

Submission on the Mobile Market Study – Preliminary Findings

28 June 2019



EXECUTIVE SUMMARY

- 1 Chorus welcomes the Commerce Commission's (**Commission**) *Mobile Market Study – Preliminary Findings* consultation paper (**Findings Paper**). The Findings Paper highlights the value of improving understanding and transparency in a segment of the telecommunications sector that has had little regulatory attention to date.
- 2 Chorus' primary interest is in the continued development of vibrant retail competition for broadband telecommunications services supported by our open access wholesale networks. Our partnership with government through the ultra-fast broadband (**UFB**) initiative has allowed retail competition to flourish for fixed-line services. As a result New Zealanders are getting access to faster, higher quality broadband at lower prices.
- 3 In our view New Zealand consumers are best served if: (i) retail competition for broadband services can continue to flourish and is not distorted by activities in mobile markets; (ii) competitive intensity for mobile services is not diminished by any infrastructure sharing; and (iii) consumers have the appropriate information to keep actively informed when evaluating the choices they have.
- 4 A combination of a lack of competitive intensity, a lack of clarity for consumers, and significant cross-subsidies, would run the risk of embedding MNOs' market share as providers of fixed-line broadband services, creating structural advantages over other Retail Service Providers (**RSPs**).
- 5 Given the above perspective we think there are key areas the Commission may wish to investigate further:
 - 5.1 **The low geographic coverage by all mobile network operators (MNOs).** This suggests inefficient use of the scarce spectrum resource. The Commission and its external advisors acknowledge MNOs have been under-performing in their geographic coverage (65th out of 88 countries). Recent 4G availability rankings also show that other nations with similar or lower population density (e.g. Norway, Australia, Finland and others), are outperforming us when it comes to 4G coverage. We have previously commented on the importance of coverage obligations to help ensure the operators granted use of this limited resource do so in a way that benefits everyone. We suggest the Commission further investigate the under-performance in 4G coverage, and if it finds that a real issue exists it should work with MBIE to consider whether future coverage obligations on national spectrum could be expressed in ways to address under-utilisation.
 - 5.2 **Whether it has the appropriate tools to address potential competition concerns that may arise from 5G infrastructure sharing.** Infrastructure sharing has the potential to support and ensure a thriving retail market – the fixed-line market has been a testament to this where a large number of RSPs are able to compete on a level playing field. But incentives for infrastructure sharing will differ between wholesale-only and vertically integrated suppliers. If there's a risk that competitive retail tension may decrease, the Commission should have the right tools to address any structural or behavioural remedies that are appropriate.

- 5.3 **The adequacy of the mobile virtual network operator (MVNO) market.** A strong wholesale market drives retail competition, which is good for consumers. We are not convinced the recent rise in MVNO presence is clear evidence that workable competition exists at the wholesale access level. For example, despite the recent onset of 3 new MVNOs, the total MVNO market share remains at around 1%, while 99% is captured by the 3 MNOs. We suggest the Commission further investigates whether access to wholesale arrangements is reasonable and will provide for competitive offers, or whether these arrangements were a risk mitigation strategy given the Commission's study.
- 5.4 **Greater monitoring and transparency across all broadband products.** Marketing practices and a general lack of understanding of the differences between the performance and vulnerabilities of different technologies make it difficult for consumers to make informed choices about which broadband product best serves their needs. To enable informed choices, where mobile providers are marketing fixed wireless broadband services as a substitute for fixed line broadband services, these fixed wireless services should be subject to the same monitoring and reporting requirements as us.
- 5.5 **Mobile broadband subsidising fixed wireless.** The price for mobile broadband appears to continue to subsidise the price of fixed wireless. We encourage the Commission to consider whether the apparent cross-subsidies are reasonable given the likely portion of shared costs and economies of scope that the shared use of spectrum offers, and understand the reasons why this trend doesn't appear to be replicated overseas. In our view, the cost difference is likely to be minimal. We suggest the Commission may want to look at improving transparency around retail prices to help consumers to make better informed choices.
- 5.6 **Whether MNOs are supporting the use of eSIMs.** The potential benefits of eSIMs will likely require changes to, or uptake of, new hardware and processes and systems. They may also require changes to processes for Mobile Number Portability. The Commission should satisfy itself that MNOs are supporting eSIM use so that consumers can continue to migrate and that there are no barriers to the uptake of new services or offers.
- 5.7 **Mobile termination rates.** The current regulated mobile termination rate ended in 2014 and has not been reset. We are concerned the Commission appears to be comfortable with prolonging the potential for above cost termination rates for consumers, and the real risk of wealth transfer from fixed-line only RSPs to mobile network RSPs.

INTRODUCTION

- 6 This is Chorus' submission on the Commission's *Mobile Market Study – Preliminary Findings* consultation paper, dated 16 May 2019.
- 7 The Commission's Findings Paper considers that the current regulatory settings governing the mobile market are fit for purpose and it's not necessary to impose any new regulation or bring forward any regulatory reviews. While we agree with the Commission's findings about the risk and importance of spectrum allocation and design, we consider more work could be done to better understand and improve the following areas:
 - 7.1 Spectrum coverage remains an issue and could be better addressed through coverage obligations. This will be important in the upcoming 5G spectrum allocation as well as other key aspects to ensure the efficient roll out of 5G services, such as allocation design, flexible spectrum, and ensuring efficient investment models.
 - 7.2 Transparency across the entire telecommunications market is key to enabling consumers to choose the products best suited to their needs.
 - 7.3 Improving entry and expansion is good for retail competition and consumers.
 - 7.4 High mobile termination rates remain and is an indicator of excessive costs to consumers of the regulatory status quo.
- 8 We think these issues are important, in addition to affecting end-users of mobile services, as they have the potential to affect competition in fixed-line broadband markets.

SPECTRUM ISSUES

- 9 We've previously submitted that the regulatory approach governing future 5G spectrum uses needs to be sufficiently flexible to support new operators to enter the market.¹ This section reiterates our key concerns and the approaches we encourage the Commission to consider with MBIE as it develops the policy approach for future spectrum allocation. This includes, key elements of spectrum allocation design, coverage obligations and flexible use.

¹ Chorus submission on the Commerce Commission, *Study of mobile telecommunications markets in New Zealand Issues Paper* (26 October 2018); and Chorus submission on MBIE's Radio Spectrum Management Discussion Document, *Preparing for 5G in New Zealand* (30 April 2018).

Spectrum allocation design

- 10 Over time, 5G spectrum will open up possibilities for alternative players with business models that are significantly different from those of existing MNOs, such as individual vertical industries, local government and other regional players.² To ensure we pave the way for these new opportunities, we strongly support the Commission's finding that the design of the upcoming spectrum auction will be key to ensuring and delivering desirable competition outcomes in the wholesale and retail market.
- 11 We also strongly support the Commission's finding that significant asymmetries in spectrum holdings can affect competition and the design of future spectrum should have regard to these asymmetries. We agree that setting acquisition limits, as well as assessing the total spectrum holdings across all bands, will be necessary to pave the way for new entrants and avoid distorting competition.
- 12 Given the split of regulatory roles between MBIE's Radio Spectrum Management (who is in charge of spectrum allocation) and the Commission (who assess and regulate the telecommunications market), we encourage the Commission to continue working alongside MBIE in the development of future spectrum auction design. To help ensure the design is actually achieving its purpose, we propose that post-implementation monitoring and / or review should be included in the regime. We expect Government's decisions on spectrum policy will be informed by relevant recommendations from the Commission.

Coverage

- 13 We've previously commented on the importance of coverage obligations to help ensure that the operators granted use of this limited resource do so in a way that benefits everyone, rather than cherry picking profitable areas.³ In light of the coverage observations outlined in the paper, we think it's important to remind the Commission and MBIE of these, so low coverage is not replicated for 5G.
- 14 For example, the paper notes that New Zealand ranks well for 3G and 4G population coverage (6th out of 95 countries), but we rank only 65th out of 88 countries for 4G availability. The Red Dawn paper notes that an estimated 50% of New Zealand's landmass is yet to be covered by the three MNOs.⁴ While we recognise New Zealand's low population density, OpenSignal's recent publication shows that other countries of similar or lower density (i.e. Norway, Australia, Finland and a number of others) are

² Chorus submission on the Commerce Commission, *Study of Mobile Telecommunications Markets in New Zealand Issues Paper* (26 October 2018)

³ Chorus submission on MBIE's Radio Spectrum Management Discussion Document, *Preparing for 5G in New Zealand* (30 April 2018) p 6-7

⁴ Red Dawn Consulting, *Global mobile industry trends - implications for New Zealand* (14 May 2019) p 47

out-performing us in terms of 4G coverage.⁵ Additionally, the Commission's recent consultation paper on retail service quality states that more than half of consumers experienced poor mobile coverage in 2018.⁶

- 15 We encourage the Commission to further investigate the reasons for this. If it finds that a real issue exists, the Commission and MBIE could consider whether future coverage obligations on national spectrum use could be expressed in ways to address under-utilisation. For example (as we've previously outlined to MBIE):⁷
 - 15.1 As both a national and regional coverage obligation, with the regional obligation requiring coverage obligations, in terms of both outdoor and indoor coverage, in a percentage of population per specific region, in order to ensure a fair spread of availability;
 - 15.2 As a national coverage obligation, with coverage obligations placed on the minimum percentage of road and rail infrastructure to be covered by all MNOs;
 - 15.3 As both a national and local coverage obligation, with the local obligation being focussed on specific areas that is either lacking in service or where the business model for a rollout is the most challenging; and
 - 15.4 As a bandwidth obligation which sets the minimum download and upload speeds to be achieved per user.
- 16 We note the 5G Cabinet Paper states conditions would be imposed on all allocations of spectrum to ensure a "minimum level of use", and it is necessary to decide what constitutes "use". However, it doesn't address this issue but proposes to delegate the question.⁸ We encourage the Commission to work with MBIE to consider including coverage approaches for the future design of 5G spectrum allocation to help ensure the right platform for competition to continue and emerge.

Flexible spectrum

- 17 As we've previously put forward to MBIE⁹, there's a good case to explore setting aside some 5G spectrum for flexible access – this could be reserving some 5G spectrum for future use, or a particular type of use, or use in a specific location. Future 5G use

⁵ OpenSignal, *The State of Mobile Network Experience* (May 2019) p 11

⁶ Commerce Commission, *Monitoring Phone and Broadband Retail Service Quality Consultation Paper* (25 June 2019) p 3

⁷ Ibid, n 3, p 6-7

⁸ MBIE Cabinet Paper, *Allocation of Radio Spectrum for 5G mobile* (27 February 2019) p 8

⁹ Ibid, n 3

cases are still developing and the challenge for MBIE is to balance the desire to do 5G quickly with ensuring it does not lock out future innovation by new players.

- 18 We are encouraged to see that the 5G Cabinet Paper has confirmed there will be regional spectrum blocks and “use it or lose it” provisions. We still think there is scope for MBIE to consider whether it is appropriate to develop a “public park” approach to spectrum (at least for a portion of spectrum) and whether it is appropriate to develop alternative payment models. See our 5G submission to MBIE for more detail.¹⁰

5G AND INFRASTRUCTURE SHARING

- 19 We agree with the Commission’s finding that 5G deployment will likely involve infrastructure sharing, and depending on these arrangements, there’s potential for competition concerns to arise.¹¹ This is the reason why Chorus has both structural and behavioural remedies in place to ensure that the benefits of infrastructure sharing can be realised while supporting competitive tension in retail markets.
- 20 While the use cases for investment in 5G by MNOs are still unclear, apart from an obvious case of increasing the available broadband bandwidth per each mobile user, what is clear and unambiguous is its reliance on the fixed fibre access network to sustain the optimum network speed and quality that consumers are likely to demand.
- 21 For instance, incentives for infrastructure sharing and ultimately the benefits for consumers derived from such sharing arrangements, will differ between wholesale-only and vertically integrated suppliers. Namely, infrastructure sharing agreements between vertically-integrated suppliers are likely to lead to competition concerns if competitive retail tension is decreased (or less likely to promote MVNOs) and potentially reduce investment incentives in the long term.
- 22 The Commission expects infrastructure sharing proposals that raise competition concerns to go through the Commission’s authorisation process. However, the Commission needs to consider whether it has the appropriate tools to address emerging competition issues that require remedies such as those imposed on Chorus and the Rural Connectivity Group under the Telecommunications Act 2001, to ensure retail competition is incentivised and not diminished as a result.

IMPROVING TRANSPARENCY FOR CONSUMERS

Entry and expansion

- 23 The Commission doesn’t consider MVNO access regulation to be appropriate at this time and needs “greater evidence of market failure to justify wholesale access

¹⁰ Ibid, n 3

¹¹ Commerce Commission, *Mobile Market Study – Preliminary Findings* (16 May 2019) see findings PF21 and PF23

regulation”.¹² The Commission’s decision appears to be influenced by the recent emergence of new MVNOs. We are not convinced that the recent rise in MVNO presence is clear evidence that workable competition exists at the wholesale access level.

- 24 A strong MVNO market is good for retail competition, which is good for consumers. To date, there has been little activity in this area. For example, despite Vocus operating as an MVNO for over a decade, the total MVNO market share remains at around 1%, while 99% is captured by the 3 dominant MNOs.¹³ Further, a comparison of the mobile and fixed wholesale access arrangements shows a startling figure with over 90 retail fixed-broadband providers versus 6 MVNO providers.
- 25 We consider that consumers would benefit from the Commission investigating further to better understand whether access to wholesale arrangements are reasonable and will actually provide for competitive offers for consumers, or whether there may have been a different catalyst for these recent developments. In any case, there continues to be a clear and ongoing discrepancy in transparency between wholesale activities in the fixed and mobile markets.
- 26 We encourage the Commission to further explore the recent agreements and seek to benchmark their terms against terms in other markets with a more vibrant MVNO market. In addition to assisting the Commission to better understand the likelihood of success for MVNOs and whether it needs to take further action, more detailed scrutiny is likely to maintain incentives for MNOs to reach agreement with further MVNOS.

Consistent transparency for broadband users

- 27 As a general principle, we don’t think reporting and monitoring of network quality is required in markets where workable competition exists. However, where mobile providers are marketing fixed wireless broadband services as a substitute for fixed broadband services, these fixed wireless services should be subject to requirements that allow consumers to make informed choices about which product best serves their needs.
- 28 The quality of services provided by Chorus is currently governed by agreements with the Crown (fibre services) or regulation (copper services). Under the new regulatory framework the quality of fibre services will be regulated through the building blocks model as well as information disclosure determinations for all fibre providers, not just Chorus. These quality commitments provide for certainty, transparency and oversight of the key aspects of service performance that matter to end users. This is not the case where a broadband service is supported by a mobile network.
- 29 We encourage the Commission to improve transparency and monitoring of mobile-supported broadband services so that customers can make more informed decisions. We consider it strange that while fixed-line broadband is supplied by over 90 RSPs and mobile broadband products served by approximately 9 RSPs (including MNO and non-

¹² Ibid, n 11, p 12

¹³ Ibid, n 11, p 12

MNO RSPs), only the former is required to make ongoing and routine disclosures under various instruments.

- 30 The ongoing monitoring and transparency requirements for fixed-line broadband should inform the appropriate level of scrutiny placed on other broadband services so that a customer can draw “like for like” comparisons and the Commission can make better “like for like” assessments.

Fixed-wireless versus fixed-line broadband

- 31 There are fundamental differences between fixed-wireless broadband and fibre fixed-line broadband that impact the overall consumer experience, which mean they are not effective substitutes. These differences are summarised in Table 1 below.

Table 1. Fundamental differences between fixed-wireless and fixed-line broadband services

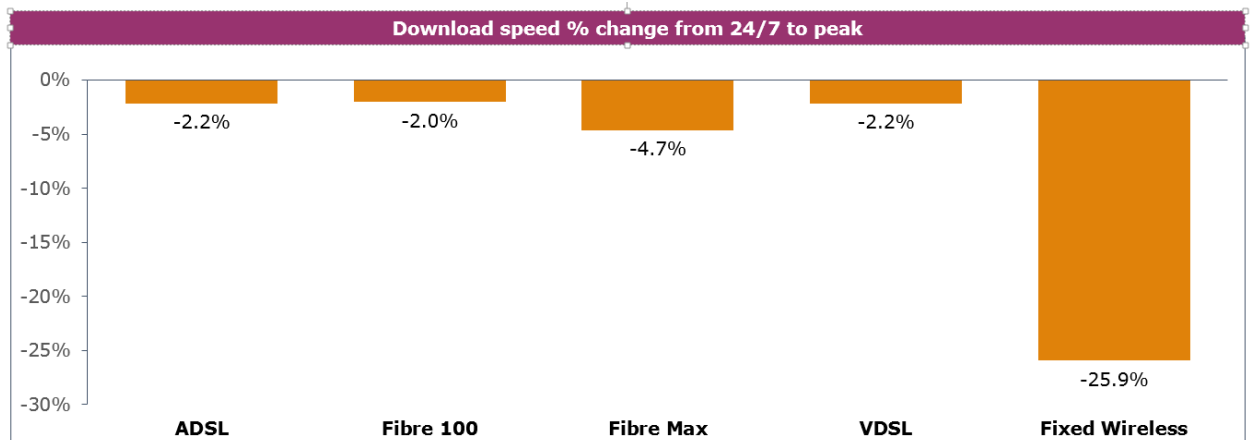
Comparison of broadband services			
Specifications	Fixed-wireless broadband	Fibre fixed-line broadband	Comment
Connections	Limited new connections based on limited cell site capacity	Unlimited new connections but dependent on fibre build	Spectrum is a shared resource that serves both mobile and fixed wireless broadband services.
Performance	Potential congestion at peak times	Congestion free	We build a congestion free network so that our network provides consumers with a congestion free experience.
Speed	Speed varies subject to busy hours	Consistent speed at all times	As above, no congestion on our network means that speed is consistent and does not vary.
Usage	No true “unlimited plan”	Unlimited usage – data caps are at the discretion of RSP	For example if a customer exceeds 180GB in usage in a month for 3 consecutive months or exceeds 300GB in any month, Spark – at its discretion - can change the customer to fibre or a new plan. Skinny’s largest fixed wireless plan is 240GB plan and is limited in availability to certain areas. ¹⁴

- 32 The effect of peak usage on broadband performance is one of the several measures highlighted in the Commission’s Measuring Broadband Report. The graph below shows

¹⁴ See Spark’s Unplan Terms and Conditions (“Terms for Customers With a Wireless Broadband (4G) Connection”) and Skinny’s (see Wireless 4G Broadband FAQs) websites.

the significant change in download speed (-26%) experienced by fixed-wireless broadband users during peak.

Graph 1: Download speed percentage change from 24/7 to peak¹⁵



- 33 The Report also illustrates that fixed-wireless users are likely to experience severe lags and delays at all times of the day, whereas Fibre 100 users are likely to experience minimum lags and delays.¹⁶ This suggests that consumers on fibre are more likely to have a better broadband experience.
- 34 The Commission states that, *"from a consumer's perspective, a fixed wireless modem looks and performs similarly to a fixed line modem...the only difference is that behind the fixed wireless modem, the network connection is via a wireless network"*.¹⁷ As shown above, there are several technological and network differences between fixed-wireless and fixed-line broadband, the modem is just one of many.
- 35 The Commission also states, *"fixed wireless services are currently competing with other fixed line services in New Zealand, whereas mobile broadband services are likely to have a more complementary relationship at this stage"*.¹⁸ The Commission should be careful to distinguish between "competition at the fringes" and "effective competition" in its articulation of substitutability or complementarity between services because there is no effective substitute for fibre broadband. Awareness of these differences is a real issue – illustrated by the Commission's statement that it considers

¹⁵ Commerce Commission, *Measuring Broadband NZ Autumn 2019 report* (13 June 2019). Additional download speed % change calculated by Chorus using data from page 3 of the report.

¹⁶ Ibid, n 15, p 6

¹⁷ Ibid, n 11, p 26

¹⁸ Ibid, n 11, p 26

the “only difference” is that a fixed-wireless modem is connected to a wireless network.¹⁹

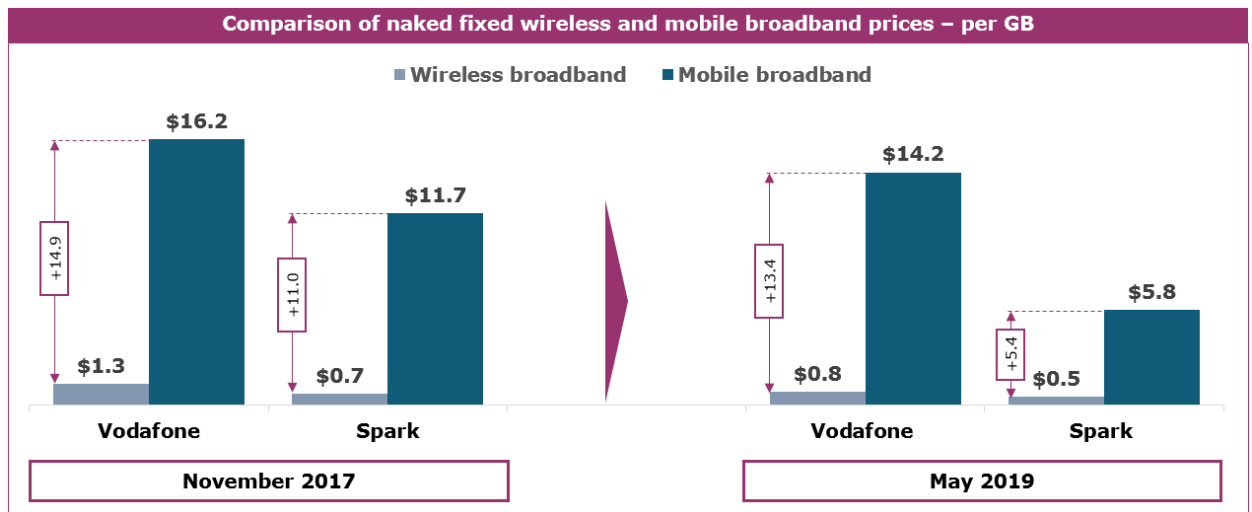
Fixed-wireless versus mobile broadband

- 36 As we’ve previously observed, consumers are still paying considerably more per gigabyte for mobile broadband than for fixed-wireless broadband. This means that broadband providers who don’t have access to a mobile network are at a structural disadvantage, which can distort competition and reduce benefits for consumers.
- 37 The Commission considers that the higher price per gigabyte for mobile broadband is because the cost to serve a fixed-location is less than the cost to serve a mobile service.²⁰ If this is true, we encourage the Commission to consider whether the apparent cross-subsidies are reasonable given the likely portion of shared costs and economies of scope that the shared use of spectrum offers. In our view, the cost difference is likely to be minimal.
- 38 To illustrate, the graph below shows the price differential from 2017 (when the mobile study commenced), and the price in May 2019.

¹⁹ Ibid, n 11, p 26

²⁰ Ibid, n 11, p 44

Graph 2: Comparison of the price per gigabyte for fixed-wireless broadband vs mobile broadband²¹



- 39 The graph above illustrates that while the overall price has come down in the last couple of years, the price per gigabyte for mobile broadband is still considerably more than fixed-wireless. We encourage the Commission to unpack this apparent cross-subsidy and properly understand the underlying reasons for this continued high price differential.
- 40 A basic international comparison of similar plans suggests that this trend is not replicated overseas.²² We are concerned that New Zealand consumers continue to pay a lot more for mobile data and urge the Commission to consider the apparent inefficient use of the scarce spectrum resources, given the low mobile data usage in New Zealand compared to other OECD countries (31st out of 36).²³ To aid its

²¹ Data taken from the websites of Vodafone and Spark, last accessed 6 June 2019. Fixed wireless (non-rural) naked prices were derived from each suppliers' largest GB plans. Spark offers \$85 a month for a naked 120GB+ fixed wireless plan (if data usage exceeds 300GB in a month or 180GB a month for three consecutive months, Spark may change you (at Spark's discretion) to Fibre or a new plan) (<https://www.spark.co.nz/shop/internet/plans-and-pricing/>). Vodafone offers \$49.99 a month for a naked 60GB fixed wireless plan (<https://www.vodafone.co.nz/broadband/internet-plans/>). Mobile broadband prices were derived from each suppliers' largest GB plans. With Spark offering \$69.99 a month for a 12GB open term plan (<https://www.spark.co.nz/shop/mobile-plans/mobilebroadband/plansandpricing.html>) and Vodafone offering \$70.99 a month for a 5GB open term plan (<https://www.vodafone.co.nz/mobile-broadband/open-term-data/>)

²² A basic international comparison shows there's much less price differentiation per GB between fixed-wireless and mobile broadband. For example, Play (Poland) and Three (Ireland) price approximately NZD\$0.08 and NZD\$0.79 more per GB for mobile broadband, respectively. Data was supplied by Analysis Mason, accessed May 2019.

²³ OECD, see the latest data available <http://www.oecd.org/sti/broadband/1.13-MobileDataUsage-2018-06.xls>

investigation we suggest the Commission gather overseas data to help investigate this issue and understand why it's a feature in our market.

- 41 Additionally, we think improving the overall transparency of retail mobile and fixed wireless broadband prices could assist consumers to make better informed choices. For example, prices could be broken down in a similar manner to retail energy prices so that components such as roaming, coverage and fixed elements are transparent as easily identifiable. We suggest the Commission considers whether the current transparency of retail prices is appropriate or could be improved to help inform consumer choice. This could be considered as part of the Commission's retail service quality work programme.

eSIMs

- 42 We also note the Commission's comments on eSIMs and how they have the potential to support competition by reducing barriers to churn. The Commission's Red Dawn report advises that, *"the market should also be monitored to ensure customer choice is not restricted when they chose eSIM devices. They should be given the opportunity to select from any tariffs (mobile operator or MVNO)"*.²⁴
- 43 In order to realise this we suggest the Commission should seek information from MNOs to ensure that:
- 43.1 MNOs are not taking any actions to reduce the ability of devices with eSIMs to be used across different networks; and
 - 43.2 Mobile number portability systems and processes will need to be able to support portability for handsets with eSIMs.

MOBILE ACCESS TERMINATION RATES (MTAS)

- 44 MTAS has been retained as a designated service under Schedule 1 of the Telecommunications Act. The Commission's reason for this is because *"MTAS is an essential input required in order to complete retail calling and messaging services between networks"*. As a result, *"each MNO has a monopoly over the termination of calls on its network"*, and *"the ability to increase MTAS prices in the absence of regulation can distort downstream competition between MNOs, in particular where there are asymmetric shares"*.²⁵
- 45 However despite the Commission's concerns quoted above, the current regulated reductions were set in 2011 and ended in 2014 and have not been reviewed since even though the Commission acknowledges several overseas jurisdictions have significantly lowered their mobile termination rates. This includes Australia who the

²⁴ Ibid, n 4, p 36

²⁵ Commerce Commission, *Consideration of whether to commence an investigation into whether to omit Mobile Termination Access Services from Schedule 1 of the Telecommunications Act 2001* (23 September 2015)

Commission used as a comparator in its benchmarking price. Instead the Commission considers that there are “no sufficient grounds for us to bring forward our planned reviews of regulated services”.²⁶

- 46 We are concerned that the Commission appears to be comfortable with prolonging the potential for above cost termination rates for New Zealand consumers, and the real risk of a transfer of wealth from fixed-line only RSPs to those RSPs who operate mobile networks. This represents a structural barrier for fixed-line only RSPs which could distort competition in retail markets for fixed-line services. We recommend the Commission address these risks earlier than the scheduled MTAS review.
- 47 The Commission should therefore reconsider its findings on the state of competition in the mobile market, and assessments of costs and benefits to the consumers of the regulatory status quo. Very high mobile termination rates compared to other OECD countries are clearly an indicator of excessive costs to the consumers of the regulatory status quo,²⁷ and further delays by the Commission in re-assessment of MTAS should be off the table.

²⁶ Ibid, n 11, p 115

²⁷ OECD, see the latest data https://www.oecd.org/sti/broadband/4.11.MTRs-2017-06_rev.xls, available at <http://www.oecd.org/internet/broadband/broadband-statistics/>