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ACCC Communications Market Report

2019–20

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Australian Competition and Consumer Commission
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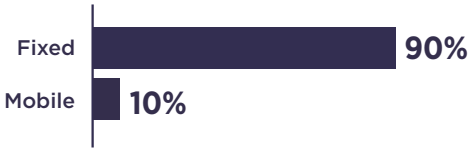

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Executive Summary

Communications networks met the challenges of COVID-19

From late February 2020 the performance of communications networks was heavily impacted by the response to the COVID-19 pandemic, both in Australia and overseas. As broadband and online applications became essential to support remote working, education, entertainment and social connection, National Broadband Network Co Limited (NBN Co) reported daytime peaks for downstream traffic that were 81% higher than the pre-pandemic baseline.

Carriers and service providers in large part met the significant challenge to service provision, although some mitigations were required (see below). This was largely on the back of the widespread investment that had been made in the National Broadband Network (NBN) and other communications networks, which allowed extra capacity to be brought on line quickly to meet much higher demand.

However, many individual consumers were still impacted by the reduction in call centre support that was available when service difficulties arose, or when attempting to access the hardship packages that service providers had announced. The impact on consumers ranged from complete loss of service to longer wait times for some requests to complete, such as service transfers. While some of these issues existed before COVID-19, the pandemic served to highlight shortcomings in the customer support models and infrastructure utilised by some service providers.

Our tenth quarterly Measuring Broadband Australia (MBA) report showed NBN download speeds remained high and tended to improve over the period from the time the mitigations were put into effect. In addition, in the six months to August 2020, NBN Co reported an additional 900,000 premises were ready to connect to its network, and a similar increase in active connections. Mobile carriers also announced additional investment in their networks over this period. Service providers responded effectively to increased demand on their networks while proceeding with business as usual investments.

The short term mitigations included carriers being authorised to meet within a Special Working Group (SWG) established at the Australian Government's direction to coordinate certain network related activities. It also included video streaming and video conferencing application providers taking steps so that consumers used less network capacity when accessing their services. Importantly, NBN Co also modified its wholesale commercial terms to allow Retail Service Providers (RSPs) to access greater connectivity virtual circuits (CVC) to increase network capacity without additional charge to RSPs and end-users. Also, without this additional capacity, end-users of fixed line broadband services would have experienced slower network speeds.

Some of these short term mitigations have already been unwound, while others will be removed over the coming months. This will require careful management so it occurs in a way that allows RSPs to continue to meet demand that the COVID-19 pandemic brought forward.

Service providers also provided support to consumers subject to hardship over the pandemic, either independently or in response to principles and relief measures that were developed by the Government and industry. These measures focused on supporting consumers, particularly low-income family households, to become or remain connected to a fixed or mobile broadband service.

NBN wholesale access arrangements continued to develop

NBN wholesale access arrangements have become of greater significance over time as the NBN rollout has continued. With the completion of the NBN rollout in 2019–20 and the migration of remaining legacy services now expected within the next two years, these access arrangements are the principal basis on which RSPs can supply fixed line broadband and voice services in retail markets.

In particular, these arrangements can limit the range of broadband and voice services that RSPs can offer to consumers, as well as the flexibility they have in their retail pricing and service level commitments. For instance, the price of entry-level retail broadband plans on the NBN has increased significantly over the last two years, with this being driven mostly by changes in the wholesale market.

As well as strongly influencing competition and efficiency in downstream markets, these access arrangements also have a direct bearing on NBN Co's revenues and costs. The importance of maximising utilisation of the NBN through accessibility and affordability, and to realise growth in downstream markets, cannot be overstated. Hence there can be tension between achieving competition and market efficiency gains that are in the national interest, and the pace at which NBN Co can recover the value of its investment.

The temporary increase in CVC capacity that NBN Co put in place from March 2020 as part of its response to the COVID-19 pandemic represented a significant change in the commercial access arrangements over the course of 2019–20. This essentially capped the CVC component of the access charges that RSPs paid at February 2020 levels, notwithstanding growth in the number of active connections in the months that followed and increased demand.

While NBN Co also modified some aspects of its product and pricing offers over the year, their impact was muted with the temporary CVC measure in effect. However, this will cease to be the case as the temporary CVC measure is unwound.

In addition to these changes in NBN Co's commercial offers, we published position papers in our NBN access inquiries in April 2020 that provided guidance on the measures that we would consider including within a set of regulated access arrangements.

The measures we outlined are intended to further promote the long term interests of consumers, fairly balancing the competing interests of NBN Co as the access provider with those of its access seekers. These included:

- More competitive pricing for entry-level broadband plans on the NBN that would give consumers the option of retaining the price and quality of a legacy broadband connection, so as to smooth their migration onto the NBN and keep the price of higher speed NBN plans at levels that represented fair value.
- Greater certainty over NBN product and pricing offers over time to lessen the risk of significant changes in RSPs' underlying cost base and allow RSPs to offer more competitive retail plans.
- Stronger rebate arrangements and better operational support for access seekers that would reduce the incidence of poor performance on meeting technician appointments, connecting services, and fixing faults, as well as better allow RSPs to support consumers where target timeframes and promised speeds were missed.

NBN Co subsequently committed to substantially improve its commercial offer to incorporate these measures from December 2020, which is when its next Wholesale Broadband Agreement (WBA4) is due to commence. After considering further submissions through a public process, we reached the view that the newly revised commercial offer represented an appropriate implementation of the package of measures that we had outlined, as well as a fundamental step change in the access arrangements that were on offer when we commenced our inquiries. Consequently, we decided not to make an access determination but rather watch the new commercial arrangements play out as the market completes its transition to the NBN. Our reasoning and analysis is provided in the final report that we published when closing the access inquiries.

Given that the wholesale market remains in a state of transition, further adjustments to NBN access arrangements should be expected so that the economic benefits from the significant public investment in the NBN can continue to be realised over time.

Regional broadband markets benefited from further investment

Regional broadband markets also benefitted during 2019–20 as NBN Co made significant progress in resolving long standing performance issues in parts of its fixed wireless network. NBN Co reports that over 2019–20 the proportion of its fixed wireless cells that it defines as having a congested radio network or backhaul link reduced from 3% and 8% respectively to less than 1% in total.

Further investment will still be required to keep up with aggregate consumer demand and avoid the network becoming congested over time. The potential for online applications' network requirements to change as well as for concurrent use within a premise to become more popular, has implications for the network utilisation threshold that NBN Co uses to direct its investments in this network. Hence, periodic review of this threshold rate would provide more assurance that it remains fit for purpose and NBN Co investments are capable of delivering good consumer outcomes.

Additionally, we will be better able to track the effectiveness of further investment in mobile networks following amendments to the Audit of Telecommunications Infrastructure Assets Record Keeping Rules. These new rules will require relevant record keepers to report on the extent of mobile coverage by frequency band as well as the extent of any government co-contributions.

Mobile services offered more value with modest improvements in NBN fixed line offers

In this year's report we have provided two price change measures—advertised price and feature-adjusted price—covering the price consumers pay for services and the product features received at prices offered. A full explanation of these measures is found in sections 3.1 and 5.2.

In 2019–20 advertised prices for fixed line NBN broadband increased by 6.1% for entry-level plans and 1.2% for a mid-range plan. The advertised price for premium plans was unchanged.

During the year, NBN plan inclusions increased, largely driven by higher data allowances. Accounting for the value of these inclusions, as well as advertised price changes, meant that on a product feature adjusted basis, fixed line NBN broadband prices fell by 2% overall. That said, the additional inclusions might not be valued by all consumers to the same extent; with budget conscious consumers more likely to prefer a lower price for a more basic service, and less likely to consider prices to have fallen. These consumers would be more concerned with advertised price than product inclusions.

In contrast, for mobile phone services, the entry-level advertised price fell by 3.6%, while the advertised price for mid-range and higher usage plans remained steady.

Prices for mobile phone services fell by 17% under the feature-adjusted price approach in 2019–20. Given the smaller changes in advertised prices, this decline appears be largely driven by greater product inclusions; for example, increased data allowances. The complete set of price changes is located in appendix 5.1.

Mobile carriers continued to implement their 5G rollout plans

Mobile network operators (MNOs) continued to implement their rollout plans for fifth generation (5G) technology over 2019–20 with a view to providing new and improved mobile services. While the availability of 5G services is currently geographically limited, MNOs announced new coverage targets during 2020 that would bring forward their investments. 5G services also began to become available at a wholesale level for RSPs to resell.

The investment in 5G technology will enable the supply of new products and services, such as supporting applications that require higher speed and lower latency connectivity, which bring the potential for more opportunities for service providers to grow revenues in the enterprise market.

The investment will also allow carriers to remain competitive in consumer mobile markets, with revenue opportunities in those markets dependent upon consumers' willingness to upgrade to more expensive 5G compatible devices and acquire higher cost plans based upon their perceived value of 5G services.

The rollout of 5G also brings the potential for greater competition with fixed line services. Until now, this competition was limited to home broadband offered over 3G or 4G wireless technologies. MNOs are now able to offer 5G home broadband services on their mobile network, albeit in a limited number of areas currently, which offer comparable speeds, data allowances and price to fixed line services.

Competition strengthened in enterprise markets

Markets for large business and enterprise services also stand to gain from further investment in fixed line access, in addition to investment in 5G networks. Over 2019–20, NBN Co continued to connect additional sites to its direct fibre Ethernet network to meet end-user demand. It recently announced a further expansion of this network including into regional population centres.

NBN Co's entry has significantly boosted competition. Telstra Corporation Limited (Telstra) has responded with more competitive wholesale product and pricing offers, while both Telstra and other service providers have been able to use improved wholesale offers to increase the value of their retail services. Downstream competition was also boosted by NBN Co continuing to implement important protections to provide greater assurance that it meets its non-discrimination obligations when supplying access services in this segment of the market.

Mobile markets consolidated with completion of TPG/VHA merger

The completion of the merger between TPG Telecom Limited (TPG) and Vodafone Hutchison Australia Pty Ltd (VHA) in June 2020, which the ACCC opposed, effectively removed the possibility of a fourth MNO in Australia in the foreseeable future. This is due to the very high costs of entry, with access to sufficient spectrum being a key hurdle.

We note that Telstra's June 2020 price increases for mobile services suggest the merged TPG/VHA is not yet viewed as a significant competitive threat. Looking ahead, the ACCC will continue to monitor and promote competition within the mobile services market.

Demand for fixed line voice and mobile services plateaued, with fixed line continuing to carry much greater data volume but mobiles carrying many more voice calls

Fixed line voice services remained steady at 6.2 million in 2019–20, but the number of services has fallen by 31% since 2015–16. On the other hand, the number of mobile phone services declined slightly in 2019–20 to approximately 28 million, but remains 11% above 2015–16 levels.

End-users also continue to favour mobile phone services over fixed line services for voice calls. Mobile phone voice call minutes increased to 69.9 billion minutes in 2019–20, an increase of 18% since 2015–16. However, fixed line voice call minutes fell to 9.6 billion minutes in 2019–20, a decrease of 50% since 2015–16.

In 2019–20 fixed line broadband services made up 90% of the total volume of data downloaded with mobile services making up the remaining 10%. This split has been relatively consistent in recent years.

Consumer complaints fell but enforcement action continues

We have continued to be active in pursuing both competition and consumer concerns in communications. In 2019–20, we commenced 10 investigations into Australian Consumer Law (ACL) breaches and three competition investigations in the communications sector. We have pursued a range of remedies in relation to our investigations including continuing action against Dodo Services Pty Ltd (Dodo) and Primus Telecommunications Services Pty Ltd (iPrimus), accepted court enforceable undertakings from NBN Co and Dodo, and issued an infringement notice to BVivid.

While consumer complaints to both the ACCC (6,523 complaints) and the Telecommunications Industry Ombudsman (TIO) (127,151 complaints) decreased in 2019–20, service quality and connection issues continue to be significant issues for consumers.

Despite lower complaint numbers, consumers have reported more negative experiences with their telecommunications providers during the pandemic than those raised for any other essential service.[1] A sharp increase in complaints relating to consumers being unable to contact their service provider was observed, as overseas call centres were forced to close due to the pandemic.

We continue to educate consumers about products and services, and their rights in the telecommunications sector. We provided guidance on our website relating to using NBN fixed wireless, and how to choose an appropriate NBN service as well as information relating to mobile and internet and landline services. We also provided the *broadband speed claims industry guidance* to assist consumers to make informed decisions about the services they purchase.

1 Consumer Policy Research Centre, *COVID-19 and Consumers: from crisis to recovery*, Consumer Policy Research Centre, Melbourne, September 2020, p. 11.

1. Introduction

The Australian Competition and Consumer Commission (ACCC) releases the Communications Market Report annually to report on competitive safeguards in the Australian telecommunications industry and the prices paid by consumers for telecommunications services, as required by the *Competition and Consumer Act 2010* (CCA).[2]

The ACCC has a broad role in the Australian telecommunications sector, including competition and access functions, responsibilities relating to the National Broadband Network (NBN), monitoring and reporting, and compliance work under the CCA and other telecommunications-specific legislation.

Chapter 2 highlights the key market developments from the last year that have influenced both the market and the ACCC's work in communications. In 2019–20, many events have shaped the communications market in Australia such as the COVID-19 pandemic, mergers and new and updated infrastructure.

Chapter 3 gives an overview of pricing and consumer trends for the 2019–20 financial year. The analysis includes both a new 'advertised price' approach and the hedonic index feature-adjusted pricing that was introduced in the *2017–18 Communications Market Report*. These figures provide a more detailed picture of how prices paid by Australian consumers are changing.

Finally, Chapter 4 reviews the ACCC's actions and engagement in the communications sector in the 2019–20 year, particularly in light of the unprecedented circumstances arising from the COVID-19 pandemic. This chapter outlines ACCC actions that have been taken to safeguard both competition and consumers, noting that the essential service of telecommunications is a current ACCC compliance and enforcement priority.

2 Ss. 151CL(1) and 151CM(1); See https://www.accc.gov.au/publications/accc-telecommunications-report.

2. Key market developments

Communications markets were shaped by a number of significant developments that occurred in the past year. The COVID-19 pandemic had very immediate consequences, but the completion of the NBN's build phase and other NBN developments, the rollout of fifth generation (5G) wireless technology, and ongoing consolidation in some market segments also had important implications for these markets.

These market developments, especially COVID-19, also required urgent responses from the ACCC and other regulatory agencies, which we have accommodated by in some cases adjusting our existing work program.

2.1 COVID-19

2.1.1 Sharp increase in broadband demand

The COVID-19 pandemic has highlighted the critical importance of communications services in keeping individuals and communities connected, causing a dramatic shift in the way consumers interact with communication services. It has led to many Australians relying much more on their home internet service for work, education, entertainment, telehealth and other services as a consequence of physical distancing measures.

In particular, demand for streaming services continued to grow, in part due to other entertainment options being restricted or unavailable during the pandemic. Telsyte, a technology analyst firm, estimates there are now 37 million subscriptions across video, music and gaming streaming services, up 18% from June 2019.[3] This has driven considerable increases in downstream busy hour network demand.

As shown in National Broadband Network Co Limited's (NBN Co) weekly reports, *Australia Broadband Data Demand*[4], traffic on the NBN is well above pre-COVID-19 levels across all hours of the day. For the week ending 4 October 2020, NBN Co reported the weekly peak downstream network throughput was 45% above the pre-pandemic baseline at 16.1 Terabits per second bps (Tbps), and weekly peak upstream network throughput was 40% above this baseline (1.08Tbps).[5]

Daytime traffic levels increased more in relative terms, with daytime download traffic peaking at 81% above its baseline (7.6 terabits per second as against 4.2 Tbps). Daytime upstream traffic peaked at 107% higher than the baseline (0.84 Tbps against 0.4 Tbps).[6]

Even accounting for normal traffic growth on the NBN since February 2020, it appears a steep change in traffic levels has continued, with some drivers likely to extend beyond the end of the pandemic. For instance, should a significant number of people transition to more flexible ways of working, daytime traffic levels on communications networks would not revert to pre-pandemic levels.

2.1.2 Response to increased network demand

Network operators and service providers responded to accommodate the sharp increase in network usage since the pandemic began in Australia with special measures and some limited application level restrictions in place. Measuring Broadband Australia (MBA) data between May and June 2020 (when most states and territories were implementing physical distancing restrictions) show speed performance over NBN-based broadband services was largely unaffected. From May to June 2020

3 Telsyte, *Subscription home entertainment soars in Australia*, 17 August 2020, available at: https://www.telsyte.com.au/announcements/2020/08/17/subscription-home-entertainment-soars-in-australia.

4 More information available at: https://www.nbnco.com.au/corporate-information/about-nbn-co/updates/dashboard-october-2020.

5 NBN Co, *Network usage COVID-19*, available at: https://www.nbnco.com.au/corporate-information/about-nbn-co/updates/dashboard-october-2020.

6 For the week ending 4 October 2020.

there were actually improvements in download speed for all speed tier plans and across Retail Service Providers (RSPs).

The ability of industry to cope with this increased demand while maintaining network performance was aided by three key measures:

1. NBN Co forming a Special Working Group (SWG) to share information to better allow service providers to plan for and respond to the challenges posed by the pandemic
2. video streaming and conferencing service providers moderating their picture quality
3. NBN Co's offer of 40% extra network capacity to RSPs without additional charge.

These initiatives are discussed below.

Special Working Group

In March 2020 the Minister for Communications, Cyber Safety and the Arts directed NBN Co to form and lead the SWG to share relevant information and discuss engineering, security and operational issues in the telecommunication sector in relation to COVID-19. The SWG initially comprised Telstra, Singtel Optus Pty Limited (Optus), TPG, VHA and Vocus Group Limited (Vocus), with Aussie Broadband Pty Ltd (Aussie Broadband) joining in April 2020.

We recognised the need to support the functioning of telecommunications networks during the expected surge in data demand from home based work and education. However, we were concerned about potential risks to consumers and competition in NBN Co and other SWG members sharing information. Aside from the competition risk inherent in an information-sharing forum, there was the possibility the SWG could expand its scope into areas that involved coordinated actions that could ultimately be detrimental to consumers.

On 31 March 2020 we granted interim authorisation to NBN Co and the SWG to discuss emerging engineering, security and operational network issues during the COVID-19 period. This acknowledged that the group would coordinate strategies to manage congestion and take other steps to address significant demand changes caused by COVID-19. The interim authorisation was subject to NBN Co reporting, both to the ACCC and other affected service providers, on any material SWG decisions. A further condition was for the ACCC to attend all SWG meetings as an observer.

On 10 September 2020 we issued a final determination granting conditional authorisation until 31 March 2021.

Video streaming services

The Minister for Communications, Cyber Safety and the Arts wrote to the major Over-the-Top (OTT) video streaming service providers on 20 March 2020 to request they work collaboratively with NBN Co to manage demand and limit the impact of COVID-19 on critical functions.

In response, Netflix Australia Pty Ltd (Netflix) announced on 24 March 2020 it had reduced the bit rates of its streams to help telecommunications providers accommodate high levels of demand. It had taken similar actions in Europe. Other OTT video streaming providers also voluntarily introduced temporary bit rate reduction measures.

These measures initially operated until June 2020 when NBN Co on behalf of the SWG advised the main OTT video streaming providers they could remove the voluntary bit rate reduction measures as they were no longer needed for managing network capacity.[7] This was due to COVID-19 lockdown measures being eased in all states and territories except Victoria at that time.

These measures were reinstated over August and September 2020 following the Stage 4 lockdown commencing in Victoria and network traffic again increasing sharply. NBN Co wrote to the main

7 More information available at: https://www.accc.gov.au/system/files/public-registers/documents/Report%20for%20Special%20Working%20Group%20for%20week%20ending%2012%20June%202020%20-%2017.06.20%20-%20PR%20-%20AA1000483%20NBN.pdf.

OTT video streaming providers in August requesting they reinstate the bit rate reduction measures.[8] With restrictions in Victoria being slowly lifted in October and November, and already significantly reduced in other states and territories, NBN Co advised the main OTT video streaming providers in September 2020 that it was no longer necessary to continue to apply their voluntary bit rate reduction measures.[9]

Network capacity

NBN RSPs pay NBN Co a connectivity virtual circuit (CVC) charge in order to access network capacity on the NBN. As consumers use their NBN service to access online applications such as streaming services and web browsing, email and interactive communications, they utilise capacity that has been pre-provisioned over their RSP's broadband networks. The more CVC that NBN RSPs obtain, the more network capacity the service providers can access to better meet their consumers' aggregate demand.

This has been of particular importance during COVID-19 as many more people are working and learning from home with increased use of internet services, particularly video conferencing. As a result, more network capacity is required to avoid network congestion and slower speeds.

From 23 March 2020 NBN Co offered wholesale access seekers 40% additional CVC capacity without additional charge. NBN Co was able to offer this 40% CVC increase by using spare capacity in its network. NBN Co also amended its fair use policy on the Sky Muster services so that consumers could use their services more before facing service restrictions.

These measures were initially announced for a limited period but were progressively extended as the pandemic continued. They are currently scheduled to phase down from December 2020 before ending from February 2021.

2.1.3 Hardship measures

The Government announced in April 2020 that NBN Co would provide $150 million in financial relief, in three lots of $50 million, allocated to:

- help low-income families that have school-aged children connect to the NBN
- households experiencing financial hardship due to the challenges presented by COVID-19
- support small and medium businesses.

NBN Co extended its relief package for low-income family households with school-aged children to 15 January 2021. The other elements of the relief package expired on 30 August 2020.

In April 2020, the Government and CommsAlliance (representing the telecommunications industry) issued a joint statement on industry hardship principles. The principles set out that telecommunications service providers would:

- provide a payment plan or hardship agreement to households or small businesses in financial hardship
- not disconnect these customers without their agreement
- defer referring these customers to debt collection agencies
- provide options for these customers to suspend their service
- provide information on support arrangements available to these customers.

Consumer advocacy groups, including Australian Communications Consumer Action Network (ACCAN) and the Consumer Action Law Centre (CALC), considered the principles to be an acknowledgement that telecommunications services are essential, but raised concerns about the extent

8 More information available at: https://www.accc.gov.au/system/files/public-registers/documents/Report%20for%20Special%20Working%20Group%20for%20week%20ending%207%20August%202020%20-%2012.08.20%20-%20PR%20-%20AA1000483%20NBN.pdf.

9 More information available at: https://www.accc.gov.au/system/files/public-registers/documents/Report%20for%20Special%20Working%20Group%20for%20week%20commencing%2014%20September%202020%20-%2017.09.20%20-%20PR%20-%20AA1000483%20NBN.pdf.

to which the principles protect consumers. ACCAN and CALC considered that the principles did not go far enough in preventing disconnections during COVID-19, and relied heavily on proactive contact from consumers to ask for hardship assistance at a time when many consumers were unable to contact their service provider's call centre. CALC considered that the release of the joint principles had the perverse outcome of major telecommunications providers winding back positive measures they had announced in the early stages of the pandemic response and defaulting to the less stringent requirements in the joint principles.[10]

Telecommunications providers responded to the closure of overseas call centres by scaling up operations in locations that were not affected or establishing remote work arrangements for its workers. Some providers also recruited call centre operators locally. However, the Telecommunications Industry Ombudsman (TIO) subsequently reported that during the COVID-19 pandemic, it saw a significant rise in complaints and enquiries from consumers saying they could not contact their provider.[11] Complaints included consumers in financial hardship requiring assistance to cancel services or manage payments to stay connected.

Consumers being unable to contact their service provider continues to be among the TIO's top five reported issues.[12] Also, the Consumer Policy Research Centre reported in September that almost one in three Australians reported having negative experiences with their telecommunications provider during the pandemic. This was the highest rate of negative consumer experience recorded across essential service industries during this period.[13]

On 30 June 2020, following a review, the industry hardship principles were grandfathered for those customers who had sought hardship relief between 17 April and 30 June 2020. New principles, largely replicating the financial hardship arrangements in the Telecommunications Consumer Protection Code, were put in place from July 2020. These were reviewed and extended on 30 September 2020 and are scheduled to be reviewed again on 31 December 2020.

Telecommunications providers are increasingly looking to boost the use of digital contact channels to manage costs and provide alternative pathways of contact when call centres are unavailable. However, there are limits to which digital contact channels can be used without compromising consumer support, particularly for vulnerable consumers or those in financial hardship.

2.2 National Broadband Network

During 2019–20 the roll-out of the NBN neared completion, shifting greater attention to its ongoing role as network operator and the extent to which wholesale access arrangements were promoting more competitive and efficient retail markets. NBN Co made considerable progress in remediating the capacity issues that had affected its fixed wireless products and announced planned network upgrades in its FTTN and HFC footprints. This coincided with a number developments in our access inquiries, and other regulatory measures intended to bolster consumer safeguards in the new environment.

2.2.1 NBN build completion

During 2019–20 the initial build phase of the NBN was largely completed with 11.7 million premises being declared ready to connect. NBN Co announced it was on track to connect the remaining 100,000 complex premises by the end of 2020, at which point its future connection activities would be limited to new developments, Fibre-To-The-Premise (FTTP) upgrades and direct fibre builds in the enterprise market.[14] NBN Co forecasts that premises ready to connect to the network will increase to 12.5 million by the end of June 2024.[15]

10 Consumer Action Law Centre, *Submission to the Senate Select Committee on COVID-19*. CALC, 28 May 2020.

11 Telecommunications Industry Ombudsman, *Impact of COVID-19 on phone and internet complaints*, TIO, July 2020, p. 5.

12 Telecommunications Industry Ombudsman, *Quarterly Report Quarter 1, Financial Year 2020-21*, TIO, p.1.

13 Consumer Policy Research Centre, COVID-19 and Consumers: from crisis to recovery Monthly Policy Briefing – August Results SEPTEMBER 2020, p.11.

14 NBN Co, *2021 Corporate Plan*, pp. 12-13.

15 Ibid, p. 53.

Customer migration to the NBN is ongoing as customers are given an 18-month transition period to migrate to an NBN retail service once their premises are declared ready to connect. As at 30 June 2020 only 62% of total premises declared ready to connect to the NBN had an activated connection (7.3 million customer activations). NBN Co forecasts activated connections will increase to 72% by June 2024 (9 million customer activations).[16]

The completion of the NBN will enable NBN Co to focus on investments to further improve service performance. In September 2020, NBN Co announced a planned investment of $3.5 billion for Fibre-To-The-Node (FTTN), Hybrid Fibre-Coaxial (HFC) and Fibre-To-The-Curb (FTTC) residential network upgrades, $1.5 billion for various operational improvements, and $700 million for extending business fibre services.[17]

With the initial NBN build completed and most customers migrated, more attention is being given to the wholesale and retail regulatory settings intended to promote the interests of consumers and safeguard them from poor market outcomes. This has included our inquiries into NBN Co's wholesale arrangements concerning NBN access pricing and wholesale service standards (see sections 2.2.2 and 2.2.3 for further discussion).

The Department of Infrastructure, Transport, Regional Development and Communications (the Department) has also been continuing its Consumer Safeguards Review. This review is considering the operation of consumer safeguards that operated under legacy networks in the post-NBN build. Some of the key matters under consideration include redress and complaints handling, reliability of telecommunications services, and choice and fairness in the retail relationship between the customer and their provider.

In November 2020 the Australian Communications and Media Authority (ACMA) began consulting on rules for the pass through of wholesale rebates to consumers and, as foreshadowed in the Consumer Safeguards Review, for consumers to be informed of the measures available from RSPs when service levels are not met. The ACMA is also considering potential implementation of other recommendations made in the Department's final report on the reliability of telecommunications services.

2.2.2 Outcomes of NBN access inquiries

On 26 October 2020 NBN Co offered access seekers improved pricing and service standard commitments in the Wholesale Broadband Agreement 4 (WBA4) in response to findings that we had reached in our access inquiries. The measures, which are scheduled to commence in December 2020 and last until the end of 2022, include:

- further reductions in the price of NBN Co's entry-level access bundle to $24.70 for the period from December 2020 to April 2021, and then to $22.50 for the period from May 2021 to November 2022
- more product and pricing certainty through additional protections against the withdrawal of bundle access products, and price caps and minimum CVC allowances for these product bundles
- stronger and more effective wholesale service standards that include rebates that accrue on a daily basis for late connections and fault rectifications
- higher rebates for missed appointments
- improved commitments and information on service speed performance
- the extension of rebates to business grade (TC-2) services, meaning small-medium business customers will be eligible for the benefits of rebates in cases of poor service.

The commercial offer builds on the rebate framework that was established under Wholesale Broadband Agreement 3 with regards to missed appointments, late connection and fault rectification.

The improved access arrangements are expected to benefit consumers by providing access to an affordable product as they migrate to the NBN and assist in keeping prices for the higher speed NBN products at more competitive levels. We also expect that it will provide stronger incentives for NBN Co

16 Ibid.

17 Ibid, pp. 36-45.

to meet the wholesale service standards that are important to consumer experience, and better respond to individual cases of poor service outcomes.

We consider these changes to NBN Co's pricing and service standards access arrangements to be significant and necessary to better promote the long term interests of end-users (LTIE), while balancing the competing business interests of NBN Co with those of access seekers. Given the revised commercial offer generally addresses the matters of concern, in finalising both our inquiries in November 2020 we decided not to make an access determination but to instead closely monitor the implementation of these new commercial access arrangements.

2.2.3 Other NBN product and pricing developments

Wholesale product and price changes

NBN bundled access products, which provide an Access Virtual Circuit (AVC) and an allowance of CVC, became the standard access product for supplying the residential market from November 2018. Any CVC capacity required over the aggregate allowance is charged as 'overage' at $8 per Megabit per second (Mbps).

In September 2019, NBN Co announced two revisions to its bundled access products intended to better support the supply of entry-level retail broadband services. These included product and pricing changes to its entry-level bundle (ELB)[18] to allow its use in the supply of a basic retail broadband service. NBN Co also announced a new bundled access product with a 25/5 Mbps AVC, to give RSPs more flexibility in how they supplied retail broadband services at that speed tier.

NBN Co also outlined a schedule by which it would increase CVC inclusions for its existing access bundle products that offered either a 50/20 Mbps AVC or a 100/40 Mbps AVC. This was in response to continuing high growth in demand as consumers overall spent more time online in the busy hours, and used a mix of more data intensive applications. In these circumstances, wholesale access charges would potentially increase significantly unless these CVC allowances increased to match the growth in retail demand, or overage charges reduced. Such an increase in wholesale charges would likely have led to either retail price rises or reductions in busy hour performance, since NBN access charges form a large part of an access seeker's cost base.

In March 2020, NBN announced a significant increase to CVC allowances as part of its temporary response to COVID-19, which effectively capped growth in CVC related charges from that time.

NBN Co also introduced three new residential grade access product bundles. The AVC speeds are 100/20 Mbps, 250/25 Mbps and 500-1,000/50 Mbps which are available in selected fixed line footprints.

Notwithstanding these product and pricing developments, a number of RSPs have continued to call for NBN Co to reconsider its CVC pricing structure with a view to abolishing the CVC charge or significantly reducing its materiality. Their principal concern is that unit CVC charges create unmanageable volume risk for RSPs since they need to offer a fixed monthly price and unlimited downloads to be successful in the retail market. NBN Co has announced a further pricing consultation to address these concerns, which we would also examine in future regulatory processes should they persist.

NBN Co's other product and pricing changes during the year included:

- Reduced AVC service transfer fees (applying when a service is transferred between RSPs) from $22.50 to $5.00.
- Committed to annual reviews of bundled prices and CVC inclusions and publication of a two-year road map of charges.
- Adopted a national-based calculation method for CVC overage payable for bundled products, replacing the existing CSA-based method.

18 The ELB consists of a 12/1 Mbps AVC and 150 Kbps of CVC to guarantee voice calls can be carried. The base charge for the ELB remained at $22.50 with the additional charge payable when using this product to supply a retail broadband product reduced from $22.50 to $5.70, with further reductions to $4.90 and $4.10 to take effect over 2020. Additional CVC was available at $8 per Mbps.

- Increasing the overage waiver threshold from 300Mbps to 1.5 Gigabits per second (Gbps) per Connectivity Serving Area (CSA) (this threshold refers to the combined bundled CVC capacity in a CSA after which overage charges are levied on all overage incurred).
- Simplifying CVC utilisation conditions applied to maintain service performance and reduced the penalty charges for non-compliance.
- Increasing from mid-2020 the maximum data transfer rate it allows before rate limiting an AVC (excluding only those above 250Mbps), so consumers could realise the listed AVC speeds that RSPs advertise in off-peak times.

Entry-level NBN retail products and prices

In response to the introduction of NBN Co's bundled offers during 2018, the ACCC observed that several RSPs withdrew their entry-level retail plans (which had generally been offered at the 12/1 Mbps speed tier) on the NBN and/or increased their prices. This raised the prospect that a material number of consumers would have to pay more when migrating to the NBN even if they did not require an upgraded plan. Furthermore, the price of higher speed plans available over the NBN could be set higher than the additional value they represent over and above Asymmetric digital subscriber line (ADSL) plans.

These concerns are borne out in the analysis presented in section 3.2.1 of this report. This shows that the lower priced NBN retail plans (the 25th percentile) experienced the largest advertised price increases between 2018–19 to 2019–20 compared to plans at the 50th and 75th percentile (see figure 3.2). It also shows since 2017–18, NBN retail plans priced at $60 or less have diminished as a share of overall plans (see figure 3.4).

It was as a result of these concerns that the ACCC decided to commence the inquiry into NBN access pricing in October 2019.[19]

Fixed wireless product changes

In December 2018 NBN Co announced it was withdrawing its existing legacy and bundled wholesale 25–50/5–20 Mbps product from the market as a result of regulatory spectrum changes.

NBN Co launched Fixed Wireless Plus on 1 July 2019 to replace its 25–50/5–20 Mbps product. It initially supported maximum potential network download speeds of up to 60 Mbps and upload speeds up to 20 Mbps.

On 17 December 2019 NBN Co withdrew its wholesale 25–50/5–20 Mbps fixed wireless product to comply with an ACMA requirement to change the TDD Frame configuration on its fixed wireless network in early 2020 to reduce interference with other wireless services. This made more download bandwidth available for residential customers.

Following the completion of these regulated spectrum changes, NBN Co's Fixed Wireless Plus now provides download speeds of up to 75 Mbps and upload speeds of up 10 Mbps. Following these spectrum changes, the percentage of cells performing above 25 Mbps during the busy hours increased from 58% in December 2019 to 71% in January 2020.[20]

As at 30 September 2020 there were 184,335 Fixed Wireless Plus services in operation (SIO), accounting for approximately 55% of NBN fixed wireless services. In June 2019, the number of wholesale 25-50/5-20 Mbps services accounted for approximately 52% of total fixed wireless services, which suggests that most of these migrated to NBN Co's new Fixed Wireless Plus product.

Fixed wireless cell and backhaul performance improvements

NBN Co made significant headway in remediating the NBN fixed wireless network, which had experienced well documented performance issues.

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19 ACCC, *ACCC inquiry into NBN access pricing, Discussion Paper*, October 2019.

20 NBN Co, *Monthly progress report (customer experience)*, December 2019; NBN Co, *Monthly progress report (customer experience)*, January 2020.

As at June 2019 approximately 3% of cells and approximately 8% of backhaul links failed to meet NBN Co's network design standard. Following NBN Co's ongoing cell site and backhaul performance upgrades it has now met its objective of having less than 1% of cells being congested. As at September 2020, only 0.07% of cells were impacted by cell congestion and 0.01% of cells impacted by backhaul congestion.[21]

NBN Co has an ongoing capacity upgrade program where it undertakes work on cells that fall below its design standard and has committed to spend $800 million in fixed wireless capacity upgrades through 2022.[22] It has also recently flagged continued investment to help manage fixed wireless network capacity and performance into the future.[23]

2.3 Infrastructure competition

Competition in communications infrastructure markets continued to evolve. The key drivers for this competition has been investment in 5G wireless technology and new entry in the enterprise market. There was also consolidation in some markets, through the merger of key market players VHA and TPG, and in a number of acquisitions involving fixed line suppliers in new developments.

2.3.1 5G rollout

The allocation of the first 5G spectrum in the 3.6 GHz band in December 2018 has enabled the mobile network operators (MNOs) to start rolling out 5G networks and offer 5G services in Australia. As was the case with the advent of every new generation of mobile technology, 5G improves the quality of mobile services for consumers by providing faster speed and lower latency. Moreover, the technical capability of 5G means 5G mobile networks will increasingly become general purpose networks, able to provide services to meet a variety of use cases and not just mobile services, and enabling MNOs to expand their presence in other markets.

The market for home broadband services has traditionally been heavily reliant on fixed line networks, such as Telstra's customer access network and now the NBN. While the MNOs have been offering wireless broadband services for some time, these services are typically not able to provide the same speed, reliability and data allowances at comparable prices with those offered on fixed line networks. As such, broadband services provided over mobile networks have so far only been able to meet the home internet needs of a small proportion of consumers.

With 5G, the MNOs can now use their mobile networks to provide home broadband services that are comparable to those offered on the NBN, in terms of speed, data allowance and price. Optus was the first to offer a 5G home broadband product with unlimited data and speed guarantee. Telstra followed with its 5G home internet plans, on an initial invitation-only basis. TPG Telecom has also recently announced that it will launch its own 5G fixed wireless product in the first half of 2021. While there has been speculation about the implications of 5G for NBN bypass, these product offerings from the MNOs provide the first real indication that there are commercial incentives for MNOs to build a stronger presence in the home broadband market.

At this stage, the impact of 5G home broadband services is likely to be small due to the limited 5G footprint of the MNOs. This means only a very small proportion of households currently have choice in terms of the access infrastructure on which their home broadband services could be provided. However, as the MNOs continue to expand their 5G networks, and as more spectrum is allocated for 5G use over time[24], the MNOs will be able to provide improved 5G home broadband services to more households.

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21 NBN Co, *Monthly progress report (customer experience) September 2020*, 30 October 2020.

22 NBN Co, *Corporate plan 2019 (2019–2022)*, NBN Co, 2019, p. 65. NBN Co has adopted a design standard which is to provide services to an average throughput of at least 6 Mbps during the busy hours (and less than 0.25% packet loss on backhaul links).

23 NBN Co, *Corporate plan 2021 (2021–2024)*, NBN Co, 2019, p. 16.

24 The first mmWave to be allocated in Australia, the 26 GHz band, is scheduled for auction in April 2021.

The ability to switch will not just exist at the retail level. RSPs that are currently providing services over the NBN will be able to choose other network providers. For example, Optus has started offering wholesale services on its 5G network alongside its wholesale NBN services.

It is premature to speculate the extent to which infrastructure competition between the NBN and 5G mobile networks will emerge and the implications it may have for economic regulation. It is clear, however, that the extent of competition will vary from area to area. The market for home broadband services is inherently geographically segregated, unlike the market for mobile services. The MNOs have flexibility to determine where to roll out 5G infrastructure or offer 5G home broadband based on the potential to gain customers willing to pay for 5G services in that area. While infrastructure competition will inevitably benefit consumers, the benefit is unlikely to be universal, with those living in more densely populated areas likely to benefit more or faster than consumers in areas where it is less commercially attractive to build competing infrastructure.

Other than residential markets, 5G technology is also likely to have an increasing impact on enterprise markets over time, by enabling the development of new and innovative use cases and creating new revenue opportunities for operators.

2.3.2 TPG/VHA merger

A key development in the mobiles market was the merger of TPG and VHA, with the merged entity named TPG Telecom Limited (TPG Telecom). The merger proceeded on 29 June 2020, despite ACCC action in the Federal Court opposing the merger.

The merger had a significant impact on the structure of the mobile services market, as it precluded the entry of TPG as a fourth MNO. Barriers to entry into the mobiles market as an MNO are extremely high, with access to spectrum being a key obstacle. Spectrum that could be used for mobile services is scarce and the opportunities to acquire suitable spectrum do not regularly arise. For example, it took TPG over four years to acquire sufficient spectrum to start rolling out its own mobile network. Further, the rollout of a national mobile network is also a significant financial undertaking, requiring large capital expenditure upfront. The viability of entry would be particularly challenging for a service provider that does not already have an established brand and reputation in telecommunications markets.

For these reasons, it would appear that after the TPG/VHA merger, the potential threat of another MNO entry in the foreseeable future is very low. A relatively stable oligopolistic market structure in mobiles can lead to lower competition intensity than otherwise would be the case with the presence or threat of entry of a disruptive fourth player.

For instance, following the completion of the merger, Telstra increased the price of its four post-paid mobile plans by between $5 and $15 per month. Although this price increase was accompanied by an increase in data allowances for all four plans, it is unclear how much consumers of Telstra mobile products value this extra data over the previously lower monthly price. Telstra also reduced the amount of included data on two of its prepaid mobile plans, while keeping the prices of those plans the same. This response may indicate that, at least in the short term, the merged entity is not yet seen as a competitive threat.

2.3.3 Telecommunications in new developments

The rollout of telecommunications infrastructure and services in new or ‘greenfield’ developments provides an opportunity for network providers to enter or expand their market presence. This can be less achievable in ‘brownfield’ areas due to much higher barriers to entry, where NBN Co is the dominant incumbent in most instances. This means that network operators can typically compete for the right to supply new developments, thereby benefitting developers and the subsequent occupiers from the resulting competition.

NBN Co does, however, also tend to win the majority of network builds by lots serviced in greenfield areas, as the data in table 2.1 below shows. It accounts for around 75% of lots passed or planned, with around 10 other providers sharing in the remaining 25% or so, although the vast majority of these are won by the Uniti Group and Opticomm (which are in the process of merging).

Table 2.1 Indicative greenfield lots passed and planned by major networks

Network provider	Residential lots	Other lots	Total lots
OptiComm	224,001	23,746	247,747
Uniti*	113,098	5,233	118,331
NBN Co (greenfield)	nr	nr	1,100,000
NBN Co (brownfield)	nr	nr	9,900,000

Notes: Data varies by reporting date and level of comprehensiveness and should be regarded as indicative only. *Uniti data is for LBN Co and OPENetworks. nr = not reported.

Source: For non-NBN networks - DITRDC's Telecommunications in New Developments dataset available on its website, obtained May 2020. For NBN Co from Corporate Plan 2020-2023, Table 3, p. 49, excluding wireless and satellite.

In light of NBN Co's dominance in the greenfield development market, we have directed our attention towards how competition can be protected.[25] This is not to say there are no concerns with other providers in the market, which can often become local monopolies once they have been selected to service a particular development, with potential for a more restricted set of retail products.

Accordingly, many of these providers are subject to vertical separation rules and wholesale access obligations like those applicable to NBN Co. More recently, the Government has introduced new Statutory Infrastructure Provider (SIP) obligations, under which designated providers are required to provide RSPs with a service capable of supporting peak download and upload speeds of at least 25/5 Mbps, and comply with any standards, rules or benchmarks that are set by the Minister. If a provider within a development is not designated as a SIP, NBN Co is the default SIP.[26]

2.3.4 The enterprise market

Competition in the wholesale enterprise market has intensified markedly since NBN Co's entry in 2018. NBN Co's transparent wholesale pricing has effectively set a price benchmark to which the incumbent enterprise fibre operators must respond.

For instance, Telstra has significantly reduced its enterprise Ethernet Access pricing and rationalised the number of charging zones to make its wholesale products comparable with NBN Enterprise Ethernet. At the retail level, Telstra has recently cut prices on its enterprise Telstra Internet Direct Lite product and announced that it would abandon lock-in contracts for enterprise customers.

NBN Co has more recently announced a $700 million investment in business fibre services, which includes the creation of business fibre zones across Australia that include regional locations and health precincts, where it is anticipated that 700,000 businesses will be able to access CBD zone wholesale pricing. The investment program also includes connections for an additional 700,000 businesses.

NBN Co also made important changes to its method of operation to alleviate concerns that its entry into the market would distort competition in the enterprise market. NBN Co committed to improve transparency and offer its commercial access arrangements to access seekers on a non-discriminatory basis, as part of a court enforceable undertaking that we accepted in concluding an in-depth investigation into these concerns. Additionally, NBN Co announced in January 2020 that it would cease entering into build contracts directly with enterprise end-users. This means RSPs will in all cases have the direct contractual relationship with enterprise customers to alleviate concerns about NBN Co exceeding its legislated wholesale-only remit.

NBN Co also announced in January 2020 that it would explore leasing third party fibre from incumbent carriers in response to concerns raised by those carriers that NBN Co was overbuilding in well-served areas. This has included undertaking a trial to test the feasibility and economic viability of procuring access to other carriers' fibre infrastructure.

25 ACCC, *Draft Telecommunications in New Developments (TIND) policy*, Submission to the Department of Infrastructure, Transport, Regional Development and Communications, June 2020, p. 6.

26 Department of Infrastructure, Transport, Regional Development and Communications, *17 new Statutory Infrastructure Providers for broadband announced, DITRDC*, 27 August 2020, https://www.communications.gov.au/departmental-news/17-new-statutory-infrastructure-providers-broadband-announced, viewed 13 November 2020.

3. Retail and wholesale markets

3.1 Approach to pricing methodologies

In previous reports, the ACCC has used measures of feature-adjusted price, as this method combines both the prices paid and changes in what consumers receive for their money in a single metric. However, concerns about affordability and whether consumers value everything they receive in product bundles has led to a refining of this report's approach. In this year's report, two different price change measures are used—advertised price and feature-adjusted price (also known as the hedonic approach).

- Advertised price measures changes in nominal prices offered to consumers but does not consider changes in product features (e.g. higher data allowance or faster download speed).
- Feature-adjusted price (hedonic approach) measures real price changes for a given level of product features. It is an econometric measure incorporating both changes to advertised price and changes in product features.

This combination will provide a better picture of what consumers are actually paying, as well as whether, in general, they are getting more product features for their money.

The theory underpinning hedonic analysis is that differentiated products can be viewed as a bundle of characteristics. The hedonic approach controls for the features/quality of the plans, and then estimates the effect of time on price. The approach treats each product as a combination of characteristics and features, and assigns values to each of the features (e.g. download speed, data allowance) in the product that are identified as 'price determining'.[27] Under the hedonic approach, we are not comparing prices of like-for-like products, so price changes for a product may occur due to changes in quality/value and/or advertised price.

The hedonic approach relies on the assumption that plan inclusions are always valued by end-users. In reality, this may not be the case as an end-user may not value, want or use any or all of the additional inclusions. This is because the modelling of the hedonic approach relies on plans offered to end-users (supply side) rather than the utility obtained from those inclusions (demand side). The approach measures what is available for purchase and does not measure actual end-user experience in using a product or plan (e.g. actual data usage, quality of access technologies on the NBN or the quality of a mobile network). Also, some consumers will place a high value on having access to affordable entry-level plans excluding product inclusions they do not want or need.

Further information on the hedonic approach, including which quantifiable features of a plan/product that are accounted for, can be found in appendix 5.2.

Recognising the limitations of the hedonic approach, this report has also introduced an advertised price measure, which will allow analysis on how advertised price changes impact different groups of consumers. The three price points included in this report are the 25th percentile (i.e. lower price point), median price point and 75th percentile (i.e. higher price point).[28] These price points will act as proxies for entry-level, typical and higher end consumers, respectively.

It should be noted that the advertised price changes for NBN and non-NBN fixed services, fixed broadband plans that are bundled with a Voice over Internet Protocol (VoIP) and an entertainment service such as Fetch TV or Foxtel have been excluded from the analysis in this report. These 'triple play' product bundles are in some instances very highly priced and only serve a niche market of consumers. Including these plans inflates the advertised prices that the majority of consumers pay. Standalone broadband plans and bundled plans with a broadband service and a VoIP or an entertainment service are included in the analysis.

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27 ABS, *Information Paper the Introduction of Hedonic Price Indexes for Personal Computers*, 8 February 2005, http://www.ausstats.abs.gov.au/ausstats/free.nsf/0/6B5EF2E6C1935D18CA256FA1007856A2/%24File/64580_2005.pdf.

28 A percentile is a measure used in statistics indicating the value below which a given percentage of observations in a group of observations falls. For example, the 25th percentile is the point below which 25% of plans are located.

For all other analysis in this chapter, all product bundles have been included.

3.2 Retail markets

3.2.1 NBN fixed broadband services

Fixed broadband services are broadband internet services provided over fixed networks such as the NBN and other fibre-based networks. This section focuses on NBN fixed broadband services that are provided over fixed network technologies such as FTTN, FTTC, FTTP, Fibre-To-The-Basement (FTTB), Hybrid Fibre Coaxial (HFC) and fixed wireless (that is, all services other than satellite).[29]

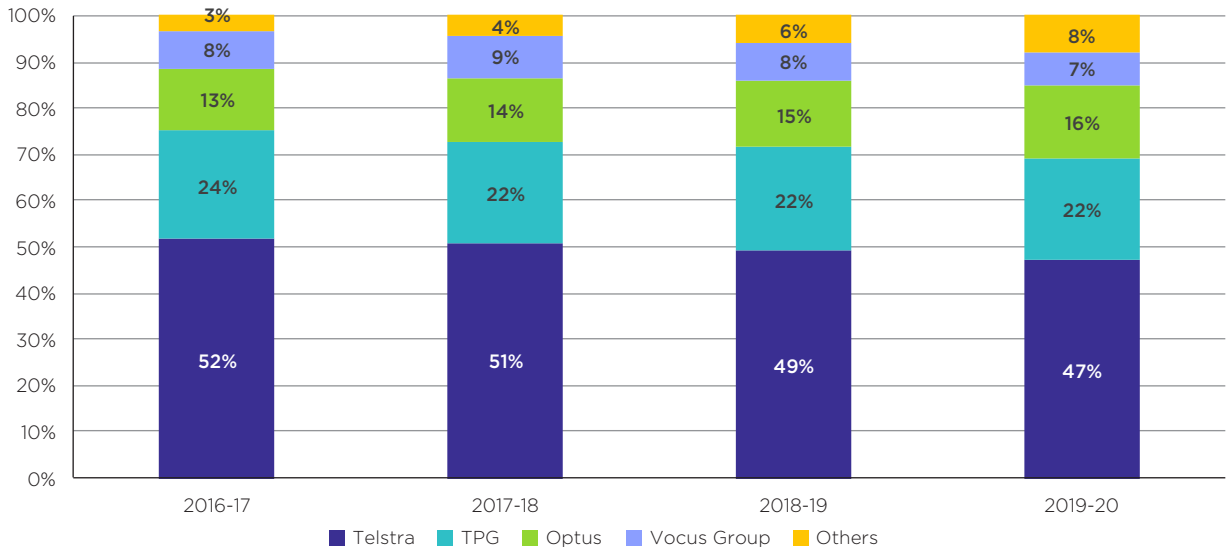
Non-NBN services are discussed in section 3.2.2 and services provided over mobile networks are discussed in section 3.2.4.

Services in operation

Figure 3.1 shows the proportion of wholesale market shares for NBN fixed broadband services between 2016–17 and 2019–20. Wholesale market share is an indicative proxy for retail market share and the trends over time for each are similar. However, the retail market shares of larger RSPs will be marginally lower than indicated below, while the 'others' category for smaller RSPs will be slightly higher. This is because when larger RSPs acquire services from NBN Co at a wholesale level, they will keep and sell a significant proportion of services under their own retail brand but will also on-sell a small portion of services to 'other' RSPs that provide retail services to consumers under their own brand.

In 2019–20 Telstra represented the largest market share in the wholesale market for fixed broadband services, at 47%. This is followed by TPG (22%) and Optus (16%). Overall, wholesale market shares of NBN fixed broadband services have remained relatively stable over the past four years.

Figure 3.1: Fixed wholesale NBN market share from 2016–17 to 2019–20



Source: ACCC Wholesale Market Indicators Report.

29 NBN fixed wireless has been included in the analysis of fixed broadband services due to the functional similarity between fixed wireless and other fixed access technologies.

Pricing

Advertised vs feature-adjusted price

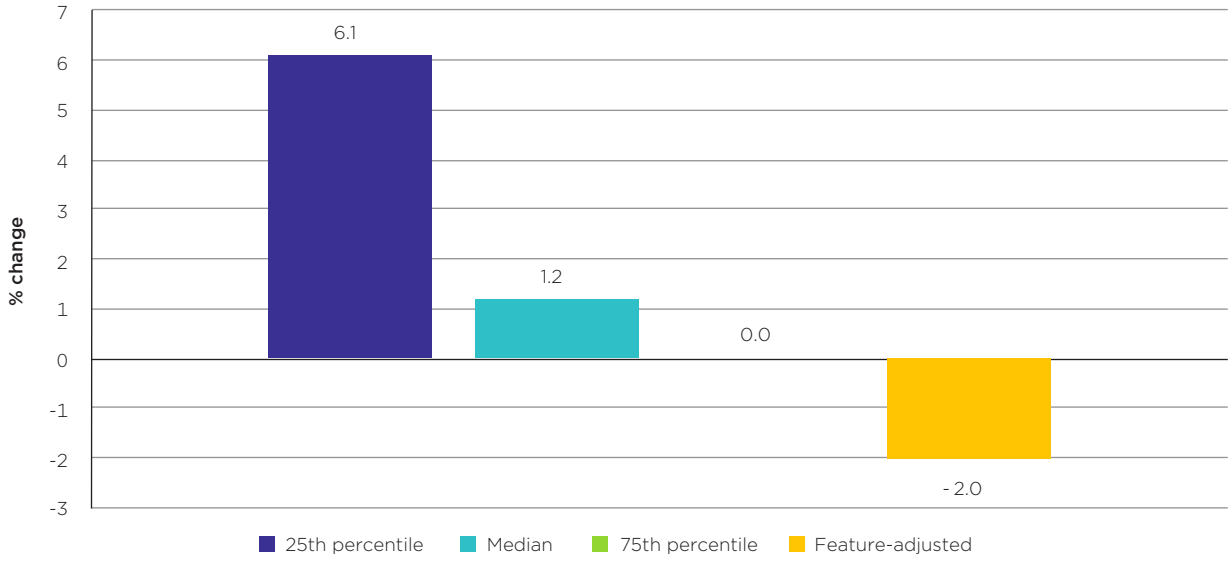
As explained in section 3.1, this year the ACCC has refined its pricing methodology approach. To estimate the changes in average price for NBN fixed broadband services, this year two different pricing approaches have been used and reported the results for each—the 'advertised price' approach and feature-adjusted (also known as the hedonic approach).

Figure 3.2 shows price changes as estimated by the two approaches. The feature-adjusted approach shows prices for NBN fixed broadband services fell overall by 2% from 2018–19 to 2019–20. This indicates that a consumer is, on average, paying less for a given level of product features and/or receiving more value/quality (e.g. download speed or data allowance) for their money.

However, from an advertised price perspective, a consumer may be faced with a price that is lower, unchanged or even higher than in 2018–19.

As shown in figure 3.2, consumers on lower NBN price plans (the 25th percentile) from 2018–19 to 2019–20 experienced a price increase of 6.1% to $69.95. Prices for consumers on the median price point increased by 1.2% to $79.95. The 75th percentile of consumers (those on higher priced plans) experienced no price change (i.e. NBN plans for this category of consumers remained at $90).

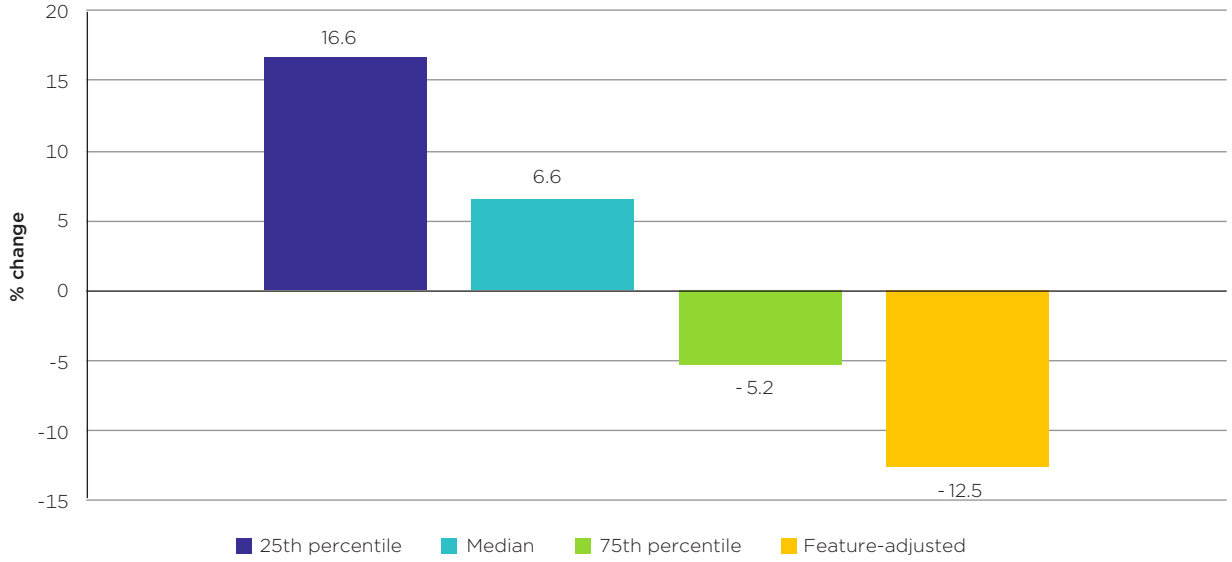
Figure 3.2: Changes in NBN fixed line advertised and feature-adjusted price in 2019–20



Source: ACCC estimates based on information from RSP websites.

Figure 3.3 below shows that in the period 2015–16 to 2019–20, prices for NBN fixed broadband services fell by 12.5% under the feature-adjusted approach. That is, looking only at price changes without adjusting for variations in features (i.e. advertise price approach), consumers in the 25th and median price percentile experienced a price increase of 16.6% and 6.6% respectively, while consumers in the 75th percentile experienced a price decrease of 5.2% during the same period.

Figure 3.3: Changes in NBN fixed line advertised and feature-adjusted price from 2015–16 to 2019–20



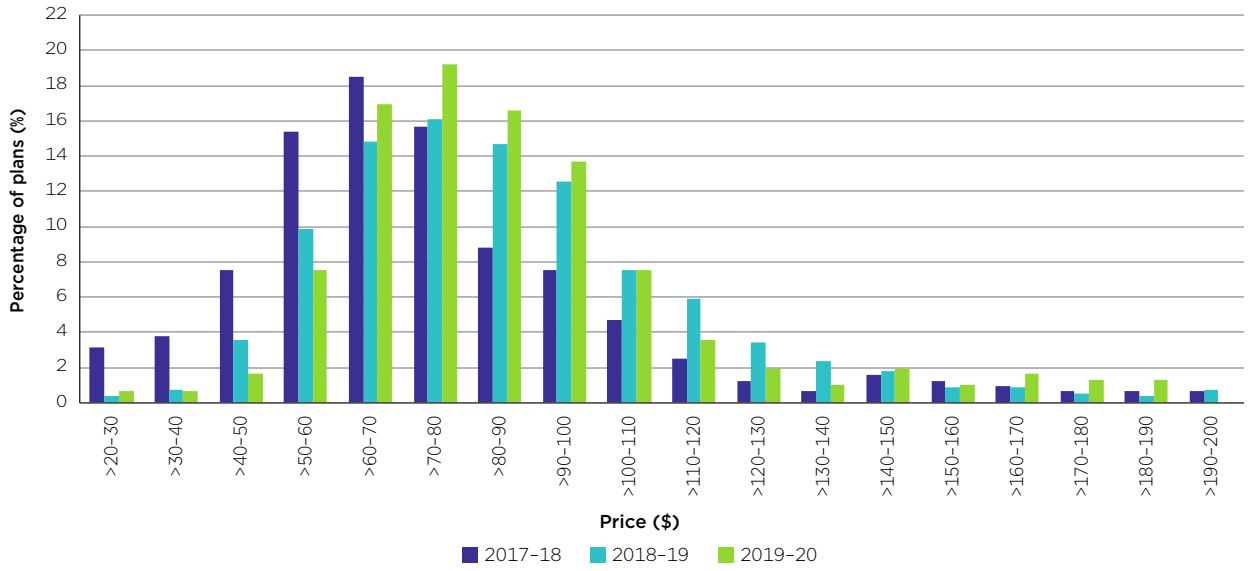
Source: ACCC estimates based on information from RSP websites.

The charts above suggest that consumers at the 25th percentile and median level are likely to be receiving additional value or product feature inclusions (as indicated by the fall in feature-adjusted price) in return for paying higher advertised prices. Despite paying higher advertised prices, the fall in feature-adjusted price suggests the average consumer is receiving more value for their money. However, a consumer, especially more budget conscious consumers, may not value these additional inclusions and may in fact prefer less inclusions at a lower price. This option is not always provided, as service providers usually have a minimum entry-level price and inclusions for access to NBN services which are often above that preferred by budget conscious consumers.

Range of plans available

RSPs offer plans at various price points and the number and variety of plans available varies between these price points. Figure 3.4 shows the proportions of NBN retail plans at various price points over the past three years. For example, the >$50–60 price point below captures retail service plans that are greater than $50 and less than or equal to $60. A retail plan of $59.99 would be captured in the >$50–60 price point. Since 2017–18, NBN plans offered in the market have become relatively more skewed in favour of more expensive plans. This is likely to be driven by NBN's wholesale pricing initiatives which are seeking to encourage retailers to take-up and offer more high speed plan products to consumers. Additionally, some RSPs have withdrawn their cheaper NBN entry-level plans due to relatively low profit margins on these products.

Figure 3.4: Percentage of NBN fixed broadband plans at various price points from 2017–18 to 2019–20



Source: ACCC estimates based on information from RSP websites.

The top three price points for NBN plans with the highest concentration remains in the $60–$90 price range in 2019–20, which is the same as 2018–19. The most popular price point in 2019–20 also remains unchanged from 2018–19 with plans in the $70–$80 price point contributing to 19% of NBN plans, an increase from the 16% observed in 2018–19. This was in contrast to 2017–18, where the highest percentage of plans offered (18.5%) were in the $60–$70 price point.

In 2019–20 the price point distribution of NBN plans have become more skewed towards higher priced plans. The concentration levels for the three price points in the upper range of the $70–$100 price range have increased compared to last year. In addition, there has been a rebound in the proportion of retail NBN plans for the $60–$70 price point in 2019–20, compared to the previous year. This may partly be a result of RSPs and consumers finding higher speed tier wholesale products sold by NBN Co to be more attractive, which is reflected at the retail level with more expensive NBN plans being offered.

At the same time, the proportion of retail NBN plans in the lower price ranges, $30–$60, has decreased compared to last year, partly because RSPs may be removing their NBN entry-level plans as discussed above.

Retail offerings of very high speed NBN products

In May 2020 NBN Co launched three new high speed residential wholesale product bundles: Home Fast (100/20 Mbps), Home Superfast (250/25 Mbps) and Home Ultrafast (500–1,000/50 Mbps) at lower prices than the existing high speed wholesale offerings. This has allowed retailers to offer cheaper high speed products.

However, these high download speed products above 100Mbps are only accessible to premises that have FTTP or in some cases HFC connections. Due to this technology limitation, NBN Co's Home Superfast and Home Ultrafast wholesale products are only available to 32% and 18% of total network premises respectively that are ready to connect to the NBN.[30]

To date, only a small number of retailers have started offering these high speed download plans or a high speed download upgrade option above 100Mbps. As of September 2020 retailers that offered

30 NBN Co., *NBN launches three new residential wholesale speed tiers*, media release, 29 May 2020, https://www.nbnco.com.au/corporate-information/media-centre/media-statements/nbn-launches-three-new-residential-wholesale-higher-speed-tiers.

speed tiers of up to 500–1,000Mbps and/or 250Mbps include Aussie Broadband[31], VHA[32], Telstra[33], Kogan Australia Pty Ltd (Kogan), Superloop Australia Pty Ltd (Superloop), Optus and MyRepublic Pty Ltd (MyRepublic).[34]

In September 2020 NBN Co announced it would invest $3.5 billion to upgrade its residential networks and that this will allow 68% of total network premises to access download speeds of up to 1,000Mbps by 2023, a significant increase from the current 18%.[35]

Advertised NBN retail speed claims and performance

In April 2017 the ACCC commenced a performance monitoring program to provide Australians with independent and comparable information about retail fixed line broadband speeds over the NBN.[36]

The MBA program has played an important role in assessing the reasonableness of RSPs' speed claims and complements the ACCC's *Broadband speed claims industry guidance* and compliance and enforcement role.

Among other measures, the MBA program reports benchmark RSPs' download speed results against the advertised busy hour speed claims for the relevant period. Figure 3.5 shows the weighted average of the typical busy hour (7pm–11pm) speeds advertised by different retailers for their NBN 50/20Mbps and 100/40Mbps products at the end of each reporting month, expressed as a percentage of the maximum download speed (50Mbps or 100Mbps) achievable by the product.

31 Aussie Broadband released its 1,000 Mbps products on 26 May 2020. See Aussie Broadband, *Aussie Broadband announces ultra-fast residential plans*, 26 May 2020, https://www.aussiebroadband.com.au/blog/aussie-broadband-announces-ultra-fast-residential-plans/

32 Vodafone released its 250 Mbps and 1,000 Mbps products on 2 July 2020. See: Vodafone, *Vodafone speeds up the future of home broadband*, 2 July 2020, https://www.vodafone.com.au/media/vodafone-speeds-up-the-future-of-home-broadband

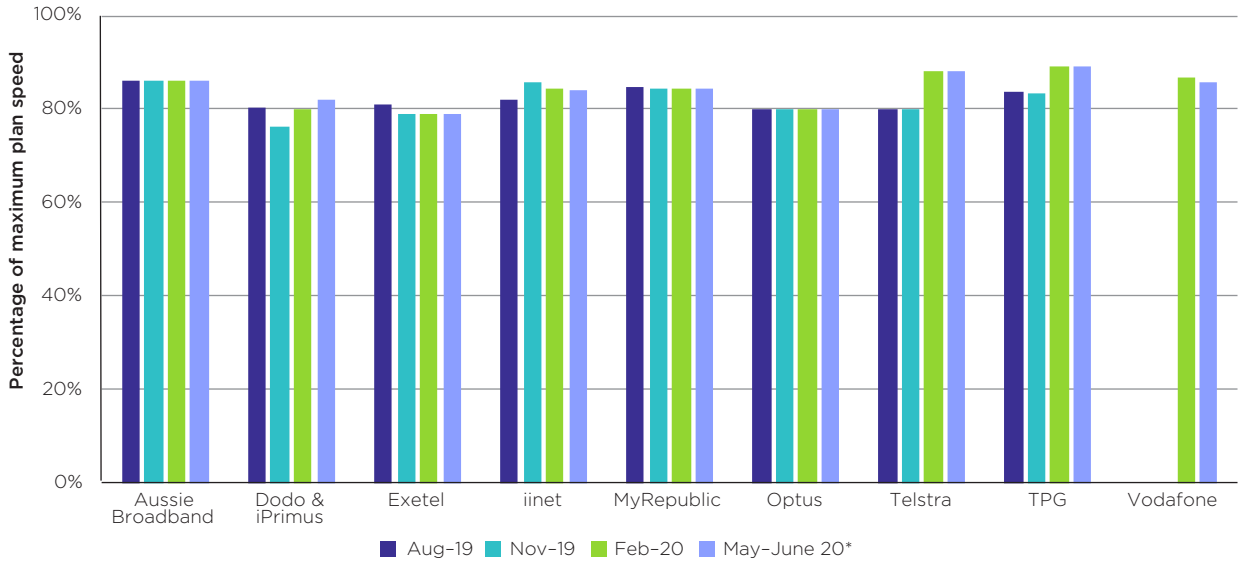
33 Telstra released its *'Superfast'* and *'Ultrafast'* Add-on products on 29 September 2020. See: Telstra, *nbn High Speed Add-ons*, https://www.telstra.com.au/help/critical-information-summaries/personal/home-internet/telstra-bundles/nbn-high-speed-add-ons.

34 This is not an exhaustive list and some other retailers may have also offered these high speed NBN products prior to September 2020.

35 NBN Co, *2021 Corporate Plan*, pp. 40-42.

36 ACCC, *ACCC to monitor Australia's broadband performance*, media release, 7 April 2017. https://www.accc.gov.au/media-release/accc-to-monitor-australias-broadband-performance.

Figure 3.5: Advertised download speeds during busy hours (50/20Mbps and 100/40Mbps plans, exclusive of underperforming and impaired services)[37]



Source: ACCC Measuring Broadband Australia program (Report 7, 8, 9 and 10)

* May/June refers to data collected during a 30 day period from 22nd May 2020 to 20th June 2020. The test period for May was deferred due to COVID-19 which resulted in the test period to extend into June 2020.

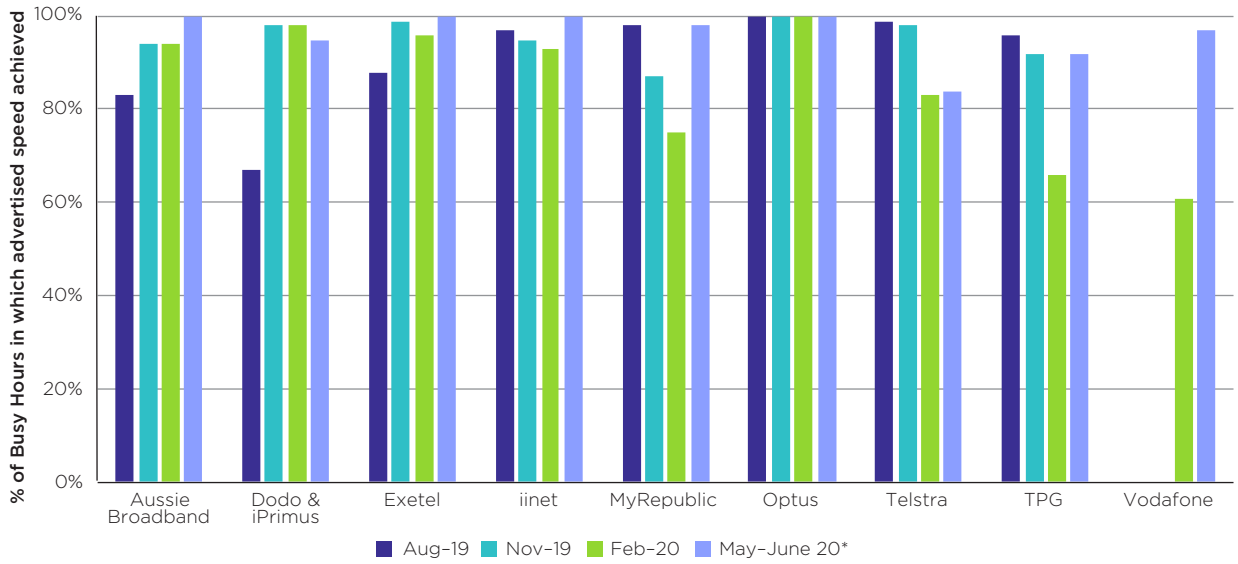
The advertised speed is expressed as a percentage of the retailer's NBN speed tier, that is, the maximum speed of the plan (e.g. 50Mbps and 100Mbps). Typically, consumers will experience a lower speed during the evening busy hours between 7pm and 11pm as network demand increases. For example, in August 2019 Aussie Broadband advertised speeds during busy hours of 86% of its maximum 50Mbps and 100Mbps speed tier plans, meaning Aussie Broadband is advertising an average busy hour speed of around 43Mbps and 86Mbps for each product, respectively.

At the end of each four month period analysed between 2019 and 2020, the advertised busy hour download speeds for NBN based products have remained relatively consistent across all RSPs between 76.4 and 89.1% of maximum plan speeds.

Figure 3.6 below shows the proportion of busy hours in which RSPs met or exceeded their advertised busy hour speed claims.

37 Underperforming and impaired services are services that are unable to reach the maximum plan speeds at any time of the day. These are essentially services that the RSP supplies to a consumer with a maximum plan speed that cannot be attained due to specific physical limitations affecting the service. Removal of these services from the analysis removes any negative distortionary effects.

Figure 3.6: Proportion of busy hours where advertised speed was achieved (50/20Mbps and 100/40Mbps plans, exclusive of underperforming/impaired services)



Source: ACCC Measuring Broadband Australia program (Report 7, 8, 9 and 10)

* May/June refers to data collected during a 30 day period from 22nd May 2020 to 20th June 2020.

At the end of each four month period analysed between 2019 and 2020, the proportion of busy hours in which RSPs met or exceeded their advertised busy hour speed claims was between 61% and 100% of the time.

With RSPs achieving or exceeding their advertised speed claims most of the time, ACCC compliance action is not often required in response to misleading speed claims. However, there is variance between RSPs in how often they meet their claims. For example, Optus has been consistently achieving its advertised speeds 100% of the time. This positive result may reflect that Optus' advertised speed is lower than some other RSPs (e.g. Telstra and TPG). In February 2020 many RSPs performed worse than their advertised speeds compared to November 2019, including Telstra and TPG which had also increased their busy hour speed claims during the February period.

However, all RSPs improved in meeting their busy hour download speed claims in May-June 2020 compared to February 2020. This was despite unprecedented demand on communications networks due to the COVID-19 pandemic. The improvement is attributed to the additional 40% extra network capacity offered by NBN Co to RSPs at no additional charge in March 2020 to address high level network activity and congestion.

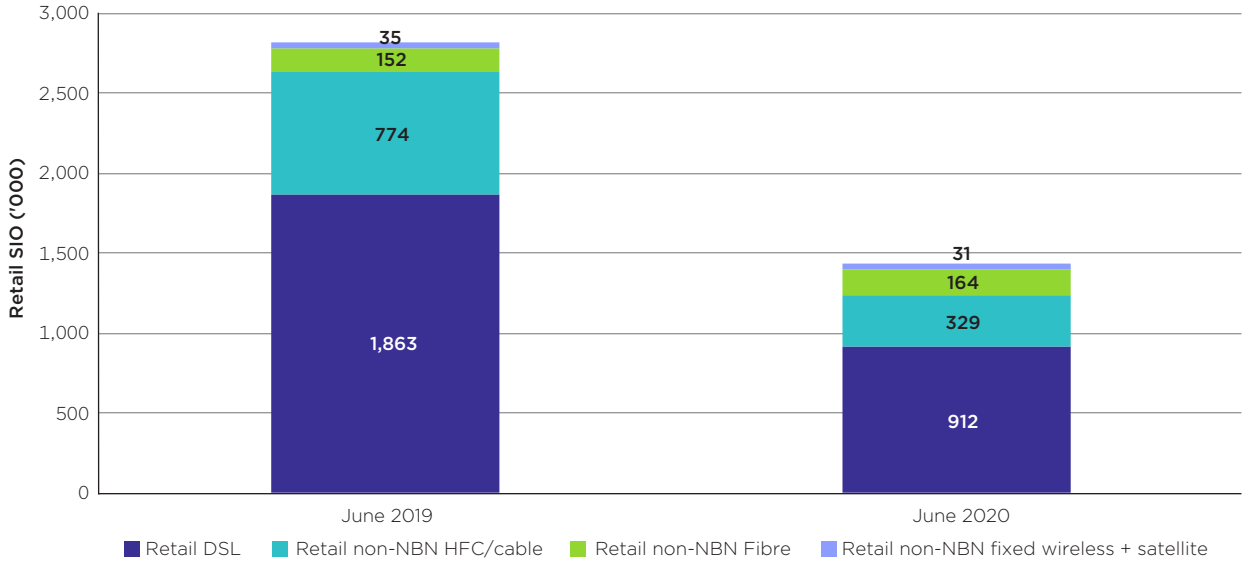
3.2.2 Non-NBN fixed line

Non-NBN fixed line broadband services are internet services provided over fixed networks owned by service providers other than NBN Co. Historically, these services have been largely delivered over legacy networks such as Telstra's copper network, and Optus' and Telstra's HFC networks. However, these legacy services are to a large extent being decommissioned and consumers are migrating on to the NBN and other access technologies such as non-NBN fibre and mobile services.

Services in operation

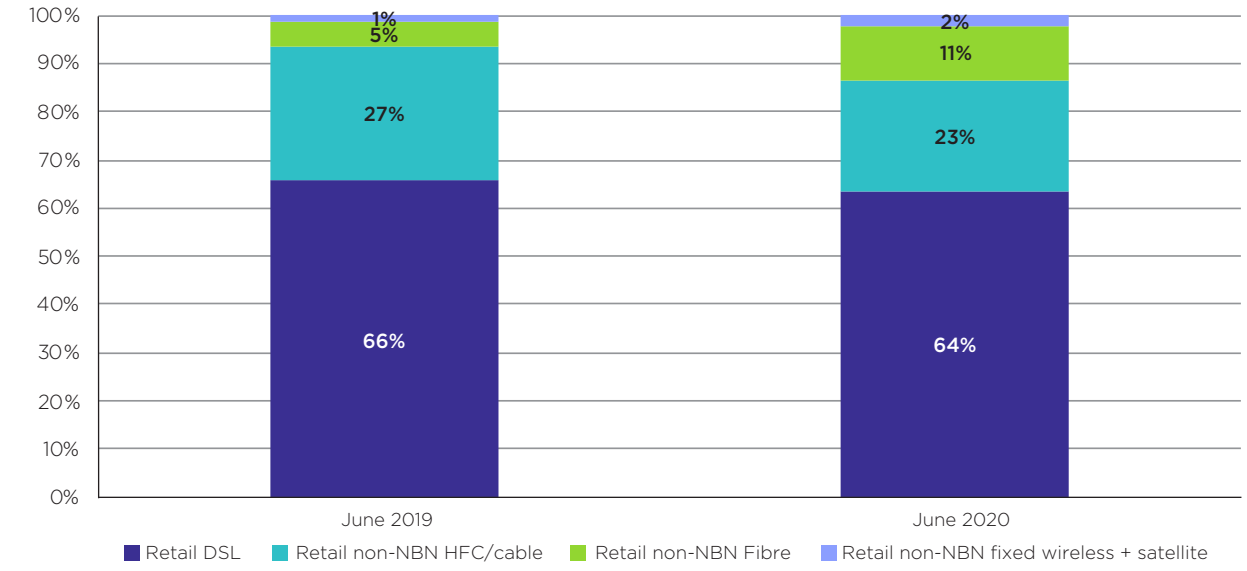
Changes in services in operation (SIO) on non-NBN fixed line networks are reflected in figure 3.7, which shows declines of 951,000 SIO (51%) and 445,000 SIO (57%) for retail DSL and retail HFC/cable SIO, respectively, from June 2019 to June 2020. Retail fibre SIO increased by 12,000 (8%) over the same period. Despite these changes, retail DSL SIO still contributes to the majority (64%) of retail non-NBN fixed line services (figure 3.8) in June 2020.

Figure 3.7: Retail non-NBN fixed line SIO by access technology from 2018–19 to 2019–20



Source: ACCC Internet Activity RKR.

Figure 3.8: Proportion of retail non-NBN fixed line SIO by access technology from 2018–19 to 2019–20



Source: ACCC Internet Activity RKR.

Pricing

Range of plans available

The highest percentage of non-NBN fixed line plans were in the $70–80 price range in 2019–20, with more than 16% of plans belonging to this category. This is in contrast to the previous two years when the highest percentage of plans were in the $60–70 price range (figure 3.9).

Figure 3.9: Percentage of non-NBN fixed line plans at various price points from 2017–18 to 2019–20

Source: ACCC estimates based on information from RSP websites.

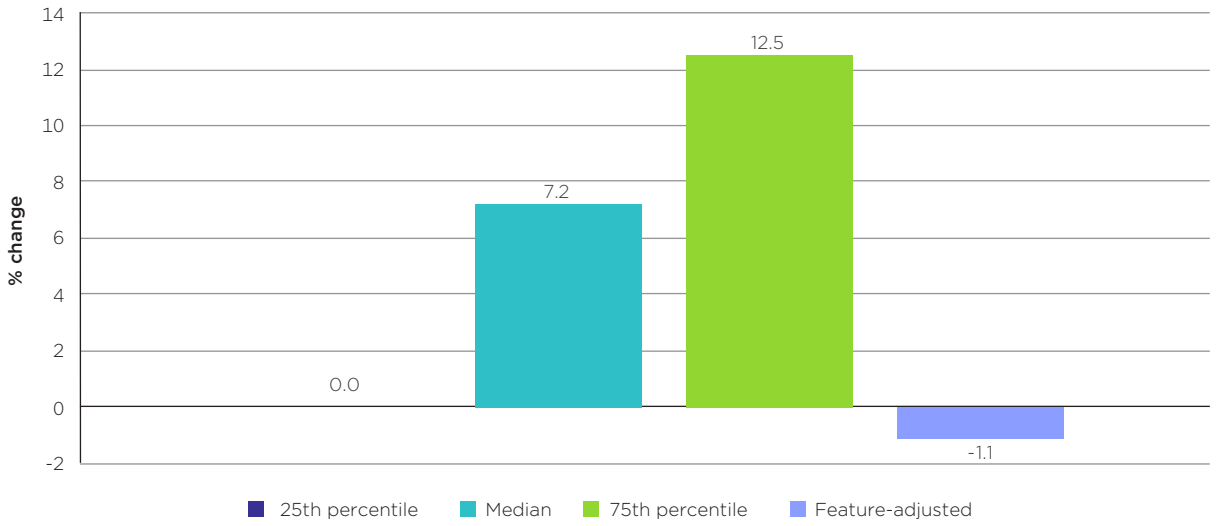
Advertised vs feature-adjusted price

Under the 'advertised price' approach (discussed in section 3.1), the price points of non-NBN plans for the 25th percentile, median and 75th percentile are $60, $75 and $90 respectively in 2019–20. As shown in figure 3.10, no change in price was observed in the 25th percentile of non-NBN plans (lower price non-NBN plans) from 2018–19 to 2019–20. However, price increases of 7.2% and 12.5%, to $75 and $90, were observed for the median and 75th percentile (higher priced non-NBN plans) respectively.

This may be due to a shift in the available plans on offer rather than a price increase by itself. In the analysis there is a decline in the number of DSL and HFC plans on offer and in the sample as these services are being de-commissioned. Conversely, the number of non-NBN fibre plans in the analysis sample has increased. Generally, non-NBN fibre plans are higher priced than DSL and HFC plans.

The 1.1% decrease in the feature-adjusted price suggests a slight improvement in product features but this may be at the expense of higher prices for some consumers, as suggested by the increase in the advertised prices for consumers at the median and 75th percentile. Despite paying higher advertised prices, the fall in feature-adjusted price suggests that the average consumer is receiving more value for their money, albeit a negligible increase in value.

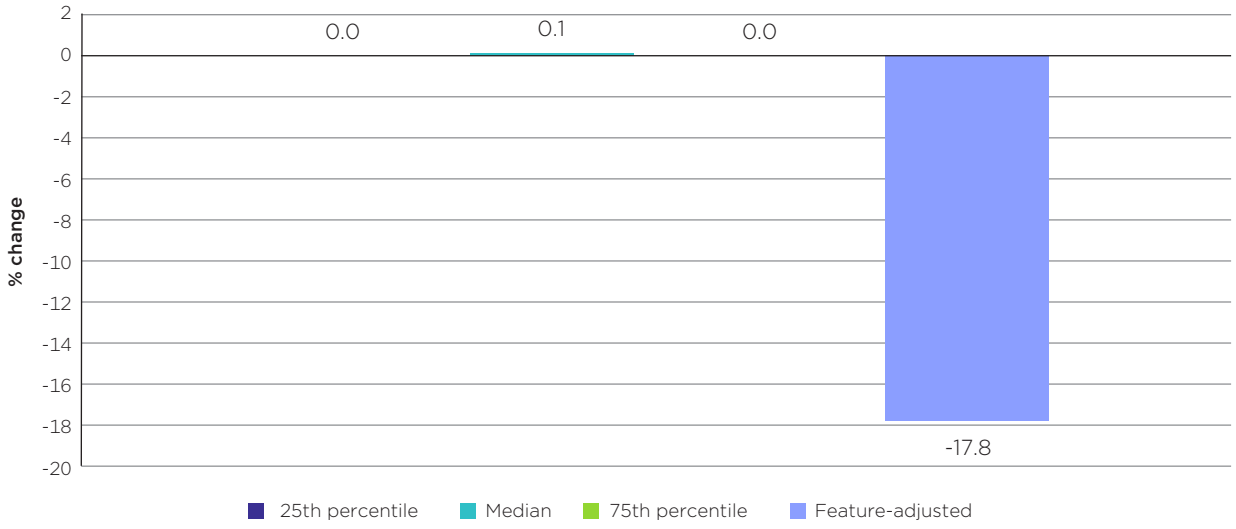
Figure 3.10: Changes in non-NBN fixed line advertised and feature-adjusted price in 2019–20



Source: ACCC estimates based on information from RSP websites.

Conversely, between 2015–16 and 2019–20, advertised price effectively remained unchanged across all groups. However, the feature-adjusted price fell by 17.8% (figure 3.11). This suggests more strongly that consumers are likely to be getting more value for their money in 2019–20 than they did in 2015–16. This may include more fixed line phone call inclusions, faster downloads speeds and/or greater data allowances as part of their fixed line broadband service.

Figure 3.11: Changes in non-NBN fixed line advertised and feature-adjusted price from 2015–16 to 2019–20



Source: ACCC estimates based on information from RSP websites.

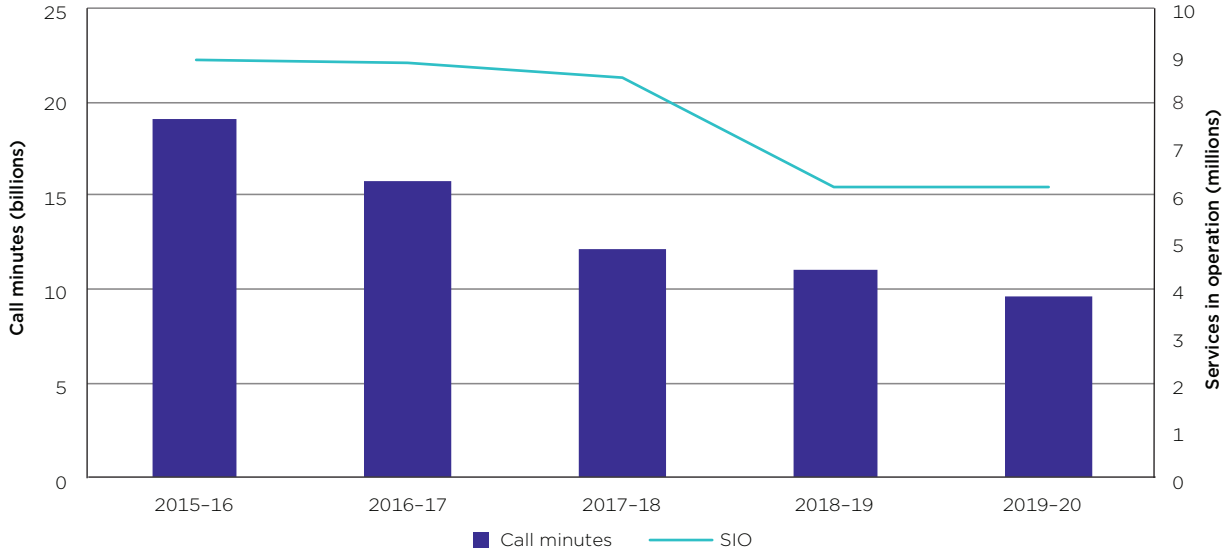
3.2.3 Fixed line voice

Services in operation and usage

Between 30 June 2019 and 30 June 2020 the number of fixed line voice SIO (bundled and standalone) remained steady at around 6.2 million. However, call minutes declined by 15% from 2018–19 to 9.6 billion minutes. This decrease is in line with previous years and suggests declining relevance of fixed line voice services. Notably, there has been a 50% decline in call minutes since 2015–16.

It should be noted that one data provider supplied revisions to its SIO data in 2019–20 for its 2018–19 figures, giving rise to the steep decline shown between 2017–18 and 2018–19 in figure 3.12. The revisions have not been backdated further than 2018–19.

Figure 3.12: Fixed line voice SIO and call minutes 2015–16 to 2019–20



Source: ACCC Division 12 RKR.

Pricing

Range of plans available

The ACCC's market research indicates standalone fixed line voice service providers are moving to primarily offer basic entry-level plans with no included calls for around $25–40, or all-inclusive plans that include unlimited local, national and mobile calls for between $40 and $70. Unlimited call inclusions are becoming common place as the availability of individual call tariff plans continues to reduce.

Access charges

Despite declining usage, fixed line voice services remain critical for vulnerable consumers who require access to a reliable and affordable voice service, including:

- those who live in regional and remote areas
- those who live in areas at risk of being impacted by natural disasters such a bushfires
- those with no or poor mobile coverage
- the elderly and individuals with complex medical needs.

Generally, consumers now access fixed line voice services as a bundled service (usually a VoIP service) with their fixed broadband service. However, some consumers may not want or need a fixed broadband service and prefer a standalone fixed line voice service.

Some larger service providers, such as Telstra and Optus, now only offer a single unlimited fixed line voice product. This presents an issue where consumers have limited options other than to pay a relatively high price for access to a basic fixed line voice service. In some instances, these services are often priced at a level similar to some bundled fixed line broadband and voice services.

Casual fixed voice users may face a value versus price choice where they prefer a lower price service but with less call inclusions. A mobile phone service with similar calls inclusions, but a lower price, is a viable alternative for most consumers except where reliable mobile coverage is not available.

Recent changes made by Telstra as part of its T22 simplification strategy have resulted in some consumers facing price increases as a result of the removal of legacy plans. These consumers may or

may not value the new plan inclusions at the higher prices offered. Telstra has also announced voice-only NBN customers would be upgraded to its Starter Internet plan. For many consumers this is a positive change that will see increased product value for the same price. However, some consumers may not want or need an internet service and may instead prefer to stay on a basic voice-only service at a lower price.

3.2.4 Mobile

The mobiles market continues to evolve, with MNOs offering multiple distinct retail services over their networks. These services include mobile phone plans (a bundle of voice, short message service (SMS) and data services) and mobile broadband plans (data only) for users that value mobility, as well as fixed offerings that deliver data connectivity over the same network to fixed addresses. As a result, mobile networks now represent an alternative to fixed line services for many users. There were approximately 28 million mobile phone services as at 30 June 2020, delivering over 69.9 billion voice call minutes over the preceding twelve months.

Mobile networks also remain the most common form of access to the internet, with 28 million handset services joined by 4.8 million mobile broadband SIOs making up approximately 80% of all internet access services.

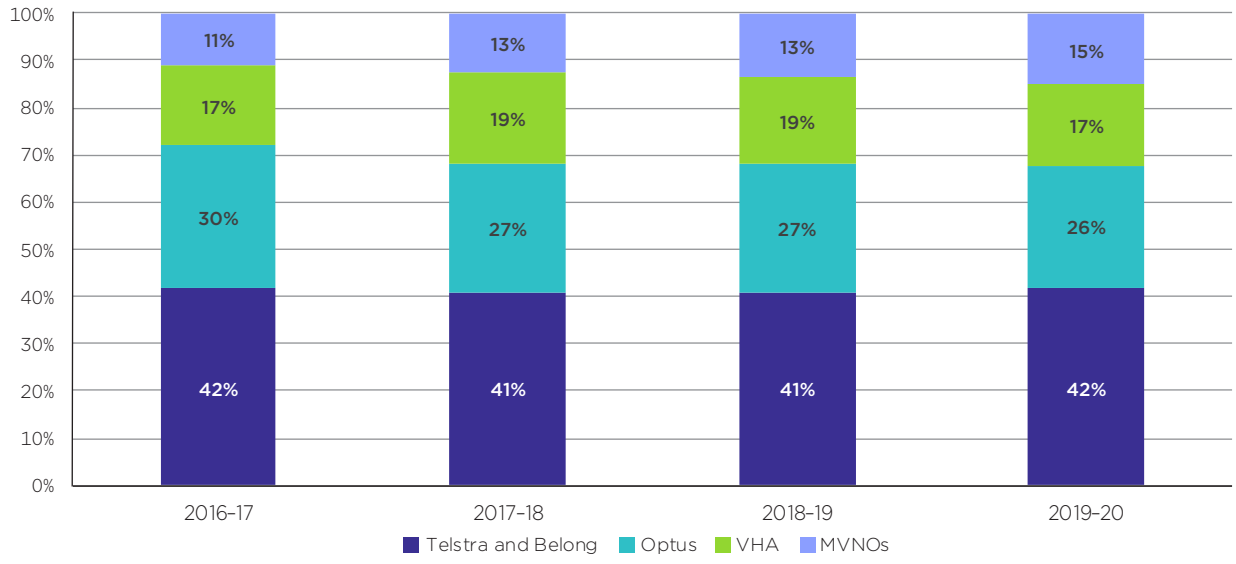
'Fixed' mobile services are in some areas becoming increasingly attractive to consumers as an alternative to NBN or other fixed line services. For example, Optus offers two unlimited '5G Home Internet' plans, one for $75 a month with a maximum speed of 100 Mbps, and the other for $90 a month with an uncapped speed. This service is price competitive with comparable NBN plans, for those consumers residing within Optus' current 5G coverage footprint which is currently relatively limited. Venture Insights predict that MNO fixed wireless connection will reach 12% of all Australian households in June 2024, based on the speed of rollout by MNOs and the consumer interest in 5G take up.[38]

Mobile phone

Services in operation and usage

Retail market shares remain largely steady amongst the MNOs, with Telstra maintaining its share at 42%. Optus' share was also steady at 26%. VHA appears to have lost some ground, holding 17% of the market. Mobile virtual network operators (MVNOs) represent the remainder (figure 3.13).

Figure 3.13: Retail market share for mobile phone services



Source: ACCC Division 12 RKR and ACCC Internet Activity RKR.

38 Venture Insights, *Australian Household 5G Fixed wireless substitution forecast,* Venture Insights, October 2020, pp. 10-11.

Unlimited calls and SMS inclusions are now the norm in retail offerings, with data inclusions continuing to grow strongly in response to consumer demand.

In contrast to fixed services, total mobile voice call minutes increased by 9% over the period 2018–19 to 2019–20 which also reflects an increase of 18% since 2015–16. This was despite a slight decrease in total SIOs, driven largely by a drop in the number of prepaid services.

The ACCC continues to regulate the Mobile Terminating Access Service (MTAS) for voice calls, but no longer regulates SMS termination.

It should be noted that the analysis below for prepaid mobile plans is limited to those with an expiry of 28, 30, 35 or 42 days. This allows analysis to be comparable to that of post-paid services which are generally month-to-month contracts.

Pricing

Range of plans available

The mobiles market continues to see plans available at a wide range of price points. The relative majority of post-paid plans (25%) appear in the $20–30 range, which marks a departure from 2018–19, when the relative majority of plans were found in the $30–40 range (figure 3.14), which may indicate a change in the price point 'sweet spot' for consumer spend. The average data allowance in each of these price brackets for 2019–20 was 13 GB and 28 GB, respectively (figure 3.20).

Post-paid plans remain concentrated in the $10 and $60 range, with more than 85% of all available plans in this range.

Figure 3.14: Percentage of post-paid mobile phone plans at various price points from 2017–18 to 2019–20

Source: ACCC estimates based on information from RSP websites.

As in the previous two reporting periods, the greatest number of plans in the prepaid segment is in the $20–30 range, with 23.6% of all available plans in this range (figure 3.15). The average data allowance in this price bracket was 17 GB, which is greater than the average for post-paid plans in the same price bracket (figure 3.21).

Prepaid plans tend to be priced below $50, with just 11.1% of all available plans priced above this point.

Figure 3.15: Percentage of prepaid mobile phone plans at various price points from 2017–18 to 2019–20

Source: ACCC estimates based on information from RSP websites.

Advertised vs feature-adjusted price

The ACCC has estimated price changes in mobile phone services by comparing the average prices and inclusions of different categories of prepaid and post-paid mobile plans. For more information on the ACCC's methodology, see section 3.1.

Advertised prices for mobile services saw a general decline from 2018–19 to 2019–20. However, this effect was not uniform across the range of mobile products on offer. The median post-paid mobile phone service price declined by 2.8%, with no significant price change at the higher end of the market, and a modest increase of 0.4% at the lower end. Under the 'advertised price' approach, in 2018–19 the price points of post-paid plans for the 25th percentile, median and 75th percentile are $25, $35 and $50, respectively.

However for prepaid mobile services, median prices declined by 7.1%, with a much greater decline for lower end products of 19.7%, but no significant change for higher-priced products (75th percentile). Following these changes, the price points of prepaid plans are $20, $32.5, and $49.9 for the 25th percentile, median and 75th percentile, respectively.

The combined effect (i.e. all mobile phone services) of these changes in 2019–20 was a decline in mobile prices only at the 25th percentile. Prices overall saw no significant change at either the median offer, or at the 75th percentile. This marks a departure from previous years, where a constant, steady decline in the price for mobile services was apparent.

This differentiated behaviour in the post-paid and prepaid segments of the market continues trends seen over the long term, with post-paid prices declining by approximately 10% in the period 2015–16 to 2019–20. Prepaid prices, however, have declined much more strongly at the lower end of the market, with a decrease of a third (33.1%) in the same period at the 25th percentile, 18.7% at the median, and no change at the 75th percentile (table 3.2).

Table 3.1: Changes in post-paid mobile phone services prices in 2019–20 and from 2015–16 to 2019–20

	2019–20	2015–16 to 2019–20
25th percentile	0.4%	-10.8%
Median	-2.8%	-12.5%
75th percentile	0%	-12.3%

Source: ACCC estimates based on information from RSP websites.

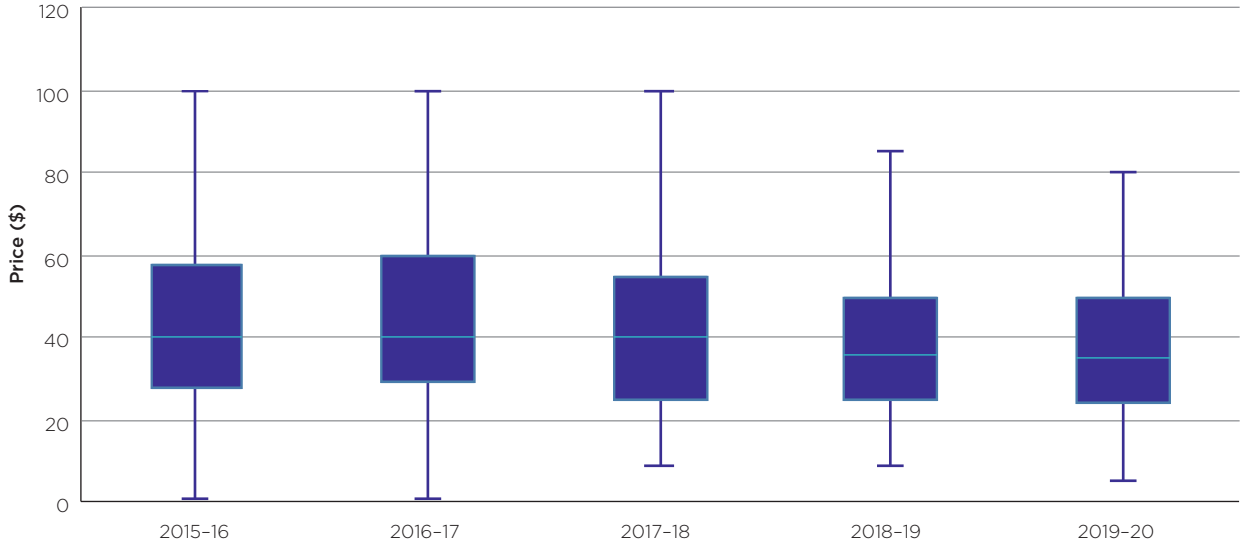
Table 3.2: Changes in prepaid mobile phone services prices in 2019–20 and from 2015–16 to 2019–20

	2019–20	2015–16 to 2019–20
25th percentile	-19.7%	-33.1%
Median	-7.1%	-18.7%
75th percentile	0%	0%

Source: ACCC estimates based on information from RSP websites.

The differing price paths for post-paid and prepaid services are illustrated in figures 3.16 and 3.17. For post-paid services, it is possible to observe a declining median and 75th percentile, and a narrowing of the range of price points on offer.

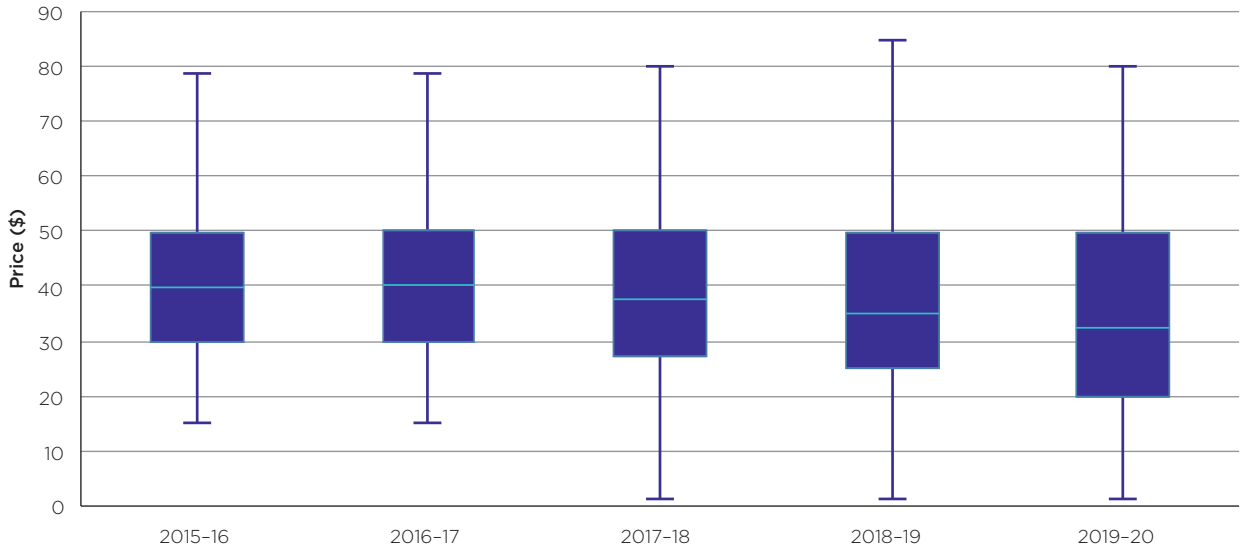
Figure 3.16: Composition of post-paid mobile phone services prices advertised from 2015–16 to 2019–20



Source: ACCC estimates based on information from RSP websites.

However for prepaid services, the 75th percentile and above has been static for five years, while the bottom of the range has slowly decreased, bringing the median with it. This has increased the range of plans on offer, in contrast to the simplification and concentration observed for plans offered in the post-paid segment (figure 3.17).

Figure 3.17: Composition of prepaid mobile phone services prices advertised from 2015–16 to 2019–20



Source: ACCC estimates based on information from RSP websites.

In addition to advertised price measures, the ACCC has also estimated a feature-adjusted price index based on bundled inclusions. This index includes the effect of growing bundled inclusions over time, such as call minutes and data downloads.

Feature-adjusted prices for mobile phone services declined significantly from 2018–19 to 2019–20, especially in the post-paid segment. Overall, feature-adjusted prices for the prepaid segment declined 12%, and prices for the post-paid segment declined 19.4%. These changes suggest strong growth in data inclusions bundled with mobile plans, especially at the higher end of the market.

The effect of increased data allowances on feature-adjusted prices is likely to be the driver of an overall fall of 16.7% in the 2018–19 to 2019–20 price index for all mobile phone services. For the period 2015–16 to 2019–20, feature-adjusted prices have declined by 52.2% for all mobile phone services, which is also likely to be due to increased data allowances and/or price changes. This decline was similar in both the prepaid and post-paid segments of the market (table 3.3).

Table 3.3: Changes in total mobile phone services feature-adjusted prices in 2019–20 and from 2015–16 to 2019–20

	2019–20	2015–16 to 2019–20
Post-paid	-19.4%	-52.9%
Prepaid	-12%	-51.6%
Total mobile phone	-16.7%	-52.2%

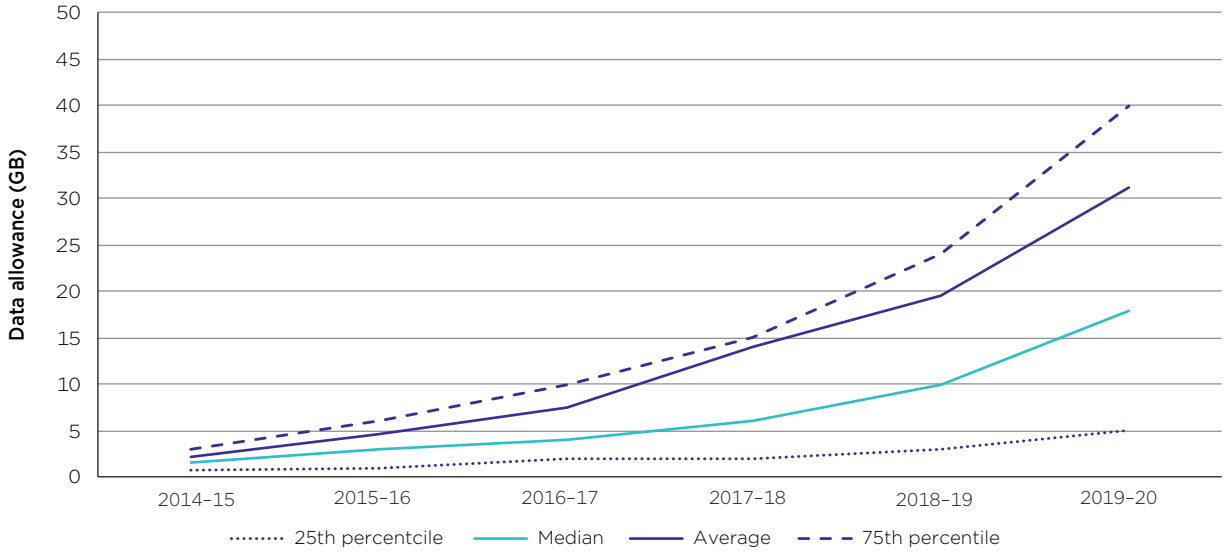
Source: ACCC estimates based on information from RSP websites.

These very large changes in feature-adjusted prices can largely be attributed to quickly increasing data allowances, and rapid falls in the cost of mobile data, when measured in dollars per gigabyte. Both of these phenomena are discussed below.

Data allowances

It is possible to observe a near exponential increase in post-paid data allowances for the period 2015–16 to 2019–20, with both the median and mean inclusion increasing more than tenfold. From 2018–19 to 2019–20, post-paid inclusions grew from a median and mean of 10 GB and 20 GB to 18 GB and 31 GB (figure 3.18), respectively.

Figure 3.18: Average, median, 25th percentile and 75th percentile data allowance for post-paid mobile phone services from 2014–15 to 2019–20

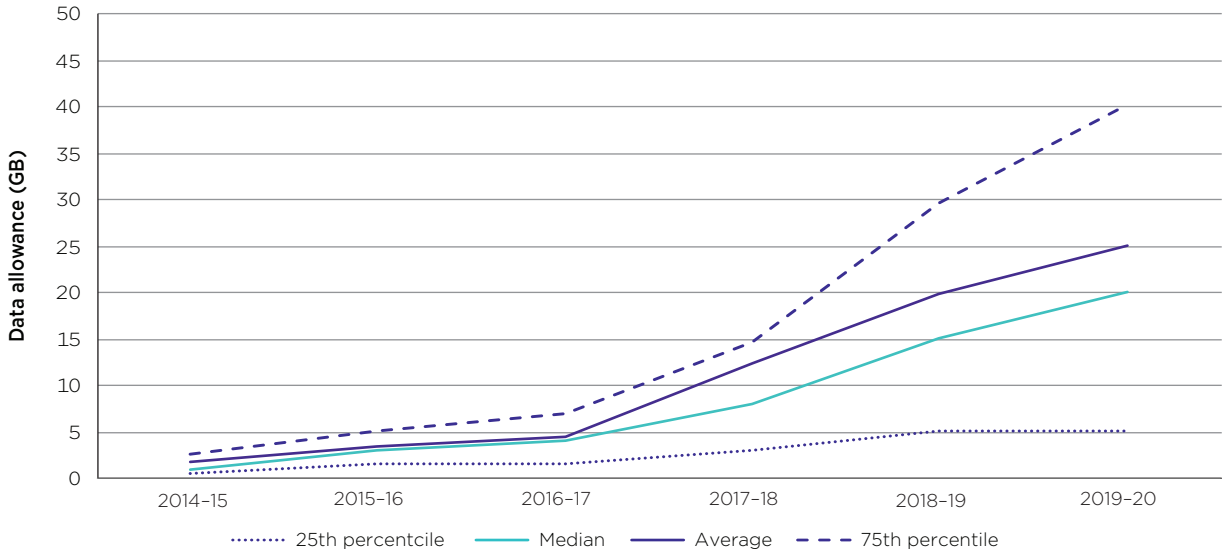


Source: ACCC estimates based on information from RSP websites.

As shown below, prepaid services did not grow as strongly as post-paid between 2018–19 and 2019–20, but an increase from a median and mean of 15 GB and 20 GB to 20 GB and 25 GB, respectively, was observed (figure 3.19). This represents a flattening in the growth profile compared to prior years.

As with post-paid services, the mean is above the median, indicating that a number of high data allowances are present in the distribution. By contrast, inclusions at the 25th percentile have shown comparatively weak growth over the last five years, with no growth at all for 2018–19 to 2019–20.

Figure 3.19: Average, median, 25th percentile and 75th percentile data allowance for prepaid mobile phone services from 2014–15 to 2019–20

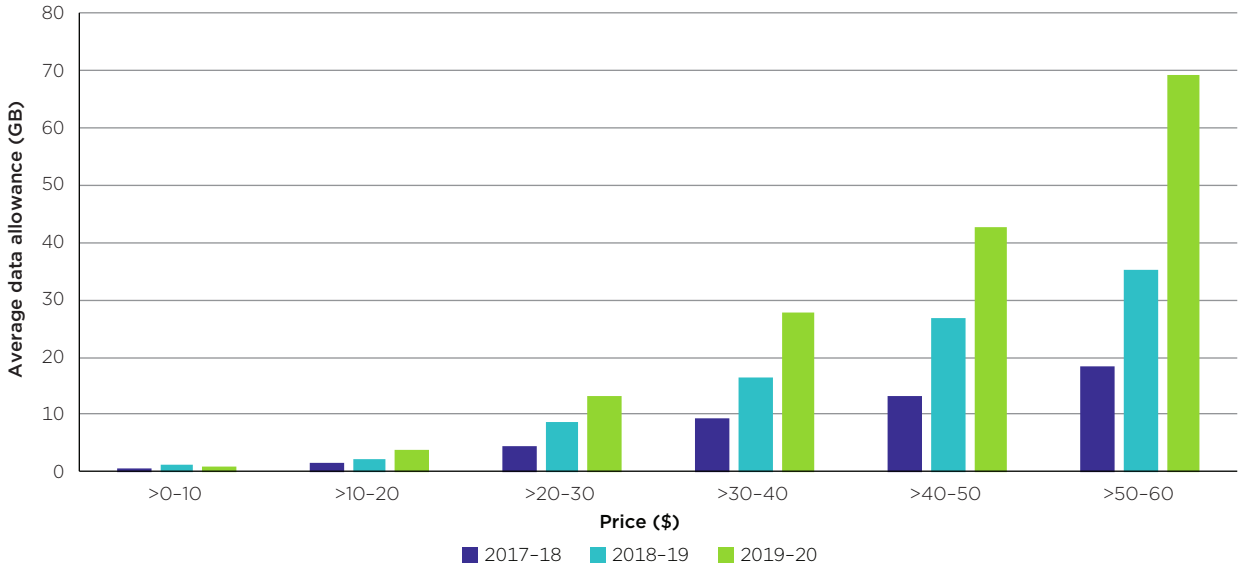


Source: ACCC estimates based on information from RSP websites.

However, as shown in figures 3.20 and 3.21, growth in data inclusions is uneven across the market, with data inclusions on higher end plans growing much faster than plans at the median or lower prices. The effect of this is a widening gap between inclusions on entry-level plans and more expensive plans, in both the prepaid and post-paid market segments.

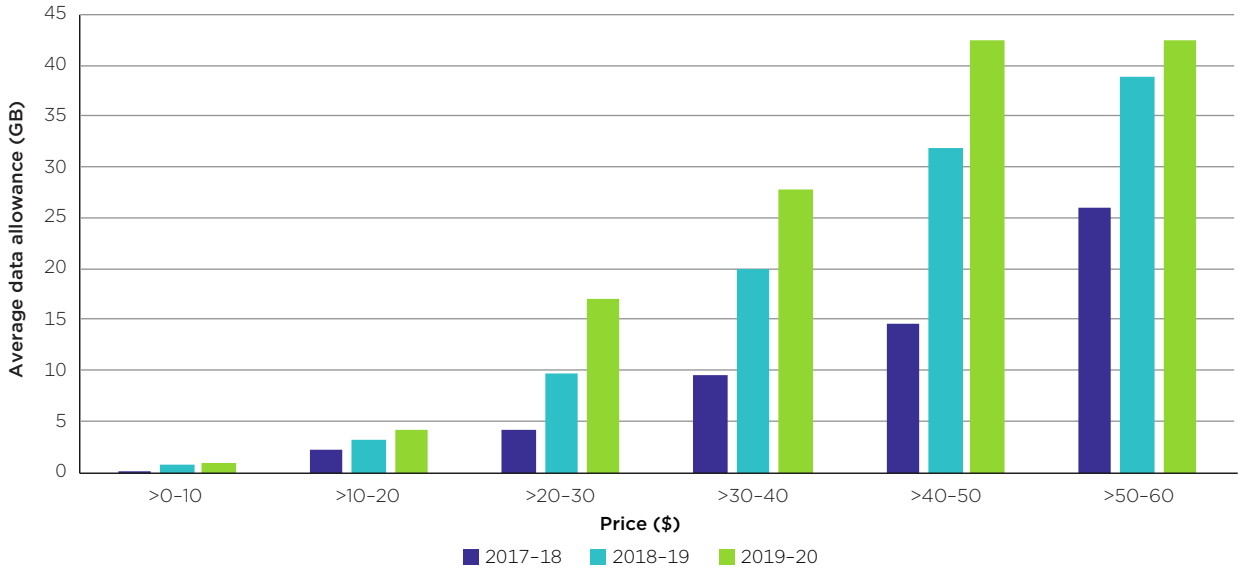
For example, in the post-paid segment, data inclusions grow with price. This is a trend present in each of the last three years of data. In the prepaid segment, data inclusions also grow in plans up to the $40–50 price bracket, beyond which few plans are offered on a prepaid basis.

Figure 3.20: Average data allowance at various price points for post-paid mobile phone services from 2017–18 to 2019–20



Source: ACCC estimates based on information from RSP websites.

Figure 3.21: Average data allowance at various price points for prepaid mobile phone services from 2017–18 to 2019–20



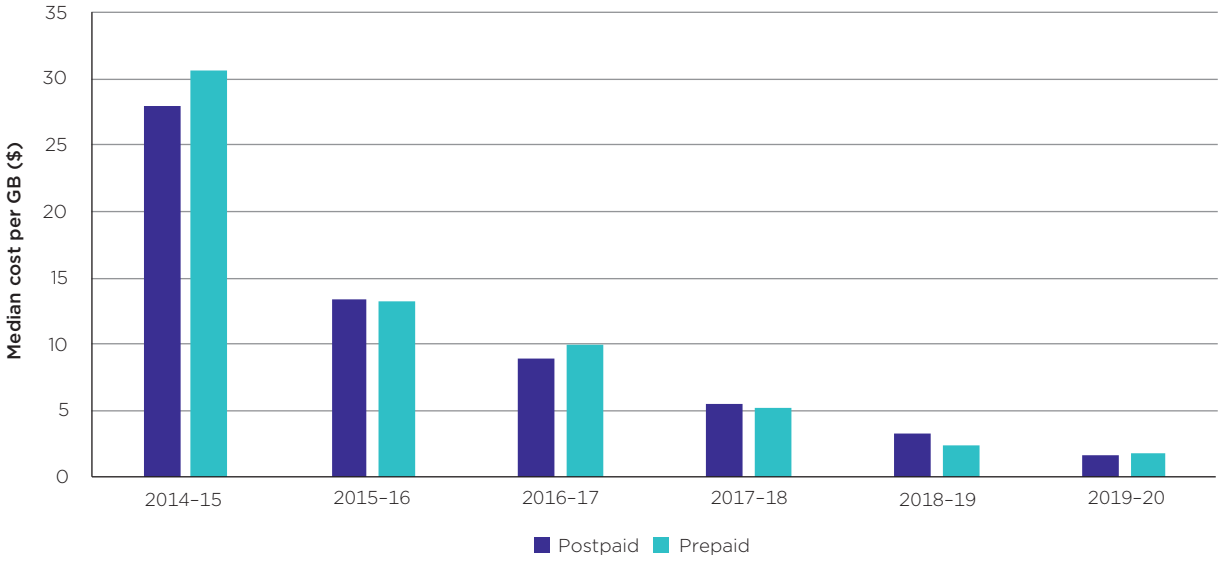
Source: ACCC estimates based on information from RSP websites.

Median retail cost per GB of data

The median retail cost per GB of data fell strongly in 2019–20, with a 50% decline observed in the post-paid market, and a 26% decline observed in the prepaid market.

The median price per GB for post-paid data is slightly lower at $1.70 than the price for prepaid, at $1.80 (figure 3.22).

Figure 3.22: Median retail cost per GB of data for post-paid and prepaid mobile phone services from 2014–15 to 2019–20



Source: ACCC estimates based on information from RSP websites.

These changes continue a trend of strong declines in this metric from 2015–16. However, in the same period 2015–16 to 2019–20, median prices for mobile phone services fell by 12.5% for post-paid services, and 18.7% for prepaid services, indicating that strong growth in inclusions are driving the market, rather than sharp changes in advertised price.

How much consumers value greater data inclusions over lower prices is difficult to ascertain from available data. The ACCC's *Internet Activity Record Keeping Rules (RKR) (June 2020)* indicates that the average volume of data downloaded by users of post-paid mobile services was 9.1 GB, and 5.2 GB for prepaid services. For post-paid services, that represents just over half the median data inclusion, and for prepaid services, average data downloaded represented just over a quarter of the median included data allowance.

Growth in the two metrics also differs. From 2018–19 to 2019–20, post-paid data inclusions grew by 80%, and prepaid data inclusions grew by 33%. Both of these figures outstrip growth in average data downloads over the same period.

These figures indicate that for the typical consumer, current data inclusions are more than enough to sustain regular browsing and downloading needs without incurring overage charges, or requiring the purchase of extra data.

Other inclusions and features

In addition to price differences, the retail mobiles market offers somewhat differentiated products. Each of the three MNOs competes across a wide variety of factors, such as geographic coverage, the quality and speed of the network, customer support, and other inclusions that are not easily quantified.

The ACCC has reported previously that included calls and SMS are unlimited on almost all retail mobile plans, with the exception of the very few pay-as-you-go plans still available at the low end of the market. This indicates both a consistent decline in the cost of providing these services over time[39], and a shift in consumer preferences towards OTT services.

While this trend would seem to indicate that the only point of competition for providers of mobile services today is price and data inclusions, this is not borne out in the market. Operators are now increasingly willing to bundle additional services with mobile contracts, such as subscriptions to

39 For example, the regulated rate for the MTAS has fallen from 21 cents per minute in 2004 to 1.19 cents per minute from January 2021.

certain streaming content, or the zero-rating[40] of that content (such as Spotify, Netflix or Apple Music), exclusive services (such as Optus Sport, which is the exclusive rights holder for the English Premier League and UEFA Champions League in Australia), or additional non-network services and rewards programs (such as Telstra Plus and Optus Perks).

Other than plan features, geographic coverage and network quality are important non-price related factors that providers compete over. The geographic coverage of a mobile network is an important consideration for consumers in choosing their providers for mobile phone services, as consumers value the ability to use mobile phone services, not just where they live, but also where they work and travel. Reliability of connection and speed of data services are also important quality indicators of the networks which affect consumers' experience of the services. For these reasons, MNOs continuously invest in improving the network quality and coverage of their networks in competition with each other. An important way in which the networks could be improved over time, is through upgrading the networks with new mobile technologies. This is discussed further below.

Mobile broadband

Pricing

Range of plans available

As in both the post-paid and prepaid segments of the mobile phone services market, there continues to be a wide range of plans available in the mobile broadband market. The greatest share of plans is in the $10–20 segment, in contrast to both post-paid and prepaid mobile phone services (figure 3.23).

Figure 3.23: Percentage of mobile broadband plans at various price points from 2017–18 to 2019–20

Source: ACCC estimates based on information from RSP websites.

While the proportion of plans in the $20–30 range has been similar for the past three years, an increase in the proportion of plans in both the $30–40 and $40–50 segments was observed in 2019–20 compared to previous years.

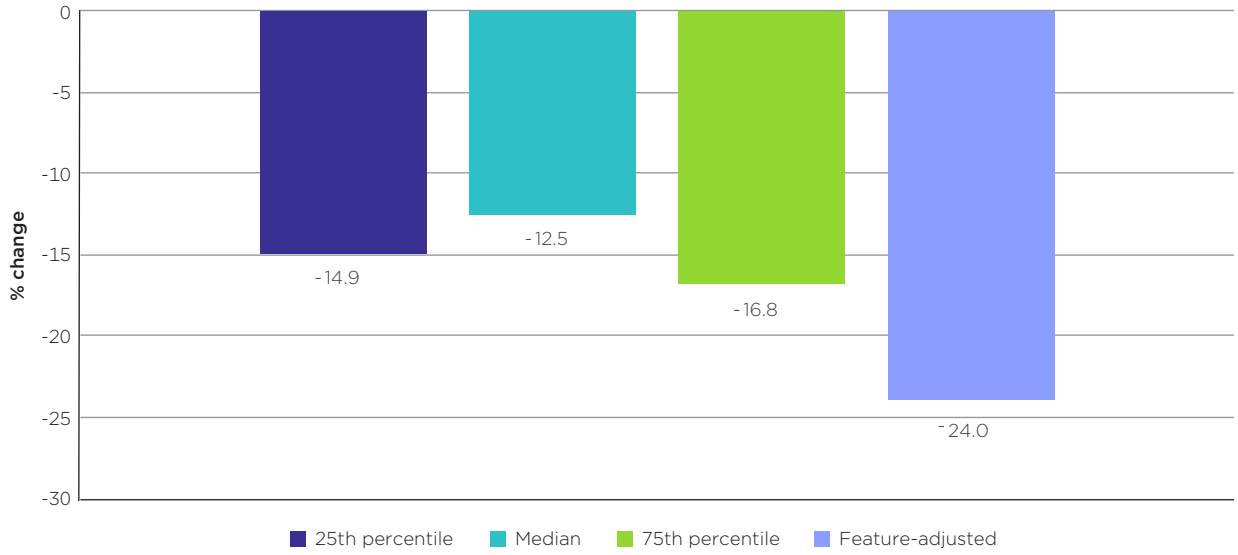
In addition to conventional mobile phone services, the MNOs and many MVNOs also offer mobile broadband services. These plans are data-only services that do not allow consumers to make or receive regular phone calls or SMS messages, but that retain the mobility of mobile handset services. This category does not include wireless services designed for use as a total fixed line replacement at a single premises, such as Telstra or Optus' '5G Home Internet' products, but may be a substitute for a fixed line service in some circumstances.

40 Content that does not contribute to the plans data allowance

Advertised vs feature-adjusted price

Median prices for mobile broadband services declined by 12.5% in the period 2018–19 to 2019–20, with falls of a similar magnitude occurring at the 25th and 75th percentile price points (figure 3.24). This decline in prices across the board is in contrast to the mobile phone services market, which saw uneven changes in price at different price points. Following these changes, the price points of mobile broadband plans are $20, $35, and $49.90 for the 25th percentile, median and 75th percentile, respectively.

Figure 3.24: Changes in mobile broadband advertised and feature-adjusted price in 2019–20

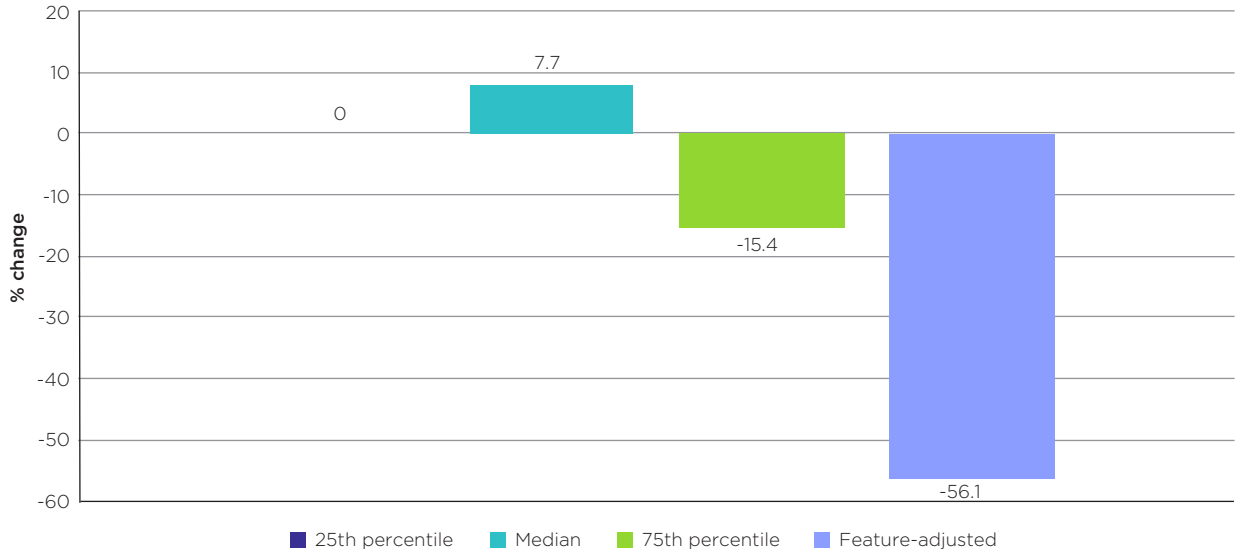


Source: ACCC estimates based on information from RSP websites.

Feature-adjusted prices declined by 24%, indicating a positive change in the average inclusions for mobile broadband services

For the period 2015–16 to 2019–20, mobile broadband services saw uneven changes in price, with a 7.7% increase in advertised price for the median plan (figure 3.25). A very large decrease in the feature-adjusted price of 56.1% suggests that the benefits may have largely been skewed towards the higher end of the market given the 15.4% decline in the 75th percentile advertised price. However, it is also possible that consumers in the median category could also be receiving substantially more inclusions over this period. The difference is that these two groups did not receive the benefit of an advertised price drop. As noted previously consumers may not value these additional inclusions especially if it is at a higher cost.

Figure 3.25: Changes in mobile broadband services advertised and feature-adjusted price from 2015–16 to 2019–20

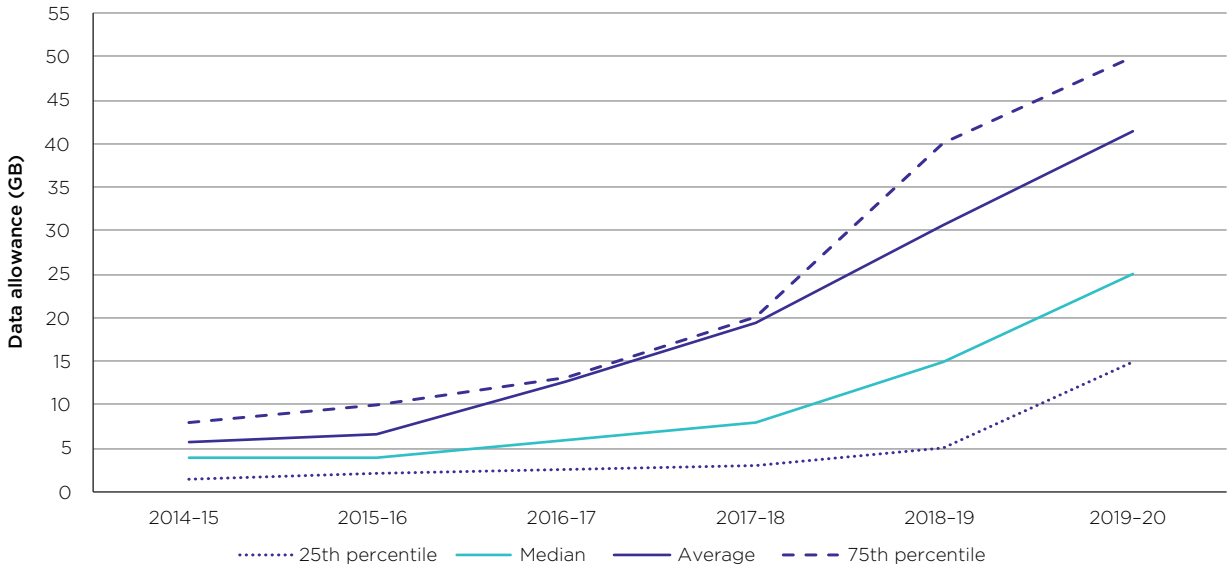


Source: ACCC estimates based on information from RSP websites.

Data allowances

Data allowances for mobile broadband plans continue to rise, with newer technology making it ever cheaper for mobile networks to carry more traffic. The median data allowance in 2019–20 was 25 GB, an increase of 10 GB, or two-thirds over the median in 2018–19 (figure 3.26).

Figure 3.26: Average, median, 25th percentile and 75th percentile data allowance for mobile broadband services from 2014–15 to 2019–20



Source: ACCC estimates based on information from RSP websites.

As with mobile phone services, the gap in terms of data inclusions between the higher end of the market and the lower end widened considerably in the period 2015–16 to 2018–19. However, in 2019–20, plans at the 25th percentile saw an appreciable rise in the amount of data included. From 5 GB last year, inclusions at this price point tripled to 15 GB, narrowing the gap to the median mobile broadband plan.

Perhaps more importantly, this change means mobile broadband plans at the 25th percentile now offer significantly more data than comparable mobile phone plans, which had been encroaching on mobile

broadband data inclusions at the lower end of the market (and especially in the prepaid segment) over the last few years. With data tethering ubiquitous, carriers are likely to be wary of undermining their own mobile broadband products should they not keep ahead of comparable mobile contracts that also include calls and SMS.

Regional issues

High quality mobile phone network coverage is essential in regional areas. Australians living in regional areas pay the same prices for mobile services as metropolitan users but often have less choice of network. This is one reason why strong competition is needed in metropolitan areas as it assists in lowering prices for regional users.

In May 2020 the ACCC amended the *Audit of Telecommunications Infrastructure Assets—Record Keeping Rules* following a public consultation process.[41] Under the amended rules, relevant record-keepers are required to report on the extent of mobile coverage by frequency band and on the extent of any government co-contributions. This data will enable the ACCC to track investment in regional networks and assess whether MNOs are meeting their public claims about regional investment.

5G rollout

One important way in which the MNOs compete with each other is through upgrading their networks with new and more efficient technologies over time. This expands the capacity of the networks and enables higher speeds and better network performance for end-users. Unsurprisingly, in the past year, the competitive focus between the MNOs has almost been entirely on the rollout of their 5G networks, with Telstra and Optus having started to offer services on their 5G networks.

According to Telstra, its 5G network is now present in 53 cities and regional towns, and covers around a third of the Australian population. It has stated that its intention is to cover 75% of the population by June 2021. Telstra also announced that it would bring forward $500 million of capital expenditure planned for the second half of the 2021 financial year into the 2020 calendar year, to accelerate its 5G rollout.[42]

Optus' 5G network now appears to have a presence in Sydney, Melbourne, Brisbane, Adelaide, Canberra, Perth, as well parts of the NSW central coast, Newcastle, Gold Coast, Geelong and Fremantle.[43]

TPG Telecom switched on its first 5G sites in March 2020 and has currently 1,200 sites in its rollout plan. It is progressively rolling out these sites in Sydney, Melbourne, Brisbane, Adelaide, Canberra and Perth and intends to cover 85% of the population in these six cities by the end of 2020.[44]

Currently, Optus and Telstra do not explicitly charge for access to their 5G networks for mobile phone plans, but both appear to only offer 5G on post-paid plans. While Optus includes 5G access on all of its post-paid mobile plans, Telstra does not include 5G access on its entry-level post-paid plan.[45] TPG Telecom has yet to offer services on its 5G network, but has indicated it will not be charging extra for 5G access.[46]

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41 ACCC, *Customer access network & infrastructure record keeping rules*, ACCC, 20 May 2020, https://www.accc.gov.au/regulated-infrastructure/communications/monitoring-reporting/customer-access-network-infrastructure-record-keeping-rules/2020-infrastructure-rkr-amendments.

42 Andy Penn, *5G will shape the 2020s – and update on Telstra's progress*, 3 August 2020, viewed 21 September 2020 https://exchange.telstra.com.au/5g-will-shape-the-2020s-an-update-on-telstras-progress/.

43 Optus 5G coverage map viewed 21 September 2020: https://www.optus.com.au/about/network/coverage.

44 See Vodafone Media Centre, *Vodafone lights up first 5G sites in Parramatta*, 5 March 2020, viewed 22 September 2020, https://www.vodafone.com.au/media/vodafone-lights-up-first-5g-sites-in-parramatta; Justin Hendry, 'TPG Telecom adds 550 sites to 5G network rollout plan', *itnews*, 21 August 2020, https://www.itnews.com.au/news/tpg-telecom-adds-550-sites-to-5g-network-rollout-plan-552141.

45 Optus website viewed 22 September 2020 at https://www.optus.com.au/mobile/plans/shop?SID=con:mcat:3up:2:nov19:postmob:futuremobile:planspage; Telstra website viewed 22 September 2020: https://www.telstra.com.au/mobile-phones/sim-only-plans.

46 Vodafone Media Centre, *Vodafone lights up first 5G sites in Parramatta*, 5 March 2020, viewed 22 September 2020 at https://www.vodafone.com.au/media/vodafone-lights-up-first-5g-sites-in-parramatta.

The adoption of 5G technology in the mobile services market is influenced by the availability of 5G compatible handsets and the willingness of consumers to upgrade their handsets. A consumer survey conducted by Venture Insights in March 2020[47] shows only a small proportion of those surveyed (13%) upgrade their handsets every year or more frequently, with 32% upgrading every two years, 25% every three years and 30% every four years or more. This suggests the majority of consumers do not upgrade handsets frequently. The survey also shows 57% of those surveyed either do not have plans to upgrade to 5G or have not considered it yet. These results together indicate that it may take three to four years for the majority of consumers to make use of the 5G mobile services that are available in the market.

Telstra and Optus also offer broadband services on their 5G networks. Telstra currently includes 5G access in its top two mobile broadband plans and has also started offering a 5G home broadband service on an invitation-only basis.[48] Optus has been offering two 5G home broadband plans that include unlimited data allowance with a speed guarantee.[49] While only available in the currently limited 5G footprints, MNOs' ability to offer 5G broadband plans (with comparable speeds, data allowances and prices with those on fixed line networks) means that 5G broadband services could increasingly be considered viable alternatives to fixed line broadband services.

The Venture Insights survey shows 38% of those surveyed plan to switch to 5G fixed wireless, or home broadband services, if they become available, with 29% not planning to switch and the remainder (39%) unsure whether they will switch. Notably, of those who plan to switch, or are otherwise unsure whether they will switch, the main advantages of 5G fixed wireless over fixed line broadband cited are that it is faster than fixed line broadband (63%) and more reliable (41%). For those that do not plan to switch to 5G fixed wireless, the main deterrent is the belief that fixed line broadband services are cheaper (55%). These early survey results show an interesting consumer perception that 5G fixed wireless is a more premium service compared to fixed line broadband, which may tend to attract those that are less price-sensitive.

Other than residential markets, 5G technology is also likely to have an increasing impact on enterprise markets over time, by enabling the development of new and innovative use cases and creating new revenue opportunities for operators.

Access to spectrum

A key enabler for the MNOs to adopt 5G technology is the availability of spectrum that is internationally harmonised for 5G use. In Australia, the 3.6 GHz band spectrum was allocated via auction in December 2018 and the 26 GHz band is due to be auctioned in March 2021.[50]

In the mobile services market, the ACCC generally considers it important that all MNOs have an opportunity to acquire sufficient spectrum in these early 5G spectrum auctions so no one has a first-mover advantage in adopting 5G technology.[51] While the inability of any MNO to obtain 5G spectrum in the short term may not immediately impact their ability to compete in the mobile services market, it would constrain an MNO's ability to expand network capacity to accommodate growing demand for data. This would eventually mean MNOs would be unable to effectively compete in the market in the medium to long term.

The more immediate and notable impact of access to 5G spectrum is arguably in the market for home broadband services, where 5G technology would enable the MNOs to have a stronger presence by offering services comparable to those offered on fixed line networks. Optus is the first to offer a 5G home broadband service, and there is a possibility that the other MNOs will follow with similar

47 In this survey conducted in March 2020, Venture Insights sampled 1,016 consumers across Australia with all states and territories represented.

48 Telstra website viewed 5 November 2020, https://www.telstra.com.au/internet/mobile-broadband/telstra-5G-wi-fi-pro#planSelection.

49 Optus website viewed 5 November 2020, https://www.optus.com.au/broadband-nbn/5g-home-broadband/5g-home-broadband-plan?SID=con:bbcat:2up:1:nov19:fixed:5GHome:Optu5G#emailDetails.

50 See the ACMA website: https://www.acma.gov.au/auction-summary-36-ghz-band-2018; https://www.acma.gov.au/consultations/2020-07/26-ghz-band-spectrum-licence-draft-legislative-instruments-consultation-192020.

51 See ACCC, *Allocation limits advice for 3.6 GHz spectrum allocation*, July 2018, https://www.accc.gov.au/regulated-infrastructure/communications/mobile-services/spectrum-competition-limits/request-for-advice-36-ghz-spectrum.

products.[52] While it is premature to assess the impact of these actual or potential offerings of wireless products on the extent of infrastructure competition in the home broadband market, these products provide consumers who historically relied on fixed line broadband with the choice of a wireless alternative. The portion of the market that will have this choice is likely to grow as the MNOs continue to expand their 5G networks.

3.2.5 Telecommunications complaints data

Complaints to the Telecommunications Industry Ombudsman

The Telecommunications Industry Ombudsman (TIO) provides a dispute resolution service for telecommunications disputes between service operators and residential and small business customers.

In 2019–20 the TIO received 127,151 complaints, a 4% reduction from the previous year.[53] This marks the second consecutive year of declining complaints. Residential customers accounted for 85.5% of complaints with small businesses accounting for 14.5%.[54]

Whilst complaints relating to internet services decreased by 0.7% in 2019–20, these remained the main type of complaint, accounting for 33.7% of total TIO complaints (Table 3.4). In the final quarter of the year, as the full effects of COVID-19 on home based work and education were occurring, this increased to 38.6% of total complaints.[55]

Significantly, the TIO noted an almost 1,500% increase in complaints relating to contacting a telecommunications provider. This is attributed to the COVID-19 pandemic and the consequent shutdown of a number of Australian telecommunications carrier customer call centres located overseas.

Table 3.4: Complaints to the TIO by service type in 2019–20

Type of service	Number of claims	Percentage of claims (%)
Internet	42,883	33.7
Mobile	39,701	31.2
Multiple	27,304	21.5
Landline	15,992	12.6
Property	1,271	1

Source: TIO Annual Report 2019–20.

52 James Fernyhough, Telstra taunts NBN with 5G fixed wireless plan, *Financial Review*, 27 February 2020, at https://www.afr.com/companies/telecommunications/telstra-taunts-nbn-with-5g-fixed-wireless-plan-20200227-p544zu.

53 Figures from the TIO Annual Report 2019–20, accessed 2 October 2020, https://www.tio.com.au/reports-updates/annual-report-201920.

54 Ibid.

55 Ibid.

Table 3.5: Complaints to the TIO by issue type in 2018–19 and 2019–20

Top 10 issues	Number of complaints		Percentage change (%)
	2018–19	2019–20	
Service and equipment fees	40,737	42,152	3.5
No/delayed action by provider	41,585	41,669	0.2
No phone or internet service	19,363	17,501	-9.6
Delay establishing a service	17,351	17,347	0
Resolution agreed but not met	12,384	13,259	7.1
Intermittent service or drop outs	13,809	11,789	-14.6
Slow data speed	10,708	8,721	-18.6
Failure to cancel a service[56]	-	6,753	n/a
Misleading conduct when making a contract	7,205	5,765	-20
Termination fee	6,805	5,224	-23.2

Source: TIO Annual Report 2019–20.

Complaints to the ACCC

The ACCC accepts consumer complaints under the Australia Consumer Law (ACL) from consumers and small businesses about a wide range of issues. The ACCC does not resolve individuals' complaints, instead they are referred to agencies that are best placed resolve them. However, the ACCC does use complaints information to assist in identifying matters for further investigation that might have industry-wide applications.

During 2019–20 the ACCC received 6,523 complaints relating to telecommunications matters, which was an approximately 3% decrease on last year (Figure 3.27). Approximately 83% of complaints received by the ACCC were referred to other agencies, mainly to the TIO and state based agencies who are tasked with resolving consumer complaints and investigating issues outside of the ACCC's remit.

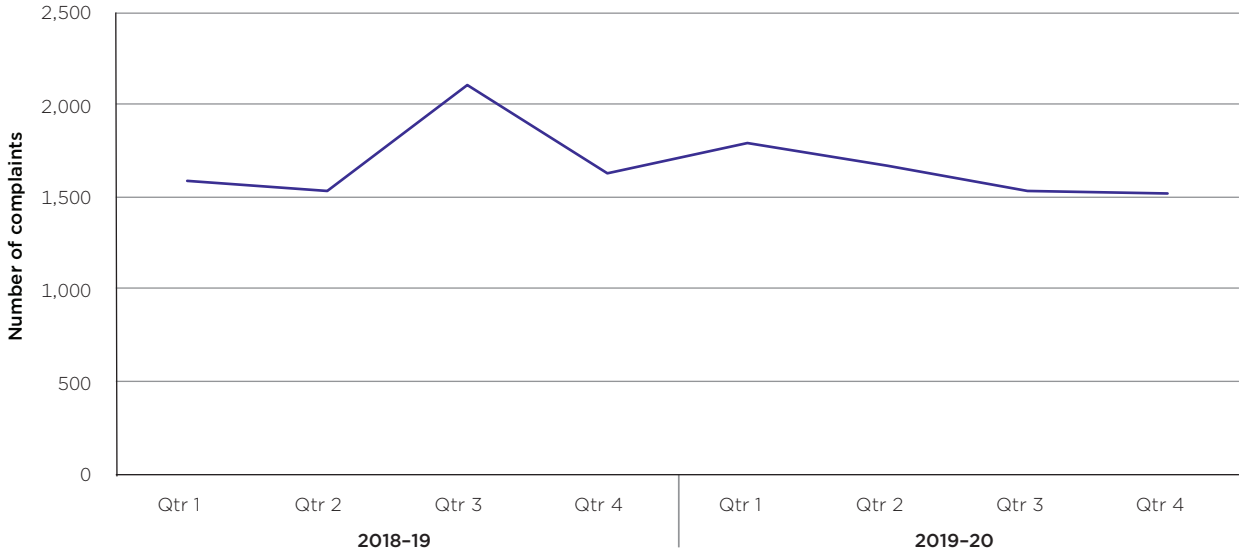
Whilst there were small changes in the numbers of complaints across most categories, there was a significant reduction in the number of complaints relating to misleading or deceptive conduct (section 18), and false representations as to the standard, value or quality or grade of services (section 29(1)(b)) (Table 3.6).

Table 3.6: ACCC complaints by conduct type in 2018–19 and 2019–20

Type of conduct	Number of complaints (2018–19)	Number of complaints (2019–20)
Section 18 – misleading or deceptive conduct	2,648	2,268
Section 54 – guarantee as to acceptable quality	1,849	1,839
Section 36 – wrongly accepting payment	416	575
Section 29(1)(b) – false representations (services) as to standard, quality, value or grade	705	457
Section 60 – guarantee as to due care and skill	257	286
General complaints (no breach)	197	203
Section 29(1)(a) - false representations (goods) as to standard, quality, value or grade	193	150
Section 56-57 - guarantee relating to the supply of goods by description, sample or demonstration	101	106
Section 29(1)(m) - false representations as to the exclusion or effect of any condition, warranty, guarantee, right or remedy	123	104
Section 29(1)(i) – false representations as to price	119	93

56 New keyword introduced in September 2019.

Figure 3.27: Communications-related complaints to the ACCC in 2018–19 and 2019–20



Complaints to the ACCC are similar to those reported to the TIO, with service quality and connection issues continuing to be significant issues reported by consumers. In relation to complaints concerning issues outside of the ACCC's remit, these were generally referred to other agencies, primarily to the TIO and state based agencies who are tasked with resolving disputes between individual consumers and telecommunications providers.

Complaints against most providers generally decreased this year, including Telstra (10% decrease); Optus (11% decrease); and the TPG Group (4% decrease). However, a 6% increase in complaints relating to VHA was observed (Table 3.7).

Table 3.7: Number of contacts by telecommunications provider in 2018–19 and 2019–20

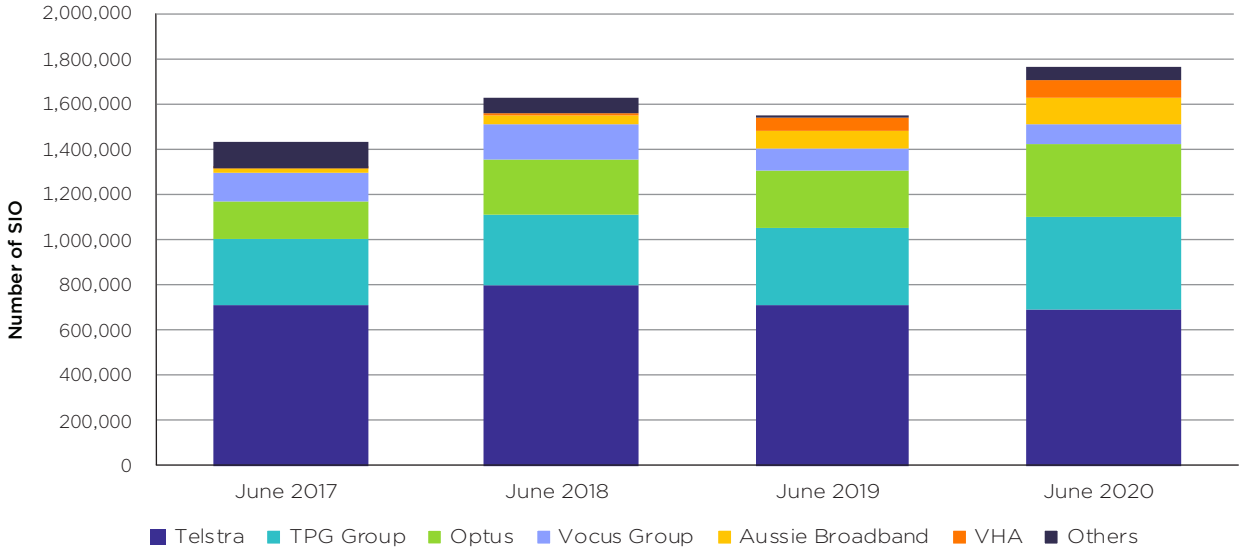
Top 10 providers	Number of complaints (2018–19)	Number of complaints (2019–20)
Telstra (including Belong)	1,433	1,294
Optus	1,004	893
TPG Internet (including iiNet)	572	550
Vodafone Hutchison Australia (VHA)	259	275
NBN Co Ltd	225	204
Dodo	111	94
My Republic Pty Ltd	73	43
Exetel Pty Ltd	49	38
Vocus Group (including iPrimus)	78	37
Boost Mobile	6	29

3.3 Wholesale markets

3.3.1 NBN

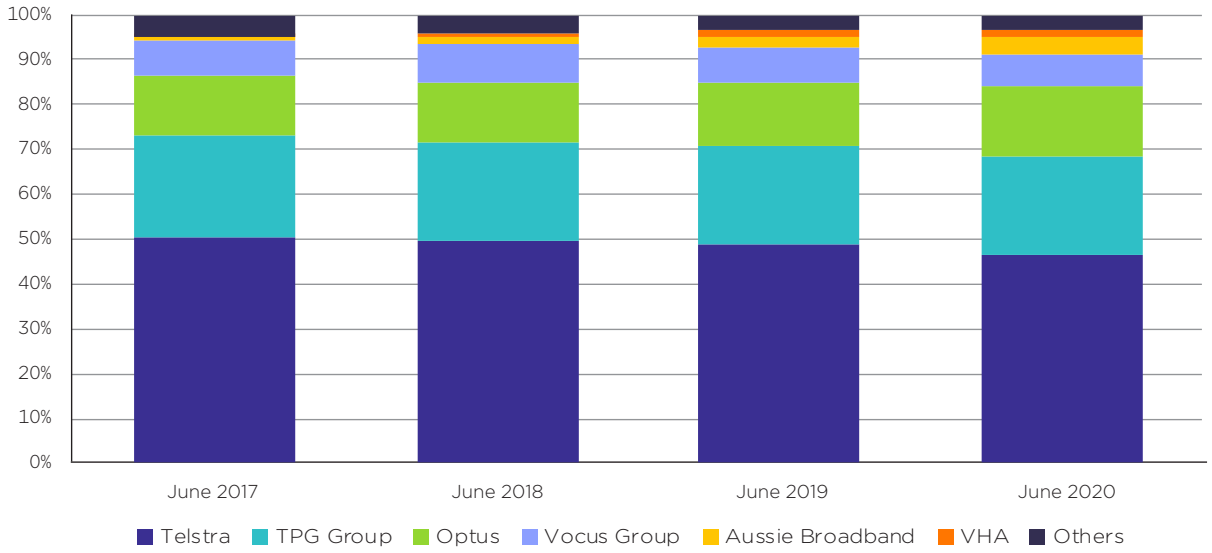
The NBN wholesale market has grown significantly over the last 12 months, increasing by nearly 1.76 million residential broadband AVCs (i.e. Traffic Class 4) since the end of the June 2019 quarter (figure 3.28). There was also growth in market share by some of the smaller access seekers, including Aussie Broadband and VHA, taking market share away from Telstra and Vocus (figure 3.29).

Figure 3.28: NBN wholesale - residential broadband net SIO additions



Source: ACCC NBN Wholesale Market Indicator reports.

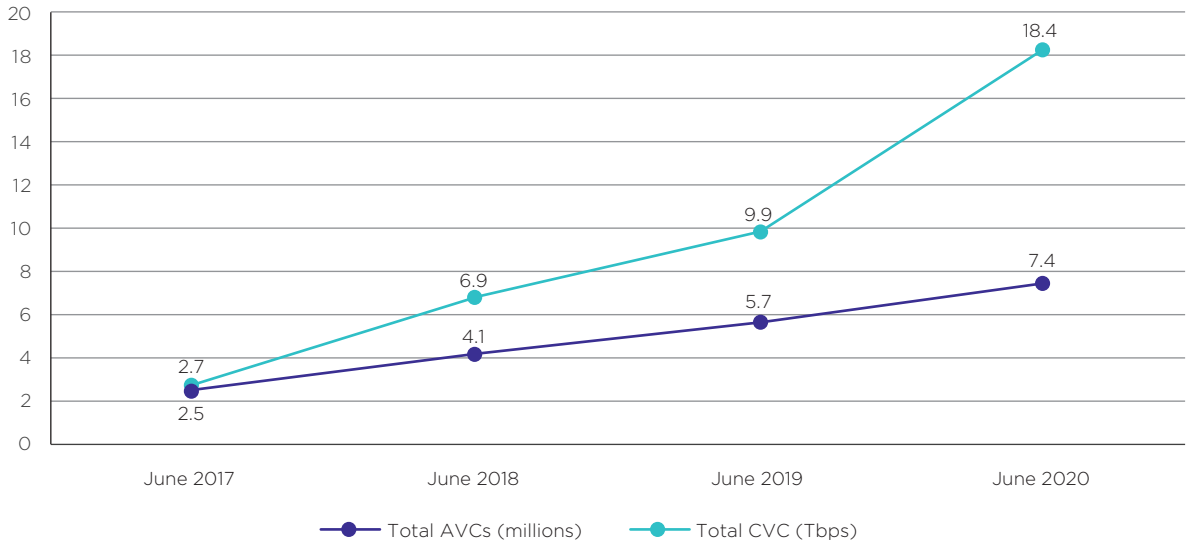
Figure 3.29: NBN wholesale - residential broadband market shares



Source: ACCC NBN Wholesale Market Indicator reports.

The amount of CVC capacity acquired by NBN wholesale access seekers increased significantly since the end of June 2019 quarter (figure 3.30). This increase was largely due to the temporary 40% CVC 'boost' provided by NBN Co in response to the COVID-19 pandemic during the March and June 2020 quarters.

Figure 3.30: NBN wholesale residential broadband - total SIOs and total CVC



Source: NBN Wholesale Market Indicator reports.

NBN access seekers were acquiring around 18.4 Tbps of residential broadband CVC capacity at the end of the June 2020 quarter, compared to around 9.9 Tbps at the end of the June 2019 quarter, an increase of 85% (figure 3.30).

3.3.2 Mobiles

A large number of providers rely on wholesale offerings by the three MNOs to offer mobile services in downstream markets.

Wholesale MNO mobile services are acquired by providers for two distinct purposes. The first is by providers that purchase mobile services from MNOs and then aggregate them with other services to provide an 'out-of-the box' service (that is, an end-to-end service) to mobile resellers or MVNOs. These aggregators/providers also sell services directly to enterprises that comprise a suite of connectivity and business telecommunications solutions, including, but not limited to mobile, fixed and cloud services. These service providers may also operate retail mobile brands but focus on serving enterprises and mobiles resellers. The second purpose for acquiring wholesale mobile services is by market participants that are retail MVNOs. These MVNOs operate in the retail mobiles market and either buy services directly from MNOs or from aggregators as described above.

In its submission to the ACCC on the 26 GHz allocation limits, Commpete noted that while there is a degree of competition in the retail mobiles markets, there is considerably less at the wholesale level.[57] Commpete noted MNOs limit the extent to which MVNO access is granted meaning MVNOs are unable to compete on many aspects including:

- geographic or technology coverage
- download speed or latency
- technology products such as voice over WiFi, voice over Long Term Evolution and eSIM
- precluding MVNOs from certain markets such as Internet of Things.[58]

57 Commpete, 'Submission to the 26 GHz consultation paper', March 2020, https://www.accc.gov.au/regulated-infrastructure/communications/mobile-services/spectrum-competition-limits/request-for-advice-26-ghz-spectrum, p. 10.

58 Ibid, p. 12.

Mobile terminating access service

The mobile terminating access service (MTAS) is an important wholesale service provided by the MNOs to each other and fixed line network operators. In providing this service, the MNOs connect or 'terminate' voice calls coming from other networks to subscribers on their own networks. As such, the service is an essential input to the provision of retail voice services that include calls to mobiles.

Despite the existence of infrastructure competition at wholesale and retail levels for mobile services, each MNO has exclusive control over access to subscribers on its network. As a result, the MTAS represents a bottleneck service, as MNOs have incentives and the ability to set unreasonable terms of access to the service if unregulated and in the absence of commercial incentives to behave otherwise.

For these reasons, the MTAS is the only mobile service that is subject to economic regulation in Australia. The ACCC's role and activities regarding the regulation of the MTAS is discussed further in Chapter 4.

4. ACCC activities in communications

The ACCC performs specific roles under the CCA (Parts XIB and XIC) in relation to communications markets, as well as other activities related to the communications sector. These activities are reported in detail in periodical publications such as the quarterly ACCCount and the ACCC Annual Report.[59]

This chapter briefly describes activities undertaken by the ACCC within the communications sector during 2019–20 in relation to:

- access to telecommunications
- the NBN
- the Migration Plan and structural separation of Telstra
- monitoring and reporting
- enforcement and compliance
- mergers, authorisation and third line forcing
- advice, advocacy and contributions to policy processes.

4.1 Access to telecommunications

Part XIC of the CCA allows the ACCC to declare certain communications services where it is in the LTIE. Once a service is declared, the ACCC can set regulated terms and conditions of access, including price. This is often done through an access determination although it may also be effected through a binding rule of conduct. Further information on declared services can be found on the ACCC's declared services register.[60]

4.1.1 Declarations and access determinations

During 2019–20 the ACCC conducted several inquiries on access to telecommunications services.

Fixed line services

On 1 November 2019 the ACCC released its final decision to maintain existing price and non-price terms for seven declared fixed line wholesale services until 30 June 2024.[61]

The ACCC's decision will provide price certainty for the industry in relation to wholesale voice and broadband services that are still provided over Telstra's copper network and other legacy infrastructure.

Domestic transmission capacity service

The ACCC regulates transmission services in areas where there is a lack of competition between providers, to promote downstream competition in the supply of communications services to end-users, including residential and businesses. The domestic transmission capacity service (DTCS) is the regulated transmission service that enables access seekers to acquire wholesale transmission services under reasonable terms in areas where competition is limited or non-existent.

DTCS Final Access Determination—Christmas Island

On 18 December 2019 the ACCC released a final decision varying the 2016 DTCS Final Access Determination (FAD).

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59 The ACCC Annual Report and quarterly ACCCount publications can be found on the ACCC website at https://www.accc.gov.au/publications/accc-aer-annual-report and at https://www.accc.gov.au/publications/acccount.

60 Further information on this is available on https://www.accc.gov.au/public-registers/telecommunications-registers/s152aq-declared-services-register.

61 The declared fixed line services are the unconditioned local loop service, line sharing service, wholesale line rental, local carriage service, fixed originating and terminating access services and the wholesale ADSL service.

The decision sets out differentiated prices for access to the DTCS provided between mainland Australia and Christmas Island. The new terms of access replace interim terms set by the ACCC under the Binding Rules of Conduct made in December 2018.

DTCS Final Access Determination – 2020 pricing update

On 23 October 2020 the ACCC released the final report on its inquiry into making a FAD for the DTCS. The prices set out in the FAD are based on a benchmarking model developed by the ACCC in 2016. This model uses transmission prices on competitive routes to determine appropriate prices on regulated routes.

For the 2020 FAD the ACCC reduced the outputs of the 2016 model to reflect the overall decline in prices since the last FAD. In particular, prices for low capacity services were reduced by 35%, mid-range capacity services were reduced by an average of 55% and prices for higher capacity services reduced by 60%.

The 2020 FAD also sets out non-price terms and conditions for access to the DTCS. The FAD applies until 31 March 2025.

Mobile terminating access service

On 15 May 2020 the ACCC released a draft report seeking stakeholder views on the proposed terms and conditions for the MTAS.

The MTAS is a wholesale service that allows consumers on different mobile networks to make voice calls to each other. The ACCC regulate the MTAS to ensure calls can be made between consumers on all mobile phone networks.

The ACCC had regard to Analysys Mason's benchmarking of the cost of providing MTAS in Australia in reaching its position on price.

The final report was released on 2 October 2020 and sets price terms at 1.19 cents per minute (cpm) to commence on 1 January 2021. The current MTAS rate is 1.7 cpm.

4.1.2 Facilities access code review

The ACCC published its final report following the review of its Facilities Access Code on 25 June 2020. The ACCC's Facilities Access Code, made under the *Telecommunications Act 1997*, governs how access to certain telecommunications facilities owned by telecommunications carriers, including mobile towers and underground ducts, is provided to other carriers seeking to install their equipment on or in those facilities. It seeks to encourage co-location of facilities and promote downstream competition by facilitating new entrants.

Details on amendments to the code can be found at here.

4.1.3 Functional separation provisions

Recent amendments to the carrier separation rules in the *Telecommunications Act 1997*, which commenced on 25 August 2020, enable superfast broadband fixed line networks serving residential customers to operate on a functionally separated basis rather than a structurally separated basis. This is intended to provide greater commercial flexibility for superfast network operators and promote infrastructure-based competition.

Network operators are able to voluntarily submit a standard functional separation undertaking, on behalf of one corporation, or a joint functional separation undertaking, on behalf of more than one corporation, to the ACCC for approval.

The ACCC received the first joint functional separation undertaking, from Uniti Group, in September 2020. After conducting a public consultation on the undertaking, and an assessment of whether it would be in the LTIE, the ACCC announced that it had accepted the undertaking on 22 October 2020. The undertaking will be in force for 10 years.

The new separation rules also empower the ACCC to determine a model set of terms for standard functional separation undertakings, known as a deemed functional separation undertaking, and a class exemption for small operators.

On 16 October 2020, the ACCC released a final deemed functional separation undertaking instrument. Superfast broadband network operators supplying services to no more than 50,000 residential customers may elect to be bound by this instrument instead of submitting their own customised standard functional separation undertakings to the ACCC for approval.

The legislation also allows the ACCC to make determinations exempting small network operators from the requirement to operate on a wholesale-only basis. The ACCC made a class exemption instrument on 25 August 2020. This instrument currently allows corporations that supply fixed line carriage services to no more than 2,000 residential customers to elect to be exempt from the new separation requirements.

The ACCC will publish a list of all functional separation undertakings that it has accepted, including from corporations that have elected to be bound by the deemed undertaking, and a list of network operators electing to be bound by the class exemption on its public registers.

4.2 National Broadband Network

4.2.1 ACCC guidance on NBN access inquiries

In October 2019 the ACCC commenced a public inquiry into this issue with the release of a discussion paper on the prices that NBN Co charges access seekers to use the NBN for residential grade broadband services. In April 2020, after considering submissions, the ACCC published a position paper that indicated the nature and direction of any FAD the ACCC may make on finalisation of the inquiry. The position paper confirmed that the ACCC would focus on the price of basic speed broadband access, with a view to promoting competition and efficiency in NBN markets and allowing consumers to migrate to the NBN without a price shock.

The ACCC also progressed its NBN wholesale service standards inquiry, underway since 2017, through the release of a draft decision and draft FAD in October 2019 for consultation.

On 2 April 2020 the ACCC released two position papers outlining its views on wholesale access terms currently being considered by two NBN-related inquiries; NBN entry-level access pricing, and wholesale service standards. At the same time, the ACCC placed the inquiries on hold to allow stakeholders to focus on responding to the COVID-19 pandemic.

In August 2020 the ACCC recommenced the inquiries after NBN Co proposed a range of pricing and service standard commitments that it was willing to include within its next WBA4 to address the concerns raised in the ACCC's inquiries. NBN Co proposed to include these commitments on the basis that the ACCC would conclude both inquiries without taking any regulatory action.

In November 2020 the ACCC released a final report into both inquiries. After considering submissions and the further work undertaken by NBN Co to develop its proposals into a formal contractual offer under WBA4, the ACCC reached the view that no regulatory action would be required at this time due to the improved arrangements available under WBA4 from December 2020. The final report also marked the conclusion of both inquiries.

4.2.2 NBN Co's long term revenue constraint methodology 2018–19

The ACCC made a final determination on NBN Co's long term revenue constraint methodology for the financial year 2018–19 in June 2020.

The ACCC's final determination was to accept the regulatory information submitted by NBN Co under the Special Access Undertaking (SAU) for the 2018–19 financial year as satisfying the requirements outlined in the SAU.

4.2.3 NBN wholesale market reporting

During 2019–20 the ACCC continued to report quarterly on NBN wholesale market indicators providing a detailed view of the size and structure of emerging NBN wholesale access markets. The reports provide market participants with key data on how the NBN wholesale market is developing including the continued growth in NBN service subscribers, shifts in the take-up of different speed tiers and changes in contracted capacity. The ACCC has observed that more access seekers are directly accessing the NBN in more locations around Australia, offering greater choice and potentially better services for consumers and businesses.

In addition to obtaining services directly from NBN Co, RSPs have the option to resell services offered by carriers providing access to the NBN. As the ACCC reports do not separately detail these services, they do not reflect a comprehensive analysis on the structure of the NBN retail market.

The most recent quarterly Wholesale Market Indicators Report was published on 12 November 2020. Key findings of the report can be found here: Wholesale Market Indicators Report.

4.2.4 Regional Broadband Scheme levy

The ACCC published its report on modelling of the Regional Broadband Scheme (RBS) levy initial base component.

The ACCC was required to report to the Minister for Communications and publish the report by 21 October 2020 on certain aspects of the RBS, as set out in the *Telecommunications Legislation Amendment (Competition and Consumer) Act 2020*. Specifically, the estimated losses of NBN Co's fixed wireless and satellite services, and the levy required to offset the losses.

In July 2020 all carriers with 'reportable premises' were required to lodge written reports of certain premises data to the ACCC.

The ACCC was required to estimate two levy amounts: one offsetting past and future (i.e. total) losses of NBN Co's fixed wireless and satellite services, and the other amount offsetting only future losses. These estimates are in 2020 dollars, including the ACCC's estimated monthly levy base component to offset total losses of $7.03. If adjusted for six months' inflation, the 2021 figure would be $7.11.

The ACCC's estimates have the status of advice. The legislated levy, which is capped at $7.10 in the first eligible financial year and then indexed annually by CPI, can only be changed to an amount below the cap by the Minister for Communications under the *Telecommunications (Regional Broadband Scheme) Charge Act 2020*.

4.3 Telstra's Structural Separation Undertaking and Migration Plan

4.3.1 Telstra's compliance with the Structural Separation Undertaking

The ACCC published its eighth report on Telstra's compliance with the Structural Separation Undertaking (SSU) and Migration Plan for 2018–19 on 6 March 2020. This was tabled in the Parliament on 5 March 2020.

This report outlined Telstra's breaches of the SSU and the Migration Plan between 1 July 2018 and 30 June 2019 and the steps Telstra had taken, or proposed to take, in order to remedy these breaches. During the year, Telstra reported four information security breaches and one network notification breach under the SSU. Telstra's requests for regulatory forbearance under the Migration Plan that were accepted by the ACCC are outlined below.

The SSU and the Migration Plan together specify Telstra's commitments to progressively migrate its fixed line voice and broadband customers onto the NBN and promote equivalence and transparency during the migration period to support competition.

4.3.2 Migration Plan variation

The ACCC approved a variation to the Migration Plan on 6 February 2020 after determining it complied with the Migration Plan Principles.

The variation proposed by Telstra sought to promote service continuity and minimise disruption for end-users during migration to the NBN and formalised a number of existing arrangements. The ACCC's assessment of the variation was limited to determining whether or not the Migration Plan, as varied, complied with the Migration Plan Principles issued by the Australian Government in 2015.

4.3.3 Migration Plan forbearance and Force Majeure events

The ACCC provided regulatory forbearance on a number of occasions throughout the year in relation to non-compliance by Telstra with its Migration Plan obligations, in order to promote service continuity and a better migration experience for end users.

The ACCC agreed with Telstra that bushfires in Queensland, New South Wales, South Australia and Victoria, and the COVID-19 pandemic constituted Force Majeure events under the Migration Plan and advised Telstra that it would not contravene the Migration Plan to the extent that these events cause it to delay or fail to perform its obligations under the Plan. Details of these issues are available here.

4.4 Monitoring and reporting

Section 151BU of the CCA empowers the ACCC to make record keeping rules (RKRs) to require carriers and carriage service providers provide certain information to the ACCC. The ACCC uses this information to monitor competition and market developments, and to inform regulatory decisions.

4.4.1 Record Keeping Rules

Division 12 RKR and Internet Activity RKR

On 7 May 2020 the ACCC released a public consultation and position paper as part of its *Division 12 RKR* and *Internet Activity RKR* review seeking submissions on the ACCC's proposed changes to these RKRs.

The *Division 12 RKR* collects information on fixed voice, mobile and internet services on an annual (financial year) basis from key service providers. Data collected relates to SIO, revenue, call minutes, number of calls and includes bill sample information.

The *Internet Activity RKR* collects information bi-annually from 13 service providers on the number of retail SIO in terms of access connection, wholesale speed tier and the volume of data downloaded across NBN, non-NBN fixed line network and mobile services.

Broadband performance monitoring & reporting RKR

On 29 April 2020 the ACCC varied the *Broadband Performance Monitoring and Reporting RKR* to collect more detailed data for the MBA program.

The RKR requires NBN Co to report quarterly on certain information about residential customers who have volunteered to be active participants in the MBA program.

Amendments of the Audit of Telecommunications Infrastructure Assets RKR

On 20 May 2020 the ACCC amended the *Audit of Telecommunications Infrastructure Assets RKR (Infrastructure RKR)* following a public consultation process.

Under the amended rules, relevant record-keepers are required to report on the extent of mobile coverage by frequency band and to provide information on government co-contribution in the construction of mobile sites.

4.4.2 Digital radio access undertakings

On 1 November 2019 the ACCC accepted an undertaking from Digital Radio Broadcasting Mandurah Pty Ltd in relation to the commencement of digital radio services in Mandurah, Western Australia.

The digital radio access regime allows commercial and community broadcasters (access seekers) to receive access to digital radio multiplex transmission services at reasonable terms and conditions. The regime ensures licensees (who are also usually commercial broadcasters) do not discriminate anti-competitively between the access seekers.

4.4.3 Tariff filing

Tariff filing refers to the provision by service providers to the ACCC of certain information about changes in prices. The ACCC has general telecommunications tariff filing powers and Telstra-specific tariff filing powers under Part XIB of the CCA.

During 2019–20 Telstra fulfilled its tariff filing information requirements by providing the required information to the ACCC. This information is also published on Telstra's retail website.

4.5 Enforcement and compliance activities

4.5.1 Measuring Broadband Australia program

The MBA reports provide Australian consumers with accurate and independent information about broadband speeds. The ACCC released its sixth, seventh, eighth, ninth and tenth quarterly MBA reports in August, November 2019, February, May and September 2020 respectively. The reports examine how NBN fixed line broadband services perform including download and upload speeds, latency and outages. Interactive broadband performance data for each report aimed at consumers is provided on the ACCC website.

During the year there were several expansions to the program including reporting on additional RSPs, new metrics such as measuring support for video streaming services as well as responding to the need for additional performance data during the COVID-19 pandemic.

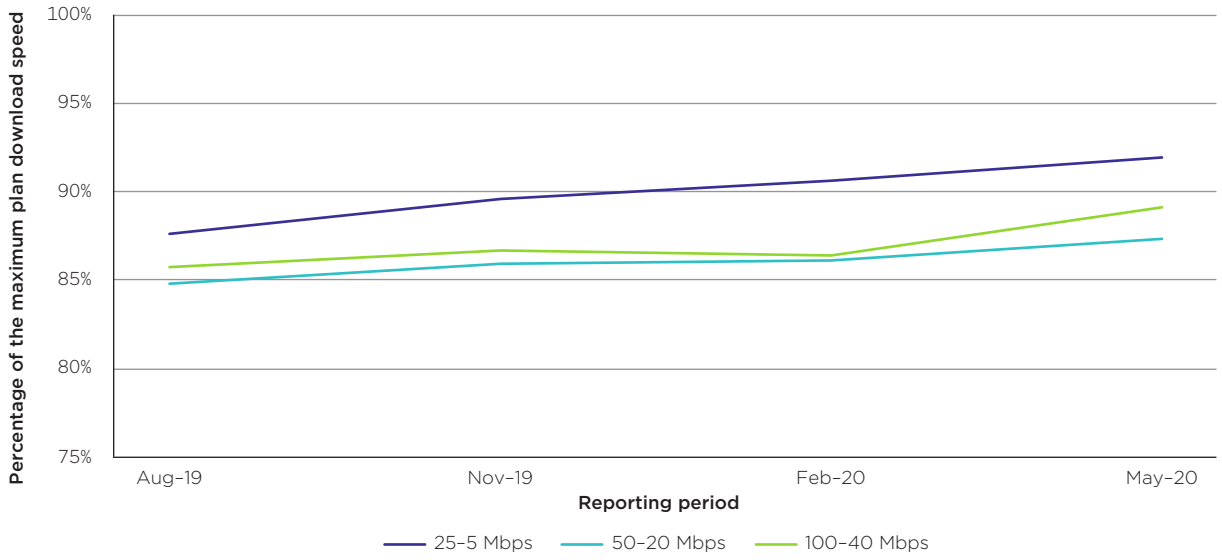
In May 2020 the ACCC released the first MBA monthly key indicators report to provide further insights into NBN performance. The critical services report released in July 2020 examined how well NBN fixed line broadband connections were supporting consumers' use of critical services such as video streaming and video conferencing applications.

The tenth quarterly report is the first quarterly report to provide detailed results on network performance during the COVID-19 pandemic. The report found that fixed line NBN broadband services continued to deliver strong results despite facing unprecedented demand during May and June 2020 with all RSPs showing improved download speeds on the previous quarter.

During the year there has been a steady decline in underperforming services from 11.4% in the seventh MBA report to 8.1% in the tenth MBA report, due to consumers having their modem or in-home wiring issues fixed, or moving to lower and less expensive speed plans to ensure they can receive their plans' top speed.

The ACCC also considers the transparency provided by the MBA program has promoted stronger performance based competition among RSPs as previously consumers did not have access to independent information on product performance. This stronger performance is illustrated in figure 4.1 by the trend of improved fixed line NBN performance over time (measured in download speed against the maximum plan download speed).

Figure 4.1: Average hourly download speed by speed tier (including underperforming NBN services)



Source: ACCC Measuring Broadband Australia program.
Note: Data is shown for all hours and all services.

The MBA program has assisted the ACCC in keeping RSPs accountable to their performance claims by giving consumers the ability to test anecdotal performance claims against an objective, real-world data set. The MBA program has served as a mechanism to alert the ACCC to potential misleading and deceptive conduct issues under the ACL, for example by indicating whether an RSP has been consistently not delivering their advertised speeds that has the potential for consumer harm.

For more information on broadband performance during the COVID-19 pandemic and the strategies used by industry to support consumer experience visit the ACCC's MBA program webpage.

4.5.2 Consumer education activities

The ACCC has developed a plain English guide to using NBN fixed wireless to help consumers impacted by congestion issues on the NBN fixed wireless network. This is supplemented with information to help consumers select an appropriate NBN service based on their usage requirements. This consumer guidance complements the *broadband speed claims industry guidance*, which helps RSPs to ensure that they give prospective customers clear and accurate information on the typical speeds their services provide.

The ACCC encourages consumers to volunteer to participate in the MBA program. The ACCC has also published guidance for consumers who are experiencing reduced speeds or poor performance and the steps they can take to improve their home broadband experience.

The ACCC website also contains advice for consumers on various aspects of mobile, internet and landline communications services including choosing a service, tips on how to manage data usage and in-app purchases and what to do in the case of unauthorised transfers.[62] The ACCC website also contains consumer-friendly broadband performance data from the quarterly MBA reports.[63]

4.5.3 Anti-competitive conduct

The ACCC investigates anti-competitive conduct under both the telecommunications specific provisions (Part XIB) and general anti-competitive conduct provisions (Part IV) of the CCA. The ACCC also has a role under the *Telecommunications Act 1997* in relation to provisions including NBN access to facilities and numbering plan.

62 For further information see https://www.accc.gov.au/consumers.

63 For further information see https://www.accc.gov.au/consumers/internet-landline-services/broadband-performance-data.

In 2019–20 the ACCC investigated three allegations of potential contraventions of the CCA and of the *Telecommunications Act 1997* specific to telecommunications markets. These included complaints of misuse of market power under the telecommunications-specific anti-competitive conduct provisions in Part XIB of the CCA.

4.5.4 Investigations under Australian Consumer Law

In 2019–20 the ACCC commenced 10 investigations in the communications sector under the ACL. An additional four investigations were underway at the start of the reporting period and six ACL investigations were still ongoing as at 30 June 2020.

4.5.5 Litigation

Optus ordered to pay $6.4 million for misleading NBN disconnection claims

Following proceedings brought by the ACCC, on 2 December 2019 the Federal Court ordered Optus Internet Pty Limited and Optus Mobile Pty Limited (together 'Optus') to pay $6.4 million in penalties for making misleading claims about home internet disconnections to consumers.

On 24 May 2018 Optus emailed 138,988 of its mobile customers claiming their existing home broadband services, provided by Optus' competitors, would be 'disconnected very soon'. The email encouraged the customers to change to Optus NBN Broadband, telling them to 'make the switch, before it's too late'.

The Federal Court found this statement was misleading or deceptive because the customers who received the email were not facing immediate disconnection of their existing broadband services.

This is the second time in two years the Federal Court has ordered Optus to pay significant penalties for misleading consumers about the need to acquire NBN services following ACCC action.

ACCC commenced proceedings against Dodo and iPrimus for misleading broadband speed claims

On 22 June 2020 the ACCC instituted Federal Court proceedings against Dodo Services Pty Ltd (Dodo) and Primus Telecommunications Services Pty Ltd (iPrimus), both owned by Vocus Group (Vocus), alleging they made false or misleading claims about the NBN broadband speeds their customers could receive during busy evening hours.

The ACCC alleges between March 2018 and April 2019, Dodo and iPrimus made false or misleading claims on their websites about the speeds consumers could expect if they signed up to Dodo and iPrimus NBN broadband services.

The ACCC claims Dodo and iPrimus used a fundamentally flawed testing methodology, developed by Vocus, which was not a reasonable basis for their claims about certain typical evening speeds.

It is alleged the testing methodology determined the 'typical evening speed' claims by using only the daily 75 fastest speeds observed across Vocus' entire network in the busy period, excluding slower speeds where a connection was more likely to be impacted by congestion.

TPG prepayments litigation

On 8 November 2019 the ACCC commenced an appeal against the Federal Court's October 2019 decision to dismiss its case against TPG Internet Pty Ltd (TPG) for alleged false or misleading representations it made about prepayments customers had to make on its prepaid internet, home telephone and mobile plans.

The ACCC had alleged TPG made representations about prepayments of at least $20 which customers had to pay up-front to cover potential usage outside what was included in their plans. The prepayment was automatically topped up to the original amount, usually $20, when the prepaid balance fell below $10 and was non-refundable even when a customer cancelled their plan. This meant TPG almost always retained at least $10.

The trial judge did not accept the ACCC's argument that the operation of TPG's prepayment arrangements was not adequately disclosed to consumers. The ACCC believed the Court made an error in deciding TPG's representations about this mandatory prepayment were not false or misleading.[64]

4.5.6 Court enforceable undertakings

The following telecommunications related undertakings were finalised under section 87B in 2019–20.

NBN Co undertaking for misleading Canberra consumers about needing to move to the NBN

On 2 June 2020 the ACCC accepted an undertaking from NBN Co admitting it misled Canberra consumers.

In the first half of 2019 NBN Co incorrectly advised more than 20,000 consumers and small businesses connected to the TransACT Very high speed Digital Subscriber Line (VDSL2) network they needed to move to the NBN or they would face the prospect of losing telephone and internet services supplied over the TransACT network services.

As part of the undertaking, NBN Co committed to reimburse the early termination costs paid by consumers that moved to the NBN and then choose to return to the TransACT Network. NBN Co also undertook to implement measures to better identify the existence of broadband networks that will continue to operate alongside the NBN.

NBN Co's Business Services investigation

On 8 October 2019 the ACCC issued a formal warning to NBN Co for breaching its non-discrimination obligations. The ACCC found that, from at least January 2018, NBN Co discriminated between access seekers when building fibre infrastructure and other related activities to supply wholesale business-grade NBN services.

The ACCC also accepted a court-enforceable undertaking from NBN Co, where among other things, it admitted it did not have appropriate processes in place to ensure it was complying with its transparency and non-discrimination obligations. NBN Co also committed to offering consistent contract terms to access seekers for the supply of upgraded infrastructure and providing the same information to all access seekers at the same time.

BVivid telemarketing calls

In September 2019 the ACCC accepted a court-enforceable undertaking from BVivid for making telemarketing calls to consumers in areas transitioning to the NBN.

In the undertaking, BVivid undertook to:

- provide redress for consumers affected by its conduct by allowing them to terminate their BVivid contract without penalty and obtaining a refund of any termination fees already paid
- commission an independent review of all BVivid's policies, practices and procedures relating to its sales and transfer methodology to ensure compliance with the ACL
- introduce an ACL compliance program and complaints handling system.

BVivid also paid $25,200 in penalties after the ACCC issued it with two infringement notices for making telemarketing calls to consumers in areas transitioning to the NBN that BVivid admitted likely breached the ACL. The ACCC alleged BVivid cold-called consumers and told them their internet services would be disconnected or they would lose their telephone number if they did not move to the NBN immediately, when this was not the case.

BVivid also admitted it likely breached the unsolicited consumer agreement protections in the ACL when it supplied services within the 10 business day cooling-off period and failed to give consumers an official form they could use to terminate the contract.

64 On 30 July 2020 the Full Federal Court handed down judgment dismissing the ACCC's appeal.

Dodo Services Pty Ltd NBN streaming claims

On 10 July 2019 the ACCC accepted a court enforceable undertaking from Dodo Services Pty Ltd (Dodo) in relation to claims about its retail broadband plans supplied over the NBN being 'perfect for streaming'. The ACCC considered the representations misleading because Dodo customers on some plans could not reliably stream high-quality video, particularly when others in the household were using the internet at the same time. On other plans, Dodo customers could not stream ultra-high definition video at all. As part of its undertaking, Dodo agreed to refund up to $360,000 to around 16,000 affected customers.

4.6 Merger, authorisation and exclusive dealing reviews

4.6.1 Mergers

The ACCC reviews mergers and acquisitions to assess whether they would be likely to substantially lessen competition. Merger parties have two avenues available to have a proposed acquisition considered and assessed by the ACCC on competition grounds: informal clearance process and merger authorisation. More information about public informal merger reviews and merger authorisations is available on the ACCC's mergers registers.[65]

TPG Telecom Limited proposed merger with Vodafone Hutchison Australia Pty Ltd (VHA)

On 13 February 2020 the Federal Court declared a proposed merger between TPG Telecom and Vodafone Hutchison Australia would not substantially lessen competition.

The ACCC opposed the merger in May 2019 because it considered, in the absence of the merger, TPG was likely to continue to roll out its mobile network and become an innovative and disruptive competitor in Australia's concentrated mobile telecommunications market.

On 5 March 2020 the ACCC announced it would not appeal the Federal Court's decision, concluding it does not have grounds for appeal, which would require the ACCC to establish an error of law by the judge.

Seven West Media's proposed acquisition of Prime Media Group

On 18 December 2019 the ACCC announced it would not oppose Seven West Media's proposed acquisition of Prime Media Group.

Seven West Media, a national media company with commercial television, publishing, radio and digital operations, was proposing to acquire Prime, its main regional television broadcasting affiliate.

The ACCC's approval of the deal was made on the basis that Seven West Media will divest its Spirit and RedFM radio networks in regional Western Australia to a third party to meet requirements of the *Broadcasting Services Act 1992*.

4.6.2 Authorisations

Under the ACCC's authorisation and notification review function, the ACCC also reviews and makes decisions about applications for authorisation and/or notifications for arrangements or conduct (including proposed mergers) that may otherwise breach competition law. Primarily this is done by evaluating whether the arrangements or conduct are likely to result in a net public benefit. Authorisations may also be granted for certain forms of conduct if the ACCC is satisfied substantial lessening of competition is unlikely.

In 2019–20 the ACCC received one communications-related application for authorisation.

65 The ACCC's Mergers registers are available at http://registers.accc.gov.au/content/index.phtml/itemId/750991.

NBN Co Ltd

On 30 March 2020 NBN Co Ltd lodged an application for authorisation on behalf of itself and members of an SWG to enable the group to work on contingency planning in response to the COVID-19 pandemic. NBN Co was directed to form and lead the SWG, in the national interest, by the Minister for Communications, Cyber Safety and the Arts on 18 March 2020. The SWG currently comprises Telstra, Optus, TPG, VHA, Vocus and Aussie Broadband.

On 31 March 2020 the ACCC granted urgent interim authorisation to the proposed conduct, subject to certain reporting obligations which required NBN Co to report to the ACCC on a timely basis about any material decisions the SWG makes, and to other service providers affected by those decisions.

The SWG initially comprised Telstra, Optus, TPG, VHA and Vocus, with Aussie Broadband joining in April 2020. On 10 September 2020, the ACCC issued a final determination granting conditional authorisation until 31 March 2021. Authorisation is subject to NBN Co complying with reporting obligations and came into effect on 2 October 2020.

4.6.3 Exclusive dealing notifications

Notification is an alternative to authorisation for certain arrangements such as exclusive dealing. Like authorisation, the notification process provides protection from legal action under the CCA if the conduct is in the public interest.

In 2019–20 the ACCC did not receive any notifications of exclusive dealing involving participants in the communications industry.

4.7 Advice, advocacy and contributions to policy processes

4.7.1 ACCC submissions to policy processes

During 2019–20 the ACCC made a number of submissions to policy processes and participated in a number of working committees relevant to the telecommunications industry. These included:

- Utility Regulators Forum
- Infrastructure Consultative Committee
- Quarterly Regulators Roundtable
- Consumer Roundtable
- Australasian Consumer Fraud Taskforce
- Engagement with the ACMA's Consumer Consultative Forum.

Submissions and input were made to the following processes:

- Telecommunications in New Developments (TIND) Policy
- Mobile Black Spot Program – Round 5A
- Regional Telecommunications Review
- Consumer Safeguards Review
- Radiocommunications Legislation Amendment (Reform and Modernisation) Bill 2020
- ACMA rules for NBN migration.

4.7.2 Competition issues in upcoming 5G spectrum allocation

In response to a request, in May 2020, the ACCC provided advice to the Minister for Communications, Cyber Safety and the Arts on whether allocation limits should apply in the 26 GHz spectrum auction.

The ACMA is intending to auction the 26 Ghz spectrum in early 2021. The 26 GHz spectrum band is expected to enable the launch of a range of innovative new services using 5G technology, particularly by boosting the capability of the Internet of Things.

The ACCC recommended that an allocation limit such that no bidder can obtain more than 1,000 MHz of 26 GHz spectrum in any geographic area in the auction. The ACCC considered that such a limit would promote competition and other communications policy objectives because it reduces the risk that spectrum will be monopolised as a result of the allocation, and provides an opportunity for a number of operators to acquire a sizeable contiguous allocation of spectrum to deploy effective 5G services.

4.7.3 Advice to Minister regarding Telstra and TPG exemption extensions

On 2 June 2020 the ACCC provided advice to the Minister for Communications, Cyber Safety and the Arts to inform his decision on whether to extend ministerial exemptions from Parts 7 and 8 of the *Telecommunications Act 1997* for Telstra and TPG. In its advice, the ACCC supported the exemptions being extended but recommended they should be limited to a maximum of two years for both carriers, and the exemptions granted to Telstra should be subject to reporting and non-discrimination requirements.

5. Appendixes

5.1 Other competition indicators

5.1.1 Annual price changes (%)—advertised price

Table 5.1: Advertised price changes (%) for the 25th percentile from 2016–17 to 2019–20

	2016–17	2017–18	2018–19	2019–20	2015–16 to 2019–20
NBN	0.0	0.0	9.9	6.1	16.6
Non-NBN	0.0	0.0	0.0	0.0	0.0
Total fixed line	0.0	0.0	0.0	15.0	15.0
Post-paid mobile phone	3.6	-13.8	-0.4	0.4	-10.8
Prepaid mobile phone	0.3	-6.7	-11.1	-19.7	-33.1
Total mobile phone	6.8	-16.4	-0.4	-3.6	-14.3
Mobile broadband	0.0	0.0	17.5	-14.9	0.0

Source: ACCC estimates based on information from RSP websites.

Table 5.2: Advertised price changes (%) for the median from 2016–17 to 2019–20

	2016–17	2017–18	2018–19	2019–20	2015–16 to 2019–20
NBN	-0.1	-6.6	12.9	1.2	6.6
Non-NBN	0.0	-6.6	0.0	7.2	0.1
Total fixed line	-0.1	-6.6	7.1	5.3	5.3
Post-paid mobile phone	0.0	-0.3	-9.8	-2.8	-12.5
Prepaid mobile phone	0.1	-6.4	-6.7	-7.1	-18.7
Total mobile phone	0.0	-0.3	-12.3	0.0	-12.5
Mobile broadband	7.7	7.0	6.8	-12.5	7.7

Source: ACCC estimates based on information from RSP websites.

Table 5.3: Advertised price changes (%) for the 75th percentile from 2016–17 to 2019–20

	2016–17	2017–18	2018–19	2019–20	2015–16 to 2019–20
NBN	-5.2	0.0	0.0	0.0	-5.2
Non-NBN	-0.1	-0.1	-11.0	12.5	0.0
Total fixed line	-1.1	0.0	0.0	0.1	-1.1
Post-paid mobile phone	5.2	-8.3	-9.1	0.0	-12.3
Prepaid mobile phone	0.2	0.0	-0.2	0.0	0.0
Total mobile phone	0.0	-9.1	-0.1	-0.1	-9.3
Mobile broadband	1.6	0.1	0.0	-16.8	-15.4

Source: ACCC estimates based on information from RSP websites.

5.1.2 Average annual price changes (%)—feature-adjusted (hedonic approach)

Table 5.4: Average annual price changes (%) for the feature-adjusted (hedonic approach) from 2016–17 to 2019–20

	2016–17	2017–18	2018–19	2019–20	2015–16 to 2019–20
NBN	1.1	-7.8	-4.1	-2.0	-12.5
Non-NBN	-8.4	-7.3	-2.1	-1.1	-17.8
Total fixed line	-4.0	-7.9	-2.8	-1.6	-15.4
Post-paid mobile phone	-13.7	-16.8	-18.5	-19.4	-52.9
Prepaid mobile phone	-8.9	-19.9	-24.6	-12.0	-51.6
Total mobile phone	-12.9	-17.4	-20.3	-16.7	-52.2
Mobile broadband	-12.4	-18.4	-19.1	-24.0	-56.1

Source: ACCC estimates based on information from RSP websites.

5.1.3 Annual price points ($)—advertised price

Table 5.5: Annual price points ($) for the 25th percentile from 2015–16 to 2019–20

	2015–16	2016–17	2017–18	2018–19	2019–20
NBN	60	59.99	59.99	65.9	69.95
Non-NBN	59.99	59.99	59.99	59.99	60
Total fixed line	59.99	59.99	59.99	60	69
Post-paid mobile phone	28	29	25	24.9	24.99
Prepaid mobile phone	29.9	30	28	24.9	20
Total mobile phone	28	29.9	25	24.9	24
Mobile broadband	20	20	20	23.5	20

Source: ACCC estimates based on information from RSP websites.

Table 5.6: Annual price points ($) for the median from 2015–16 to 2019–20

	2015–16	2016–17	2017–18	2018–19	2019–20
NBN	75	74.95	70	79	79.95
Non-NBN	74.95	74.95	70	69.99	75
Total fixed line	75	74.95	70	75	79
Post-paid mobile phone	39.99	40	39.9	36	35
Prepaid mobile phone	39.95	40	37.45	34.95	32.5
Total mobile phone	39.99	40	39.9	35	35
Mobile broadband	32.5	35	37.45	40	35

Source: ACCC estimates based on information from RSP websites.

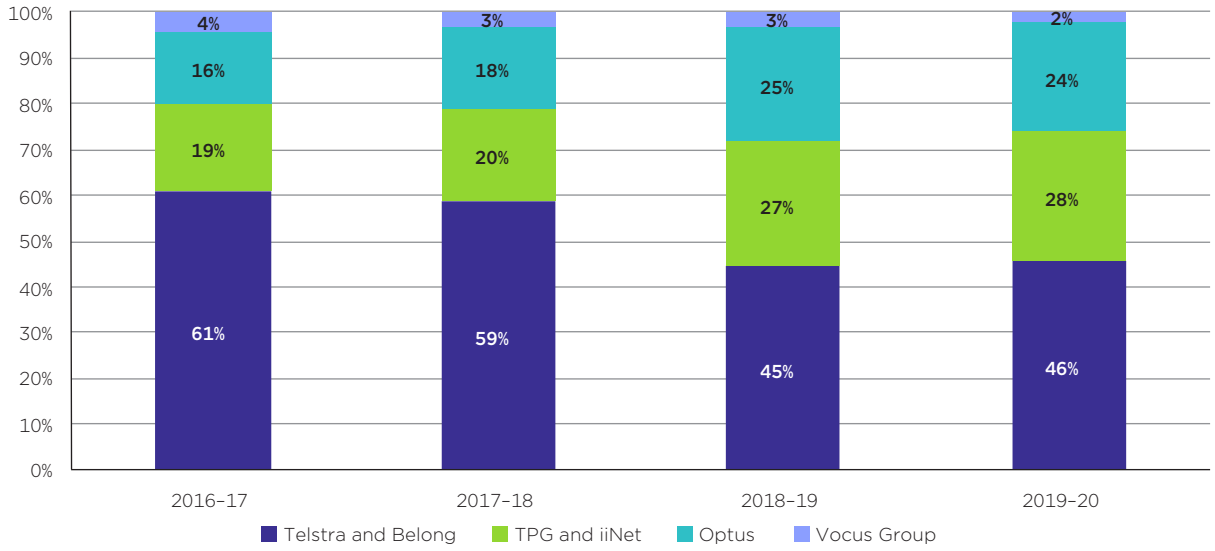
Table 5.7: Annual price points ($) for the 75th percentile from 2015–16 to 2019–20

	2015–16	2016–17	2017–18	2018–19	2019–20
NBN	94.9	89.99	89.99	90	90
Non-NBN	90	89.95	89.9	80	90
Total fixed line	90.975	89.99	89.95	89.95	90
Post-paid mobile phone	57	59.95	55	50	50
Prepaid mobile phone	49.9	50	50	49.9	49.9
Total mobile phone	55	55	50	49.95	49.9
Mobile broadband	59	59.95	59.995	60	49.9

Source: ACCC estimates based on information from RSP websites.

5.1.4 Fixed line voice SIO market share

Figure 5.1: Fixed line voice SIO market share from 2016–17 to 2019–20



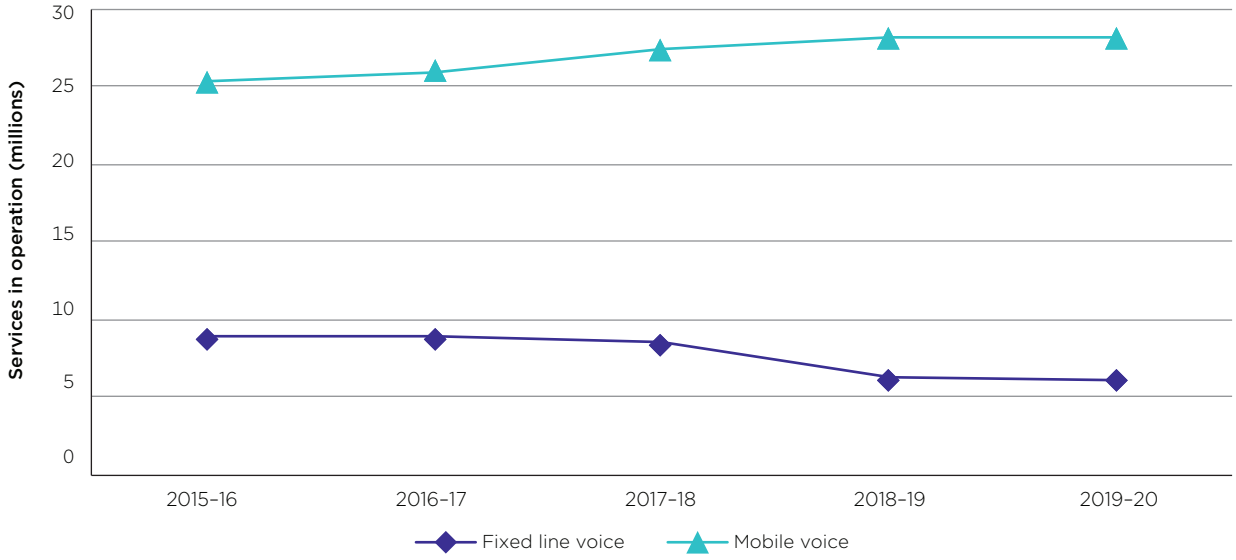
Note: Includes residential, small business and other business.

Note: One data provider revised its results for 2018–19 in its 2019–20 submission. Updates have not been backdated past 2018–19.

Source: Division 12 RKR data for all named carriers except for Vocus Group, whose figures are based on publicly available data.

5.1.5 Mobile and fixed line voice SIO

Figure 5.2: Mobile and fixed line voice SIO from 2015–16 to 2019–20

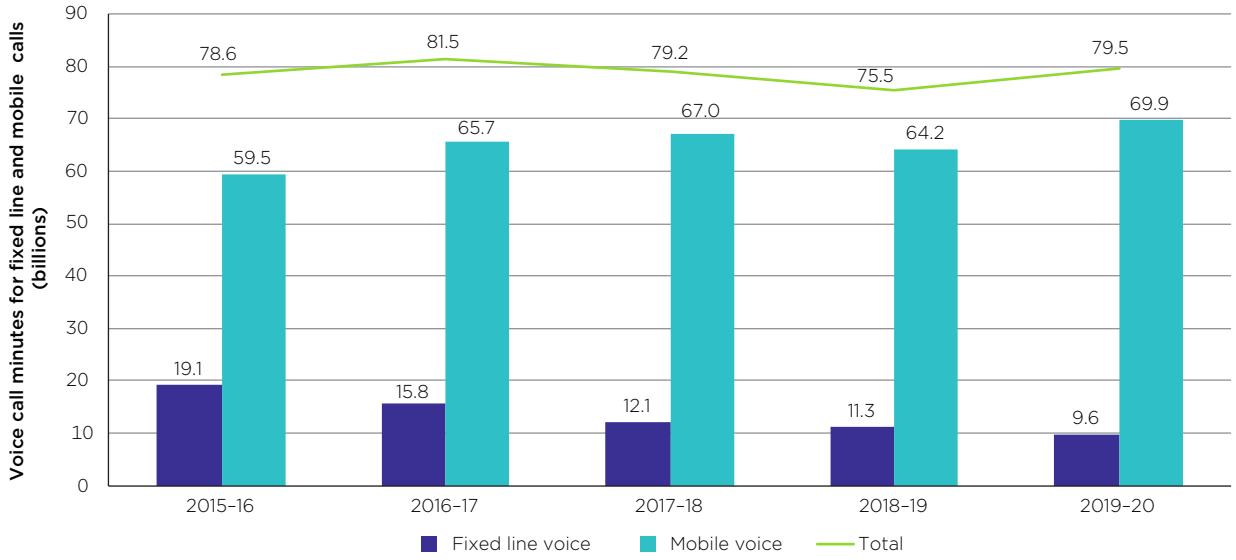


Note: One data provider supplied revisions to its fixed line voice SIO data in 2019–20 for its 2018–19 figures, hence the steep decline shown between 2017–18 and 2018–19 in figure 5.2. The revisions have not been backdated further than 2018–19.

Source: ACCC Division 12 RKR.

5.1.6 Mobile and fixed line voice call minutes

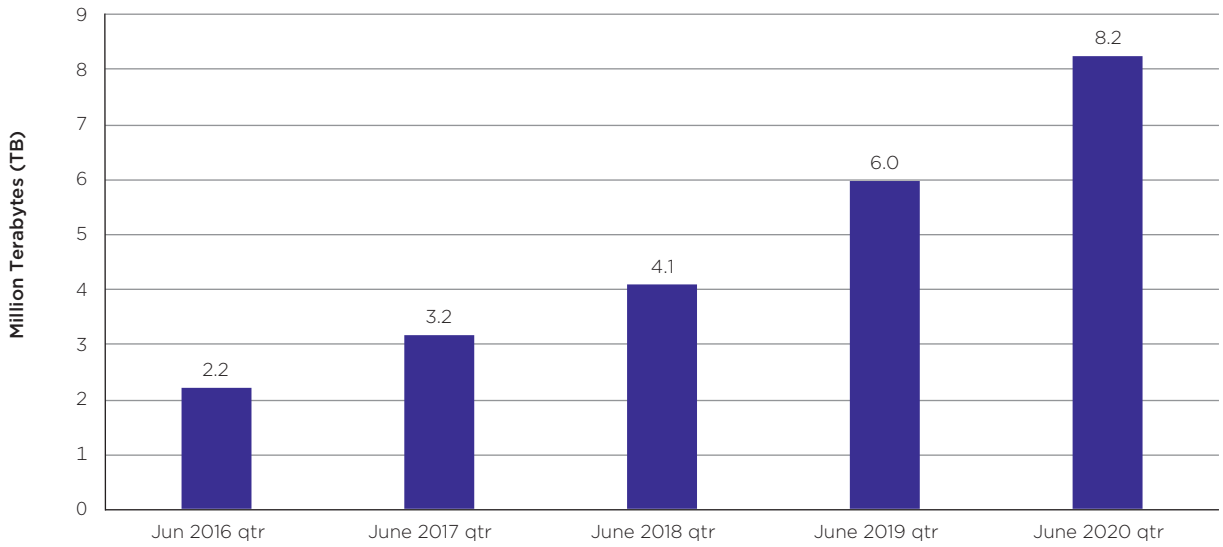
Figure 5.3: Mobile and fixed line voice call minutes from 2015–16 to 2019–20



Source: ACCC Division 12 RKR.

5.1.7 Volume of data downloaded

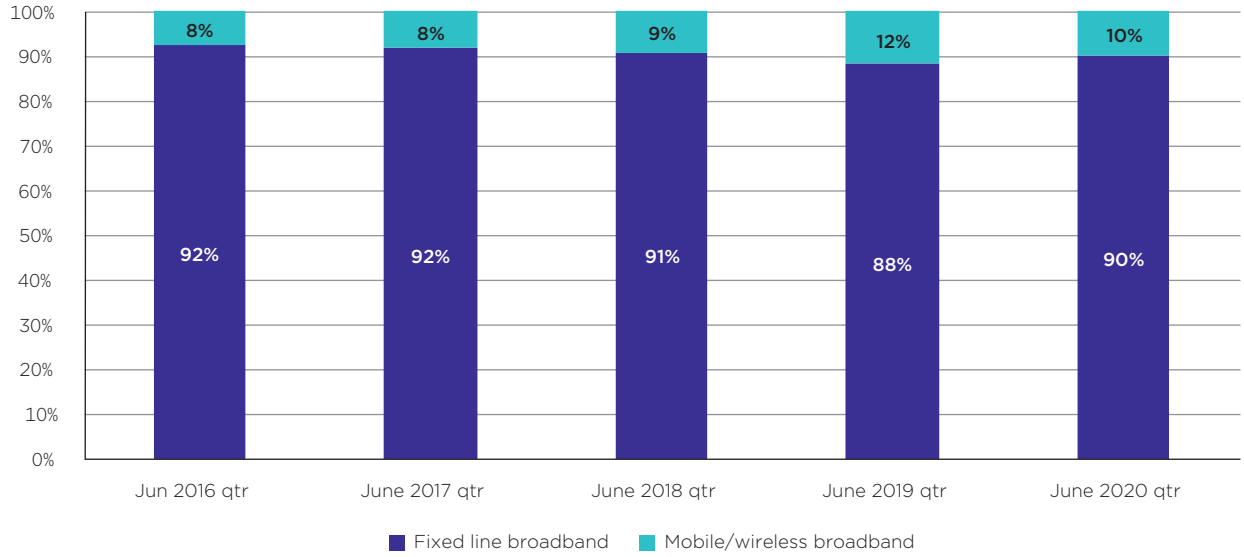
Figure 5.4: Total volume of data downloaded from 2015–16 to 2019–20



Source: ABS IAS (8153.0) & ACCC Internet Activity RKR.

5.1.8 Proportion of volume of data downloaded by fixed and mobile/ wireless access technologies

Figure 5.5: Proportion of volume of data downloaded by fixed and mobile/wireless access technologies from 2015–16 to 2019–20



Source: ABS IAS (8153.0) & ACCC Internet Activity RKR.

5.2 Price monitoring methodology: calculating real changes in weighted average prices through a 'hedonic' approach

This 'hedonic approach' was developed in collaboration with Economic Insights, an economic consulting firm. This approach aims to provide a better indication of overall price changes in a continually changing telecommunications market. The hedonic approach achieves this by estimating how prices change with time, while controlling for the differences in the characteristics of plans. The percentage price changes provide information about price movements by comparing prices in one year to the prices in another year. However, they do not provide any information about price levels (i.e. the advertised price).

The 'hedonic' approach employs the following method:

a. Products are defined bundles of characteristics. A fixed broadband product, for example, is a bundle of characteristics, including (among other characteristics) data allowance and download speed.

b. The estimation of the index involves a regression equation. The regression equation describes how the price of a plan depends upon the characteristics of the plan and the relevant time period.

5.2.1 Hedonic pricing methodologies

For the purposes of this report two approaches were investigated, the pooled data approach and the moving windows method.

The pooled data approach involves combining or 'pooling' data across all reference years. This is implemented by estimating one regression equation for all the reference years.

The moving windows approach, in contrast, involves the estimating a regression equation for each pair of consecutive reference years. For example, if there are four years of data there would be three regression equations, one for Years 1 and 2, another for Years 2 and 3 and a final equation for Years 3 and 4.

In this report, the pooled data approach was chosen so as to increase the number of available observations. For the pooled data method seven financial years' worth of data were used but as noted above the moving windows approach only uses two consecutive years of data for each regression equation.

5.2.2 Variables used

For the regression analysis the following variables were used:

a. For fixed broadband and mobile broadband plans, the variables were monthly price, data allowance, download speed, voice inclusions (including local, national and mobile calls), TV bundling, access technology, access network and RSP, as well as variables for each financial year.

b. For post-paid and prepaid mobile plans, the variables were monthly price, unlimited calls, unlimited SMS, handset inclusion, data inclusions and RSP, as well as variables for each financial year.

5.2.3 Assumptions

The regression model was specified as follows:

a. Observations were not weighted
   - In some hedonic pricing models, the observations are weighted to reflect the relative importance of the observations. As the ACCC's estimates of weights are not based on actual frequencies of plans, but rather are approximations, Economic Insights suggested that weighted models are not necessarily preferred. Thus, the ACCC used an unweighted model because of its greater simplicity.

b. Log-log regression
   - Economic Insights found that a log-log regression provided a substantially better fit than other specifications of the functional form (linear and log-linear) of the regression equation.

c. Random effects model
   - Economic Insights found that, first, a regression with retailer-specific effects was a better fit than an equation that does not include retailer-specific effects. Second, the hypothesis that random effects are zero was rejected, and the hypothesis that the random effects estimator is efficient and consistent was not rejected.

d. Right Hand Side (RHS) continuous variables are cubic
   - For the continuous variables on the RHS, the equation included (i) the log of the variable, (ii) the square of the log and (iii) the cube of the log. The square and cube of the log of the variable were included because this gives rise to a more general functional form, and, in many of the regression equations estimated, the square and cube of the log of the variable were found to be statistically significant.

5.2.4 Limitations

Accounting for new plans into a price index is not a simple process. New plans can differ considerably from older plans in their characteristics. For example, newer plans can offer faster download speeds and greater data allowances than older plans. As a result of these changes, we are no longer comparing prices of like-for-like products and price changes for a product may occur due to changes in quality and/or sticker price. Price statisticians refer to this issue as the need to price to constant quality. A price index should measure 'pure' price changes and as a result adjustments must be made for changes in characteristics (or changes in quality) of individual products. These adjustments are referred to as quality adjustments. As such, a decrease in prices does not necessarily indicate a drop in advertised price but may instead indicate an increase in quality.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