regulated service will have a one- or two-stage pricing process.

In *Regulating Communications for the Future*, we queried whether all regulated services should have to be based on a two-stage pricing process (Initial Pricing Principle and Final Pricing Principle). Submitters generally agreed that a two stage process should not be mandatory.

We think that the Commission should be provided the discretion to recommend whether a newly regulated service should have a one- or two-stage pricing process.[48] This recommendation can be made in the final Schedule 3 report that the Commission delivers to the Minister.[49]

[48] We don't propose allowing recommendation of only an Initial Pricing Principle; rather there should either be an Initial Pricing Principle *and* Final Pricing Principle or *only* a Final Pricing Principle.

[49] We note that this change will only apply to services that are investigated under the existing Schedule 3 approach (and then included in Schedule 1 as designated or specified services). Fixed line services will be subject to the separate utility-style framework, where the concept of one- or two-stage pricing processes does not apply.

The Commission would therefore have the power, for example, to recommend avoiding international benchmarking for a regulated service where reliable international benchmarks are not readily available, or where benchmarking may otherwise be inappropriate. We are seeking views on whether the legislation should specify criteria for this. In such cases the Commission could recommend that the regulated service only have a Final Pricing Principle which is based on a defined pricing methodology.

Questions

69. Do you agree with the recommendations to make the Schedule 3 process more efficient?

70. Please comment on whether any other aspects of the Schedule 3 process could be removed or shortened further, or on any other ways to make the process more efficient and timely.

71. Do you recommend any further changes in order to mitigate any potential harm being done in the market while a Schedule 3 process is underway?

72. Should there be criteria specified for the Commission's decision whether to recommend a one- or two-stage pricing process for a potentially regulated service?

10.3 Convergence: Broadcasting exemption and net neutrality

We canvassed convergence issues in *Regulating Communications for the Future*. However there have been a number of developments since the discussion document was released last year.

It has become more common for RSPs to bundle free subscriptions to streaming video and music on-demand services with their broadband services. For example, Spark offers a free Lightbox subscription to its broadband subscribers, and both Vodafone and 2degees have offered access to Sky's Neon service for some of their broadband packages. In addition, Spark offers Spotify bundled with some of its mobile plans and 2degrees offers students a 12-month Tidal subscription on its $19 prepay combo.

In addition, the Commission is currently considering an application from Vodafone New Zealand and Sky Television for a merger.[50] The companies have indicated that they intend to offer bundled telecommunications and content services, a package which would be in line with established practice overseas.

[50] Sky Television and Vodafone New Zealand, *Creating a Leading Telecommunications and Media Group* (June 2016), see https://www.nzx.com/files/attachments/237435.pdf.

10.3.1 Scope of the Telecommunications Act (broadcasting infrastructure)

The Government will retain the exemption for broadcasting infrastructure in the Telecommunications Act.

The Telecommunications Act provides for regulation of the supply of telecommunications services. An exemption is made for "any conveyance that constitutes broadcasting"[51], with "broadcasting" as defined in the Broadcasting Act 1989.[52] Broadcasting is subject to generic competition law under the Commerce Act.

As part of the Review, the Government considered whether the 'broadcasting exemption' should be removed. This would have the effect of making traditional broadcasting services, like the digital terrestrial and satellite networks for delivery of broadcasting services, subject to potential regulation in the same way as broadband and mobile networks that convey digital programming. In the context of digital convergence, it seemed arbitrary to retain this exemption.

Submissions generally indicated, however, that traditional broadcasting network providers are actually facing increased competition as a result of convergence. Audio-visual programming is increasingly being viewed on-demand or through time-delayed services, or supplied by over-the-top providers. Content providers have a choice of transmission networks (traditional broadcasting and online) to convey their programming. We think there is merit in this view, and consequently we consider that there is no clear ongoing problem with broadcasting services delivered using traditional broadcasting networks that would justify bringing them within the scope of access regulation under the Telecommunications Act.

The Government is also reviewing content regulation as part of our Convergence programme.

10.3.2 Net neutrality

We think that the current regulatory framework has sufficient safeguards in place to manage any net neutrality issues that may arise in New Zealand, but we are seeking views on this in light of recent market developments.

The majority of submitters to *Regulating Communications for the Future* did not consider there were current net neutrality concerns in the New Zealand market. While a small number of submitters supported a legislative framework for net neutrality, the majority of submitters noted that structural separation and strong retail competition protect our market from the incentives that led to net neutrality concerns in other jurisdictions. The transparency requirements under the Broadband Product Disclosure Code[53] were also mentioned as supporting end-user choice and promoting transparency for end-users.

[51] Section 5, definition of "telecommunication".

[52] Changes may be made to the definition of broadcasting in the Broadcasting Act, as part of the changes to content regulation. If this happens, we will take care to avoid any unintended consequences for the Telecommunications Act and to ensure that the effect of the broadcasting exemption remains as it is under the status quo.

[53] See http://www.tcf.org.nz/content/72e2572f-fd9e-49fc-b2de-05a73bb5701d.html.

Where concerns were noted, they related to the possible anti-competitive effects of some behaviours which were said to be inconsistent with net neutrality – for example commercial agreements between content providers and RSPs which provide advantages to particular providers. However, the majority of submitters considered that the Commission is adequately empowered to consider these matters under its market monitoring powers in section 9A of the Telecommunications Act.

Since that time, the proposed merger between Vodafone and Sky is one area which raises issues from a net neutrality perspective. Some commentators have raised concerns that this merger, if permitted, could result in greater incentives on the merged entity to carry out activities that may violate the principles of net neutrality and harm competition.

Internationally, various net neutrality issues have arisen in the last few months. The practice of 'Zero rating' – exempting specific data services or applications from users' data caps – has been banned in several jurisdictions. However, while the US Federal Communications Commission has looked closely at zero rating, it has not prohibited T-Mobile's 'Binge On' service, where videos streamed over its mobile network are limited to a low bitrate and exempted from users' data caps.

More recently, there have been further developments in net neutrality laws overseas. In June 2016, the Federal Communications Commission in the United States has had its 'Open Internet Order' upheld in the Court of Appeals.[54] Also in June, the Body of European Regulators for Electronic Communications released guidelines for national regulators on net neutrality rules.[55]

While we acknowledge that the recent trend of increasing convergence and industry consolidation may generate net neutrality concerns, we consider that the regulatory framework has sufficient safeguards in place to ensure that consumers are protected from net neutrality problems. The Commerce Commission has an important role: it can refuse to clear mergers which will substantially reduce competition. It can proactively monitor net neutrality issues under the Telecommunications Act. Finally, as noted above the Broadband Product Disclosure Code plays an important role in making sure consumers are aware of traffic management policies, and can compare the policies of different RSPs.

We remain interested in views on whether these tools are adequate given recent developments.

Questions

73. Do you agree that the current regulatory framework has sufficient safeguards in place to manage any net neutrality issues that may arise, in light of recent market developments?

[54] Federal Communications Commission, *Court Opinion – USTA v. FCC & USA* (June 2016), see https://www.fcc.gov/document/court-opinion-usta-v-fcc-usa.

[55] BEREC, *Draft BEREC Guidelines on implementation by National Regulators of European net neutrality rules* (June 2016), see http://berec.europa.eu/eng/document_register/subject_matter/berec/public_consultations/6075-draft-berec-guidelines-on-implementation-by-national-regulators-of-european-net-neutrality-rules.

10.4 Customer service and quality for telecommunications services

We recommend that the TCF take steps to modify the Telecommunications Dispute Resolution scheme to fully recognise structurally separated wholesalers, and to include all wholesalers so that Chorus and LFCs could be primary respondents to an end-user complaint.

In the Commission's annual *Consumer Issues* Report for 2015,[56] two major RSPs topped the list of 24 traders that were responsible for a quarter of complaints to the agency in 2014. While the retail market for telecommunications services is regarded as competitive, and this should be the primary means of achieving greater customer satisfaction (end-users can switch RSP if they are not happy with the service), there may be a need to address the customer experience for some telecommunications services and to improve the interactions between consumers and telecommunications providers in a more systemic way. In particular, we are concerned that end-users currently have no direct recourse to dispute resolution with wholesale UFB providers (Chorus and the LFCs).

The Telecommunications Dispute Resolution (**TDR**) scheme enforces the Telecommunications Forum's (**TCF**) *Customer Complaints Code*[57] (the **Code**). The TCF developed the Code and the Telecommunications Dispute Resolution Scheme Terms of Reference (**Scheme TOR**) which form basis of the TDR scheme. Currently the Code requires a billing relationship between the end-user lodging a complaint and the telecommunications provider. This means that structurally-separated UFB wholesalers cannot, technically speaking, be solely and directly accountable to end-users in the TDR. However, we note that Chorus and the LFCs are participating in the TDR to the extent that they are required (and can) to provide information and advice to RSPs who are subject to complaints.

We also note that membership of the TDR is voluntary for TCF members, and end-users must first raise complaints with their RSP before engaging with the TDR scheme.

To resolve these issues, in the first instance the TCF could take steps to modify the Code and Scheme TOR to fully recognise structurally separated wholesalers, and to include all wholesalers so that Chorus and LFCs could be primary respondents to an end-user complaint.

We note that the challenge for including wholesalers as primary respondents will be their lack of a direct contractual relationship with end-users. This could be overcome through inclusion in the revised Code and Scheme TOR of the measures UFB providers would be accountable against. This could cover service quality measures such as work quality, fault repair, installation timeframes for UFB services and other measures such as responsiveness to end-users and call centre handling of complaints. These could be linked to quality and non-price terms set under price-quality regulation.

[56] See http://www.comcom.govt.nz/the-commission/consumer-reports/consumer-issues-report/.
[57] See http://www.tcf.org.nz/content/d543c85e-c8bd-49bd-ac1e-34298f487210.html.

We also note that an alternative dispute resolution services process is being proposed through the Telecommunications (Property Access and Other Matters) Bill as part of changes to property access provisions. Among other things, this Bill establishes a disputes resolution scheme to address any grievances that may arise as a consequence of these changes and would only require wholesalers to be members of the scheme. There is the potential for these changes to inform any modifications to customer complaints resolution for a scheme such as the TDR scheme.

Another way to address the limitations of the TDR scheme would be to introduce a more prescriptive consumer dispute resolution scheme. We note there is a dormant Part 4B of the Telecommunications Amendment Act (No. 2) 2006 that can be brought into effect by Order in Council, which would enable the Minister for Communications to appoint a consumer complaints adjudicator and impose a consumer complaints levy on the industry.[58] We are not proposing to implement this option at this stage but we are interested in views, particularly from user groups, on the merits or otherwise of such an approach.

Questions

74. Please comment on the proposal to amend the Consumer Complaints Code and Scheme TOR to make wholesalers primary respondents to a customer complaint.

75. Please comment on the alternative option of introducing a new consumer complaints resolution scheme.

10.5 Housekeeping in the Telecommunications Act

The current list of areas where we propose to carry out some 'housekeeping' in the Telecommunications Act is as follows:

- The information disclosure provisions still remaining in Part 2B have never been used by the Commission and will be removed.
- Residual terms determinations provisions in subpart 1 of Part 2 have never been used and will be removed.
- Sections within Part 2A relating to the structural separation of Telecom have served their purpose and are no longer needed.
- "Telecom" is defined in section 5, is used as the name of the relevant access provider in Schedule 1 for a number of services and is also used in some other parts of the Telecommunications Act, but this is now "Spark", so will be updated accordingly.
- The "Ministry of Economic Development" is used in section 5 in the definition of "chief executive". This will be updated to "Ministry of Business, Innovation and Employment".

[58] Part 4B of the Telecommunications Amendment Act (No. 2) 2006. See http://www.legislation.govt.nz/act/public/2006/0083/latest/DLM401944.html.

Questions

76. Are there any other areas of the Telecommunications Act that you consider need to be updated or removed to be fit for purpose?

11. Submissions process

You are invited to make a written submission on the issues raised in this discussion document. The closing date for submissions is Friday, 19 August 2016.

Specific questions are listed at the end of relevant sections (and a full list of questions is in Annex B). The Government welcomes comment on some or all of the questions raised, as well as broader comment on the issues.

Where possible, you should provide specific examples and evidence to support your views. If these examples are commercially sensitive, we encourage you to provide two versions of your submission: a full version and a public version (see below).

Sending your submission

Comments should be submitted in writing (preferably by email) no later than 5pm on Friday, 19 August 2016, as follows:

Email (preferably as a PDF or Microsoft Word document): telcoreview@mbie.govt.nz

Post: Telecommunications Review Team
Communications Policy
Ministry of Business, Innovation & Employment
PO Box 1473
Wellington 6140
New Zealand

Delivery address:

Telecommunications Review Team
Communications Policy
Ministry of Business, Innovation & Employment
Main reception
15 Stout Street
Wellington 6011

If you post your submission, please also send it electronically if possible.

Publication of submissions

Except for material that may be defamatory, the Ministry of Business, Innovation and Employment (the **Ministry**) will post all written submissions at www.mbie.govt.nz/telcoreview. The Ministry will consider you to have consented to publication by making a submission, unless you clearly specify otherwise in your submission. If sensitive material in your submission cannot be published, please provide two versions of your submission – a full version (with that material clearly identified) and a publishable version with redactions.

Submissions are also subject to the Official Information Act 1982 (the **OIA**). If you have any objection to the release of any information in your submission, please set this out clearly with your submission. In particular, identify which part(s) you consider should be withheld, and explain the reason(s) why you consider we should withhold the information by reference to section 9 of the OIA. The Ministry will take such reasons into account when responding to requests under the OIA.

The Privacy Act 1993 establishes certain principles with respect to the collection, use and disclosure by various agencies (including the Ministry) of information relating to individuals and access by individuals to information relating to them, held by such agencies. Any personal information you supply to the Ministry in the course of making a submission will be used by the Ministry only in conjunction with consideration of matters covered by this document. Please clearly indicate in your submission if you do not wish your name to be included in any summary the Ministry may prepare for public release on submissions received.

Summary of acronyms

ACCC	Australian Competition and Consumer Commission
ADSL	Asymmetric Digital Subscriber Line
BBM	Building block model
CDMA	Code division multiple access mobile technology
CFH	Crown Fibre Holdings
Commerce Act	Commerce Act 1986
Commission	New Zealand Commerce Commission
DAC	Depreciated actual costs
EDBs	Electricity distribution businesses
FPP	Final Pricing Principle
GPON	Gigabit Passive Optical Network
HFC	Hybrid fibre-coaxial
LFC	Local fibre company
MAR	Maximum allowable revenue
MBIE/the Ministry	Ministry of Business, Innovation and Employment
Mbps	Megabits per second
MVNO	Mobile virtual network operator
OECD	Organisation for Economic Co-operation and Development
ODRC	Optimised depreciated replacement cost
RAB	Regulated asset base
RBI	Rural broadband initiative
RSP	Retail service provider
Scheme TOR	Telecommunications Dispute Resolution Scheme Terms of Reference

STD	Standard terms determination
TCF	New Zealand Telecommunications Forum
TDR Scheme	Telecommunications Dispute Resolution Scheme
Telecommunications Act	Telecommunications Act 2001
TSLRIC	Total service long-run incremental cost model
TSO	Telecommunications Service Obligation
UBA	Unbundled Bitstream Access service
UCLFS	Unbundled Copper Low Frequency service
UCLL	Unbundled Copper Local Loop service
UFB	The Ultra-fast Broadband initiative
UFB providers	Chorus, Enable, Ultrafast Fibre and Northpower (and any LFCs created pursuant to the extension to the UFB programme)
VDSL	Very high bit rate digital subscriber line
WACC	Weighted average cost of capital

Glossary of terms

4G	The fourth generation of mobile technology. The term '4G' is commonly used interchangeably with 'Long Term Evolution' or 'LTE'.
Anchor product	Service that UFB providers would be required to supply, with price, non-price and quality terms set by the Commerce Commission.
Backhaul	In a telecommunications network, backhaul is the capacity between the core backbone network and the local 'edge' networks.
Broadband	Broadband is a very general term that refers to the wide bandwidth, or high capacity of a connection.
Building Block Model	The building block model (**BBM**) is a methodology used for regulating monopoly utilities. Under BBM, a regulated supplier's allowed revenue is equal to the sum of underlying components or 'building blocks,' consisting of the return on capital, return of capital (or depreciation), operating expenditure, and various other components such as taxes and incentive amounts. The initial asset valuation is carried out and is then updated over time based on actual prudent/efficient CAPEX and depreciation.
Cabinet	Roadside infrastructure that provides the aggregation point between individual end-user telecommunications connections (for example, the connections of all residents in a subdivision or set of streets) and the nearest exchange (which serves a wider area).
Capital expenditure	Expenditure on acquiring, maintaining or improving long-term assets such as network equipment, property or buildings.
Claw-back	Recouping an amount for a regulatory period through higher-than-normal or lower-than-normal prices in subsequent regulatory periods.
Colocation	Colocation is the ability to locate a supplier's telecommunications equipment within a network operator's premises or equipment.
Communications	The broad sector which includes telecommunications network providers, retail service providers, broadcasters (whether over television, radio or internet), content aggregators and providers, and internet services companies.

Convergence	Historically, different networks were needed to deliver different services (such as voice, data and broadcasting). Modern internet protocol networks are capable of delivering a wide range of services, and the evolution of markets to take advantage of this is referred to as 'convergence'.
Copper	The original national fixed line telephone network is a copper network. It allows electrical currents to flow, and was designed exclusively for telephony, but is now also used for internet services. The network is owned and operated by Chorus.
Dark fibre	Passive fibre optic network infrastructure, which is sold without any optical or electronic signalling. The customer (usually a Retail Service Provider) is responsible for adding the transmission system at both ends. Also referred to as layer 1 or 'unlit' fibre services.
Designated services	Services regulated on a price basis under the Telecommunications Act (see also **specified services**).
Depreciation	Depreciation is a term used in accounting, finance and economics meaning the reduction in value of an asset over time to reflect its remaining service potential.
Economic regulation	In the communications context, we use this phrase to refer to regulation adopting cost-based measures to control monopoly pricing, to ensure services are of a suitable quality and to ensure access is provided to regulated infrastructure on a timely basis.
End-user	A telecommunications service end-user is a person (or business) who is the ultimate recipient of a telecommunications service (for example, the person using a broadband internet connection), or a service that relies on a telecommunications service (for example, the user of a monitored health alarm).
Exchange	An exchange is a central building which connects all the end-users' connections within a geographic area to the wider national telecommunications network.
Fixed line services	Services provided over fixed line networks including copper, fibre and Hybrid fibre-coaxial networks.
Fibre or fibre optic	An optical fibre is a very thin strand of glass that is used to transport information via a beam of light.
Geographic averaging	The practice of charging a single price to end-users of a particular product across a geographic coverage area, even though the costs of service provision may vary between those users.

Hybrid fibre-coaxial (HFC) network	A broadband network based on a hybrid of fibre and coaxial cable technologies.
Information disclosure regime	A set of requirements providing for disclosure of financial and other network-related information by regulated suppliers.
Input methodologies	A set of rules designed to increase regulatory predictability, whereby the regulator develops and specifies binding methodologies for determining the various inputs into price-monitoring, price-setting and other regulatory activities prior to those activities occurring.
Layer 1 service	A layer 1 service provides wholesale access to the physical/passive layer of a digital communications network, based on the Open Systems Interconnection (**OSI**) model of computer networking. The service is sold without any optical or electronic signalling and includes UCLL and dark fibre, as described above.
Layer 2 service	A layer 2 service provides wholesale access to the data link layer of the OSI model of computer networking. The service includes UBA and UFB bitstream services.
Local Fibre Companies	Companies formed with the Government's partners in the UFB initiative (other than Chorus) to deliver wholesale fibre services in certain areas: Northpower Limited, Ultrafast Fibre Limited and Enable Services Limited, and any such companies formed under the extension to the UFB initiative.
Maximum allowable revenue	A component of economic regulation whereby regulated suppliers are limited to recovering total revenues from customers up to a maximum specified amount. Suppliers would generally have discretion in how they price individual services in order to generate their maximum allowable revenue.
Merits review	An appeal right whereby the appellate Court is able to review the substance of a decision as opposed to only the process or compliance with the law.
Mobile virtual network operator	A mobile virtual network operator (**MVNO**) is a mobile service provider that does not have its own network infrastructure or radio spectrum licenses, but rather uses an existing mobile network operator's infrastructure and spectrum. An MVNO provides services by purchasing a wholesale 'full service' mobile offering. The service provider then utilises an existing mobile network to deliver a full suite of mobile services to end-users, with their own branding, billing, and so on.
NBN	Australia's national broadband network.
Net neutrality principle	The general principle that all internet traffic should be treated the same.

Node	A node is an aggregation point, connection point, redistribution point, or endpoint in a network. In a fixed telecommunications network, a node can be a telephone exchange, a roadside cabinet, or a computer providing some intelligent network service.
Open access	An 'open access' network is one where the regulated supplier offers wholesale access to network infrastructure or services on non-discriminatory or 'equivalence-of-inputs' terms.
Open Systems Interconnection (OSI) model	A standardised model for the functions in a communications or computer network.
Over-the-top services	Over-the-top (**OTT**) services are offered to end-users over broadband networks, often replacing services traditionally offered by telecommunications providers. Examples are Netflix, Lightbox, Neon, Skype, Facetime and messaging services such as Whatsapp.
Price- or revenue-smoothing	The gradual adjustment of prices or revenues over time to avoid sudden movements or step changes. It can be undertaken in a present-value equivalent manner.
Price-quality regulation	Regulation of revenues and the quality of services (with the option of setting a cap on the overall revenues of the regulated business and/or on individual service pricing).
Part 4	Part 4 of the Commerce Act 1986, under which the Commerce Commission has a role regulating the price and quality of services in markets where there is little or no competition and little prospect of future competition.
Regulatory Asset Base (RAB)	The value of total investment by a regulated utility in the assets which will generate revenues over time.
Regulatory framework	The regulatory framework is the system of laws, regulations, rules, procedures and organisations within which the regulation of communications services takes place. Components include the access regime (and any associated price control), the regulatory decision maker, rules and procedures for decision making, requirements that regulated entities must comply with, and other matters.
Retail Service Provider (RSP)	A telecommunications provider offering services directly to end-users for their own consumption.
Roaming	Roaming is the ability for a mobile device of an end-user to access voice, data or other services while outside the geographic coverage area of their home network, by using a network of another operator.

Specified services	Services where only non-price terms are regulated under the Telecommunications Act. For example, access providers are required to offer a national roaming service but are free to set prices commercially. See also **designated services**.
Structural separation	The 2011 structural separation of Telecom Corporation of New Zealand Limited into two separate entities, Chorus Limited (wholesale only infrastructure provider) and Telecom New Zealand, now Spark New Zealand Limited (a Retail Service Provider).
Telecommunications	Delivery of information over networks using broadband and telephone services, and associated activities.
Telecommunications Service Obligations	The telecommunications service obligations (**TSO**) are a set of obligations established under the Telecommunications Act to ensure certain telecommunications services are available and affordable. There are two current TSO services: the Deaf Relay Service, and a Local Service Obligation regarding the provision of residential telephone services.
Total Service Long-Run Incremental Cost	Total Service Long-Run Incremental Cost (**TSLRIC**) is a methodology for determining regulated prices, where the prices for a regulated firm's individual services are equal to the incremental cost of providing the given services. The asset base is periodically revalued based on forward-looking replacement cost (see modern equivalent asset).
UBA	Unbundled Bitstream Access (**UBA**) is a DSL-enabled service that enables access to, and interconnection with, part of Chorus' fixed Public Data Network. It provides RSPs with a managed bitstream service from an exchange to an end-user, so that the companies do not need to manage their own copper network equipment.
UCLL	Unbundled Copper Local Loop (**UCLL**) is a layer 1 unbundled copper local loop service. It enables access to, and interconnection with, Chorus' copper local loop network. The access seeker can combine the UCLL Service with network transport services and service level functionality to deliver services to end-users.
Unbundling	Unbundling allows an RSP to gain access to a layer 1 service on the UFB or copper network. An RSP typically installs its own layer 2 equipment at the exchange or cabinet, so that the RSP can offer its own broadband service as opposed to using a wholesale service provided by Chorus or the LFC. Developments in technology will potentially provide new forms of unbundling which are not necessarily reliant on physically installing equipment.

Utility-style regulation	Regulatory regimes traditionally developed for utilities such as electricity, gas and water. These regimes usually offer tiers of possible regulation, starting with information disclosure requirements, and then more intrusive forms of regulation such as price-quality control and/or arbitrate/negotiate regulation. Price control in utility-style regulation is usually based on BBM.
Wash up	The equalisation of a position by introducing amounts to offset or compensate for prior gains and losses, or over-spend and under-spend.

Annex A: Summary of proposals

Issue	Proposal / Government view	Questions
Utility-style regulatory framework	The Government will implement a utility-style regulatory framework, with a BBM pricing methodology, for fixed line services.	
Consistency for copper and fibre	When BBM price-quality regulation is introduced for Chorus, it should apply to both Chorus' copper and UFB networks.	
The role of input methodologies	The Commission will be required to set input methodologies for the regulation of fixed line services, mirroring the requirement under Part 4 of the Commerce Act (**Part 4**).	1. Please comment on the set of matters that you recommend input methodologies should cover, with reference to the examples.
The role of information disclosure	We propose that the current information disclosure obligations be amended to mirror the Part 4 requirements for information disclosure and be in place from 2020, regardless of whether or not price-quality regulation is applied to UFB providers from 2020.	2. Should information disclosure apply even if price-quality regulation is applied to Chorus and/or LFCs at 2020? 3. Should the information disclosure requirements apply to Chorus' copper services? Should there be any differences in the information required for the copper network?
Telecommunications Commissioner role	No changes are proposed to the Telecommunications Commissioner role in the short term. We are proposing that there should be a scheduled review of the Telecommunications Commissioner role by government after	4. Do you agree that the role of the Telecommunications Commissioner should be reviewed after 2020?

Issue	Proposal / Government view	Questions
	2020, to ensure that the role is still relevant.	
Revenue cap and number of RABs	We propose that, for revenue and price-setting purposes, each UFB provider should have a single RAB. All of Chorus' copper and fibre access infrastructure should be included in a single RAB, and each LFC's fibre access infrastructure would be included in its RAB.	5. Do you agree that the number of RABs for price-quality regulation purposes should be set in legislation, or should it be a matter for the Commission? 6. Do you support a single RAB for copper and fibre? Please explain how your preferred approach would meet our policy objectives.
RAB valuation methodology	Our preference is for the RAB valuation methodology to be determined by the Commission, consistent with the approach under Part 4 of the Commerce Act. However, we are seeking views on whether the Government should provide some guidance to the Commission on this matter.	7. Do you agree that decisions on the RAB valuation methodology should be made by the Commission? 8. If you think the Government should provide legislative guidance, what form of guidance do you recommend?
Other decisions for the Commission	We propose that the Commission should determine the scope of assets that are included in the RAB, based on the use of those assets in providing the 'fixed line access services' regulated under the new framework. We also propose that the treatment of the Government's financial contributions to UFB; the approach to decommissioned assets; and the treatment of initial losses should be managed by the Commission. We are seeking views on whether the Government should provide guidance to the Commission on these matters, to support predictability.	9. Do you agree with our proposed approach to enable the Commission to determine the scope and treatment of assets in the RAB? 10. Please comment on any matters Government should take into account when developing a definition of "fixed line access services". 11. Do you think Chorus' assets in LFC areas should be excluded from its RAB? 12. Do you agree the Commission should decide on the treatment of UFB financial support? Do you support the Government providing guidance? If so, please comment on the guidance or approach you recommend.

Issue	Proposal / Government view	Questions
		13. Please comment on our proposed approach to provide guidance to the Commission that it should implement its functions in a way that does not create incentives on Chorus to keep end-users on copper services in areas where there is a choice of UFB services available. 14. Do you agree the Commission should decide on the treatment of UFB initial losses?
Assessing the efficiency and prudency of capital expenditure	There should be a role for the Commission to assess the extent to which infrastructure has been efficiently deployed. However, given the nature of the UFB and RBI initiatives as public/private partnerships driven by Government policy objectives, the Commission will be required to take into account Government economic policy statements (as it must currently do under Part 4). As with the treatment of Transpower under Part 4, the Commission will play a key role in pre-approving future major capital expenditure by regulated suppliers from 2020.	15. Do you agree with our proposed approach to the treatment of networks rolled out under the Government's UFB and RBI programmes? 16. Do you agree with our proposed approach to the treatment of non-standard installations? What threshold do you propose for charging end-users for non-standard installations? 17. Do you agree there should be a pre-approval mechanism available to regulated suppliers for future major capital expenditure based on the Transpower model? 18. Does the proposal to require the Commission to have regard to economic policy statements provide sufficient certainty to support any future government broadband infrastructure initiatives?
Form of price-quality regulation	Government will specify the form of price-quality regulation: • an overall revenue cap; with • price-capped anchor products.	19. What is your preferred option for the form of price-quality regulation – price caps, a revenue cap, or our preferred option – and why? 20. How could your preferred option be implemented to

Issue	Proposal / Government view	Questions
	We note that the form of price-quality regulation can be influenced by the need for accurate demand forecasts for regulated services. The revenue cap approach with anchor products that we are proposing is less vulnerable to inaccurate forecasts. This is appropriate given such forecasting will be more difficult during the period of transition from copper to UFB services. We also note that demand can be impacted by the potential for some competition 'at the fringes'. This could have unexpected effects if it led to less demand and higher prices for regulated services. We will test the interaction of our proposed form of control with competition from other technologies and in particular regions. The Commission will have the power to investigate and recommend a change to the form of price-quality regulation from the second regulatory period (2025-), if statutory criteria are met (see below).	manage the risks identified above? 21. If you prefer a price cap approach, how should the demand forecasting risk be managed? 22. Is there any way to make sure that the UFB provider is not wholly insulated from competition under a revenue cap model? For example, could an asymmetric wash up be applied? 23. Are there any risks or benefits of Option 3 that we have not identified? Will this option have the incentive effects we are seeking? How could these be addressed? 24. Do you agree the impact of competition 'at the fringes' should be managed? If so do you agree with our proposal for an 'asymmetrical wash up'?
Anchor products	We propose the following three initial anchor products must be supplied from 2020: • a voice-only service; • an 'entry level broadband' service, encompassing broadband which is expected to provide speeds up to 15/1Mbps; and • a 'basic broadband' service, encompassing broadband which is expected to provide speeds up to 100/20Mbps, to cover a typical broadband user's needs (as at 2020) and to act as an economic 'anchor' for the other products in the value chain.	25. Should the following services (as defined above) be anchor products from 2020? Why or why not? a. voice-only service; b. 'entry-level broadband'; and c. 'basic broadband'.

Issue	Proposal / Government view	Questions
	The Commission would be able to classify a layer 1 fibre service as an anchor product, with cost-oriented pricing, if a statutory test is met (see below).	
Pricing of anchor products	We do not have a preference at this stage on how anchor product prices should be specifically set, and we are seeking views on this. We would like anchor product pricing to be consistent with certain general principles: • end-users of anchor products should not face sharp increases in pricing of anchor products; • anchor product prices in the first regulatory period (2020-2025) should be set with regard to prices for similar products in the market in 2019 (for example, these prices could be used as reference points for setting the initial anchor product prices, and for determining the glide path over the duration of the regulatory period); and • anchor product prices should be broadly reflective of the quality of the particular anchor product (so, we would expect the 'entry-level broadband' product to be significantly cheaper than the 'basic broadband' product).	26. How should anchor product prices be determined? 27. Do you have any comments on the following principles? a. end-users should not face sharp price increases; b. prices in the initial regulatory period should be set with regard to 2019 prices; and c. anchor product prices should be broadly reflective of the quality of the particular anchor product. 28. Are there any other matters that need to be addressed regarding the pricing of technology-neutral anchor products? 29. Do you think there would be any negative outcomes from the requirement to provide anchor products on a geographically averaged basis? Do you think the Commerce Act provisions would be a sufficient alternative in the absence of this requirement?
Layer 1 anchor product	The existing obligation on UFB providers to unbundle the point-to-multipoint parts of the UFB network from 1 January 2020 will be retained. This service will initially be classed as a 'commercial service' (see below on commercial services). The Commission would be able to classify a layer 1 fibre service as an anchor product, with cost-oriented pricing, if a	30. Should the following services be anchor products from 2020? Why or why not? a. layer 1 fibre service; and b. any other services.

Issue	Proposal / Government view	Questions
	statutory test is met. We are seeking views on how to deal with wavelength unbundling.	31. What test should the Commission be required to apply to determine whether to introduce a layer 1 fibre anchor product? 32. Would there be any problems with a technology-specific layer 1 anchor product? Should the layer 1 anchor product include UCLL, and therefore be technology-neutral? 33. Should the layer 1 anchor product include both point-to-point and point-to-multipoint configurations? How do you recommend the Commission should calculate a cost-oriented price for the layer 1 anchor product? 34. Should the Commission have the power to require services based on other forms of unbundling (such as wavelength unbundling) to be provided?
Updating anchor products	Before each subsequent regulatory period (likely from 2025 onwards), the Commission would be required to review and update the anchor product set.	35. How should the regulatory framework provide flexibility for the Commission to update anchor products over time? What criteria should be used for the selection of anchor product specifications? 36. Should there be a limit on when the Commission can review and update the anchor product set? What frequency of reviews do you recommend? 37. Should there be a limit on the number and type of anchor products, as proposed?
Consistency between Chorus and LFCs	There may be some advantages for end-users and RSPs in having nationally consistent pricing for basic anchor products. Consistent pricing between UFB providers could be achieved by requiring the basic anchor product set to be available from	38. Do you think that anchor products should be priced consistently across LFCs and Chorus? 39. Please comment on any alternative ways to achieve

Issue	Proposal / Government view	Questions	
	all UFB providers at the same price caps. Overall revenue caps for each UFB provider could differ, but UFB providers could make up the difference in their other (non-anchor) products. We are seeking views on the desirability of requiring all UFB providers' to have the same price caps for the anchor products.		consistency of pricing between Chorus and LFCs.
Commercial services	Price and quality terms for commercial services would be largely at the provider's discretion, subject to the requirement to provide a commercial layer 1 unbundled UFB service, the revenue cap and some minimum requirements: • UFB providers must conduct industry consultation on price and material non-price terms for commercial services and give at least 12 months' notice for changes; • prices for commercial services must be geographically averaged within that UFB provider's network; and • UFB providers will be subject to a commitment to ongoing service development and RSP engagement.	40. 41.	Should commercial services offered by UFB providers be subject to any requirements? Do you agree with our suggested requirements, including geographic averaging (noting the question earlier on this point in relation to anchor products) and the requirement that 12 months' notice must be given of any changes to price or material non-price terms for commercial services?
Deeds of undertaking for open access	The deeds of undertaking for open access will remain in place.	42.	What is your view on our proposal to carve the initial layer 2 anchor products out from this obligation?
Retaining flexibility as the market matures: the Commission can recommend changes to the form of control	We are proposing that, subject to meeting a legislative test, the Commission should in the future be able to investigate and recommend to the Minister that changes are needed to the form of price control, including potentially moving to a price cap approach.	43. 44.	Do you agree the Commission should have the power to recommend changes to the form of price control (including moving to a price cap regime) if certain criteria are satisfied? If so what criteria would you propose? Should the Minister make the final decision, or should

Issue	Proposal / Government view	Questions	
			this matter be delegated entirely to the Commission?
Setting price and non-price terms	We propose that price and non-price terms for anchor products are set by the Commission in determinations, similar to section 52P determinations in the Commerce Act.	45.	Do you agree that regulated terms should be set by Commission determination?
		46.	If so, do you agree that mirroring the approach to section 52P determinations in the Commerce Act is appropriate?
Options for implementing price-quality regulation: Chorus	The Government's preference is that price-quality regulation and information disclosure would apply to Chorus' copper and fibre access networks, from 2020 (the **2020 option**). However, we are seeking your views on a **backstop option** (under which the implementation of any BBM price-quality regulation could be dependent on a Commission recommendation that it has become necessary). Chorus would be subject to information disclosure (and a specific intervention test would be in place to introduce price-quality regulation). We will consider the backstop option if there is evidence that it provides significant benefits over the 2020 option, particularly in delivering on end-user interests.	47.	Do you support implementing price regulation for Chorus at 2020, or as a backstop?
		48.	What benefits would a backstop approach have over a 2020 model of the type described in this paper?
		49.	How could a backstop approach ensure that the interests of end-users are taken into account?
		50.	Under a backstop approach, how do you suggest copper services be treated? Please comment on the preferred option of 'freezing' the copper price.
		51.	Under this option, how do you propose managing the risk of copper prices becoming out of date over time? Is a CPI-1% adjustment appropriate?
Options for implementing price-quality regulation: LFCs	The Government's preference is for LFCs' fibre access services to be subject to information disclosure from 2020 under the 'backstop' approach, with price-quality regulation able to be introduced rapidly if an intervention test is satisfied.	52.	Is there a case to implement a backstop model, with information disclosure, for LFCs? a. To what extent do you think LFCs will be subject to competitive pressure from 2020? b. Do you expect that they will need to be subject to price-quality regulation at some point? When might this occur?

Issue	Proposal / Government view	Questions	
			c. Are there any other risks or benefits to a lighter touch approach for LFCs?
Intervention test	If any UFB providers are subject to the backstop approach, a specific intervention test should be set in legislation for the introduction of price-quality regulation. We are proposing a test based on the application of the new purpose statement.	53.	Please comment on the proposed intervention test based on the purpose statement. a. What are the risks and benefits? b. Would another type of test be more appropriate, such as that in section 52G of the Commerce Act? Why?
Legislative vehicle – Telecommunications Act	We intend to establish fixed line regulatory settings within a new part of the Telecommunications Act, which replicates appropriate settings from Part 4 of the Commerce Act.	54.	Do you have any comments on our proposal to establish the fixed line regulatory settings within the Telecommunications Act?
Purpose statement	We recommend that a new purpose statement be introduced for the regulatory framework for fixed line services, based on the existing purpose statement in section 52A of the Commerce Act.	55. 56.	Do you agree that it is most appropriate to set out a new purpose statement separately to the existing one, in a new Part to the Telecommunications Act? Do you agree with our proposal to largely replicate section 52A? Will this achieve the outcomes we have outlined? a. Do you agree with the terminology, including the use of “end-users”? b. Do you think a single purpose statement derived from section 52A will be adequate to deal with access issues associated with unbundling? d. Are any other definitions needed?
Adding and removing suppliers	There should be a process within the new Part that provides for introducing new regulated suppliers of fixed line services in	57.	Do you agree with our proposed process and test for introducing a new supplier to the regime (or removing

Issue	Proposal / Government view	Questions
	the future, and for removing them. This would be limited to any suppliers of fixed line services in markets with little or no competition.	a supplier from the regime)? Please provide additional comments on any other aspects you think should be considered. 58. Do you agree that the new framework should only apply to fixed line services?
Appeal rights	We propose that merits review rights mirroring those in Part 4 of the Commerce Act be introduced as part of the new framework for fixed line services. We do not propose any change to existing appeal rights relating to pricing processes in the Telecommunications Act.	59. Do you agree with the proposed approach to merits review? If not, are there any characteristics of fixed line services which mean that Part 4 merits review processes are inappropriate, or any changes are needed? 60. Do you agree that merits review should not be introduced for the existing regulatory framework in the Telecommunications Act?
Backdating and claw-backs	To maintain consistency with the Part 4 system, we propose that mandatory 'claw-backs' should be in place for some decisions relating to fixed line services under the new framework. We do not think they should be extended to the existing framework, but we are seeking views on this.	61. Do you agree that mandatory claw-backs should be introduced for utility-style regulation of fixed line services under the Telecommunications Act?
Managing the transition	The legislative framework should establish an explicit policy objective of minimising revenue and price volatility during the transition to the new framework. This should minimise the impact of implementing the new price-quality regulation model.	62. In your view, do our proposals around smoothing the revenue cap and minimising price volatility for anchor products provide enough protection in reducing the risk of price and/or revenue shocks?
Transitional arrangements	If the 2020 implementation option is adopted, but the Commission is unable to implement regulation by 2020, price and non-price terms for wholesale products in the market in December 2019 could be temporarily "frozen" with	63. Do you agree that a transitional arrangement should be in place in case the new framework is not able to be implemented with enough notice before 2020? 64. Do you agree with the proposed model of a temporary

Issue	Proposal / Government view	Questions
	indexation.	freeze? Are there any other risks or benefits of this approach?
Mobile competition and infrastructure sharing	We note that 2degrees and Vodafone have reached a long term agreement on national roaming. However, we have some remaining concerns about whether there are sufficient incentives for efficient infrastructure sharing, including the availability of competitively-priced national roaming arrangements.	65. Please comment on any other measures you recommend to address mobile infrastructure sharing (outside of changes to Schedule 3, which are discussed in the next chapter). 66. Do you agree with our views on MVNOs and tools to manage competition in retail markets?
Managing copper to fibre migration	We propose that Chorus leads the any future withdrawal of copper services according to its own timeframes. The Government would set minimum requirements that would need to be satisfied before Chorus could withdraw copper services in a given area. This could be achieved through a regulated code.	67. Would a regulated code, applying to RSPs as well as UFB providers, be the best way to protect end-users in the transition from copper to UFB services? 68. If a regulated code is not your preference, what mechanism do you propose to ensure end-users are protected in the transition?
Recommending regulation and deregulation	We make several proposals for streamlining the Schedule 3 process: • changing the requirement for the Commission to make reasonable efforts to prepare and deliver its final report to the Minister within no more than 120 working days to a 'hard' deadline; • changing the Schedule 3, Part 2 process for investigating whether a specified service should become a designated service to be more streamlined; and • changing the process under Schedule 3A for undertakings to a 'one shot' process.	69. Do you agree with the recommendations to make the Schedule 3 process more efficient? 70. Please comment on whether any other aspects of the Schedule 3 process could be removed or shortened further, or on any other ways to make the process more efficient and timely. 71. Do you recommend any further changes in order to mitigate any potential harm being done in the market while a Schedule 3 process is underway? 72. Should there be criteria specified for the Commission's decision whether to recommend a one- or two-stage pricing process for a potentially

Issue	Proposal / Government view	Questions	
	We also make a proposal to minimise potential harm during a Schedule 3 process, where the Commission would have the power to set an interim regulated price. The Commission should also have the power to recommend a one- or two-stage pricing process for a service recommended to be regulated under Schedule 3.		regulated service?
Convergence: Broadcasting exemption and net neutrality	The Government will retain the exemption for broadcasting infrastructure in the Telecommunications Act. We think that the current regulatory framework has sufficient safeguards in place to manage any net neutrality issues that may arise in New Zealand, but we are seeking views on this in light of recent market developments.	73.	Do you agree that the current regulatory framework has sufficient safeguards in place to manage any net neutrality issues that may arise, in light of recent market developments?
Customer service and quality for telecommunications services	We recommend that the TCF take steps to modify the Telecommunications Dispute Resolution scheme to fully recognise structurally separated wholesalers, and to include all wholesalers so that Chorus and LFCs could be primary respondents to an end-user complaint.	74. 75.	Please comment on the proposal to amend the Consumer Complaints Code and Scheme TOR to make wholesalers primary respondents to a customer complaint. Please comment on the alternative option of introducing a new consumer complaints resolution scheme.
Housekeeping in the Telecommunications Act	The current list of areas where we propose to carry out some 'housekeeping' in the Telecommunications Act is as follows: • The information disclosure provisions still remaining in Part 2B have never been used by the Commission and will be removed. • Residual terms determinations provisions in subpart 1 of Part 2 have never been used and will be removed. • Sections within Part 2A relating to structural	76.	Are there any other areas of the Telecommunications Act that you consider need to be updated or removed to be fit for purpose?

Issue	Proposal / Government view	Questions
	separation of Telecom have served their purpose and are no longer needed. • "Telecom" is defined in section 5, is used as the name of the relevant access provider in Schedule 1 for a number of services and is also used in some other parts of the Telecommunications Act, but this is now "Spark", so will be updated accordingly. • The "Ministry of Economic Development" is used in section 5 in the definition of "chief executive". This will be updated to "Ministry of Business, Innovation and Employment".	

Annex B: Summary of questions

Chapter 3: Policy decisions on the framework

The role of input methodologies

1. Please comment on the set of matters that you recommend input methodologies should cover, with reference to the examples.

The role of information disclosure

2. Should information disclosure apply even if price-quality regulation is applied to Chorus and/or LFCs at 2020?
3. Should the information disclosure requirements apply to Chorus' copper services? Should there be any differences in the information required for the copper network?

Chapter 4: The role of the regulator

Telecommunications Commissioner role

4. Do you agree that the role of the Telecommunications Commissioner should be reviewed after 2020?

Chapter 5: Regulatory Asset Base (RAB)

Revenue cap and number of RABs

5. Do you agree that the number of RABs for price-quality regulation purposes should be set in legislation, or should it be a matter for the Commission?
6. Do you support a single RAB for copper and fibre? Please explain how your preferred approach would meet our policy objectives.

RAB valuation methodology

7. Do you agree that decisions on the RAB valuation methodology should be made by the Commission?
8. If you think the Government should provide legislative guidance, what form of guidance do you recommend?

Other decisions for the Commission

9. Do you agree with our proposed approach to enable the Commission to determine the scope and treatment of assets in the RAB?
10. Please comment on any matters Government should take into account when developing a definition of "fixed line access services".
11. Do you think Chorus' assets in LFC areas should be excluded from its RAB?

12. Do you agree the Commission should decide on the treatment of UFB financial support? Do you support the Government providing guidance? If so, please comment on the guidance or approach you recommend.

13. Please comment on our proposed approach to provide guidance to the Commission that it should implement its functions in a way that does not create incentives on Chorus to keep end-users on copper services in areas where there is a choice of UFB services available.

14. Do you agree the Commission should decide on the treatment of UFB initial losses?

Assessing the efficiency and prudency of capital expenditure

15. Do you agree with our proposed approach to the treatment of networks rolled out under the Government's UFB and RBI programmes?

16. Do you agree with our proposed approach to the treatment of non-standard installations? What threshold do you propose for charging end-users for non-standard installations?

17. Do you agree there should be a pre-approval mechanism available to regulated suppliers for future major capital expenditure based on the Transpower model?

18. Does the proposal to require the Commission to have regard to economic policy statements provide sufficient certainty to support any future government broadband infrastructure initiatives?

Chapter 6: Price-quality regulation

Form of price-quality regulation

19. What is your preferred option for the form of price-quality regulation – price caps, a revenue cap, or our preferred option – and why?

20. How could your preferred option be implemented to manage the risks identified above?

21. If you prefer a price cap approach, how should the demand forecasting risk be managed?

22. Is there any way to make sure that the UFB provider is not wholly insulated from competition under a revenue cap model? For example, could an asymmetric wash up be applied?

23. Are there any risks or benefits of Option 3 that we have not identified? Will this option have the incentive effects we are seeking? How could these be addressed?

24. Do you agree the impact of competition 'at the fringes' should be managed? If so do you agree with our proposal for an 'asymmetrical wash up'?

Anchor products

25. Should the following services (as defined above) be anchor products from 2020? Why or why not?

    a. voice-only service;

    b. 'entry-level broadband'; and

    c. 'basic broadband'.

Pricing of anchor products

26. How should anchor product prices be determined?

27. Do you have any comments on the following principles?

    a. end-users should not face sharp price increases;

    b. prices in the initial regulatory period should be set with regard to 2019 prices; and

    c. anchor product prices should be broadly reflective of the quality of the particular anchor product.

28. Are there any other matters that need to be addressed regarding the pricing of technology-neutral anchor products?

29. Do you think there would be any negative outcomes from the requirement to provide anchor products on a geographically averaged basis? Do you think the Commerce Act provisions would be a sufficient alternative in the absence of this requirement?

Layer 1 anchor product

30. Should the following services be anchor products from 2020? Why or why not?

    a. layer 1 fibre service; and

    b. any other services.

31. What test should the Commission be required to apply to determine whether to introduce a layer 1 fibre anchor product?

32. Would there be any problems with a technology-specific layer 1 anchor product? Should the layer 1 anchor product include UCLL, and therefore be technology-neutral?

33. Should the layer 1 anchor product include both point-to-point and point-to-multipoint configurations? How do you recommend the Commission should calculate a cost-oriented price for the layer 1 anchor product?

34. Should the Commission have the power to require services based other forms of unbundling (such as wavelength unbundling) to be provided?

Updating anchor products

35. How should the regulatory framework provide flexibility for the Commission to update anchor products over time? What criteria should be used for the selection of anchor product specifications?

36. Should there be a limit on when the Commission can review and update the anchor product set? What frequency of reviews do you recommend?

37. Should there be a limit on the number and type of anchor products, as proposed?

Consistency between Chorus and LFCs

38. Do you think that anchor products should be priced consistently across LFCs and Chorus?

39. Please comment on any alternative ways to achieve consistency of pricing between Chorus and LFCs.

Commercial services

40. Should commercial services offered by UFB providers be subject to any requirements?

41. Do you agree with our suggested requirements, including geographic averaging (noting the question earlier on this point in relation to anchor products) and the requirement that 12

months' notice must be given of any changes to price or material non-price terms for commercial services?

Deeds of undertaking for open access

42. What is your view on our proposal to carve the initial layer 2 anchor products out from this obligation?

Retaining flexibility as the market matures: the Commission can recommend changes to the form of control

43. Do you agree the Commission should have the power to recommend changes to the form of price control (including moving to a price cap regime) if certain criteria are satisfied? If so what criteria would you propose?

44. Should the Minister make the final decision, or should this matter be delegated entirely to the Commission?

Setting price and non-price terms

45. Do you agree that regulated terms should be set by Commission determination?

46. If so, do you agree that mirroring the approach to section 52P determinations in the Commerce Act is appropriate?

Chapter 7: Implementing price-quality regulation

Options for implementing price-quality regulation: Chorus

47. Do you support implementing price regulation for Chorus at 2020, or as a backstop?

48. What benefits would a backstop approach have over a 2020 model of the type described in this paper?

49. How could a backstop approach ensure that the interests of end-users are taken into account?

50. Under a backstop approach, how do you suggest copper services be treated? Please comment on the preferred option of 'freezing' the copper price.

51. Under this option, how do you propose managing the risk of copper prices becoming out of date over time? Is a CPI-1% adjustment appropriate?

Options for implementing price-quality regulation: LFCs

52. Is there a case to implement a backstop model, with information disclosure, for LFCs?

    a. To what extent do you think LFCs will be subject to competitive pressure from 2020?

    b. Do you expect that they will need to be subject to price-quality regulation at some point? When might this occur?

    c. Are there any other risks or benefits to a lighter touch approach for LFCs?

Intervention test

53. Please comment on the proposed intervention test based on the purpose statement.

    a. What are the risks and benefits?

b. Would another type of test be more appropriate, such as that in section 52G of the Commerce Act? Why?

Legislative vehicle – Telecommunications Act

54. Do you have any comments on our proposal to establish the fixed line regulatory settings within the Telecommunications Act?

Purpose statement

55. Do you agree that it is most appropriate to set out a new purpose statement separately to the existing one, in a new Part to the Telecommunications Act?

56. Do you agree with our proposal to largely replicate section 52A? Will this achieve the outcomes we have outlined?

    a. Do you agree with the terminology, including the use of "end-users"?

    b. Do you think a single purpose statement derived from section 52A will be adequate to deal with access issues associated with unbundling?

    c. Are any other definitions needed?

Adding and removing suppliers

57. Do you agree with our proposed process and test for introducing a new supplier to the regime (or removing a supplier from the regime)? Please provide additional comments on any other aspects you think should be considered.

58. Do you agree that the new framework should only apply to fixed line services?

Appeal rights

59. Do you agree with the proposed approach to merits review? If not, are there any characteristics of fixed line services which mean that Part 4 merits review processes are inappropriate, or any changes are needed?

60. Do you agree that merits review should not be introduced for the existing regulatory framework in the Telecommunications Act?

Backdating and claw-backs

61. Do you agree that mandatory claw-backs should be introduced for utility-style regulation of fixed line services under the Telecommunications Act?

Chapter 8: Managing the transition

Managing the transition

62. In your view, do our proposals around smoothing the revenue cap and minimising price volatility for anchor products provide enough protection in reducing the risk of price and/or revenue shocks?

Transitional arrangements

63. Do you agree that a transitional arrangement should be in place in case the new framework is not able to be implemented with enough notice before 2020?

64. Do you agree with the proposed model of a temporary freeze? Are there any other risks or benefits of this approach?

Chapter 9: Mobile competition and infrastructure sharing

Mobile competition and infrastructure sharing

65. Please comment on any other measures you recommend to address mobile infrastructure sharing (outside of changes to Schedule 3, which are discussed in the next chapter).

Other issues for mobile regulation

66. Do you agree with our views on MVNOs and tools to manage competition in retail markets?

Chapter 10: The regulatory toolkit

Managing copper to fibre migration

67. Would a regulated code, applying to RSPs as well as UFB providers, be the best way to protect end-users in the transition from copper to UFB services?

68. If a regulated code is not your preference, what mechanism do you propose to ensure end-users are protected in the transition?

Recommending regulation and deregulation

69. Do you agree with the recommendations to make the Schedule 3 process more efficient?

70. Please comment on whether any other aspects of the Schedule 3 process could be removed or shortened further, or on any other ways to make the process more efficient and timely.

71. Do you recommend any further changes in order to mitigate any potential harm being done in the market while a Schedule 3 process is underway?

72. Should there be criteria specified for the Commission's decision whether to recommend a one- or two-stage pricing process for a potentially regulated service?

Convergence: Broadcasting exemption and net neutrality

73. Do you agree that the current regulatory framework has sufficient safeguards in place to manage any net neutrality issues that may arise, in light of recent market developments?

Customer service and quality for telecommunications services

74. Please comment on the proposal to amend the Consumer Complaints Code and Scheme TOR to make wholesalers primary respondents to a customer complaint.

75. Please comment on the alternative option of introducing a new consumer complaints resolution scheme.

Housekeeping in the Telecommunications Act

76. Are there any other areas of the Telecommunications Act that you consider need to be updated or removed to be fit for purpose?