



Australian
Competition &
Consumer
Commission

ACCC Report

Competition in the Australian telecommunications sector

Price changes for telecommunications services in Australia

February 2016



Australian
Competition &
Consumer
Commission

ACCC telecommunications reports 2014–15

This publication contains two reports:

Report 1 Competition in the Australian telecommunications sector

Report 2 Price changes for telecommunications services in Australia

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Australian Competition and Consumer Commission
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Executive Office

17 February 2016

The Hon. Mitch Fifield MP
Minister for Communications
Parliament House
CANBERRA ACT 2600

Dear Minister

The Australian Competition and Consumer Commission (ACCC) is required under the *Competition and Consumer Act 2010* (CCA) to review and report annually on:

- competitive safeguards within the Australian telecommunications industry under subsection 151CL(1) of the CCA, and
- changes in the prices paid by consumers for telecommunications services under paragraph 151CM(1)(a) of the CCA.

Enclosed are the two reports for the 2014–15 financial year.

The reports show positive developments in competition in the communications sector throughout the last year. Consumers are benefiting from competition in the form of lower prices, new and innovative services, increased consumption of data, improved data offerings, and the faster rollout of the NBN. Network operators are investing to respond to growing consumer demand for data.

Notwithstanding these benefits, there may be a number of challenges for the sector during the transition to the NBN and as network operators try to manage increasing demand for data. The ACCC will continue to keep a close eye on these developments and work to promote competition and protect consumers during these changes.

As you may be aware, subsections 151CL(5) and 151CM(3) of the CCA require you to table both reports in each House of Parliament within 15 sitting days of receipt.

Please contact me on 02 6243 1131 should you wish to discuss the report.

Yours sincerely,



Rod Sims
Chairman

List of shortened forms

2G	second generation mobile communications
3G	third generation mobile communications
4G	fourth generation mobile communications
ABS	Australian Bureau of Statistics
ACCAN	Australian Communications Consumer Action Network
ACCC	Australian Competition and Consumer Commission
ACL	Australian Consumer Law
ACMA	Australian Communications and Media Authority
ADSL	asymmetric digital subscriber line
Amcom	Amcom Telecommunications
ASIC	Australian Securities and Investments Commission
BPMR	broadband performance monitoring and reporting
BROC	binding rule of conduct
BTS	basic telephone service
CAN	customer access network
CCA	<i>Competition and Consumer Act 2010</i> (replaced the <i>Trade Practices Act 1974</i>)
CLC	carrier licence condition
CSP	carriage service provider
DNS	domain name system
DSL	digital subscriber line
DSLAM	digital subscriber line access multiplexer
DTCS	domestic transmission capacity service
ESA	exchange service area
FAD	final access determination
FLSM	fixed line services model
FOAS	fixed originating access service
Foxtel	Foxtel Management Pty Ltd
FTAS	fixed terminating access service
FTTB	fibre-to-the-basement
FTTN	fibre-to-the-node
FTTP	fibre-to-the-premises
GB	gigabyte
GHz	gigahertz
HFC	hybrid fibre coaxial
iiNet	iiNet Limited
IP	internet protocol
IPTV	internet protocol television
ISP	internet service provider
LBAS	local bitstream access service
LCS	local carriage service
LSS	line sharing service
LTE	long term evolution
LTRCM	long term revenue constraint methodology
M2	M2 Group

Mbps	megabits per second
MHz	megahertz
MNO	mobile network operator
MTAS	mobile terminating access service
MVNO	mobile virtual network operator
NBN	national broadband network
NBN Co	National Broadband Network Company Limited (commonly referred to as nbn)
Optus	SingTel Optus
OTT	over-the-top
POIs	points of interconnection
PSTN	public switched telephone network
RAF	regulatory accounting framework
RKR	record keeping rule
RSP	retail service provider
RTIRC	Regional Telecommunications Independent Review Committee
SAU	special access undertaking
SBAS	superfast broadband access service
SFAA	standard form of access agreement
SIOs	services in operation
SMS	short messaging service
SSU	structural separation undertaking
STS	standard telephone service
SVOD	subscription video on demand
TB	terabyte
TCP	Telecommunications Consumer Protection Code
TEM	Telstra economic model
Ten	Ten Network Holdings Ltd
Telstra	Telstra Corporation Limited
TIO	Telecommunications Industry Ombudsman
TPG	TPG Telecom Limited
ULLS	unconditioned local loop service
USO	universal service obligation
VDSL	very-high-bit-rate digital subscriber line
VHA	Vodafone Hutchinson Australia
Vocus	Vocus Communication Limited
VoIP	voice over internet protocol
VoLTE	voice over LTE
WLR	wholesale line rental

Types of internet access platforms

Dial-up uses the voice band frequencies to transmit internet data over the copper access network and has a headline data download transmission rate to a maximum of 56 kilobits per second.

DSL, including asymmetric DSL (**ADSL**), like dial-up, uses the copper access network to provide an internet service. DSL operates at higher frequencies than voice services, and therefore is a form of broadband which operates independently of and simultaneously with the provision of traditional voice services over the same copper pair.

ADSL2+ is a DSL technology commonly used in the copper network to provide high data rates over copper pair telephone lines up to about 4 km in length. It is typically installed in telephone exchanges or alternatively in nodes closer to the end customers. The downlink data rate is usually significantly greater than the uplink data rate.

Very high bit rate Digital Subscriber Line 2 (VDSL2) is a DSL technology used to provide high data rates over copper pair telephone lines of up to about 1 km in length. It is typically used in FTTN or FTTB deployments. It can also include vectoring to help remove the impact of crosstalk from one copper line to others. It is able to provide symmetric data services.

HFC cable is a combination of optical fibre and coaxial cable, which can be used to provide high data rate broadband services, in addition to pay TV and voice services.

Fibre refers to optical fibre which can be used to provide high data rate broadband services by transmitting information as light pulses. Optical fibre is generally capable of carrying much more information than conventional copper wire and is in general not subject to electromagnetic interference.

Wireless broadband services are offered through both mobile and fixed wireless retail services:

- Mobile wireless services have evolved from mobile phone technology, which uses various portions of the radio frequency spectrum. Mobile network technologies allow users to both move between geographic areas or cells and roam between different mobile networks. Users can access mobile wireless broadband networks using 2G, 3G or 4G voice handsets or non-voice service equipment such as USB modems or datacards.
- Fixed wireless networks use similar technology to that used in mobile wireless networks. Significantly higher data rates and/or longer transmission distances can be attained from these networks by using fixed directional antenna only (that is, mobility is not supported by these networks).

Note: Many consumers now connect their devices at home or work via a wireless router, even if it is a fixed line broadband connection to the internet. This is considered to be a fixed line service rather than a wireless service, because the underlying internet connection is via a fixed line.

Satellite broadband uses geostationary orbiting satellites to relay data signals sent and received via a satellite dish by isolated end-users to and from a ground station connected to a broadband network.

Competition in the Australian telecommunications sector

Report to the Minister for Communications

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Key messages

Industry issues and trends in 2014–15

There were a number of significant developments and emerging trends in 2014–15, which are impacting competition in the Australian communications sector. These developments are outlined below and discussed in chapters 1 and 2 of the report.

Industry consolidation has increased

- There were a number of important acquisitions and industry alliances in the communications sector in 2014–15. Such consolidation reflects a desire of some providers to increase scale as the National Broadband Network (NBN) is rolled out and data usage continues to grow.
- As the fixed broadband market has become relatively concentrated, any further consolidations in the industry would likely raise serious competition concerns. Further, with this increased consolidation, a continuing focus on barriers to entry in fixed communications markets will become increasingly important.

Growing data demand continues on both fixed and wireless networks

- The continued increase in consumer demand for data on both fixed and mobile networks was a key development in the communications industry over the year. However, the volume of data downloaded over fixed networks is significantly larger than on mobile networks. In the past year, demand for data on fixed networks grew by 40 per cent from 0.96 million terabytes (TB) to 1.3 million TB, and mobile data increased by 35 per cent from 72 000 TB to 110 000 TB.
- A significant contributor to this growth, particularly for fixed line services, is the increasing popularity of audio-visual streaming services, with the introduction of subscription video on demand (SVOD) services, such as Netflix, Presto and Stan.

Impact on network operators

- Unless network operators take action to accommodate the increased network traffic resulting from the growing demand for data, networks will likely become congested. We expect operators will consider a range of strategies to prevent congestion including introducing traffic management procedures, congestion pricing and investing in their networks to increase capacity.
- Currently, the main strategy operators appear to have adopted is to invest in network infrastructure, with both fixed and wireless operators making significant infrastructure investments during the year.
- The growth of data may also drive further debate around the use of traffic management procedures as operators look to use such procedures to manage congestion. Such procedures have the potential to raise issues for competition and consumers. It will be important to ensure that operators make clear and transparent representations to consumers about any traffic management procedures they introduce, and that operators do not unfairly preference their own traffic over that of competitors.
- Mobile networks operators (MNOs) will need to ensure that they have sufficient radiofrequency spectrum to meet the rising customer demand for data services to avoid congestion issues. In this environment, considering the role of competition in mobile markets in any allocation of spectrum will be particularly important.

- Further, as much data growth has been a result of increased use of over-the-top (OTT) SVOD services, operators may look to new ways of providing their own content services, or seek contributions from OTT providers to expand network capacity. Network operators may also seek to pursue partnerships with OTT and content service providers in the coming years.

Impact on consumers

- This growth in demand has seen data become the focus of competition between service providers during the year. Both fixed line and mobile service providers increased data quotas, introduced innovative data services, and bundled subscriptions to streaming services in their plans.
- The continued investment in mobile networks and advances in mobile technology mean that an increasing number of consumers may see mobile broadband services as a substitute for fixed broadband services in the future. However, currently the two services are seen as complementary by most consumers and factors such as the pricing of mobile data services is limiting the substitutability of the services.

The rollout of the NBN is significant and complex

- During the year one of the most significant developments in the fixed line market was the continued rollout of the NBN, which has passed over 1.5 million premises with 700 000 active services.
- The NBN rollout and migration of consumers to the NBN will continue to raise issues for both competition in the industry and for consumers.
- Another significant issue is any real or perceived competitive advantage Telstra may gain from access to significant information flows regarding the multi-technology mix NBN. The ACCC has provided advice to the Minister on a proposed carrier licence condition designed to address such issues.
- For smaller service providers, a competitive and efficient aggregation and backhaul market will be particularly important, as these providers will have smaller capacity needs.
- As the NBN is an access network, it is possible that new bottlenecks may emerge at other levels of the supply chain, which may pose challenges for continuing competition in fixed line markets.
- The complexity of the migration arrangements for a multi-technology mix NBN means that it is particularly important for industry, consumer representatives and government to work together to ensure emerging issues, such as battery backup arrangements and the migration of OTT devices (such as medical alarms) are addressed.

Consumer protection remains a priority

- The complexity of communications services and the broad range of products in the market means that consumer safeguards continue to be particularly important in the communications industry. A number of measures such as the Australian Consumer Law (ACL) and the Telecommunications Consumer Protection (TCP) Code help to ensure consumers receive accurate and useful information about communications products.
- As the rollout of the NBN continues, it will also be important to ensure that consumers are given sufficient information so that they can make informed decisions about what NBN services they need, before they migrate to the NBN.
- The increasing popularity of streaming services, and demand for data, means that quality of service is becoming increasingly important to consumers. In this environment consumers require accurate information about service quality issues, such as broadband speeds. The continuation of a broadband performance monitoring and reporting (BMPR) project would help to ensure that accurate information is available to consumers.

Key ACCC activities

The ACCC continues to play an important role in promoting competition and protecting consumers in the communications sector. The ACCC's activities through the year are discussed in detail in chapters 3 to 8 of this report. The following outlines some of the key matters

- We accepted Telstra's revised migration plan, which aims to promote a more positive consumer migration experience and address service continuity issues.
- We made a number of important access decisions on pricing and terms of condition of access to regulated services, making the final access determinations (FADs) for the mobile terminating access service and fixed line services, and a draft decision on the FAD for regulated transmission services.
- We commenced an inquiry into declaring a superfast broadband access service and issued a draft decision to declare such a service.
- We decided not to oppose NBN Co's acquisition of Optus' hybrid fibre coaxial (HFC) network.
- We considered several acquisitions in the industry, including TPG's acquisition of iiNet, which we decided not to oppose.
- We conducted 16 major investigations into contraventions of the ACL in the communications sector.

Report outline

Chapter 2 examines competition in Australian telecommunications markets and includes information on trends in service take up and usage, infrastructure investment, market concentration and price changes, and how these developments impact industry and consumers.

Chapters 3 to 8 outline our broad competition, consumer and regulatory roles, as provided for under key legislation.

Chapters 3 and 4 examine our role in administering competition and consumer laws, including investigations, court cases, and our merger and authorisation assessments.

Chapter 5 sets out information about our monitoring and reporting functions.

Chapter 6 outlines our role in regulating access to telecommunications services.

Chapter 7 looks at regulating access to the NBN and other superfast telecommunications networks.

Chapter 8 deals with Telstra's structural separation and our other key roles under the *Telecommunications Act 1997*.

1 Overview

A number of key developments have occurred in the Australian communications market in 2014–15, which are likely to have an effect on the competitive environment as the transition to the National Broadband Network (NBN) continues.

There was an increase in market consolidation over the year, including new alliances between top tier providers, as service providers seek to attain scale in order to compete nationally as the NBN rollout increases. These developments are likely to place pressure on second tier providers who will also need to achieve sufficient scale to retain market share.

A second important development is the growth in consumer demand for data services, including the rapid take up of subscription video on demand (SVOD) services, such as Netflix, Presto and Stan. High levels of demand for data are impacting fixed and mobile operators as they respond by investing in upgrades to networks to meet demand and improve quality of service.

The rollout of the NBN continued during the year, and was one of the most significant developments in the fixed line market. The NBN will pose challenges and opportunities for industry, and for competition in aggregation and backhaul markets. Further, ensuring the migration of customers occurs effectively will be particularly important.

Consumer protection also continues to be a priority for the communications industry. The complexity of communications products, and the rollout of the NBN, means that consumers require clear, accurate and useful information to make informed decisions. Further, the increasing demand for data and focus on service quality will mean it will be important for consumers to be able to make meaningful comparisons between the services offered on networks.

Consumers in fixed line and mobile markets are continuing to benefit from competition in the form of lower retail prices and more choice. Since the sector was opened to competition in 1997, average real prices for both fixed line voice and mobile services have decreased by 50.7 per cent and 52.6 per cent respectively. Over the year providers have competed for new customers by increasing data allowances and offering new features, which are available in a range of plans. Further, competition in the sector and increasing consumer demand for data is also continuing to drive investment and innovation, particularly in the mobiles sector. As mobile technologies improve, it will lead to greater convergence with the broadband market. The year also saw investment in fixed networks to increase capacity within existing footprints.

Competition in less densely populated areas remains more subdued given the challenges of extending networks in areas with low demand. Consumers in some regional areas have benefited to an extent from the level of competition in national retail mobile and fixed markets, as prices are consistent nationally. Further, competition has, to some extent, been a factor that has led operators to invest in networks and improve services in some regional areas. However, for many consumers in regional, rural and remote areas there are still issues in receiving communications services that meet their needs, as the choice of providers and service coverage are often limited.

As the NBN rollout increases, we expect service providers to continue to innovate in order to attract new customers, such as through bundling and discounting of service offerings. For example, fixed line providers are offering 'triple play' services, which include broadband, home phone and a streaming service. It is expected that smaller service providers will resell aggregated capacity acquired from larger carriers until they can acquire sufficient scale to connect to NBN points of interconnection (POIs).

As consumers focus on data services, we expect competition to focus increasingly on service performance. Promoting transparency about network performance will allow service providers to further compete on service quality, not just price. The ACCC will continue to test data throughput representations to make sure that consumers are able to choose a network that best suits their needs. The ACCC completed a broadband performance monitoring and reporting program (BPMR) during the year and found that an ongoing feasible program to monitor and report on the quality of broadband services could be established in Australia.

As the communications industry continues to develop, we will be interested to ensure that the industry remains competitive and consumers are protected. In addition to consolidation, there are other emerging issues which have the potential to impact competition and consumers. Such issues include: the industry response to increasing consumer demand for data and SVOD services; NBN migration issues and the development of the NBN market; network performance representations; and regional issues.

The ACCC's role is to make sure that markets work effectively for consumers. We do this through economic regulation; monitoring competition and market developments; investigating anti-competitive conduct and breaches of the Australian Consumer Law (ACL); assessing telecommunications mergers and authorisations; providing advice to Government on a range of matters, including spectrum allocation limits; and through our education and consumer engagement initiatives.

This report on competitive safeguards outlines competitive developments in the sector and some of our key regulatory decisions in the 2014–15 financial year. We have also included significant developments between July and December 2015.

1.1 Developments in the communications sector

Industry consolidation and alliances

There was an increase in the degree of consolidation within the communications industry during the year, with a number of acquisitions and strategic industry alliances. In part, these transactions reflect the desire of service providers to gain market share and scale as the NBN is rolled out through horizontal consolidation and vertical integration.

The acquisitions (none of which were opposed by the ACCC) included:

- TPG Telecom Limited's (TPG) acquisition of iiNet Limited (iiNet).
- Vocus Communication Limited's (Vocus) acquisition of Amcom Telecommunications (Amcom) and M2 Group Limited (M2).
- Foxtel Management Pty Ltd's (Foxtel) minority acquisition of Ten Network Holdings Ltd (Ten).

Further, TPG and Vodafone Hutchison Australia (VHA) entered into an agreement for TPG to provide dark fibre backhaul to VHA in metro areas, and for TPG to migrate its mobile customers to VHA's mobile network.

We expect competition in the fixed broadband market to intensify as the NBN is rolled out. Further, as the fixed broadband market has become relatively concentrated following recent mergers, any future consolidation of the remaining four large fixed line providers would likely raise serious competition concerns and face close scrutiny.

In assessing recent mergers, particularly the TPG and iiNet merger, we considered the important role of second tier and non-vertically integrated suppliers of wholesale transmission services (such as Nextgen). In the transition to the NBN, these providers will remain important for maintaining a competitive backhaul market and for fostering

competition at the retail level. These providers have the incentive to encourage entry and expansion by smaller retailers who, unlike Telstra, Optus, and TPG, have little or no transmission infrastructure of their own.

Consumer demand for data and content services is driving competition

Consumers are downloading significantly more data across both fixed and wireless networks. Between June 2014 and June 2015 there was a 40 per cent increase in the volume of data downloaded via fixed line broadband and an 18 per cent increase in the volume of data downloaded over wireless broadband.

The increase in data consumption is in part being driven by growth of audio-visual content streaming services delivered over the internet. Over the past year there has been a rapid take up of new SVOD services such as Netflix, Presto and Stan. By June 2015, 11 per cent of Australian adults had watched Netflix in a given week.¹ In the six months to June 2015, 17 per cent of Australian adults had used SVOD services.²

These developments are impacting competition and investment in communications markets in a number of ways.

Demand for data and retail competition

Vigorous competition in the market has seen operators improve the value of their data offers to meet consumer demand for data and immediate connectivity. Fixed and mobile providers are responding to demand levels through increasing data allowances in plans, or decreasing the rate per gigabyte. For example, the average data allowances in mobile plans increased over the year, and mobile service providers introduced a variety of new offers, such as data sharing and data rollover features.

While price competition in fixed line markets remained somewhat subdued, fixed line providers attempted to differentiate their services by increasing data allowances and offering new plan features, such as unlimited streaming and included subscriptions to specific SVOD services. Fixed line providers are also continuing to innovate their bundling offers to attract new customers, by providing triple play services which include broadband, home phone and a streaming service.

The increase in demand for mobile data services has also seen the quality of services available on a network becoming more important for consumers when selecting a provider. In the mobile sector, this, and a perception that Telstra can offer a better quality of service on its network, may in part, account for Telstra's market share advantage in wireless markets in recent years.

In 2014–15 Telstra maintained its 45 per cent market share in mobile handset services, and increased its market share in wireless broadband services from 61 to 64 per cent. However, continued investment by Optus and VHA in their mobile networks, has seen the retail mobile market remain competitive.

The introduction of SVOD services and continued demand for data may also have impacted the market shares of fixed line voice and fixed line broadband providers. The market shares for the largest fixed line voice and broadband providers (iiNet, M2, Optus, Telstra and TPG) remained stable during the year, with some providers making minor gains in market share. However, the market shares for smaller providers decreased for both fixed line voice services by five percentage points. Many consumers see larger providers as being able to offer better

1 Australian Communications and Media Authority, *Communications Report 2014–15*, p. 66.

2 id., *Research Snapshot: Subscription video on demand in Australia 2015*, 2015, viewed 17 November 2015, <http://www.acma.gov.au/theACMA/engage-blogs/engage-blogs/Research-snapshots/Subscription-video-on-demand>.

value and service offerings than smaller providers. The larger providers are partnering with Netflix, Stan and Presto to offer competitive bundled services with SVOD subscriptions, which are not yet offered by some smaller providers.

Demand for data is encouraging investment

Over the year there was investment in fixed networks to increase capacity and deal with increasing data demand. For example, since July 2014 Telstra has increased the capacity of a proportion of the network, establishing around 90 new digital subscriber line (DSL) sites.³ Further, by the end of the first quarter in 2016, Telstra is set to complete backhaul capacity upgrades to around 3000 DSL sites.⁴

Competition between network operators and consumer demand for data is also driving strong investment in mobile networks. As data usage has grown, mobile network operators (MNOs) have invested in upgrading their networks to increase their capacity to deal with the increased data traffic. Further, as quality of service available on a network has become more important as data demand has increased, network operators have invested to improve the quality of services available in order to effectively compete for consumers.

Over the year Optus, Telstra and VHA have all made significant investments in their 4G mobile networks (which deliver higher quality data services than 3G networks), and on radiofrequency spectrum.⁵ Optus states that it invested over \$1.5 billion in its mobile network, including on acquiring spectrum, expanding 4G coverage, boosting capacity and switching on new mobile towers.⁶ Telstra states that it invested \$1 billion in its mobile network over 2014–15, and that it will invest \$5 billion in its network over the three years to June 2017.⁷ VHA also continued to invest in its mobile network, making improvements to its core network and expanding its 4G coverage.⁸

The availability and allocation of radiofrequency spectrum will continue to be an important issue for competition in mobile markets, as the demand for mobile data is expected to continue to grow. While the Australian Communications and Media Authority (ACMA) notes that it is difficult to accurately predict the growth in mobile broadband traffic, modelling it has commissioned predicts mobile data traffic in Australia will increase by around 4.5 times between 2014 and 2020.⁹

This will create challenges for MNOs, who will need to continue to increase the capacity of their mobile networks to offer competitive mobile services. As sufficient spectrum is essential to providing sufficient capacity, it will be particularly important in this environment to ensure that any allocation of radiofrequency spectrum to provide mobile services promotes competition in mobile markets.

3 Telstra, *ADSL Enabled ESAs Report*, 5 February 2016. Available at, <http://telstrawholesale.com.au/products/broadband/adsl/adsl-reports-plans/index.htm>.

4 Telstra, *DSLAM Backhaul Relief*, 5 February 2016. Available at, <http://telstrawholesale.com.au/products/broadband/adsl/adsl-reports-plans/index.htm>.

5 For example, in the 2014 Digital Dividend auction, Optus and Telstra both acquired 700 megahertz (MHz) and 2.5 gigahertz (GHz) spectrum, investing around \$650 million and \$1.3 billion respectively. Further, in the recent 1800 MHz spectrum auction Optus, Telstra, VHA and TPG all acquired spectrum, spending between \$68 million and \$196 million.

6 Optus, *Optus boosts Ballarat mobile reliability and data speeds*, media release, 20 October 2015. <http://media.optus.com.au/media-releases/2015/optus-boosts-ballarat-mobile-reliability-and-data-speeds>.

7 Telstra, *Telstra Annual Report 2015*, 2015, pp. 6, 23.

8 Vodafone Hutchinson Australia (VHA), *Annual Report*, 2014, p. 4, <http://clients3.weblink.com.au/pdf/HTA/01611646.pdf>; half yearly results 2015, p. 5 <http://clients3.weblink.com.au/pdf/HTA/01642904.pdf>.

9 ACMA, *Beyond 2020—A spectrum management strategy to address the growth in mobile broadband capacity: Discussion paper*, 2015, pp. 15–17.

Improving mobile technologies will lead to greater convergence in broadband markets

Mobile broadband services have been impacting competition for fixed broadband services to an extent for some time. However, as the quality of mobile data services continues to improve with further technological developments and network investment, we expect that mobile services will place increasing competitive pressure on fixed broadband services.

Currently, fixed and mobile broadband services are seen as complementary by many consumers. While most consumers access the internet most frequently on their mobile device, fixed line connections are still preferred for data intensive activities. However, technological developments, and changes to pricing of (and inclusions in) wireless broadband plans, may mean that these consumer preferences change in the future. Further, Wi-Fi services are becoming increasingly available to consumers which will allow operators to offer wireless internet services to complement their own, or compete with rivals, broadband services offered over mobile networks. Both Telstra and Optus introduced new Wi-Fi products during the year.

Continued investment in mobile networks and the improvements in technology, have seen mobile networks beginning to offer comparable speeds and service quality to fixed networks. These technological improvements are expected to continue. While mobile broadband services are not yet a complete substitute for fixed services, there is potential for substitution between these services to increase in the future, and for competition in mobile broadband markets to further impact fixed markets.

There are a range of factors currently limiting the substitutability between mobile and fixed data services, and these may continue to do so into the future. A key factor is that mobile data services are usually significantly more expensive than fixed data services, and mobile data allowances are significantly smaller than those available in fixed line plans. This is likely because there are greater capacity constraints on mobile networks, and MNOs may be using data prices as a way to manage consumers' usage and thereby maintain network performance. The higher price for mobile data means that it can be impractical for many consumers to use mobile services for data intensive activities. Another factor that may be limiting substitutability is the reliability of mobile services and impact of location on the quality of service experienced, with mobile data rates varying for users depending on where they use the service.

Emerging issues arising from demand for data and over the top services

The demand for data services is forecast to continue to grow significantly in coming years, driven by consumer demand for online content services. In Australia mobile data traffic has been predicted to increase nearly five-fold between 2014 and 2020, while fixed data traffic is expected to grow by 180 per cent between 2014 and 2019.¹⁰ The increase in the demand for data and increasing use of data intensive over-the-top (OTT) services has the potential to raise a number of issues for the communications industry.

There is a risk that the increase in data traffic will create network congestion or capacity issues for network operators. One method network operators are already using to deal with the increase in traffic is to increase the capacity of their networks by upgrading the infrastructure.

However, there are a number of other options available to fixed and mobile operators to manage congestion. For example, network operators may adopt traffic management procedures, where different types of traffic or users are prioritised over others. Network operators may also seek to charge content providers to carry their traffic on the network.

¹⁰ ACMA, *Beyond 2020—A spectrum management strategy to address the growth in mobile broadband capacity: Discussion paper*, 2015, pp. 15–17; and Cisco, *Cisco Visual Networking Index: Forecast and Methodology, 2014–2019*, 2015, p. 5.

Another way operators may try to manage congestion is to use a retail pricing mechanism, such as retail peak pricing, to try to influence the way that consumers use their broadband service and reduce peak traffic.

The use of these methods has the potential to raise issues for competition and consumers. For example, where traffic management procedures are used it will be important for operators to make clear representations to consumers about these procedures, so that consumers can make an informed choice when selecting a service. Further, the ACCC would be concerned if operators were using traffic management procedures, or wholesale pricing, in an anti-competitive way, such as by de-prioritising a competitor's traffic and prioritising traffic from their own services.

We note that industry debate around such issues has already begun. For example, NBN Co chairman Ziggy Switkowski has called for further industry debate around net neutrality issues.¹¹ Optus has suggested that OTT content providers should pay a fee to ensure quality of service, and TPG has suggested that if the industry is to be levied to contribute to the NBN's construction, content providers should also be included.¹² We are very interested in these issues and are continuing to monitor developments in this area.

Competition over the NBN

The deployment of the NBN continues to be the most significant infrastructure development in the fixed line market. As at 31 December 2015, NBN Co had passed or covered over 1.5 million premises and over 700 000 premises had an active service on NBN's fixed, wireless or satellite networks. That said Telstra remains the provider of ubiquitous fixed line access. As at September 2015, Telstra supplied around 8.9 million active connections on its copper access network, compared to NBN Co's 500 000 active fixed line connections.¹³

In 2014–15 there was a decrease in access seeker investment in Telstra exchange building equipment compared to 2013–14. We expect this trend to continue as access seekers migrate more of their customers off Telstra's legacy network onto the NBN.

During the year a number of important steps for the Government's multi-technology mix NBN were concluded:

- the Government finalised negotiations and entered into revised definitive agreements with Telstra to facilitate its multi-technology mix NBN model
- the ACCC accepted Telstra's revised Migration Plan, and
- the ACCC approved the revised arrangements between NBN Co and Optus in relation to Optus' HFC network.

However, there are a number of aspects of the NBN multi-technology mix that are yet to be finalised. The large scale migration to the NBN will have significant implications for competition in the market. Achieving scale will be a key priority for all service providers as they seek to establish market share. While we have seen rapid market consolidation in the last 12 months, further mergers or acquisitions will require close scrutiny to ensure that the market remains contestable.

11 David Ramli, *NBN chairman Ziggy Switkowski wants to talk about net neutrality*, *The Sydney Morning Herald*, 23 November 2015.

12 id., *Optus wants Netflix, Google to pay data premiums*, *Australian Financial Review*, 21 April 2015.

13 ACCC, Snapshot of Telstra's customer access network as at September 2015, 2015 <https://www.accc.gov.au/system/files/Snapshot%20of%20Telstra%27s%20customer%20access%20network%20-%20Sep%202015.pdf>, and nbn, NBN weekly progress report, 2016, viewed 2 February 2016, <http://www.nbnco.com.au/content/dam/nbnco2/documents/nbn-rollout-metrics-280116.pdf>.

For smaller retail service providers to enter the NBN market, a competitive and efficient aggregation market will be essential. Smaller providers may encounter obstacles to growth without access to backhaul at competitive prices and to commercial aggregation products. We will be watching the progress of the NBN rollout and how fixed line markets under the NBN develop.

Consumer matters

The complexity of communications services, retail offers and the number of retail plans available means that safeguards are particularly important for consumers in the communications industry. The Australian Consumer Law (ACL), truth in advertising initiatives and the Telecommunications Consumer Protection (TCP) Code play an important role in ensuring that consumers receive accurate information about communications products so that they are able to make informed decisions about the products and services that suit their needs.

Consumers continue to face a number of challenges in the migration to the NBN and changes in technology and usage place pressure on existing services. Some of the matters that emerged, or have been considered, in the last 12 months are discussed below. Our work on key consumer issues is further outlined in chapters 4 and 5.

NBN consumer issues

The transition to a multi-technology mix NBN has increased the complexity of consumer migration arrangements. NBN Co, industry participants, consumer representatives and the Government are working closely together to manage the complexity of migrating consumers to multiple NBN technologies, and respond to other issues, such as battery back-up arrangements and migrating a range of OTT devices to the NBN (such as medical alarms, fire alarms, lift phones and EFTPOS).

It is important that consumers are given sufficient information in a timely manner to make informed decisions about the NBN services that will best suit their needs. This includes information about the steps they must take to migrate to the NBN and where to seek help. NBN Co, retail service providers, OTT providers, government and consumer protection bodies all have a role to play to work together to ensure consumers have sufficient information to make an informed decision.

While it is impossible to anticipate every potential consumer concern in the migration to the NBN, it is important to ensure that as issues emerge they are carefully considered. The ACCC is participating in a number of consultative committees and working groups on a range of issues to help ensure a smooth transition to the NBN and respond quickly to emerging issues.

Complaints made to the ACCC and the Telecommunications Industry Ombudsman (TIO) about the NBN have increased in the past 12 months, however they are not increasing as fast as the rollout. We are continuing to work with the TIO to identify emerging issues and industry-wide trends. We receive regular reports from the TIO on NBN-related matters which help us identify emerging consumer issues. We also seek complaint information from the TIO on specific NBN consumer issues that come to our attention in order to assess the extent to which these issues affect consumers and if they are wide spread.

Data throughput representations

The increasing popularity of SVOD services and other OTT services means that service quality will become even more important for consumers. To ensure there is effective competition in these markets, it will become increasingly important that consumers have accurate information about service quality and broadband speeds available from different providers.

Broadband providers must ensure their advertising and product offers clearly and accurately represents to consumers the speeds they can expect to achieve. The ACCC will continue to closely monitor the market for false or misleading claims about internet performance and will take action if necessary. Monitoring broadband performance would provide visibility over the performance of fixed broadband access networks (like the NBN) and give consumers reliable and independent information on which to base their purchase decisions.

During the year we completed a pilot program for an ongoing broadband performance monitoring and reporting program. In September 2015 we released a report on the results from the pilot program and found that an ongoing feasible program to monitor and publically report on the quality of broadband services could be established in Australia. We consider that such a program would benefit competition in the retail market. On the one hand, providers would be able to see how their network performs in comparison to other providers which would encourage them to compete on service performance. On the other hand, it would allow consumers to choose a provider that offers the level of service performance that meets their needs.

Changing consumer preferences and the Universal Service Obligation (USO)

Consumers are increasingly using mobile handsets, which are the most popular device for making voice calls and accessing the internet. As at June 2015, the number of mobile phone voice services in operation was almost three times that of fixed line voice services. These trends suggest that consumers prefer mobiles to make voice calls, and that data services are increasingly important (and to some extent replacing traditional voice and messaging services for some users).

As a result it may be time to review the USO, which currently requires Telstra to provide a Standard Telephone Service (STS), so that it remains relevant and effective. For instance, changing the USO to introduce a technology-neutral obligation to provide both voice and data services is more reflective of consumer preferences. The recent Regional Telecommunications Independent Review Committee (RTIRC) Report noted that the STS is of rapidly declining relevance and that as the NBN rolls out, the majority of Australians will be using mobiles, voice over internet protocol (VoIP) and social media applications as their primary communication method.

The RTIRC recommended that a new Consumer Communication Standard for voice and data be developed. In our submission to the RTIRC, we strongly supported changing the USO to introduce a technology-neutral obligation to provide both voice and data services.

Regional mobile issues

Competition in the retail mobile market has benefited many consumers living in regional Australia. As MNOs compete on the basis of network coverage, competition in the retail mobile market has helped to extend mobile coverage in Australia. Currently, mobile coverage is available for around 98 per cent of the Australian population in non-metro areas.¹⁴

However, a significant number of consumers still do not have adequate mobile coverage. The recent RTIRC Report found that mobile coverage in regional Australia is still an issue for many people. Competition between MNOs does not appear to have been sufficient to achieve coverage goals for parts of regional, remote and rural areas of Australia. Establishing coverage in many remote and regional areas is particularly expensive, and the number of potential new customers will be low. It seems likely that other measures will be necessary to further expand coverage into many underserved areas of Australia.

¹⁴ Regional Telecommunications Independent Review Committee, *Regional Telecommunications Review 2015*, RTIRC 2015, p. 2.

There have been a range of measures which have aimed at addressing these issues, such as the Mobile Black Spot Programme. Such programs are important as they improve coverage in regional areas and where they require open access or co-location to government funded infrastructure. The ACCC is continuing to monitor how regional coverage issues may be impacting competition in retail mobile markets.

1.2 ACCC activities in 2014-15

In the changing communications market, the ACCC plays an important role in promoting competition and protecting consumers through its regulatory work. In 2014-15, the ACCC undertook a range of activities to help achieve these outcomes, including:

- ensuring compliance with competition and consumer protection laws
- promoting competition through NBN regulation and encouraging transparency in the migration to the NBN, and
- regulating access to certain telecommunications services under the *Competition and Consumer Act 2010* (CCA).

Our activities are briefly outlined below and further detail is available in chapters 3 to 8 of the Report.

Ensuring compliance with the Competition and Consumer Act 2010

During the year we conducted 16 major investigations into potential contraventions of consumer protection laws in the sector. This resulted in action against telecommunications providers (including iiNet, Optus and Telstra), who paid combined penalties of over \$350 000 regarding some of their telecommunications advertisements. Our compliance and consumer protection work is further outlined in chapter 4.

Promoting competition through NBN regulation

Regulatory oversight of the NBN is essential to ensure access to the NBN on reasonable terms and conditions, and to ensure the smooth migration to the network. During the year, we conducted a range of activities to promote competition, encourage transparency and safeguard consumers in the migration to the NBN. Further information about our work in promoting competition through NBN regulation is outlined in chapters 7 and 8.

Migration Plan

We accepted Telstra's revised migration plan, which reflects the revised commercial agreements between Telstra and NBN Co and the move to the multi-technology NBN. To promote a more positive consumer migration experience and address service continuity concerns, we also consented to Telstra implementing a number of interim disconnection arrangements in certain circumstances.

Regulation of NBN Co

In August 2015, we granted authorisation to specific provisions within revised agreements between NBN Co and Optus. Further, we decided not to oppose NBN Co's proposed acquisition of Optus' hybrid fibre coaxial (HFC) network.

We also issued our first determination on NBN Co's Long Term Revenue Constraint Methodology (LTRCM) and price compliance assessment for 2013-14 and we are currently assessing NBN Co's 2014-15 LTRCM proposal.

Transparency measures

We published our report to Government on a proposed NBN carrier licence condition designed to address any real or perceived competitive advantage Telstra may gain from information it obtains from NBN Co in relation to the multi-technology NBN. We also introduced a new NBN record keeping rule (RKR) and we consulted on a proposed NBN wholesale market indicators report, which will bolster NBN wholesale market information.

Regulating access to telecommunications network infrastructure

Access regulation remains a central component of promoting competition in the sector. A key focus over the past year has been setting access prices and terms and conditions of access to all regulated services. These decisions are important to promote competition in wholesale and downstream retail markets and encourage investment in infrastructure. Further information about these decisions is outlined in chapter 6.

Mobile terminating access service

In August 2015, we made a Final Access Determination (FAD) setting the wholesale price of terminating calls on an Australian mobile network at 1.7 cents per minute, reduced from 3.6 cents per minute. This was mostly due to increased mobile data usage and improvements in mobile network technology. For the first time we also decided to set the price that MNOs charge to receive short messaging service (SMS) messages at 0.03 cents per SMS.

Fixed line services

In October 2015, we made FADs for the seven declared fixed line services, which require a one-off uniform fall of 9.4 per cent in access prices from current levels for all seven services. In November 2015, Telstra applied to the Federal Court for judicial review of our decision. In December 2015, Optus and TPG successfully applied to the Federal Court to be made parties to these proceedings and were joined as respondents. This matter is ongoing.

Other services

We continued the FAD inquiry for the domestic transmission capacity service (DTCS). In September 2015, we made a draft DTCS decision, which set out the ACCC's approach to pricing the DTCS, its regression analysis and the preferred pricing model used to determine the primary price terms for the DTCS. Further, in December 2015 we released a further consultation paper seeking feedback on a range of data and modelling issues in response to submissions to the DTCS FAD draft decision.

In response to a Vertigan Review recommendation, we commenced a declaration inquiry into regulating the superfast broadband access service (SBAS). We also commenced a FAD inquiry for the local bitstream access service (LBAS).

We expect to finalise these inquiries in 2016.

2 Competition in the telecommunications industry

Key points

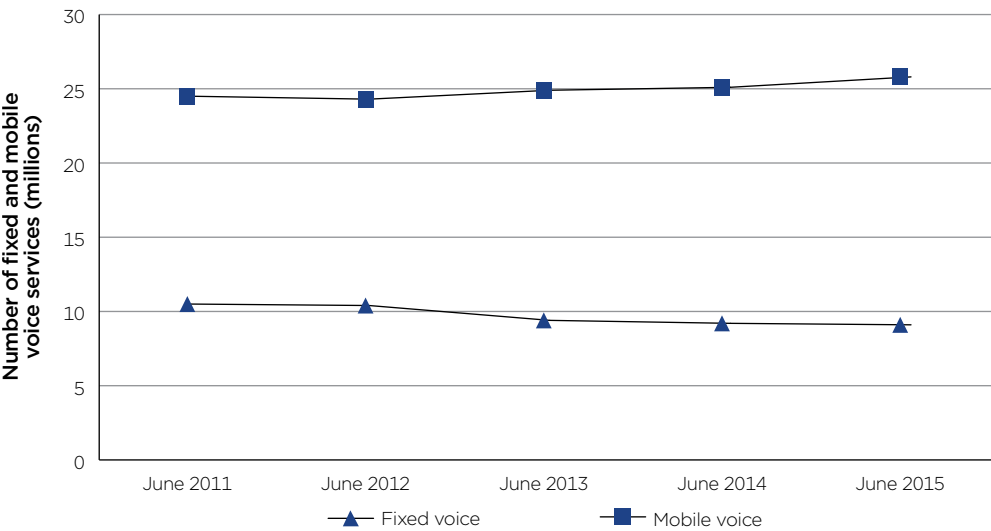
- Mobile handsets are the most popular device for making voice calls and the most commonly used device to access the internet.
- The volume of data downloaded by Australians continued to increase, while the volume of voice call minutes fell with consumers adopting new ways of communicating such as over the top ‘app’ services.
- There has been a rapid uptake of subscription video on demand services.

2.1 Consumer trends

2.1.1 Mobiles are the preferred device for voice services

As at June 2015, the number of mobile phone voice services in operation (SIOs) was almost three times that of fixed line voice services.¹⁵ This is the result of a continuing trend that has seen the number of mobile voice services grow and fixed voice services fall, since 2004.¹⁶

Figure 2.1 Comparison of mobile and fixed line voice services in operation



Source: ACMA Communication Reports and Australian Bureau of Statistics, *Internet Activity Australia (8153.0)*.

Figure 2.1 shows that the number of consumers switching off their landline telephones continues to grow, but at a slower pace than in previous years. The Australian Communications and Media Authority (ACMA) estimates that the number of adult Australians with a mobile phone and no landline telephone at home increased by 10 per cent

¹⁵ ACMA, *Communications Report 2014–15*, pp. 14, 18; Australian Bureau of Statistics (ABS), *Internet Activity Australia (8153.0)*, 2015, viewed 8 October 2015, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0/>.

¹⁶ ACCC, *Telecommunications competitive safeguards for 2008–2009*, 2010.

in the 2014–15 year, reaching 29 per cent of adult population.¹⁷ However, this increase in mobile only consumers is smaller than in the previous four years, which saw the number of adult Australians without landline telephones grow by an average of 25 per cent each year.¹⁸

While the number of mobile only consumers continues to grow, over 70 per cent of the adult population still reside in a premises with a fixed line telephone service. This shows that many consumers still use both mobile and landline phones, and may see them as complementary technologies. Further, the growth of mobile only voice users appears to be tapering off, which may suggest that we are beginning to reach the limit of the number of consumers who will abandon their fixed line voice service.

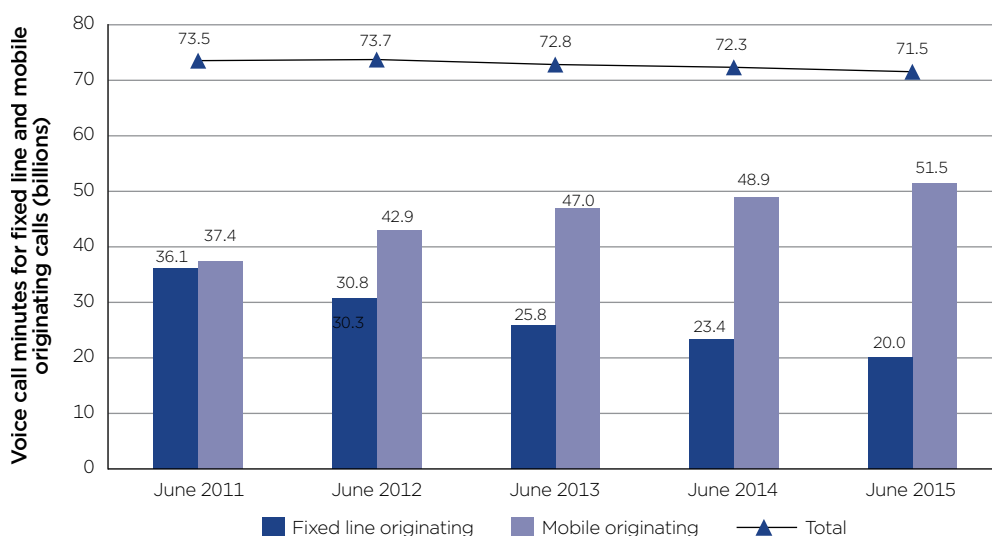
There appears to be a clear correlation between age and fixed phone use. ACMA research shows that mobile only voice consumers tend to be between 25–34 years of age, or people living in a shared household. However, those over 65 are least likely to only use mobiles to make voice calls.

Interestingly, whether the consumer lives in capital cities or regional areas do not appear to have a significant impact on whether the consumer only uses a mobile phone for voice services. Twenty eight per cent of those living in capital cities are mobile-only phone users for voice services, compared to 30 per cent in regional areas.¹⁹

Consumers making fewer voice calls, but mobile minutes still grow

In 2014–15, the total number of voice call minutes made on mobile continued to increase, while fixed voice minutes fell. These voice call trends are, at least in part a result of the growth in mobile voice services and fall in fixed voice services in operation.

Figure 2.2 Comparison of mobile and landline telephone usage



Source: ACCC Division 12 RKRs.

¹⁷ ACMA, *Communications Report 2014–15*, pp. 14–15.

¹⁸ ACMA, *Communications Reports 2010–11 to 2013–14*.

¹⁹ ACMA Research Snapshots, *Australians get mobile*, 2015, <http://www.acma.gov.au/theACMA/engage-blogs/engage-blogs/Research-snapshots/Australians-get-mobile>.

Figure 2.2 shows consumers spent less time in total making voice calls.²⁰ This suggests that consumers are increasingly using other services to satisfy their communications needs, such as email, text messaging and over-the-top (OTT) services, such as Skype, as discussed in section 2.1.4. According to the ACMA, in the six months to May 2015, 64 per cent of adult population used five or more separate communications services.²¹

2.1.2 Consumers access the internet in many ways

Consumers continued to use a number of different technologies to accessed internet services in 2014–15. Of these technologies, mobile handsets are the most common way for consumers to access the internet. However, mobile wireless broadband, DSL and fibre were also popular, with 12.76 million non-mobile handset subscriptions in Australia in June 2015.²²

Mobile phones the most common way to use data

In 2014–15, mobile handsets were the most commonly used technology to access the internet. However, DSL and fibre connections are also common.

As at June 2015, there were 21 million mobile handset subscribers who access the internet via their handset, which is around 81 per cent of all mobile phone connections.²³ This is more than 50 per cent higher than the total number of internet subscription services via other technologies, such as mobile wireless broadband and DSL.²⁴

The number of mobile handsets used to access the internet is also still increasing, but at a slower rate than previously. In 2013–14 there was an increase of 5 per cent in the number of mobile handsets with internet access, and an increase of about 2 per cent in 2014–15. This slight increase in the number of mobile handset services in operation is consistent with the small growth in the number of mobile services in operation, as well as with consumers continuing to upgrade their mobiles to smartphones. The ACMA estimated that as at May 2015, 74 per cent of adult Australians were using a smartphone, up from 67 per cent in May 2014.²⁵

Figure 2.3 shows that outside of mobile handsets, mobile wireless²⁶ services are the most common internet access technology, making up 47 per cent of total internet subscriptions, followed by DSL with 40 per cent. Subscription numbers for both these technologies grew only marginally in 2014–15.²⁷

20 This year, figure 2.2 was calculated using Division 12 record keeping rule (RKR) data, as opposed to Regulatory Accounting Framework (RAF) RKR data. The Division 12 RKR provides the same data as the RAF RKR, however includes providers other than Telstra, Optus and VHA. Using Division 12 RKR data allows us to more accurately represent the changes in mobile and fixed line originating call minutes. We have adjusted the figures for all years using Division 12 RKR data, to allow for a comparison of the data over time.

21 ACMA, *Communications Report 2014–15*, pp. 50–52.

22 ABS, *Internet Activity Australia (8153.0)*, 2015, viewed 8 October 2015, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0/>. The figures presented in this section all exclude mobile handset subscriptions.

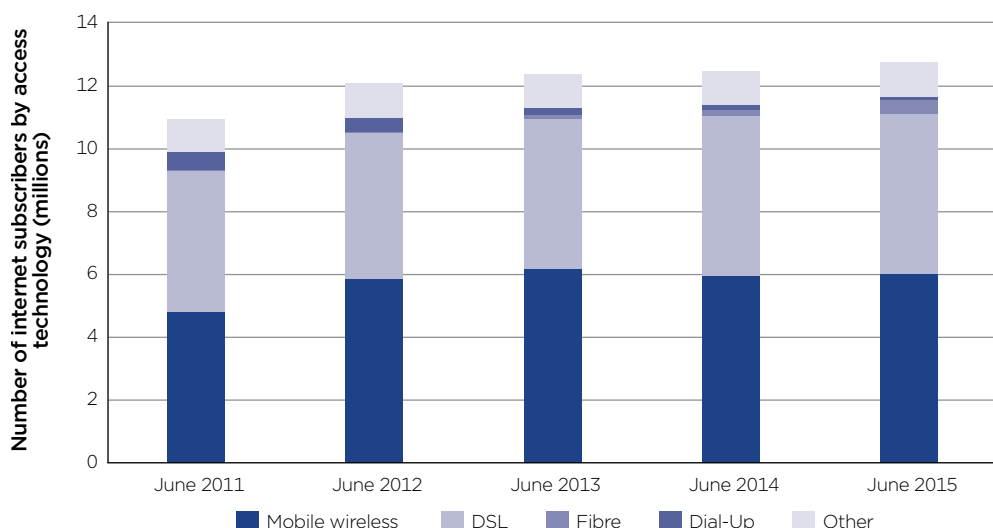
23 ABS, *Internet Activity Australia (8153.0)*, 2015, viewed 8 October 2015, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0/>.

24 However, as other access technologies (especially fixed line technologies) are typically shared in a household, i.e. more than one consumer could be using one subscription, this is not necessarily evidence that more consumers are using mobiles to access the internet than any other technologies.

25 ACMA, *Communications Report 2014–15*, pp. 22–23. Note that the ACMA has revised the figure for May 2014 published previously.

26 Mobile wireless services refer to services provided via data-card, dongle, USB modem or tablet SIM card. Unless otherwise specified, references to wireless services exclude data services provided via mobile handsets such as smart phones.

27 ABS, *Internet Activity Australia (8153.0)*, 2015, viewed 8 October 2015, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0/>.

Figure 2.3 Internet subscribers by access technology

Source: Australian Bureau of Statistics, *Internet Activity Australia (8153.0)*, June 2015.

Note: The other category includes hybrid fibre-coaxial (HFC), satellite and fixed wireless services.

Fibre subscriptions continue strong growth while dial-ups are phased out

Fibre subscriptions more than doubled in 2014–15,²⁸ reflecting the take-up of NBN fibre services. The number of active NBN fibre internet connections increased 165 per cent in 2014–15. As at 30 June 2015, there were 399 854 premises connected to the NBN via fibre.²⁹ Despite the strong growth, fibre subscriptions still only account for 3 per cent of all internet connections.³⁰

On the other hand, dial-up connections almost halved during 2014–15. There were only 95 000 dial-up connections in Australia in June 2015.³¹ The phasing out of dial-up services will continue with some service providers announcing plans to cease dial-up services altogether.³²

2.1.3 Data downloads continue to rise across all technologies

Consumers continue to download increasing amounts of data via fixed line broadband and wireless broadband.³³ There was a 40 per cent increase in the volume of data downloaded via fixed line broadband and an 18 per cent increase in the volume of data downloaded over wireless broadband between June 2014 and June 2015.³⁴ The number of fixed line subscribers (asymmetric digital subscriber line (ADSL), cable and fibre) increased by

²⁸ ABS, *Internet Activity Australia (8153.0)*, 2015, viewed 8 October 2015, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0/>.

²⁹ ACMA, *Communications Report 2014–15*, pp. 25–26.

³⁰ ABS, *Internet Activity Australia (8153.0)*, 2015, viewed 8 October 2015, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0/>.

³¹ *ibid.*

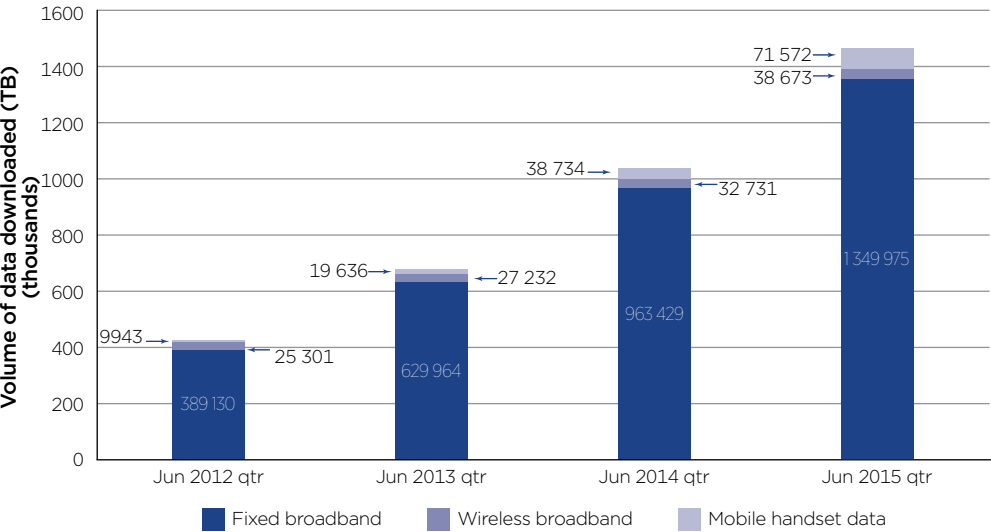
³² ACMA, *Communications Report 2014–15*, p. 20.

³³ Note that here wireless broadband services excludes mobile handset broadband services.

³⁴ ABS, *Internet Activity Australia (8153.0)*, 2015, viewed 8 October 2015, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0/>.

5 per cent in this period, which would account for some of the growth in data downloaded using fixed line services.³⁵ However, the increase is also a result of existing users consuming more data.

Figure 2.4 Volume of data downloaded by access connection



Source: Australian Bureau of Statistics, *Internet Activity Australia (8153.0)*, June 2015.

Figure 2.4 also shows that the volume of data downloaded via mobile handsets increased by 85 per cent between June 2014 and June 2015.³⁶ This is in line with increasing investment in, and expansion of 4G mobile networks, which now cover 94 per cent of the population.³⁷ 4G mobile services allow mobile users to access higher data rates, and thereby makes accessing data services on a handset a better experience. Further, the increase in data usage may also reflect more generous data inclusions in mobile plans (see section 2.3 for further discussion).

2.1.4 Growth of over-the-top (OTT) services

Rapid growth of video on demand services

Consistent with overseas trends, Australians are increasingly viewing audio-visual content streaming services delivered over the internet. Audio-visual content streaming services include SVOD services such as Netflix, Presto and Stan as well as content delivered by Internet Protocol (IP), such as Foxtel Play, Foxtel Go and ABC iView which allows consumers to catch up on free-to-air TV programs.

During the last year SVOD services entered the Australian market and saw rapid consumer take-up in a relatively short period. In June 2015, 11 per cent of Australian adults had watched Netflix in a given week.³⁸ In the six months to June 2015, 17 per cent of Australian

³⁵ *ibid.*

³⁶ ABS, *Internet Activity Australia (8153.0)*, 2015, viewed 8 October 2015, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0/>.

³⁷ ACMA, *Communications Report 2014-15*, p. 13.

³⁸ *ibid.*, p. 65.

adults used SVOD services.³⁹ NBN Co estimates that 100 million homes subscribe to the video streaming services globally, and anticipates the market will double in the next five years.⁴⁰

The data-intensive nature of this content is likely to lead to a significant increase in the already robust growth in fixed broadband data consumption. For example as figure 2.4 illustrates, data downloaded over fixed-line broadband increased by 40 per cent between June 2014 and 2015.⁴¹ Further, the rapid take up of SVOD services resulted in a rise in NBN data traffic. According to Ovum, in March 2015 the average monthly download usage on the NBN was 73 gigabytes (GB). This increased by 51 per cent to 110 GB by September 2015.⁴²

The rapid take-up of SVOD services appears to have caught the industry by surprise. The TIO reported that with the launch of SVOD services, it received nearly 250 consumer complaints about SVOD services including in bundled products between March 2015 and 30 June 2015. Complaints related to delays in receiving equipment to access the SVOD services, delays in receiving sign up information to enable promotional subscriptions and internet slowdowns. Further, Optus recently acknowledged that an increase in new complaints to the TIO for 2014–15 was due to a number of factors, including a significant rise in mobile data usage on its 4G network.⁴³

We anticipate there will be an increase in investment in fixed and mobile networks in order to meet consumer demand for SVOD services. Recent investments by fixed and mobile operators to meet consumer demand are further outlined in sections 2.2 and 2.3. Vodafone has reported that data services most used by consumers on their networks (globally) are video streaming and internet browsing. Vodafone Hutchison Australia (VHA) has begun such investment, entering an agreement with TPG for TPG to supply dark fibre backhaul services to around 3000 VHA base stations.⁴⁴ VHA claims this will allow it to supply higher performing mobile broadband services.

The industry is also responding to consumer demand by offering a variety of bundled services. As outlined in sections 2.2 and 2.3, competition on non-price factors, such as increased data allowances and subscriptions to different media and entertainment services are the main source of differentiation for both fixed line and mobile services.

Popularity of other over-the-top services continues to rise

In addition to using OTT streaming services, consumers continue to show strong preferences for other OTT services. The use of voice over internet protocol (VoIP) services, for example, has been growing for many years.⁴⁵ The popularity of OTT services can be seen in the continued used of VoIP services, which was accessed by 4.9 million adult Australians as at

39 id., *Research Snapshot: Subscription video on demand in Australia 2015*, 2015, viewed 17 November 2015, <http://www.acma.gov.au/theACMA/engage-blogs/engage-blogs/Research-snapshots/Subscription-video-on-demand>.

40 NBN Co, *Annual report 2014–15*, 2015, p. 11.

41 ABS, *Internet Activity Australia (8153.0)*, 2015, viewed 8 October 2015, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0/>.

42 Ovum, *Australian OTT Video—Creating a New TV Market*, 2015. This report was commissioned by NBN Co.

43 Telecommunications Industry Ombudsman, TIO complaints in context lowest in 18 months, media release, 13 November 2015.

44 Vodafone and TPG, Vodafone and TPG announce \$1 billion deals, media release, 30 September 2015.

45 OTT VoIP refers to voice services provided on top of existing internet services the consumer buys from a service provider. Popular OTT VoIP services include Skype and Viber. OTT VoIP services are distinguished from managed VoIP services which are usually provided by the consumer's existing internet service provider and can be accessed using a fixed line telephone at home.

June 2015.⁴⁶ However, the growth in the number of OTT VoIP users overall appears to have slowed with the proportion of the adult population using OTT VoIP remaining at 24 per cent between June 2014 and June 2015.⁴⁷

The use of social networking communications services, such as Facebook and Twitter, and instant messaging services continued to grow. The ACMA reports that in the six months to May 2015, 65 per cent of adults had used social networking communications services and 42 per cent of adult Australians had used instant messaging. The use of these services both increased by 4 percentage points between May 2014 and May 2015.⁴⁸

Further, in 2015 tablets were more popular than mobile phones to access OTT VoIP services. The ACMA reports that the increased use of tablets to make VoIP calls may be due to take-up of video calling and the accessibility of applications such as Skype, Viber and FaceTime.⁴⁹

2.1.5 Mobile and fixed line connection remain complementary

As at December 2014, 12 per cent of adult Australians used mobile devices for voice, messaging and internet access, and did not have a fixed line telephone or fixed internet in their homes.⁵⁰ Nearly 29 per cent of adult Australians were mobile-only phone users, and 21 per cent are mobile-only internet users.⁵¹ These trends suggest that the majority of consumers are using a mobile broadband service as a complement to a fixed line broadband service, rather than as a direct substitute.⁵²

This is further demonstrated by the levels of data downloaded by mobile devices compared to fixed line connections. Consumers appear to strongly prefer to use fixed broadband networks when downloading bandwidth intensive content such as video. Data downloaded by fixed line broadband accounted for 97 per cent of total internet downloads in the three months to June 2015.⁵³ Figure 2.4 above shows the volume of data downloaded by fixed line broadband compared to wireless broadband and mobile handsets.

2.2 Competition in fixed line markets

Key points

- The rollout of the NBN has gathered pace with NBN Co reaching over one million premises passed.
- There has been further industry consolidation with TPG acquiring iiNet. This merger makes TPG the second largest provider of fixed line services after Telstra.
- Competition in the market for fixed internet services, the availability of new video streaming services, and access to the NBN, means providers are concentrating on data offers, increasing data allowances and offering more unlimited data plans.

⁴⁶ ACMA, *Communications Report 2014–15*, p. 4.

⁴⁷ *ibid*, p. 16.

⁴⁸ ACMA, *Communications Report 2014–15*, pp. 50–51.

⁴⁹ *ibid*.

⁵⁰ ACMA, *Research snapshot: Australians get mobile, 2015*, viewed 31 August 2015, <http://www.acma.gov.au/theACMA/engage-blogs/engage-blogs/Research-snapshots/Australians-get-mobile>.

⁵¹ *ibid*.

⁵² ACCC, *Superfast broadband access service declaration inquiry*, draft decision, 2015, p. 19.

⁵³ ABS, *Internet Activity Australia (8153.0)*, 2015, viewed 8 October 2015, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0/>.

2.2.1 Fixed line infrastructure developments

NBN deployment and take up

The deployment of the NBN continues to be the most significant infrastructure development in the fixed line market. As at 30 June 2015 NBN Co had passed or covered close to 1.2 million premises compared to around 600 000 as at 30 June 2014. This includes premises passed by fibre in built-up areas (brownfields) and new developments (greenfields), premises connected by fibre-to-the-node (FTTN) and premises covered by the NBN fixed wireless network. Of these, about 38 per cent of the premises passed had an active NBN service, up from around 28 per cent in June 2014. In addition to the fixed line and wireless NBN services, close to 40 000 premises had an active NBN satellite service as at June 2015.

Overall, the total number of premises with an active NBN service at June 2015 was 485 615, an increase of 130 per cent from June 2014.

Table 2.1 NBN rollout

Service type	Description	June 2012	June 2013	June 2014	June 2015
Fibre	Premises passed	33 023	207 543	492 262	896 994
	Premises activated	3 867	33 586	151 127	399 854
	Premises passed but not yet serviceable ⁵⁴	–	55 724	99 852	60 314
Wireless	Premises covered	8 885	27 256	112 208	268 397
	Premises activated	91	1 874	16 553	47 473
Satellite	Premises activated	9 578	34 640	42 948	38 288
Fibre & wireless	Premises passed/covered	41 908	234 799	604 470	1 165 391
Total (all types)	Premises activated	13 536	70 100	210 628	485 615

Source: NBN Co National Broadband Network Rollout Information

Launch of new NBN services

In April 2014, the Government issued an updated Statement of Expectations to NBN Co, which provided that NBN Co should rollout the NBN using a multi-technology model. As a result, during 2014–15 NBN Co launched new FTTB and FTTN services.

NBN Co launched its commercial FTTB service on 31 March 2015. FTTB will be used to supply fast broadband services to people in multi-dwelling units (such as apartment complexes and office blocks) by connecting fibre-optic cable to existing in-building wiring. More than one million homes and businesses across Australia are earmarked to be connected to the NBN using FTTB.⁵⁵

On 21 September 2015, NBN Co launched its commercial FTTN service. FTTN services will supply fast broadband via fibre-optic cable that runs to a node/cabinet in the street and then via existing copper lines to individual premises using VDSL technology. More than 1.6 million homes and businesses are expected to be connected to the NBN via FTTN technology by mid-2018.⁵⁶

⁵⁴ These premises have been passed by NBN fibre but cannot yet acquire an NBN service.

⁵⁵ NBN Co, NBN Co launches Fibre to the Building technology, media release, 31 March 2015.

⁵⁶ NBN Co, NBN launches Fibre to the Node technology, media release, 21 September 2015.

NBN Co also launched its first of two satellites into orbit on 1 October 2015, which will be used to provide satellite broadband services to regional and remote parts of Australia. Following technical testing, commercial services are anticipated to be launched in mid-2016. The satellite will enable around 200 000 Australian homes and businesses to access fast broadband services. NBN Co's second satellite is expected to be launched in the second half of 2016. Once both satellites are operational, around 400 000 Australian homes and businesses will be able to access NBN services using the long term satellite solution.⁵⁷

Investment in DSL

During the year there was some investment in fixed networks to increase capacity and deal with increasing data demand. Since July 2014 Telstra has increased the capacity of a large proportion of the network, establishing around 90 new DSL sites, and upgrading to DSL ports at around 3000 sites. Further, by the end of the first quarter in 2016, Telstra is set to complete backhaul capacity upgrades to around 3000 DSL sites.⁵⁸

2.2.2 Fixed line market shares remain stable for largest players

Smaller players lose market share in the fixed voice market

Figure 2.5 shows operators' market shares of total retail fixed voice services, based on the number of subscribers.⁵⁹ It shows there has been some gain by larger service providers at the expense of smaller operators. As at June 2015, Telstra remained the largest provider of retail fixed voice services, increasing its market share to 64 per cent from 61 per cent in June 2014. iiNet and TPG also slightly increased their market shares from 7 per cent in June 2014 to 8 per cent in June 2015, from 5 to 6 per cent respectively.⁶⁰ Further, M2 Group's market share also increased slightly from 5 to 6 per cent. Optus' market share remained unchanged at 12 per cent.⁶¹

While none of the five largest providers made major market share gains over the period, the slight increases for all but Optus has seen a noticeable decline in the market share of smaller providers. The market share of the smaller operators, represented in the other category, fell from 10 per cent in June 2014 to 4 per cent in June 2015. This loss of market share has occurred in the context of a substantial fall in the market for retail fixed voice services from 10 090 000 to 9 080 000, a 10 per cent contraction. This reflects an accelerated trend away from fixed line voice to substitutes such as mobile services with the contraction disproportionately impacting smaller providers. There are several hypotheses for this change. It would appear that customers of smaller providers place less utility on fixed line services than customers of larger providers. It may also be caused by larger providers offering more attractive bundling offers or lower prices to attract or retain customers.

⁵⁷ NBN Co, Lift-off for first nbn satellite, media release, 1 October 2015.

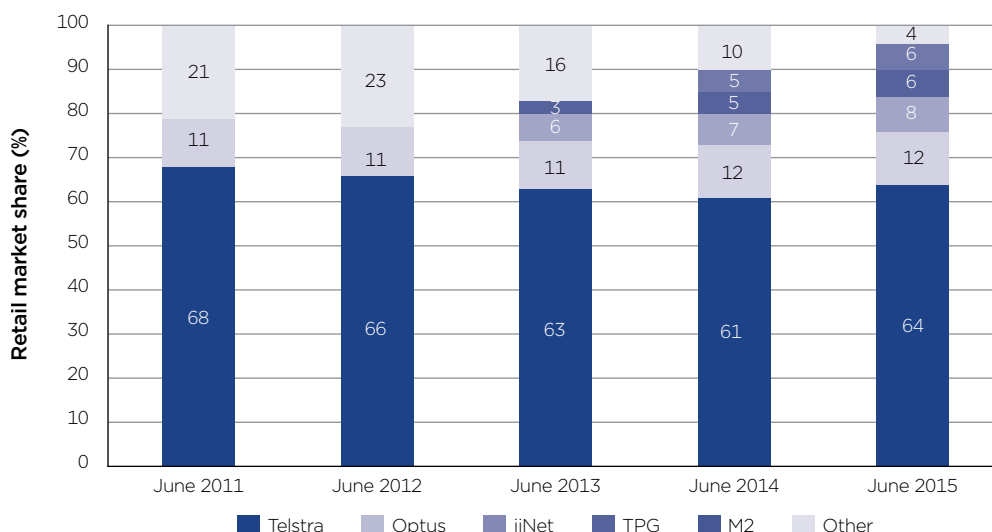
⁵⁸ Telstra, ADSL Reports and Plans, <http://www.telstrawholesale.com.au/products/broadband/adsl/adsl-reports-plans/index.htm>.

⁵⁹ Fixed voice services (or landline voice services) are those provided over a dedicated access line on a fixed network, plus the provision of various calling functions. These include line rental, local calls, national long-distance calls, international calls and calls from fixed line phones to mobiles. They also include figures for VoIP services that are provided in a manner similar to traditional fixed voice services (i.e. by supplying a handset and geographic phone number).

⁶⁰ iiNet and TPG are listed separately as they didn't merge until after the 2014-15 financial year. The market shares for these companies will be combined in our 2015-16 Report.

⁶¹ This is the first year the market share of M2 has been included in the report. M2 voluntarily provided data as it is not required to do so under the Division 12 RKR.

Figure 2.5 Retail market share for fixed voice services



Source: Division 12 RKR data for all named carriers except M2, voluntary data provided by M2 and ACMA *Communications Report 2014–15* for the 'other category'.

Notes: Market share calculations are based on the number of subscribers, and include figures for VoIP services that are provided in a manner similar to traditional fixed voice services (i.e. by supplying a handset and geographic phone number).

Totals may not add up to 100 per cent due to rounding.

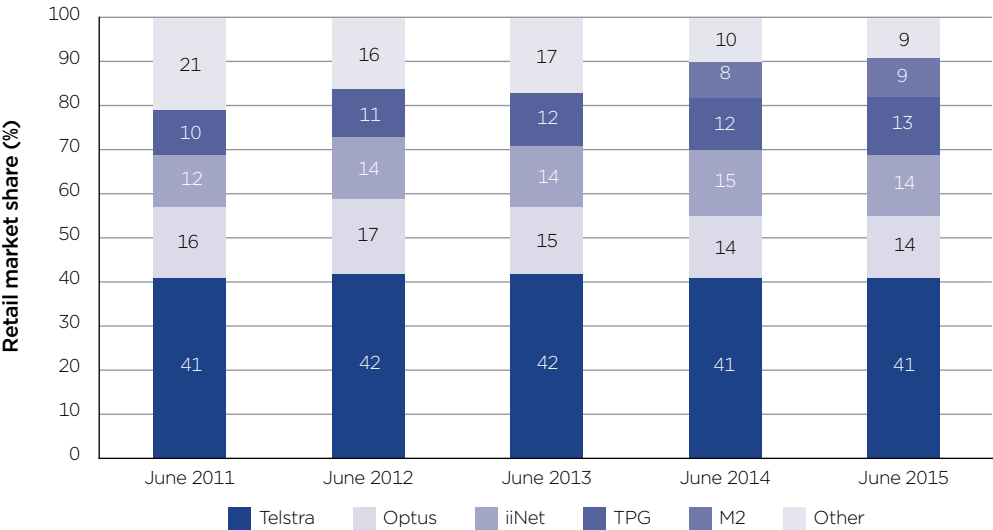
Fixed broadband service market stable

Figure 2.6 shows as at June 2015, Telstra, Optus, iiNet and TPG supplied services to approximately 82 per cent of retail fixed broadband subscribers.⁶² The market share of each of the four providers has remained stable between June 2014 and June 2015, with shifts up or down of no more than 1 per cent.

Telstra retained the greatest proportion of subscribers, with a market share of 41 per cent, followed by Optus, iiNet and TPG who hold similar shares of between 13 and 14 per cent each. The fifth largest provider, M2 also only saw a small change in its market share of one per cent during the year. The smaller providers represented in the other category, saw their share fall slightly from 10 to 9 per cent between June 2014 and June 2015.

⁶² This includes services offered using both DSL and HFC technologies. As noted above iiNet and TPG are reported separately as they did not merge until August 2015.

Figure 2.6 Retail market share for fixed broadband services



Source: ACCC Division 12 RKR, voluntary data provided by M2, and Australian Bureau of Statistics, *Internet Activity Australia (8153.0)*.

2.2.3 Price competition is subdued

The ACCC reports on changes in retail prices for telecommunications service in its report *Changes in prices paid for telecommunication services in Australia 2014-15*. The report shows that while both fixed voice and internet charges declined during 2014-15, there were also some price increases for the first time in a number of years.⁶³

In 2014-15, average real prices paid for fixed voice services declined by 1.6 per cent continuing the long term decline in prices paid for this service. Since 1997-98 real prices for this service have fallen by 50.7 per cent. Prices also fell for retail basic access prices (i.e. line rental) by 2.4 per cent and for fixed-to-mobile services by 5 per cent also continuing a long term fall in the price paid for these services.

However, some fixed voice charges increased over the period for the first time in a number of years. Contrary to historical trends, prices for international calls marginally increased by 0.5 per cent in 2014-15. This is in contrast to the previous period where prices for these calls fell by 24.7 per cent. Similarly, against the historical trend, prices increased for local calls by 3.4 per cent, having fallen every year for the previous nine years. Further, long distance call prices rose substantially by 6.7 per cent, after falling every year since 2005-06. This has resulted from the combination of steadily increasing nominal prices and a sudden fall in inflation in 2014-15. It also reflects a sharp decline in the quantity of calls and call minutes relative to the corresponding revenue—this has a substantial effect on observed price movements estimated using the ACCC’s *yield method*.⁶⁴

In 2014-15 the average real price paid for all types of internet services fell by 1.3 per cent. This continues a downward trend that has seen such prices fall every year since 2007-08. During the year, prices for DSL services fell by 1.8 per cent and for cable services by 3.4 per cent. However, these price movements varied substantially across different plans and carriers.

63 ACCC, *Price changes for telecommunications services in Australia 2014-15*, 2015, p. 73.

64 ACCC, *Price changes for telecommunications services in Australia 2014-15*, 2015, p. 76.

Further, prices for retail services provided over the NBN fell substantially, decreasing by 3.5 per cent on average. The majority of providers included similar plans both at the beginning and the end of the reporting period, with little or no nominal change in price (hence, showing a real price decrease). Among other plans, price movements were far from uniform across providers.

As the NBN's addressable market grows, retail service providers are offering retail NBN plans on a national basis. The ACCC has observed that the NBN broadband and voice bundles deliver better value for consumers than the comparative DSL products. Retail service providers are offering NBN plans with higher speed tiers than DSL services. Further, NBN download speeds are generally between 12 and 100 megabits per second (Mbps), and have higher maximum download speeds.

Data inclusions are a key point of competition in the fixed broadband market

Aside from headline price competition, data inclusions in broadband plans are a key point of competition in the fixed broadband market. Over the past year, consistent with a given price point, increasing numbers of plans are also available at lower prices with 'unlimited' downloads. Broadband plans with no minimum terms are becoming more common and data inclusions in plans are also being increased.

In recent years providers have increasingly bundled entertainment services with fixed broadband services. The bundled price of fixed broadband and content service is usually cheaper than the total price of acquiring each component of the bundle separately. Telstra and Optus have traditionally offered a bundled package that includes satellite or cable Foxtel subscription television. However, internet service providers are increasingly bundling internet protocol television (IPTV) services, which are transmitted over the internet, largely from Foxtel and Fetch TV.

As discussed above, Australian consumers have rapidly adopted SVOD services since their introduction in 2015. These products are being offered by the major service providers with entertainment bundles often including unmetered content or free subscriptions. For example in March 2015 iiNet announced that fixed line broadband customers will have access to Netflix content quota-free.⁶⁵ In late 2015, Telstra released its new 'Telstra TV' product which offers unmetered applications such as Presto and BigPond Movies.⁶⁶

Broadband speeds become a product feature

A key feature of the NBN is the ability to offer consumers different download speeds. Unlike existing broadband plans, retail service providers are able to offer NBN plans with different speeds such as 12/1 Mbps, 25/5 Mbps, 50/20 Mbps and 100/40 Mbps.⁶⁷ NBN has reported that around 20 per cent of consumers on NBN fibre are selecting the premium speeds of 50/20 or 100/40 Mbps.⁶⁸

Different speeds for NBN plans will help create another level of competition in the retail broadband market, which previously competed primarily on data inclusions and bundling options. Increased competition over differentiated products will likely drive greater expansion of the market with new premium products being offered by a number of retail service providers. This differentiation of NBN plans on both data inclusion and speed will benefit consumers by affording them more flexibility to choose a plan that best suits their needs and budget.

65 iiNet, iiNet to flick on quota-free Netflix, media release, 3 March 2015.

66 Telstra, Understand Telstra TV data use, 2016, viewed 5 February 2016. <https://www.telstra.com.au/support/category/entertainment/telstra-tv/understand-telstra-tv-data-use>.

67 For example, 12/1 Mbps means 12 Mbps download and 1 Mbps upload.

68 NBN Co, First Quarter Results—FY2016, 2015, viewed 5 February 2016. <http://www.nbnco.com.au/content/dam/nbnco2/documents/q1-fy16-financial-results.pdf>.

For example, in December 2015, consumers could expect to pay from \$49.90 for 50 GB of data and \$59.90 for 200 GB of data for an NBN plan with the lowest speed of 12/1 Mbps. For higher speeds, consumers could expect to pay between \$5 to \$35 extra, depending on the retail service provider and chosen plan. We note that the NBN plan prices vary depending on the bundle deal on offer, and across retail service providers.

As noted in chapter one, with greater choice of products, and an expectation that they will receive a superior service, it will become particularly important that retail service providers make clear, accurate representations about speeds and data inclusions offered under different plans.

2.3 Competition in mobile and wireless markets

Key points

- There is strong competition among operators in the market for retail mobile handset services.
- Unlimited voice and SMS are becoming standard features in mobile plans, while data is often the main differentiator.
- Mobile plans are beginning to include new features like data sharing, data rollover and free subscriptions to media and streamed entertainment as price competition becomes more subdued.
- Mobile network operators (MNOs) are deploying superfast fourth generation mobile communications (4G) networks and have started trials of voice over long term evolution (VoLTE) services.
- MNOs' market shares remain stable for handset subscriptions, while wireless broadband continues to be dominated by Telstra.

2.3.1 Data becomes focus of mobile handset competition

Retail prices for mobiles handset services have increased marginally in 2014–15. The real prices for these services increased on average 0.2 per cent in the period, after a moderate decrease in the last four years.

The slight increase suggests that price-based competition has not been MNOs' main commercial strategy during the year. Rather, competition appears to have centred on increased data and subscriptions to media and entertainment services.

Competition leads to an increase in the amount of data included in plans

The predominance of data as a differentiating factor is reflected in increasing competition among MNOs to offer higher data inclusions in mobile handset plans. During the year the ACCC observed that average monthly data inclusions for pre-paid plans increased from 1.4 GB to 2 GB, with a top available allowance increasing from 5 GB to 7 GB. For post-paid plans, we observed an increase in the average monthly allowances from 2.1 GB to 3 GB, while the top available option in premium post-paid plans increased from 6 GB to 20 GB.

As well as increasing data allowances, MNOs have added a variety of new features to mobile handset plans to make offers more attractive. This includes data sharing, data rollover and free subscriptions to media and entertainment services.

Data sharing features allow members of a family, or any group of people with plans on the same bill, to flexibly share their monthly data. Some MNOs' have gone one step further offering 'share everything' plans, which allow users on the same bill to share data, voice and

SMS included in their plans. In February 2015, VHA launched a 'share everything' feature for its Red plans, allowing families or groups in the same bill to share calls, SMS and data allowances among up to 10 devices.

Data rollover allows users on pre-paid mobile handset plans to roll over any unused data to the following month to be used on top of their regular monthly allowance. For example, Telstra allows customers on its Freedom-Plus plans to rollover voice and data allowances when they recharge before the credit expires. The other MNOs offer similar rollover features in selected pre-paid plans.

To retain and attract customers, MNOs have partnered with content providers to offer free subscriptions to streaming services like Netflix or Spotify, or access to media as an inclusion in their plans for mobile handset services. Optus offers a free six-month subscription to Netflix to new customers on \$60 (or above) 24-month post-paid plans.

During the year, some MNOs introduced new features such as the inclusion of minutes for international calls, free calls to 1800 numbers and bonus data for new subscriptions or for customers recharging online. VHA offers users on post-paid mobile plans a number of free minutes per month for calls to selected international destinations.

Further, in August 2015, Optus launched WIFI Calling, a feature that allows smart phone users to make and receive calls and SMS from their Wi-Fi at home or from any Wi-Fi hotspot. This technology allows users to make calls from places where conventional mobile phone coverage is weak or not available.

Unlimited voice and SMS become common features

As the focus of competition for mobile handset services has shifted from price to new data inclusions, voice and SMS inclusions are no longer a source of differentiation for mobile handset services. Unlimited voice and SMS have become standard inclusions in most post-paid plans and many pre-paid plans, and data allowances have become the main price differentiator across plans. For example, in November 2015, Vodafone, Optus, Virgin Mobile and TPG offered post-paid unlimited voice call plans starting at around \$30 per month.⁶⁹

This trend likely reflects the increasing importance of data to consumers, which is also reflected by increasing data usage (as discussed in section 2.1.3). Further, the upcoming reduction in regulated termination rates for mobile voice services and SMS may also have been a factor in service providers improving their voice and SMS inclusions, as well as reducing monthly charges.⁷⁰

2.3.2 Mobile Network Operators continue to invest and develop 4G services

During the year, MNOs have continued to invest in their 4G networks to satisfy consumer demand for high speed data services. All operators also continued to expand their 4G coverage. Telstra's 4G network covers 94 per cent of the total Australian population, while Optus' 4G network reaches 86 per cent. VHA advertises that its 4G services cover 96 per cent of Australians living in metro areas, but does not advertise its 4G coverage outside of these metro centres.⁷¹

69 See, Optus, Sim Only Plans, 2015, viewed 24 November 2015, <http://www.optus.com.au/shop/mobilephones/SimBYO>; Vodafone, Sim Only Plans, 2015, viewed 24 November 2015, <http://www.vodafone.com.au/personal/sim-cards/sim-only>; TPG, Sim only mobile plans, 2015, viewed 24 November 2015, <http://www.tpg.com.au/mobile/plans>; and Virgin Mobile, Postpaid plans, 2015, viewed 24 November 2015, http://www.virginmobile.com.au/monthly-mobile-plans?campaign=affiliate_whistleout.

70 In August 2015, the ACCC released its final access determination for regulated mobile voice and SMS termination rates, which applies from 1 January 2016. This access determination decreased regulated voice termination rates, and set regulated SMS rates for the first time.

71 Telstra, *2015 Annual Report*, 2015, p. 12; Singtel, *Annual Report 2015*, 2015, p. 22; Hutchison, *ASX Half Year Information*, 2015, p. 5.

All MNOs also began upgrading their 4G networks to provide an advanced version of long term evolution (LTE) that improves network performance and significantly boosts data downloading speeds.⁷² The technology underlying 'LTE advanced', known as 'carrier aggregation', combines different 4G spectrum bands, which allows a compatible handset to deal with greater volumes of data simultaneously, increasing download speeds.⁷³ The three MNOs are deploying LTE Advanced services in capital cities, with further deployment to follow demand.

Further, MNOs invested in 4G spectrum during the year. The ACMA concluded the 1800 MHz spectrum auction in February 2016. Each MNO purchased spectrum in this auction, with Optus paying \$196 million, Telstra paying \$191 million, VHA paying \$68 million. TPG also purchased \$88 million of spectrum in the auction.

Voice over the LTE

Voice services are not currently offered on 4G networks by any MNO. However, both Telstra and VHA started trials of voice on 4G networks (Voice over the LTE or VoLTE) in the first quarter of 2015, and indicated an intention to commercially deploy VoLTE services later in the year.⁷⁴ VoLTE offers high definition voice, instant call set-up and full integration of voice and data, allowing users on compatible handsets to talk on their device and access 4G data at the same time. Telstra commenced the progressive deployment of VoLTE in September 2015.⁷⁵

2.3.3 Telstra maintains market share advantage for handset services

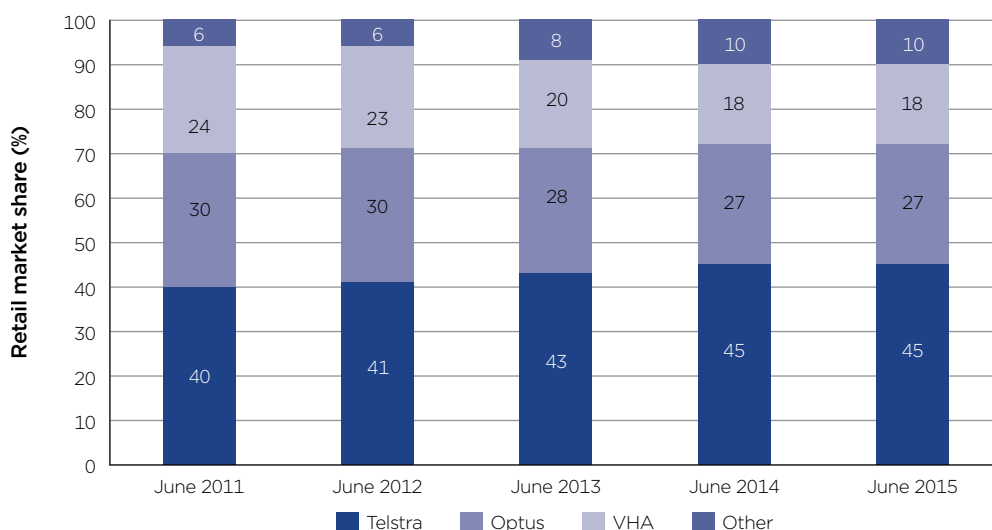
MNOs' participation in the market for mobile handset services remained unchanged in 2014–15, after four consecutive years in which Telstra had steadily gained market share.

⁷² This enhanced 4G has been branded as 4GX, 4GPlus or 4G+ by Telstra, Optus and VHA respectively.

⁷³ Both Telstra and Optus use 700 megahertz (MHz) and 2.6 gigahertz (GHz) spectrum acquired in the 2013 digital dividend auction to support carrier aggregation. VHA did not acquire spectrum in the auction, but has re-allocated existing spectrum holdings in the 850 MHz band to provide the service.

⁷⁴ Telstra, Telstra's network evolution to lay new world leading foundations, 2015, viewed 5 February 2016. <http://www.telstra.com.au/aboutus/media/media-releases/telstras-network-evolution-to-lay-new-world-leading-foundations.xml> Vodafone, Vodafone 4G calling: successful start to VoLTE trials, 2015, viewed 5 February 2016. http://www.vodafone.com.au/doc/Vodafone_VoLTE_Trial.pdf.

⁷⁵ Telstra, *The new generation of voice calling starts today*, media release, 16 September 2015.

Figure 2.7 Retail market share for mobile handset services

Source: ACCC Division 12 RKR and data from carriers.⁷⁶

Telstra has gained 5 per cent of the market since 2011, despite their products being priced at a premium. This suggests that many consumers perceive that Telstra's network is of superior quality, and offers greater coverage, and are therefore willing to pay more for their services.

VHA and Optus are investing in network upgrades and expanding 4G services to help address their declining market shares. This appears to be having some impact for VHA, which has started to reverse a five-year decline resulting from network performance issues at the end of 2010. The growth in the number of mobile services in operation means that while its market share has remained stable at 18 per cent, its retail customer base has reportedly grown 2.1 per cent in the year to June 2015.⁷⁷ Optus' market share has remained stable at 27 per cent after having lost 3 per cent of the market in the previous two years.

Mobile virtual network operators' (MVNOs) market share seems to have stabilised at 10 per cent of all subscriptions after a significant growth from 6 per cent in 2012. This may be the result of MNOs engaging in more aggressive competition by offering cheaper prices, greater inclusions and streamlined customer services. A more aggressive stance by MNOs may dilute MVNOs main advantages and erode their market share over time.

Wireless broadband services

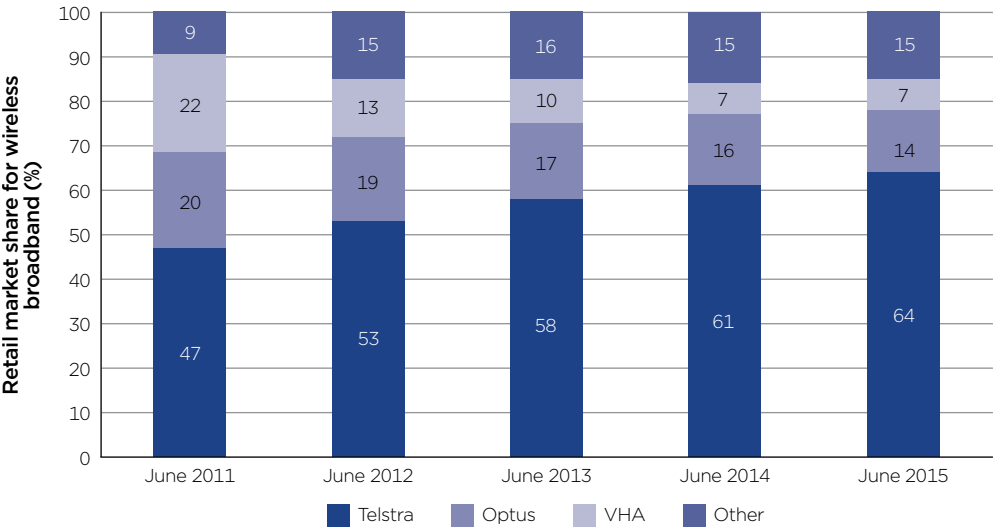
Telstra continued to increase its share in wireless broadband services, with an increase of 17 percentage points from 2011 to 64 per cent at June 2015.⁷⁸

⁷⁶ Optus' market share includes Virgin Mobile subscribers because Virgin Mobile is a wholly-owned subsidiary of Optus.

⁷⁷ Hutchison Telecommunications (Australia) Limited, *Half Year report*, 2015, p. 5.

⁷⁸ Wireless broadband services include USB modems, dongles and tablets and exclude handsets.

Figure 2.8 Retail market share for wireless broadband services



Source: ACCC Division 12 RKR and ABS, *Internet Activity Australia (8153.0)*.

Optus lost 2 per cent of the market in 2014-15, continuing a four year decline that has seen Optus' market share fall by 6 per cent of the market since June 2011. VHA seems to have stabilised its market share which has remained at 7 per cent for two years in a row. This follows a four year decrease in market share for VHA of 15 percentage points between 2010 and 2014. The market share of other wireless broadband providers remained stable over the last two years at 15 per cent, after gaining seven percentage points between 2011 and 2012.

Telstra's dominance in the wireless broadband market is likely due to its early deployment of 4G services and a general perception that Telstra offers a superior quality of service on its network. This perception is also likely to have had a greater effect in the wireless broadband market than the mobile handset market as some network performance characteristics, such as data rates, are more important for customers using wireless broadband services. However, the further deployment of VHA's and Optus' 4G networks may increase their ability to win customers, and increase their share of the wireless broadband market over time.

2.4 Telecommunications complaints

Key points

- The number of ACCC consumer complaints and enquiries about the telecommunications sector rose slightly in 2014-15.
- Telecommunications Industry Ombudsman (TIO) complaints fell by 10.5 per cent, to their lowest level in seven years.
- Complaints about mobile coverage and excess data charges fell significantly over the year. Conversely, NBN connection issues emerged as an area of concern.
- Competition and industry regulations, such as the Telecommunications Consumer Protection (TCP) Code, continued to have a positive effect for consumers. However, there is still room for improvement.

2.4.1 ACCC complaints

The ACCC receives complaints from consumers and businesses about a wide range of issues. While the ACCC does not get involved in resolving individual disputes, the information provided by complainants assists the ACCC to identify matters for further investigation. The ACCC's investigations regarding telecommunications matters are discussed further in chapters 3 and 4.

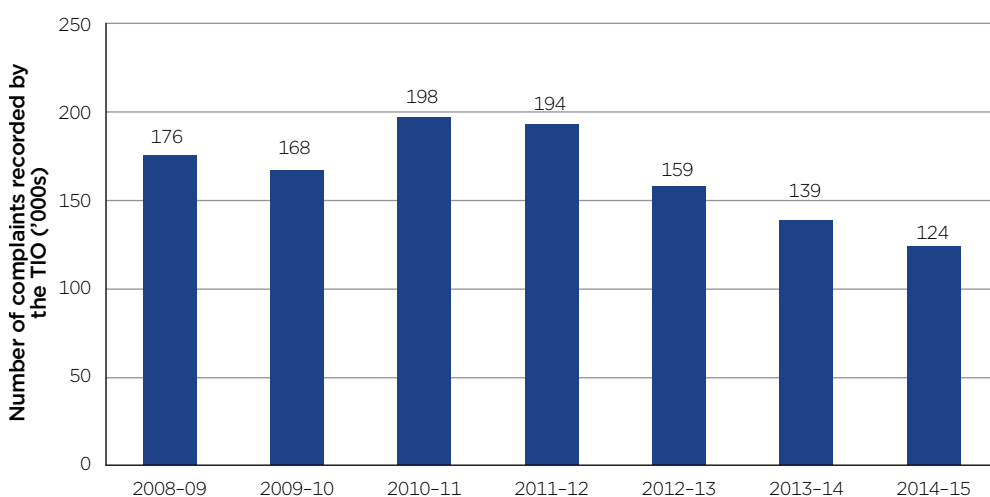
In 2014-15 the ACCC received 2537 complaints and enquiries about the telecommunications industry, a 3 per cent increase from the previous year. About 55 per cent of contacts raised concerns that were referred to a more appropriate organisation for resolution, particularly the TIO.

2.4.2 TIO complaints at seven-year low

The TIO provides a dispute resolution service for small business and residential customers who have a complaint about their telephone or internet service. Analysis of TIO complaint statistics can help the ACCC and other agencies to identify emerging issues and industry-wide trends.

Figure 2.9 shows the number of complaints received by the TIO over the past seven years. In 2014-15 the TIO received 124 417 complaints, 10.5 per cent fewer than the previous year.⁷⁹ This number of complaints is the lowest since 2007-08, when the iPhone was first introduced.

Figure 2.9 Number of complaints received by TIO



Source: TIO Annual Reports.

The fall in complaints was largely due to industry investments and the positive impact of the TCP Code.⁸⁰ Customer service complaints fell from 48.4 per cent of the total in 2013-14 to 42.1 per cent in 2014-15.⁸¹ This reflects a greater focus on customer satisfaction by operators and the positive impact of investment in 4G mobile networks.

⁷⁹ Telecommunications Industry Ombudsman, *TIO complaints: the year in review 2014-15*, 2015, p. 1.

⁸⁰ Telecommunications Consumer Protection Code C628:2012.

⁸¹ TIO, *TIO complaints: the year in review 2013-14*, 2014, p. 5; TIO, *Annual Report 2014-15*, p. 21.

Table 2.2 TIO complaints received by service type

Type of service	2010-11	2011-12	2012-13	2013-14	2014-15
Mobile	58%	64%	59%	53%	47%
Landline telephone	23%	19%	21%	25%	28%
Internet	19%	16%	20%	22%	26%
Total complaints	197 682	193 702	158 652	138 946	124 417

Source: TIO Annual Reports.

Mobile complaints continue to fall

Mobile services still accounted for the majority of telecommunications complaints in 2014-15 comprising approximately 46.6 per cent of the total complaints.⁸² However, complaints about mobile services decreased by 21.1 per cent from the previous year.⁸³

The reduction in mobile related complaints is largely driven by a fall in poor mobile coverage contract disputes, excess data charges and bill complaints. In particular, the TIO received 49.2 per cent fewer complaints about mobile coverage compared to the previous year.⁸⁴ This fall coincides with significant investment in mobile infrastructure concurrent with the deployment of 4G networks.

The reduction in excess data charges and bill complaints may reflect the fact that MNOs have recently instituted measures (such as fixed-amount international roaming and \$10 automatic data add-ons) to reduce excess charges and bill shock. Further, MNOs' offerings are increasingly including unlimited voice and SMS in many plans, which reduce billing complaints.

Emerging NBN issues

In 2014-15 the TIO received 6715 NBN-related new complaints, 68.6 per cent more than last year.⁸⁵ During the year, the main NBN complaints related to connection delays, faulty services and missed connection appointments.

In the last two financial years we received 438 complaints and enquiries about the NBN. These have been steadily increasing on a quarterly basis. The increase in NBN complaints reflects the accelerated rollout of the network. According to NBN Co, the network rollout grew considerably in 2014-15 with the number of connected premises increasing by 130.6 per cent, to almost half a million activated premises at 30 June 2015.⁸⁶ However, it is important to note that the increase in NBN related complaints is not increasing as fast as the rollout.

We are continuing to work with the TIO and the ACMA regarding issues for consumers about the NBN. We receive regular reports from the TIO on NBN-related matters, which in combination with the complaints received by the ACCC, enables us to identify emerging consumer issues. We also seek complaint information from the TIO on specific NBN consumer issues which came to our attention in order to assess the extent to which these issues affect consumers and if they are wide spread. In addition, we regularly attend meetings with the TIO and ACMA to discuss NBN-related consumer issues. We are also participating in a range of consultative committees and forums to improve consumer outcomes and ensure a smooth migration to the NBN.

⁸² TIO, Annual Report 2014-15, p. 21.

⁸³ *ibid.*, p. 22.

⁸⁴ *ibid.*

⁸⁵ *ibid.*, p. 21.

⁸⁶ Refer to table 2.1 on p. 15.

Continued need for improvement

The decline in complaints over the past few years is encouraging and shows that increased competition and the application of the TCP Code are delivering benefits for consumers. However, there is still more work to do to bring complaints down even further. The telecommunications industry has historically performed poorly compared to other industries. The TIO continues to receive more complaints than some other similar industry ombudsman. For example, in 2014–15 the Financial Ombudsman Service received 31 895 new disputes about financial service providers, significantly less complaints than the TIO.⁸⁷ While we welcome the reduction in complaints, it is important that industry participants continue to focus on measures that will improve the customer experience.

⁸⁷ Financial Ombudsman Service, *Annual Review 2014–15*, 2015, viewed 30 October 2015, <https://www.fos.org.au/publications/annual-review/>.

3 Anti-competitive conduct, merger and authorisation provisions

Key points

- In 2014–15 we undertook one investigation into alleged anti-competitive conduct. We also assessed several third line forcing notifications.
- In 2014–15 there were two authorisation applications and no applications for exemption orders. We also reviewed two significant proposed acquisitions in the telecommunications sector.
- We also updated the ACCC's Telecommunications Competition Notice Guidelines.

3.1 Overview

This chapter describes the ACCC's activities in dealing with anti-competitive conduct under both the telecommunications specific provisions (Part XIB) and general provisions (Part IV) of the *Competition and Consumer Act 2010* (CCA). It also outlines telecommunications-related merger reviews and authorisation applications under the CCA.

3.2 Investigations conducted in 2014–15

Part XIB of the CCA contains the 'competition rule' which prohibits carriers, carriage service providers (CSP) or content service providers from engaging in anti-competitive conduct.⁸⁸ Part XIB operates in addition to the general regime set out in Part IV of the CCA, which protects competition in the market generally.

During the year the ACCC undertook one investigation into allegations of anti-competitive conduct under Part IV and Part XIB of the CCA. The investigation is ongoing.

3.3 Exemption orders from Competition Rule

A carrier or CSP can apply to the ACCC for an order which exempts certain conduct from being anti-competitive and contravening the competition rule and Part XIB of the CCA. To date, the ACCC has not received any formal applications for an exemption order.

3.4 Updating the Telecommunications Competition Notice Guidelines

The ACCC's Telecommunications Competition Notice Guidelines (the Guidelines) includes an overview of the competition notice regime as contained in Part XIB of the CCA. The Guidelines set out the matters that the ACCC will consider when deciding whether to issue a competition notice and the appropriateness of the ACCC issuing competition notices as opposed to taking other action under the CCA.

In September 2015, after public consultation, the ACCC updated the Guidelines to reflect the legislative changes made to the competition notice regime since they were last updated.

⁸⁸ Sections 151AJ and 151AK of the CCA.

3.5 Third line forcing notifications

Third line forcing is a type of exclusive dealing prohibited by ss. 47(6) and 47(7) of the CCA. Third line forcing involves the supply of goods or services on condition that the purchaser buys goods or services from a particular third party, or a refusal to supply because the purchaser will not agree to that condition. It is not subject to a substantial lessening of competition test and is prohibited regardless of the effect on competition, unless it relates to products or services provided by related bodies corporate.

Parties wishing to engage in third line forcing conduct that is in the public interest can lodge a notification or application for authorisation with the ACCC under Part VII of the CCA.

In 2014–15 the ACCC received several third line forcing notifications involving telecommunications industry participants. Some examples of notifications which were allowed to stand include:

- Foxtel offering discounted access to its Presto internet movie subscription service for customers who obtain certain digital news services and newspapers from APN Newspapers Pty Ltd.⁸⁹
- Amaysim offering benefits (such as discounts, deals and prizes) on certain Amaysim services on the condition that consumers purchase an Amaysim SIM card from a particular retail outlet, including Woolworths and Coles.⁹⁰
- Telstra Licensed Shops offering a range of telecommunications goods and services, discounts and promotional products to customers who acquire telecommunications services or related goods or services from Telstra.⁹¹

3.6 Authorisation applications

Under Part VII of the CCA, the ACCC can grant statutory protection for potential breaches of the competition provisions of the CCA (except for misuse of market power provisions) if it is satisfied the conduct delivers a net public benefit.⁹² In 2014–15 the ACCC received two telecommunications-related authorisation applications.

Communications Alliance

Communications Alliance, the industry body for the telecommunications sector, sought authorisation for itself and its members to agree not to advertise on websites that promote, facilitate or engage in online copyright infringement. On 4 November 2014 Communications Alliance withdrew its application for authorisation prior to our assessment.

NBN Co and Optus authorisation

On 12 February 2015 NBN Co lodged an application to revoke its existing authorisations A91290–A91292 and to substitute them with new authorisations covering revised agreements with Optus concerning its HFC network. The ACCC previously granted authorisation to NBN Co in 2012 for the original agreement between NBN Co and Optus, which involved Optus migrating its customers to the NBN and ultimately decommissioning its HFC network.

⁸⁹ Notification N98312.

⁹⁰ Notification N98253.

⁹¹ Notifications N98310, N98258, N98229, N98200.

⁹² Authorisation applications for mergers are dealt with by the Australia Competition Tribunal rather than the ACCC.

The revised arrangements involve the progressive migration of Optus' HFC subscribers to the new multi-technology NBN, while parts of Optus' HFC network are integrated into the NBN. They also involve an obligation on Optus to use the NBN for 15 years and Optus sharing spectrum on its coaxial network with NBN Co, prior to NBN Co taking ownership of that network.

These arrangements form part of a broader transaction between the parties which involves the acquisition of Optus' HFC assets. This meant the ACCC had to assess the proposed arrangements under two separate processes—pursuant to the authorisation provisions and also the merger provisions of the CCA.

On 28 August 2015 the ACCC issued a final decision granting authorisation to specific provisions within the revised agreements between NBN Co and Optus for a period of 35 years and announced it did not oppose the acquisition of Optus' HFC assets.

3.7 Merger reviews

The impact on competition of proposed and completed mergers and acquisitions is assessed by the ACCC under s. 50 the CCA, which prohibits mergers and acquisitions that would have the effect, or be likely to have the effect, of substantially lessening competition.

The ACCC does this by providing the merger parties with its view on whether a particular proposal is likely to breach s. 50 of the Act. This process is generally known as the 'informal clearance' process. Businesses may also apply to the ACCC for formal clearance of mergers.

We examined the following significant proposed acquisitions in the telecommunications sector.

TPG and iiNet

On 20 August 2015 the ACCC announced its decision not to oppose the proposed acquisition of iiNet by TPG.

This decision came after an extensive review and examination of a large number of submissions from consumers and other interested parties. Many of the submissions were concerned that TPG would not maintain many of iiNet's competitive offerings including its high standard of customer service.

While the ACCC was concerned that the proposed acquisition may lessen competition in the market for the supply of retail fixed broadband, ultimately the ACCC concluded this would not reach the threshold of a 'substantial' lessening of competition.

The ACCC found that TPG would face competitive constraint from the other major retail fixed broadband suppliers: Telstra, Optus, and M2 (which operates brands including Dodo and iPrimus). The ACCC considered the combined constraint from these suppliers would be sufficient to limit any harm to competition arising from the proposed acquisition.

When announcing its decision, the ACCC said that any future merger between two of the remaining four large suppliers of fixed broadband would face close scrutiny.

The ACCC also considered the competitive effects of the proposed acquisition in the market for the supply of wholesale transmission services. The ACCC found that a number of other purchasers and suppliers of wholesale transmission services would remain, even if iiNet reduced its demand from non-vertically integrated transmission suppliers following the proposed acquisition.

Foxtel and Ten

On 22 October 2015 the ACCC announced its decision not to oppose the proposed Foxtel and Ten minority acquisitions. The decision was limited to Foxtel's proposal to acquire up to 15 per cent of Ten, Ten's proposal to acquire a 24.99 per cent stake in Foxtel's advertising agency Multi-Channel Network (MCN), and Ten's option to acquire 10 per cent of Presto.

The ACCC had preliminary concerns that the proposed acquisitions would substantially lessen competition in the acquisition of sports rights and other types of content, with related effects in the free-to-air and broader television viewing markets. However, the ACCC considered that other free-to-air television networks, pay television providers and online service providers will continue to have sufficient alternatives to allow them to obtain content that is attractive to their viewers. The ACCC also considered that Foxtel and Ten will continue to face competition from the remaining free-to-air networks, and that streaming services are likely to become an increasingly competitive alternative for viewers.

Although the proposed acquisitions will lead to a greater alignment of Foxtel's and Ten's interests, and will increase the degree of influence Foxtel has over Ten, the ACCC concluded that the acquisitions, on their own, are unlikely to result in a substantial lessening of competition. The ACCC will, however, closely examine any future acquisitions by the merger parties, including where increases in these shareholdings are made possible through changes to the existing media diversity and control rules.

Vocus and M2

On 5 November 2015 the ACCC announced its decision not to oppose Vocus' proposed acquisition of M2. The ACCC concluded that it was primarily a merger between two complementary businesses. The ACCC considered that in markets where Vocus and M2 overlap, they tend to focus on different customer segments. M2 is mainly focused on residential and small business customers, while Vocus is mainly focused on large enterprise and government customers. Further, the ACCC considered that the merged firm will face significant competition from Optus, Telstra and TPG.

4 Consumer safeguard provisions

Key points

- In 2014–15 we undertook 16 major investigations in the telecommunications sector under the Australian Consumer Law (ACL).
- We also completed a range of other activities to enhance consumer understanding of telecommunications issues and improve outcomes for consumers.
- We continue to work with other regulators such as the ACMA and organisations such as the TIO and Australian Communications Consumer Action Network (ACCAN) to protect and promote the interests of consumers.

4.1 Overview

This chapter outlines the ACCC's consumer protection work in the telecommunications sector.⁹³ The ACCC uses different compliance and enforcement tools to encourage compliance with the ACL including litigation, infringement notices, enforceable undertakings and administrative resolutions. The ACCC also seeks to protect consumers through education and awareness raising activities.

While the ACL does not contain specific telecommunications consumer protection provisions, there are two general consumer protection provisions that are the focus of the ACCC's work in this area. Section 18 of the ACL prohibits a person, in trade or commerce, from engaging in conduct that is misleading or deceptive or is likely to mislead or deceive. Section 29 of the ACL prohibits a person, in trade or commerce, from making specific false or misleading representations about goods and services.

The ACCC's enforcement and compliance work is informed by a range of sources. These include contacts and complaints through the ACCC Infocentre, and information from other regulators and representative groups such as the TIO and ACCAN.

4.2 ACCC key investigations for 2014–15

In 2014–15 the ACCC undertook 16 major investigations in the telecommunications sector under the ACL, two less than the previous year. Eleven of these investigations were on foot at the start of the reporting period.

Our enforcement and compliance work is largely to ensure truth in advertising to protect both consumers and competition. This is important to ensure that consumers can make informed purchasing decisions. Clear advertising also improves competition by giving businesses the opportunity to compete fairly.

4.2.1 Litigation

The ACCC will take legal action where, having regard to all the circumstances, it considers litigation is the most appropriate way to achieve its enforcement and compliance objectives. Litigation can result in positive outcomes for consumers and acts as a warning to businesses.

During the year, the ACCC successfully litigated one matter. On 30 September 2014, the Federal Court ordered Zen Telecom Pty Ltd to pay pecuniary penalties of \$225 000 for contraventions of the ACL regarding its unsolicited telemarketing practices. Zen Telecom

⁹³ The ACCC's approach to enforcement and compliance activities is guided by the ACCC's Compliance and Enforcement Policy. A copy of the policy is available at: <http://www.accc.gov.au/publications/compliance-and-enforcement-policy>.

was found to have made false or misleading representations during telemarketing calls by representing that it was acting on behalf of Telstra or a business or company associated with Telstra, when it did not have any affiliation to Telstra. The Court also found that Zen Telecom had breached the unsolicited consumer agreement provisions of the ACL.

4.2.2 Infringement notices and court enforceable undertakings

The ACCC may issue an infringement notice where it has reasonable grounds to believe there has been a contravention of the ACL that requires a more formal sanction than an administrative resolution, but where the ACCC considers that the matter may be resolved without legal proceedings. The ACCC may also accept court enforceable undertakings under s. 87B of the CCA instead of pursuing legal proceedings.

In December 2014, Telstra paid a penalty of \$102 000 following the issue of an infringement notice by the ACCC regarding an iPhone 6 advertisement. The ACCC had reasonable grounds to believe that Telstra had made a false or misleading representation about the price of the phone and phone plan bundle because the advertised price only included the monthly plan cost and did not disclose additional handset payments that applied. The advertisement only disclosed the additional handset payments and the total monthly cost in fine print.

In March 2015, iiNet paid penalties of \$204 000 following the issue of two infringement notices by the ACCC regarding recent advertisements for iiNet's Naked Broadband 250GB Plan. The ACCC had reasonable grounds to believe that iiNet's advertisements contravened the ACL by failing to prominently state the total minimum price of the service. While the advertisements displayed a monthly price for iiNet's Naked Broadband 250GB Plan, the total minimum price was included in the advertisement but not displayed in a prominent way, as required by the ACL.

In December 2015, Optus paid penalties of \$51 000 following the issue of infringement notices by the ACCC regarding advertisements about Optus' cable broadband services. We had reasonable grounds to believe that Optus had made false or misleading representations about data transfer rates ('speeds') offered on its existing cable broadband plans. In particular, Optus used the term 'NBN-like speeds', representing that the advertised broadband plan provided speeds comparable to the NBN, which was not the case for the advertised plans. Optus also provided a Court enforceable undertaking committing not to use the term 'NBN-like speeds' in future advertising unless the speeds offered are comparable to those on NBN plans.⁹⁴

4.3 ACCC liaison and engagement activities

4.3.1 Consumer education initiatives

The ACCC provides information, tips and tools to help consumers understand their ACL rights and to raise awareness about telecommunications issues, including migration to the NBN. Consumer education activities undertaken during the year include:

- New consumer information on NBN scams. We published information on the Scamwatch website including types of NBN scams and how consumers can protect themselves.
- New customer information to help consumers migrate to the NBN. We published new content on our website on key issues such as the disconnection of old networks and choosing a service provider and plan.
- Updated consumer information on common issues associated with phone, internet and mobile plans. This information includes tips for choosing a service, how to minimise your bill when travelling overseas and what to do when things go wrong.

⁹⁴ Under s. 134C of the CCA, the amount of penalty for an infringement notice varies depending on whether the person is a listed corporation, the person is a body corporate or if the person is not a body corporate.

4.3.2 Stakeholder engagement

The ACCC works with other agencies and organisations with an interest in telecommunications to promote a cohesive and effective response to consumer and competition challenges within the telecommunications market. We regularly meet with other regulatory organisations, consumer representative groups and industry bodies to discuss emerging issues and to share information.

In 2014–15 we contributed to various stakeholder working groups to address consumer issues associated with the migration to the NBN. Working groups included the Communications Alliance NBN OTT Services Transition Working Group and the Australian Department of Communications and the Arts (the Department) Service Continuity Assurance Working Group. More information about our NBN migration work is described in chapter 8.

The ACCC also attended the NBN Co Public Information on Migration (PIM) briefings, which occur on a quarterly basis. NBN Co is responsible for funding an information and education campaign to tell consumers about the migration of copper services to the NBN. NBN Co is developing its information campaign in consultation with the government and industry participants. The ACCC has observer status at the NBN Co PIM quarterly briefing.

4.3.3 Submissions to external regulatory and policy processes

During the year, the ACCC contributed to several consultation processes that may affect consumer safeguards, including providing submissions to:

- The Department's draft NBN Migration Assurance Policy.
- The Regional Telecommunications Independent Review Committee's issues paper
- Communication's Alliance review of the Telecommunications Consumer Protections Code and Operation Codes.⁹⁵

4.4 Other market and regulatory developments

The ACCC has been involved in other activities during the year to provide safeguards for consumers, including initiatives to address concerns about mobile coverage and international mobile roaming.

4.4.1 Competition limits for 1800 MHz regional spectrum

Under the *Radiocommunications Act 1992* the issue of a spectrum licence is treated as an acquisition for the purposes of s. 50 of the CCA. When requested, the ACCC provides advice to the Minister on setting competition limits in new spectrum allocations.

In March 2015 the ACCC received a request for advice on competition limits for an auction of 1800 MHz spectrum in regional areas. After consulting with stakeholders in April, the ACCC provided its advice to the Government in May. On 26 May 2015 the then Minister made a declaration regarding the regional 1800 MHz spectrum and a direction on competition limits which was consistent with the ACCC's advice.⁹⁶ The auction was finalised on 4 February 2016 (see section 2.3.2).

⁹⁵ ACCC submissions to external processes are available on our website: <http://www.accc.gov.au/about-us/consultations-submissions/accc-submissions>.

⁹⁶ M Turnbull (Minister for Communications), *Re-allocation declaration and competition limits for regional 1800 MHz spectrum band*, Parliament House Canberra, 29 May 2015.

The ACCC considers spectrum an essential input to the provision of mobile services and continues to monitor developments in these markets. During 2014–15 the ACCC has taken an active interest in the Government's Spectrum Review and engaged with the Productivity Commission's inquiry into mobile broadband services for public safety agencies.

4.4.2 Mobile Black Spot Programme

The Australian Government has committed \$100 million to improving mobile coverage in regional Australia as part of its Mobile Black Spot Programme. In February 2014, the ACCC made a submission to the program's discussion paper, expressing our support for the program's objectives of improving mobile coverage in regional areas of Australia.

On 25 June 2015, the Government announced nearly 500 new or upgraded base stations will be funded under the first tranche of the Mobile Black Spot Programme. These cover approximately 3000 of the 6200 blackspots identified all over Australia. The first base stations are expected to rollout in the second half of 2015 and will be constructed over a three-year period. The Government also announced a further \$60 million for the Programme from July 2016 for black spots that didn't receive coverage in the first tranche.

4.4.3 Review of the Telecommunications Consumer Protections Code

On 3 October 2014, Communications Alliance commenced a public review of a revised Telecommunications Consumer Protection Industry Code (TCP Code). The TCP Code is the code of conduct for service providers in Australia in the provision of telecommunications services. It provides a range of consumer safeguards and deals with issues such as sales, service and contract and billing. The review proposed extensive changes to streamline the TCP Code and reduce duplications.

The ACCC made a submission to the review in November 2014 expressing serious concerns over the extent of the proposed changes, specifically the removal of certain provisions which the ACCC considers to be necessary to protect consumer interests. Communications Alliance accepted the ACCC's concerns and reinserted provisions that protected consumers, particularly in relation to advertising and marketing.

In October 2015 a further revised version of the TCP Code was submitted to the ACMA for registration. The TCP Code was registered in December 2015.

5 Monitoring and reporting

Key points

- We collect a range of information from telecommunications providers to monitor the state of competition, monitor market developments and inform regulatory decisions.
- We seek to balance the need for information with the regulatory burden and cost on industry of complying with reporting obligations. During the year we reviewed information collected under a number of ACCC record keeping rules (RKR) and have reduced or removed some reporting requirements.
- We introduced the NBN Services in Operation RKR to monitor the take-up and usage of NBN services. We are also consulting with NBN Co on a proposal to publish a quarterly NBN wholesale market indicators report.
- We undertook a pilot Broadband Performance Monitoring and Reporting Program, which provided effective 'proof of concept' demonstrating that an ongoing program to monitor and report on the quality of retail broadband services could be readily established in Australia.
- We also made changes to some of our existing RKRs and undertook a number of other activities to monitor the state of competition and inform our regulatory decisions.

5.1 Overview

This chapter outlines the ACCC's main monitoring and reporting activities for 2014-15, which included:

- collecting information under RKRs (s. 5.2)
- reporting on Telstra's compliance with its structural separation undertaking (s. 5.3) and retail price controls (s. 5.4)
- considering a BPMR program and monitoring developments in media content (s. 5.5).

The ACCC also has powers under s. 155 of the CCA to obtain information and documents from carriers regarding a communications matter. The Minister can also require that the ACCC monitor and report on various aspects of competition within the industry.

5.2 Record keeping rules (RKRs)

The ACCC has established RKRs which specify information that certain telecommunications providers must keep and provide on an ongoing basis. This information is used to monitor competition and market developments, and to inform regulatory decisions.

The ACCC periodically reviews information collected under the RKRs and where appropriate, makes changes to refine administrative process and ensure that the information collected continues to be relevant. Table 5.1 summarises the information collected under current RKRs.

Table 5.1 Current Record Keeping Rules

Record Keeping Rule	Information collected	Rationale	Reporting period and disclosure
Access to Telstra exchange facilities	Telstra must report on access to its exchange facilities including capped exchanges and exchanges with queued access seekers.	To provide oversight of any decision to cap an exchange and to monitor access seeker queues to exchanges.	Monthly. Telstra must publicly disclose certain information.
Audit of Telecommunications Infrastructure Assets	Specified carriers must report on the location of their core network and Customer Access Network (CAN) infrastructure.	Provides the ACCC with a consistent and coherent infrastructure database to inform regulatory decisions.	Annual. The ACCC publishes aggregated data on a periodic basis.
Building Block Model	Telstra must provide data on actual usage and historical asset values. It must also provide forecast data on service demand, operating expenditure and capital expenditure.	This data is used in the Fixed Line Services Model (FLSM), which is used to determine prices for the regulated fixed line services and wholesale ADSL services.	Telstra must provide its actual usage data on an annual basis. Telstra must also provide other required data (at the ACCC's request) at the start of a price review prior to each regulatory period. Information will be available in accordance with a disclosure notice. ⁹⁷
Division 12 Report	Specified carriers must report on the retail prices charged for certain services including fixed line voice, mobile and internet services. Carriers must also provide data on revenue and usage, which enable the ACCC to calculate price movements.	Each year the ACCC must report to the Minister on changes in the prices paid for telecommunications services in Australia (the Division 12 Report). This RKR enables the ACCC to collect information required for the report.	Annual. No public disclosure. However, the ACCC's annual Division 12 Report contains estimated price indices for telecommunications services based on this RKR data.
NBN Services in Operation	NBN Co must provide information on the take-up of NBN access services, the amount of capacity being acquired and the average utilisation of that capacity over the NBN.	Allows the ACCC to monitor the rate and level of take-up of different NBN services, assess competition as it develops on the NBN and to inform regulatory decisions.	Quarterly. The ACCC intends to publish a quarterly NBN Wholesale Market Indicators report commencing in early 2016.

⁹⁷ The ACCC gave Telstra a disclosure notice regarding the RKR information provided as part of the inquiry into making final access determinations for the fixed line services. The disclosure notice provides that the ACCC will publish a public version of the RKR information and establishes confidentiality arrangements for full disclosure of the RKR information to access seekers.

Record Keeping Rule	Information collected	Rationale	Reporting period and disclosure
Regulatory Accounting Framework (RAF)	Optus, Telstra and VHA must provide certain financial information and service usage data for retail and wholesale communications services.	Assists the ACCC with key decisions and reporting functions including declaring services, setting regulated prices under an access determination and reporting on the state of competition in telecommunications markets.	Biannual No public disclosure.
Telstra customer access network (CAN)	Telstra must provide information on the number of retail and wholesale services in operation on its network. This data is disaggregated by exchange service areas and access seekers.	Allows the ACCC to analyse competition and industry trends in telecommunications markets.	Quarterly. No public disclosure of the data but Telstra provides a summary of the quarterly results for publication.

5.2.1 New NBN Services in Operation record keeping rule

In September 2014 the ACCC made the NBN Services in Operation RKR which requires NBN Co to provide information on the take-up of NBN access services, the amount of capacity being acquired by access seekers and the average utilisation of capacity over the NBN.

The NBN will become a key feature of the Australian telecommunications market and it is crucial for the ACCC to be able to monitor how competition develops over the network. Information obtained under the RKR provides the ACCC with a greater insight into the state and evolution of competition on the NBN. It also benefits consumers by supporting better regulatory decision-making that promotes competition and efficient use of the NBN.

For many years the ACCC has used the Telstra CAN RKR to obtain similar information about the take-up of legacy fixed line services provided over the copper network. Eventually the NBN Services in Operation RKR is likely to replace the CAN RKR as customers on the copper network are migrated to the NBN.

Amendments to the new RKR

In February 2015, the ACCC provided NBN Co with written notice to establish and maintain records of FTTB, services, and to report on those services to the ACCC. This amendment reflects the transition to the multi-technology mix NBN, which comprises a range of access technologies including FTTB, FTTN, and hybrid fibre coaxial (HFC) services, in addition to the existing FTTP, fixed wireless and interim satellite services.

Market indicators report

In July 2015, the ACCC publicly consulted on a proposed quarterly NBN Wholesale Market Indicators report to provide visibility over the development of the wholesale market for NBN access services. The ACCC is consulting with NBN Co on a draft disclosure notice regarding information collected pursuant to the NBN Services in Operation RKR.

5.2.2 Amendments to record keeping rules

During 2014–15 the ACCC publicly consulted about whether to vary the Telstra Exchange Facilities RKR, the NBN Services in Operation RKR and the RAF RKR.

In July 2014 the ACCC remade the Telstra Exchange Facilities RKR to apply until July 2017. Only minor drafting changes were made to the instrument, and the reporting requirements were maintained.

In February 2015 the ACCC made amendments to the NBN Services in Operation RKR. In June 2015, the ACCC began consulting with reporting carriers regarding possible changes to the RAF RKR.

5.2.3 Revocation of record keeping rules

Bundled Services RKR

On 2 July 2014 the ACCC decided to revoke the Bundled Services RKR. The Bundled Services RKR required Telstra to report on the number of bundled services acquired by its customers.

The ACCC decided to revoke the RKR following a careful review of the utility of the data received under it. In place of the RKR, Telstra agreed to proactively engage with the ACCC about its bundling practices and provide briefings to the ACCC prior to releasing new bundled packages. The ACCC considered that this would assist in assessing how the bundling of services was affecting competition.

5.3 Reporting under Telstra's structural separation undertaking

Each year the ACCC must monitor and report to the Minister on Telstra's breaches of the structural separation undertaking (SSU). In May 2015 the Minister tabled the ACCC's report, which identified a number of breaches of the SSU during 2013–14.⁹⁸ Further information regarding Telstra's compliance with the SSU is outlined in chapter 8.

The ACCC also published the following reports provided by Telstra under the SSU:

- annual and half-yearly Telstra Economic Model (TEM) public reports
- quarterly TEM internal and external wholesale prices reports, and
- quarterly TEM substantiation reports.

These reports detail Telstra's costs, revenues and demand, as well as compare internal and external wholesale prices.

⁹⁸ ACCC, *Telstra's Structural Separation Undertaking—Annual Compliance Report 2013–14*, http://www.accc.gov.au/system/files/960_Telstra%20compliance%20with%20SSU%20Report_201314_web.pdf.

5.4 Telstra's retail price control arrangements

Until 2015 the ACCC was required to monitor and report to the Minister on the adequacy of Telstra's compliance with retail price control arrangements that apply to certain fixed voice telephony services.⁹⁹ On 31 October 2014 the ACCC reported to the Minister that it was satisfied with Telstra's compliance with its obligations for 2013–14.¹⁰⁰ The 2013–14 report was tabled in Parliament and published on the ACCC website on 9 March 2015.

Retail price control arrangements revoked in 2015

The Australian Department of Communications and the Arts (the Department) has periodically reviewed the retail price control arrangements since their introduction. In its 2012 review, the Department found that there was a valid case for reducing or removing the controls over time. The ACCC has also argued for the revocation of the retail price controls.

In March 2014 the Minister extended the retail price controls for 12 months to allow for a regulatory review to assess their relevance under current market conditions. The review involved a cost-benefit analysis undertaken by an external consultant and several rounds of public consultation, including targeted consultation with Telstra and the ACCC. Following consultation, the Department concluded that the retail price controls should be removed as they were no longer effective and represented an unnecessary burden on industry.

On 18 March 2015, the retail price controls were revoked by Ministerial determination.¹⁰¹ The revocation ceases Telstra's compliance and reporting requirements, and suspends the ACCC's monitoring and reporting role. The Minister retains the power to reintroduce the retail prices controls at any time if required.

5.5 Other activities

5.5.1 NBN Co carrier licence condition on information disclosure

In March 2015 the ACCC undertook consultation on a proposed NBN Co carrier licence condition (CLC) at the request of the Department.¹⁰² The proposed CLC is intended to increase transparency around the network rollout and ensure all service providers are equally informed of important developments. The proposed CLC is designed to address any real or perceived competitive advantage Telstra may gain from access to significant information flows regarding the multi-technology mix NBN.

Following consultation, the ACCC provided a report to the Government in May 2015. The ACCC recommended that under the proposed CLC, NBN Co:

- prepare regular management-style reports disclosing specified information about the NBN and to make these reports directly available to all service providers intending to supply over the NBN
- maintain a register of documents disclosed by NBN Co to Telstra, and to provide to access seekers, on request, copies of documents
- conduct ongoing consultation and engagement with interested parties regarding the disclosure of information about the NBN.

99 The retail price control arrangements are set out in the *Telstra Carrier Charge—Price Control Arrangements, Notification and Disallowance Determination No.1 of 2005* (the Determination) (as amended).

100 ACCC, *Telstra's Structural Separation Undertaking—Annual Compliance Report 2013–14*, http://www.accc.gov.au/system/files/960_Telstra%20compliance%20with%20SSU%20Report_201314_web.pdf.

101 Telstra Carrier Charges—Price Control Arrangements, Notification and Disallowance Determination No. 1 of 2005—Instrument of Revocation.

102 ACCC, *Information disclosure by NBN Co*, <https://www.accc.gov.au/regulated-infrastructure/communications/national-broadband-network-nbn/information-disclosure-by-nbn-co/public-consultation>.

The ACCC considers this proposal meets the Government's objectives of information symmetry and ensuring Telstra does not gain an unfair competitive advantage due to the information it receives from NBN Co under the Definitive Agreements. The proposal also takes into account the desirability of minimising the cost impact on NBN Co and other stakeholders and maintaining the security of confidential network data.

In June 2015 the ACCC published its report at the request of the Minister.¹⁰³ The ACCC is continuing to work with the Department as it further considers the CLC for the NBN.

5.5.2 Broadband performance monitoring and reporting

The ACCC completed a successful pilot Broadband Performance Monitoring and Reporting (BPMR) program in May 2015, and published a report on the Pilot in September 2015. The Pilot provided effective 'proof of concept' demonstrating that an ongoing feasible program to monitor and report to consumers and industry on the quality of broadband services, could be readily established in Australia.

Implementing an ongoing BPMR program will improve competition in the broadband market, and increase competition based on performance as well as price. International experiences demonstrate that monitoring and reporting on broadband performance on an ongoing basis increases visibility over the performance of fixed broadband access networks (like the NBN) to consumers, industry and regulators, and gives consumers meaningful, reliable and independent information on which to base their purchasing and switching decisions.

The ACCC is currently engaging with industry, consumer representatives and government about operational and funding models for an ongoing BPMR Program. The Pilot is discussed further in the case study below. Any finalised program would involve further stakeholder consultation.

Case study: BPMR Pilot

In May 2015 the ACCC completed a three-month Pilot Program which provided 'proof of concept' for a future BPMR programs. The Pilot was a natural extension of the ACCC's work in pursuing a future program and adopted the monitoring and reporting metrics previously outlined in the ACCC's June 2014 position paper *Broadband performance monitoring and reporting in the Australian context*.

The Pilot was conducted in Melbourne with a particular focus on the technical and practical elements involved in introducing a future broadband monitoring program. It involved testing approximately 90 Melbourne-based volunteers' home fixed line broadband connections on various technologies over a three-month period. The ACCC engaged SamKnows, which provides testing services for a similar international broadband performance monitoring program, and Comdate to conduct the Pilot.

Pilot volunteers installed a hardware probe on their home broadband connection and the probe ran a series of network performance tests. The metrics selected for testing included download/upload speeds, web browsing time, latency, packet loss, video streaming, jitter and domain name system (DNS) resolution. A range of results were observed against these metrics with a noticeable trend in deteriorating performance during peak use periods, particularly regarding download speeds.

¹⁰³ A copy of the ACCC's report to the Australian Government is available on the ACCC website at: <https://www.accc.gov.au/regulated-infrastructure/communications/national-broadband-network-nbn/information-disclosure-by-nbn-co/accc-report>.

In September 2015 the ACCC released a report on the Pilot and found that a program to monitor and report to consumers on the quality of broadband services could be readily established in Australia. An ongoing BPMR program would involve regularly measuring data transfer rates and other quality of service metrics of broadband services. The ACCC would then report on the results.

The objective of a future program would be to promote competition and consumer outcomes by providing transparency over the quality of broadband services offered to consumers via different retail service providers (RSPs). It would provide better visibility over broadband speed and data transfer rates, and allow RSPs to compare the performance of their own services against others, thereby encouraging competition on broadband service quality as well as price.

Importantly, if implemented, an ongoing BPMR program will address the current lack of independent and reliable information on broadband service performance available to consumers and allow them to compare the performance of RSPs when considering which service is right for them. Greater transparency over broadband performance will provide increasing consumer benefits as the number of consumers making decisions about their future internet requirements across technologies increases with the rollout of the NBN. This will encourage RSPs to compete on and promote services based on meaningful and accurate representations about their superfast broadband services and the levels of performance consumers should expect from the purchase.

Similar broadband monitoring programs have been established in the United Kingdom (2008), United States (2010) and Singapore (2011). Canada intends to commence reporting on its new program in 2016. Such programs have led to improved transparency of information and increased performance-based competition for broadband services.

5.5.3 Media content monitoring

The ACCC recognises that access to compelling content, content delivery infrastructure and related content delivery services are important for ensuring efficient content and communications markets. In 2014–15 the ACCC reviewed and analysed media content and communications markets in the context of authorisation, merger and acquisition processes.

We also contributed to two regulatory reviews regarding intellectual property regulation:

- the Australian Government's Competition Policy Review¹⁰⁴, and
- the Productivity Commission inquiry into intellectual property arrangements in Australia.¹⁰⁵

Our submissions advocated reforms to ensure that intellectual property rights, including those relating to content, continue to encourage innovation in the creation of intellectual property, but at the same time, are not used in a manner that dampens competition or restricts consumer benefit from technological advances.

104 ACCC, Submission to the Australian Government's Competition Policy Review, 2015, <https://www.accc.gov.au/about-us/consultations-submissions/accc-submissions#communications>.

105 ACCC, Submission to the Productivity Commission's issues paper, 2015, <https://www.accc.gov.au/about-us/consultations-submissions/accc-submissions#communications>.

5.5.4 Tariff filing

Tariff filing refers to the provision of certain information about changes in prices. The ACCC has general telecommunications tariff filing powers and Telstra-specific tariff filing powers.

General tariff filing powers

Under Part XIB (Division 4) of the CCA, the ACCC may direct a carrier or carriage service provider (CSP) to provide information about charges for specified carriage services and/or ancillary goods and services, or information about its intentions regarding those goods or services. The ACCC did not make any tariff filing directions in 2014-15.

Telstra-specific tariff filing powers

Part XIB (Division 5) of the CCA requires Telstra to provide the ACCC with a written statement setting out any proposed pricing changes for a basic carriage service seven days before the change occurs.¹⁰⁶ During 2014-15 Telstra complied with the requirements to give the ACCC tariff filing information.

¹⁰⁶ A basic carriage service allows for communication between two or more distinct places, supplied by fixed-line or satellite-based facilities, but does not include the supply of customer equipment.

6 Access to telecommunications network services

Key points

- During the year we undertook inquiries to set price and non-price terms and conditions of access for each of the declared services.
- We commenced a declaration inquiry for the superfast broadband access service.

6.1 Overview

This chapter outlines the ACCC’s role in regulating access to telecommunications network services (other than NBN services) under Part XIC of the CCA. The ACCC’s role in regulating the NBN is discussed in chapter 7.

The Part XIC access regime allows the ACCC to regulate certain telecommunications services where it is in the long-term interests of end-users to do so. Once a service is declared, the ACCC can set regulated terms and conditions of access in an access determination or binding rule of conduct.

6.2 Declared services

Telecommunications services are only regulated under Part XIC if they are declared services. A telecommunications service can be declared if:

- the ACCC declares a service after holding a public inquiry
- the ACCC accepts a special access undertaking (SAU) for the service, or
- in the case of a service supplied by NBN Co, NBN Co publishes a standard form of access agreement (SFAA) relating to access to the service on its website.

Providers of declared services must comply with certain access obligations, including a requirement to supply the service on request and to provide interconnection with facilities.

There are currently 10 declared services under Part XIC, excluding NBN services. Table 6.1 describes each of these services.

Table 6.1 Declared services

Service	Description	Duration
Wholesale ADSL	A point-to-point service which allows access seekers to provide a broadband ADSL internet service to a customer using Telstra’s equipment.	14 February 2012 to 13 February 2017
Local carriage service (LCS)	A service which carries local telephone calls from an end-user to another end-user. The service is used by access seekers to resell local calls. The LCS does not include services that are supplied over the NBN.	1 August 2014 to 31 July 2019

Service	Description	Duration
Fixed originating access service (FOAS)	Allows a customer of a retail service provider, that does not have its own fixed line network to make a telephone call on another service provider's network (pre-selection and override). The FOAS allows call origination for the facilitation of special number services including 13/1300 and 1800 numbers (special number services). The FOAS does not include pre-selection and override services for telephone calls provided over the NBN.	1 August 2014 to 31 July 2019
Fixed terminating access service (FTAS)	Allows a customer who is provided a fixed line phone from one RSP to receive a call from a person using another service provider's network.	1 August 2014 to 31 July 2019
Wholesale line rental (WLR)	Allows an access seeker to rent an active copper line from an access provider and on-sell the rented line to customers. When bundled with other services (such as the LCS and FOAS pre-selection and override), WLR allows access seekers to provide customers with a fixed voice service package to make local, national, long-distance, international and fixed to mobile telephone calls. The WLR does not include services that are supplied over the NBN.	1 August 2014 to 31 July 2019
Line sharing service (LSS)	A service for access to the non-voice frequency spectrum of unconditioned wire between a customer and a telephone exchange. It allows access seekers to provide broadband services to customers using their own equipment if the customer has an active voice service. Currently Telstra is the sole supplier of the LSS to access seekers.	1 August 2014 to 31 July 2019
Unconditioned local loop service (ULLS)	A service for access to the unconditioned wire between a customer and a telephone exchange. It allows an access seeker to provide voice and broadband services to customers using their own equipment.	1 August 2014 to 31 July 2019
Mobile terminating access service (MTAS)	A service provided by a mobile network operator to fixed line operators and other mobile network operators to connect and terminate a voice call or an SMS on its mobile network.	1 July 2014 to 30 June 2019
Domestic transmission capacity service (DTCS)	A point-to-point high capacity service used for the transmission of communications traffic (such as voice, data or video).	28 March 2014 to 31 March 2019
Local bitstream access service (LBAS)	A point-to-point service used to carry communications in digital form between an access provider's network and a customer. Access seekers use the service to supply superfast broadband services to customers connected to non-NBN networks, primarily in new housing estates.	The declaration took effect on 13 April 2012. It does not expire.

6.2.1 Declaration inquiries in 2014–15

The ACCC must undertake a public inquiry before declaring a service and when deciding whether to vary or extend declaration of a service. In conducting an inquiry, the ACCC must consider whether declaration of the service would promote the long-term interests of end-users by:

- promoting competition in telecommunications markets
- achieving any-to-any connectivity (ensuring all consumers can communicate with each other regardless of their network operator), and
- encouraging the economically efficient use of, and investment in, infrastructure.

The ACCC conducted one declaration inquiry in 2014–15.

Superfast broadband access service

In September 2014 we commenced a new inquiry into whether a superfast broadband access service (SBAS), such as the very-high-bit-rate digital subscriber line (VDSL) service, should be declared. We did this in response to a Vertigan Review recommendation that the ACCC should consider whether to commence a declaration inquiry into vectored VDSL services to make wholesale bitstream services available to access seekers.

On 6 November 2015, the ACCC released its draft decision proposing to declare an SBAS for fixed line networks capable of supporting broadband services with a download data rate of 25 Mbps or greater. The declaration is not intended to apply to the HFC networks that Telstra and Optus are transferring to NBN Co, services supplied over the NBN, services provided wholly to business customers, charities or public bodies, or services that are already regulated under the Local Bitstream Access Service (LBAS) declaration. We are continuing to engage with stakeholders and anticipate making a final decision in 2016.

6.3 Access determinations

Under the Part XIC framework, parties are free to negotiate the terms and conditions of access to declared services. Where parties are unable to agree on the terms and conditions of access, an access seeker can rely on the regulated terms set by the ACCC in a final access determination (FAD). An access determination contains a base set of price and non-price terms and conditions of access to a declared service.¹⁰⁷

6.3.1 Final Access Determination inquiries in 2014–15

The ACCC must undertake a public consultation process before making a FAD. In 2014–15, the ACCC made FADs for the MTAS and fixed line services. Further, the ACCC continued FAD inquiries for the DTCS and LBAS. The ACCC also consulted on the non-price terms and conditions and supplementary prices that should be included in the FADs for all declared services.

Mobile terminating access service

On 24 August 2015, the ACCC made a FAD for the MTAS and for the first time set a price for SMS termination rates. The FAD reduces the MTAS rate from 3.6 cents per minute to 1.7 cents per minute and sets the SMS termination rate at 0.03 cents per SMS. Both rates apply from 1 January 2016 to 30 June 2019.

The MTAS FAD is discussed in further detail in the case study below.

¹⁰⁷ Where there are inconsistencies between a commercial agreement (access agreement) and an access determination, the terms and conditions in the access agreement will prevail over the regulated terms and conditions set by the ACCC.

Domestic transmission capacity service

On 23 May 2014 the ACCC commenced the DTCS FAD inquiry. On 5 November 2015 the ACCC further extended the period for making a FAD for the DTCS by six months, to 23 May 2016. On 17 December 2015 the ACCC released a further consultation paper seeking feedback on a range of data and modelling issues in response to submissions to the DTCS FAD draft decision. This further consultation paper includes a report by the ACCC's consultant, Economic Insights, who was re-engaged to undertake further regression analysis and modelling work in response to submissions. We anticipate making a final decision on the DTCS in early 2016.

Fixed line services

On 9 October 2015 the ACCC made FADs for the seven declared fixed line services. The ACCC's decision requires a one-off 9.4 per cent fall in the prices of the fixed line services from 1 November 2015 to 30 June 2019. On 5 November 2015 Telstra applied to the Federal Court for judicial review of the ACCC's decision. In December 2015 Optus and TPG successfully applied to the Federal Court to be made parties to these proceedings and were joined as respondents. This matter is ongoing.

Local bitstream access service

On 7 April 2015 the ACCC commenced an inquiry into making a FAD for the LBAS. The ACCC intends to conduct the LBAS FAD inquiry concurrently with any SBAS FAD inquiry. The two services may have similar characteristics and any consultation regarding an access determination for the SBAS is likely to consider matters also relevant to LBAS pricing. This consultation will take place after the conclusion of the SBAS declaration inquiry. On 23 September 2015 the ACCC extended the period for making a new FAD for the LBAS until 7 April 2016.

Non-price terms and conditions and supplementary prices

In May 2014 the ACCC commenced consultation on non-price terms and conditions and supplementary prices that should apply to all declared services. On 25 March 2015 the ACCC released its draft decision on the non-price terms and conditions for the fixed line services, MTAS and DTCS.

On 24 August 2015 the ACCC released its final report on the non-price terms and conditions for the FADs. This report set out the ACCC's final decision on the non-price terms and conditions for the MTAS FAD and its current views on non-price terms and conditions for the fixed line services and the DTCS.

Case study: MTAS FAD review

Mobile voice and SMS termination services are provided by mobile network operators (MNOs) to other mobile and fixed network operators, to terminate calls and SMS on their networks. This service allows consumers connected to different networks to communicate with each other.

MNOs have exclusive control of access to their subscribers and may have incentive to set unreasonable terms of access to their networks, such as in the form of high termination charges. The ACCC has regulated mobile voice termination for a number of years, which has helped promote competition and connectivity in mobile markets and contributed to lower retail prices.

The ACCC commenced a public inquiry into making a new access determination for the MTAS in May 2014. Following industry consultation, the ACCC decided to adopt an international benchmarking approach to determine the price of voice termination. The ACCC also decided to price SMS termination as a fraction of the price determined for voice termination according to the relative network usage of each service.

The benchmarking study, undertaken by WIK-Consult, used mobile voice termination prices generated by publicly available cost models in nine countries. In selecting the countries, the ACCC took into account those countries that applied a cost methodology consistent with the requirements of Australian legislation.

The ACCC consulted with stakeholders and made a number of adjustments to the benchmark prices to account for Australian conditions that affect the cost of mobile termination in Australia. The adjustments captured differences between Australia and the benchmark countries, including the mobile technology used to carry traffic (second generation mobile communications (2G) or third generation mobile communications (3G)), the amount of traffic on the mobile networks, the cost of spectrum licences, the cost of capital, and Australia's larger mobile network coverage requirements.

After releasing a draft decision in April 2015 and considering stakeholder submissions, the ACCC made a final MTAS FAD in August 2015. The final decision reduced the price for mobile voice termination from 3.6 cents per minute to 1.7 cents per minute and set for the first time the price of SMS termination at 0.03 cents per SMS. The FAD also included non-price terms and conditions of access to mobile termination services.

The ACCC noted in its final MTAS decision that it may review the current regulated rates if there is a significant level of take-up of voice over the LTE (VoLTE) services during the FAD period, as the implementation of this more efficient technology is expected to considerably reduce the cost of mobile termination.

The ACCC expects the reduction in the regulated rates to be passed through to benefit consumers in the form of lower prices and greater call and SMS inclusions in retail plans.

6.4 Binding rules of conduct

Where the ACCC considers that there is an urgent need to do so, it can make binding rules of conduct (BROC). BROCs can specify any or all the terms and conditions of supply for access to a declared service, or the manner in which a carrier or CSP must comply with any or all the standard access obligations. The maximum duration of a BROC is 12 months.

The ACCC did not make any BROCs in 2014–15.

7 NBN and superfast networks provisions

Key points

- 2014–15 was the first full year that the NBN Co special access undertaking (SAU) has been in operation.
- In June 2014 we accepted NBN Co's first Long Term Revenue Constraint Methodology (LTRCM), which sets out the amount of revenue NBN Co is allowed to earn via its prices over the term of the SAU.
- In October 2014 we approved NBN Co's dispute resolution guidelines, which would be applied by a dispute resolution panel when considering a dispute.
- We continued to oversee NBN Co's compliance with its SAU and compliance with the non-discrimination and level playing field provisions along with other superfast network providers.

7.1 Overview

This chapter outlines our role in regulating access to services provided over the NBN and designated superfast networks. The Telecommunications Act and Part XIC of the CCA set out the framework for access to these services.

Key elements of this framework include:

- declaration of NBN services (s. 7.2)
- monitoring NBN Co's compliance with the SAU (s. 7.3)
- NBN points of interconnection (s. 7.4)
- rules about non-discriminatory access to services provided over the NBN and superfast networks (s. 7.5), and
- 'level playing field' requirements for superfast networks (s. 7.6).

7.2 Declaration of NBN services

NBN services can be declared in three ways:

- NBN Co can provide the ACCC with a SAU
- NBN Co can publish a standard form of access agreement (SFAA), or
- the ACCC can declare an NBN service following a public inquiry.

Once an NBN service is declared, NBN Co is required to supply the declared service if requested by a service provider and to permit interconnection of facilities.¹⁰⁸

7.2.1 NBN Co Special Access Undertaking

On 13 December 2013, the ACCC accepted a SAU from NBN Co. 2014–15 is the first full financial year that the SAU has been in operation. The SAU establishes principles for regulating access to the NBN until June 2040.

¹⁰⁸ See s. 152AXB of the CCA.

It provides the framework for governing prices and other terms upon which NBN Co will supply services to telecommunications companies over the NBN. The SAU will assist NBN Co and access seekers to negotiate commercial agreements.

7.2.2 Standard Forms of Access Agreement

NBN Co may formulate and publish open offers for access to its services. The terms and conditions that comprise these offers are known as standard forms of access agreements (SFAA). If NBN Co publishes an SFAA on its website, the service is declared and NBN Co must enter into an access agreement on request by an access seeker on the terms and conditions contained in that SFAA. In 2014–15 NBN Co published four SFAAs on its website.¹⁰⁹

7.3 Special Access Undertaking implementation

This year we undertook the following specific activities in relation to the SAU:

- We approved NBN Co's first annual LTRCM proposal and were satisfied with NBN Co's compliance with its pricing requirements as set out in the SAU.
- We approved NBN Co's dispute resolution guidelines.

7.3.1 The Long Term Revenue Constraint Methodology (LTRCM)

The LTRCM provides NBN Co with the ability to recover its prudent and efficient costs of supply over the term of the SAU. Under the SAU, the ACCC must make annual LTRCM determinations that specify the amount of revenue that NBN Co is allowed to earn for each financial year until 30 June 2023.

To inform the ACCC's LTRCM assessment, NBN Co must submit certain information to the ACCC by 31 October each year. The ACCC must take this information into account when making its LTRCM determinations.

In June 2014 the ACCC issued the first LTRCM determination, which covered the 2013–14 financial year. The ACCC was satisfied that NBN Co's expenditure was prudent and efficient according to the requirements set out in the SAU. The ACCC was also satisfied that NBN Co's price compliance reports have demonstrated that its prices during 2013–14 and the preceding financial years from the Cost Commencement Date of 9 April 2009 did not exceed the maximum regulated prices set by the SAU or the maximum regulated price applicable at the relevant point in time.

The ACCC is currently assessing NBN Co's proposed LTRCM for 2014–15. On 31 October 2015 NBN Co provided the ACCC with the required financial information, an expenditure compliance report and its proposed values for each of the LTRCM components. On 22 December 2015 we provided NBN Co with our preliminary views to accept NBN Co's capital and operating expenditure as part of its LTRCM proposal.¹¹⁰

7.3.2 Dispute resolution guidelines

The SAU requires NBN Co to provide for dispute resolution through expert determination or panel arbitration in any SFAA. The SAU provides that the ACCC must decide whether to approve the proposed guidelines in the form submitted to it, or require NBN Co to incorporate variations specified by the ACCC.

¹⁰⁹ SFAAs are available on NBN's website at <http://www.nbnco.com.au/sell-nbn-services/supply-agreements.html>. NBN published the following SFAAs: *Wholesale Broadband Agreement (WBA) 2 regarding FTTP services, Satellite WBA, Testing Arrangements WBA and Continuity Licenses WBA*.

¹¹⁰ Within 40 business days of receiving the regulatory information, the ACCC must notify NBN of its preliminary view on the capital expenditure and operating expenditure for making the LTRCM determination.

On 16 July 2014, NBN Co submitted to the ACCC draft guidelines, which would be applied by a dispute resolution panel when considering a dispute. On 10 October 2014, the ACCC approved NBN Co's dispute guidelines, after NBN Co incorporated a number of variations requested by the ACCC. NBN Co has published the dispute guidelines on its website.

7.4 Points of interconnection

An NBN point of interconnection (POI) is the physical location that allows retail service providers and wholesale service providers to connect to the NBN.¹¹¹ The ACCC has published a list of POIs under s. 151DB of the CCA which is available on the ACCC website.

As of October 2014, all 121 POIs were active and ready for interconnection.¹¹² Currently, NBN services are being provided through the POIs and the five temporary POIs that were established by NBN Co on an interim basis to facilitate the rollout of the NBN. Over the next 12–18 months, NBN Co is planning to migrate existing users from the temporary POIs to the permanent POIs.¹¹³

7.5 Non-discrimination provisions

NBN Co and providers of layer 2 bitstream services over designated superfast telecommunications networks are subject to certain non-discrimination obligations under the CCA. In general, these providers must not discriminate:

- between access seekers in complying with their standard access obligations
- between access seekers in the carrying on of activities related to the supply of declared services, and
- in favour of themselves in the supply of declared services.¹¹⁴

In April 2012, the ACCC published explanatory material to provide guidance to industry on the operation of the non-discrimination provisions.

7.5.1 Statements of difference

The ACCC must maintain a register of statements setting out differences between individual access agreements and any SFAA, SAU or access determinations relating to NBN Co. The ACCC must also maintain a register of statements setting out differences between individual access agreements and an SAU or an access determination regarding the local bitstream access service.

This is intended to allow access seekers to identify any different terms or conditions which may be available from their network access provider. The registers are also used by the ACCC to identify potential contraventions of the non-discrimination provisions. The registers of the statements of differences are available on the ACCC website. During 2014–15, the ACCC published four statements of differences on its website.¹¹⁵

¹¹¹ A copy of the report is available on the ACCC website: <http://www.accc.gov.au/regulated-infrastructure/communications/national-broadband-network/nbn-points-of-interconnect-pois/section-151dc-review>.

¹¹² nbn, Corporate Plan 2016, p. 53. A copy of the plan is available on the nbn website: <http://www.nbnco.com.au/content/dam/nbnco2/documents/nbn-corporate-plan-2016.pdf>.

¹¹³ NBN Co, Product Roadmap, <http://www.nbnco.com.au/content/dam/nbnco/documents/Integrated-Product-Roadmap.pdf>.

¹¹⁴ Sections 152ARA and 152AXC of the CCA.

¹¹⁵ The ACCC register is available at, <http://registers.accc.gov.au/content/index.phtml/itemId/1030649>.

7.5.2 Enforcing the non-discrimination provisions

The ACCC also has a role in enforcing the non-discrimination provisions by seeking orders from the Federal Court. During 2014–15, the ACCC did not seek orders to enforce these provisions.

7.6 Level playing field provisions

The ‘level playing field’ provisions are intended to ensure that non-NBN networks capable of supplying a superfast carriage service operate on a similar basis to NBN networks.¹¹⁶ Non-NBN networks capable of supplying a superfast carriage service, wholly or principally to residential or small business customers, must not be used unless:

- a layer 2 bitstream service is available for supply, and
- services supplied on the network are supplied on a wholesale-only basis.

These provisions only apply to services supplied over superfast networks built, extended, altered or upgraded since 1 January 2011. The provisions do not apply to services provided over wireless, satellite or NBN networks.

7.6.1 Exemptions from the level playing field provisions

Statutory exemptions

Network operators, subject to certain conditions, are exempt from providing services on a wholesale-only basis to utilities. This includes transport authorities, electricity and gas supply bodies, water supply bodies, sewerage services bodies, stormwater drainage service bodies and state or territory road authorities.

Further, subject to certain conditions, statutory exemptions may apply to:

- extensions to existing superfast networks within current real estate developments
- extensions to existing network footprints no more than one kilometre from a point on the infrastructure of the existing network, as the network stood immediately before 1 January 2011, and
- specified extensions of a telecommunications network.

Ministerial exemptions

The Minister may exempt specified networks, local access lines or owners from the layer 2 bitstream requirements and/or the wholesale-only requirement. The Minister must consult with the ACCC and the ACMA before granting an exemption.

Current Ministerial exemptions apply to Telstra and TransACT:

- Telstra has conditional Ministerial exemptions from the level playing field provisions for both the South Brisbane exchange service area (due to cease on 1 July 2018 if certain conditions are met, otherwise the exemption will cease on 1 July 2017) and specified Telstra Velocity networks until the designated day (currently set at 1 July 2018).
- TransACT has conditional Ministerial exemptions for its upgraded VDSL networks and very small scale TransACT networks until the designated day.

¹¹⁶ The level playing field provisions are set out in Parts 7 and 8 of the Telecommunications Act.

7.6.2 Compliance with the level playing field provisions

In 2014–15, the ACCC carried out eight investigations regarding compliance with the level playing field provisions. For example, the ACCC conducted an extensive investigation into TPG Limited's (TPG) plans to connect large apartment buildings in metropolitan areas to its existing fibre networks, and to use FTTB technology to supply high speed broadband services to residents of those buildings.

In September 2013, TPG announced plans to extend its existing fibre networks in Adelaide, Brisbane, Melbourne, Perth and Sydney by up to one kilometre, and connect large apartment buildings located within that extended footprint. In April 2014, the ACCC received a complaint that TPG's plans breached the level playing field provisions.

In September 2014, the ACCC came to the view that TPG's plans would not contravene the level playing field provisions. This view was based on information and evidence that TPG's networks were capable of supplying superfast carriage services to small business or residential customers prior to 1 January 2011. Further, the ACCC obtained confirmation that TPG is not extending the footprint of these networks by more than one kilometre.

Following the conclusion of the investigation, the ACCC commenced a declaration inquiry into whether a superfast broadband access service like the type provided by TPG over its FTTB networks should be regulated. This inquiry is ongoing and is further outlined in section 6.2.1.

8 Telstra's structural separation and other Telecommunications Act provisions

Key Points

- We approved Telstra's revised migration plan, which reflects the revised commercial agreements between Telstra and NBN Co and the move to a multi-technology mix NBN.
- To promote a positive end-user migration experience and address service continuity concerns, we also consented to Telstra implementing a number of interim disconnection arrangements.
- We are continuing to work with government, industry and consumer representatives to develop a robust long term migration model. This will focus on promoting competition and protecting consumer interests during the implementation of the government's revised NBN policy.
- As outlined in chapter 4, we contributed to Communications Alliance's review of the Telecommunications Consumer Protection (TCP) Code.
- We continued to promote competition through enabling access to telecommunications facilities and actively participating in reviews of the allocation of numbers and local number portability requirements.

8.1 Overview

This chapter outlines the ACCC's powers and functions exercised under the Telecommunications Act. Our main activities for 2014-15 include:

- considering variations to Telstra's migration plan
- monitoring Telstra's compliance with its Structural Separation Undertaking (SSU) and migration plan, and responding to breaches with appropriate remedies
- regulating access to telecommunications facilities, and
- contributing to numbering issues.

The Telecommunications Act also provides the ACCC with a variety of other functions and powers, including the power to conduct public inquiries, and issue directions and formal warnings to carriers regarding carrier licence conditions. In some cases, the Minister or another relevant agency must consult the ACCC before making a decision. For example, the ACMA must consult the ACCC before it registers an industry code, varies a telecommunications industry standard or the Telecommunications numbering plan.

8.2 Structural Separation of Telstra

Telstra's SSU implements structural separation of Telstra through the migration of end-users to the NBN. The SSU outlines how Telstra will progressively stop supplying telephone and broadband services over its copper and HFC networks and commence supplying these services over the NBN.

To promote competition until the NBN is completed, the SSU contains interim equivalence and transparency measures which require Telstra to supply regulated services to its wholesale customers and own retail business units on equivalent terms. These measures also require Telstra to identify and take steps to address any instance of non-equivalence.

Telstra also has several reporting obligations under the SSU as discussed in section 5.3.

8.2.1 Variations to the migration plan

The migration plan outlines how Telstra will migrate voice and broadband services from its copper and HFC networks to the NBN as the new network is rolled out.

On 14 December 2014 the Australian Government announced that it had finalised negotiations and entered revised Definitive Agreements with Telstra to facilitate the rollout of its preferred multi-technology mix NBN. This means that a range of technologies will be used in completing the NBN: FTTB, FTTN, FTTP, HFC, fixed wireless and satellite.

The revised Agreements were not subject to formal ACCC consideration or approval. Rather, the Government authorised the revised commercial agreements for the purposes of the restrictive trade practices provisions of the CCA. This is similar to the approach taken by the previous government with respect to the original agreements between the Government and Telstra.

Due to the move to a multi-technology NBN, Telstra submitted a revised migration plan to the ACCC for approval. On 26 June 2015 the ACCC approved Telstra's revised migration plan following public consultation. The revisions reflect the revised commercial agreements between Telstra and NBN Co and the move to a multi-technology NBN. Further, they included some modified migration and disconnection arrangements that are intended to promote service continuity, as discussed below.

The ACCC's role in approving the revised migration plan was limited to assessing whether it was consistent with the legislative requirements, meaning the ACCC did not have discretion to seek improvements that went beyond these requirements. The ACCC is continuing to work with government, industry and consumer representatives to develop a robust long term migration model, with a focus on promoting competition and protecting consumer interests.

Interim disconnection arrangements

Since the approval of Telstra's revised migration plan, the need for further amendments to the migration and disconnection arrangements became apparent. These amendments are intended to protect consumers against premature disconnection of phone and internet services and to provide greater flexibility in dealing with 'hard to migrate' premises.

In August and September 2015, the ACCC consented to Telstra implementing a number of interim arrangements which were outside the migration plan. The ACCC did this to facilitate a more positive end-user migration experience. The ACCC has previously expressed concerns regarding service continuity and a lack of consumer awareness about the need to migrate. These interim arrangements include allowing additional time for consumers who have placed an NBN order before Telstra proceeds with mandatory disconnection of their legacy services. This provides greater assurance of service continuity for end-users in the migration process as NBN Co will have more time to connect its services to premises before Telstra disconnects them from its networks.

In consultation with the Department, the ACCC also consented to a modified approach to disconnecting fire alarm and lift phone services which had been agreed between Telstra and NBN Co. Under this approach, provided that a fire alarm or lift phone service has been registered with NBN Co within 25 business days after the relevant disconnection date, and notification is provided to Telstra by NBN Co, the service will not be subject to a managed disconnection until 1 July 2017.

This extension provides a greater opportunity for providers of fire alarm and lift phone services to develop substitute products that are compatible with the NBN. In addition, it allows time for the development of a targeted information campaign by NBN Co, fire alarm and lift phone service providers and state/territory governments on the migration and disconnection of these services.

8.2.2 Telstra's compliance with the Structural Separation Undertaking

Each year the ACCC monitors and reports to the Minister for Communications (the Minister) on any breaches of the SSU by Telstra. In May 2015, the Minister tabled the 2013–14 Report on Telstra's compliance with the SSU. At the time of writing this Report, the ACCC was in the process of finalising the 2014–15 Report on Telstra's compliance with the SSU.

The report for 2013–14 showed that Telstra was generally compliant with its commitments under the SSU during the year but did fail to meet its obligations on a few occasions.¹¹⁷ Telstra brought all such breaches to the ACCC's attention pursuant to the SSU's monthly reporting requirements.

During 2013–14 Telstra breached its SSU obligations to:

- properly 'ring-fence' confidential or commercially sensitive wholesale customer information, and
- ensure equivalence between its retail and wholesale operations in the rectification of basic telephone service (BTS) faults and the ADSL/LSS service qualification process.

In responding to each of the reported breaches, the ACCC focused on stopping the conduct, ameliorating its impact, and ensuring that Telstra's systems and processes are remediated as soon as practicable to safeguard against recurrence. In particular, Telstra has been working to address issues with its legacy IT systems and has continued its wide-ranging IT remediation program.

This program includes a review of Telstra's IT systems and remediation work to prevent unauthorised disclosure of confidential or commercially sensitive wholesale customer information. Telstra completed the majority of this work by March 2015, however several new IT system issues were subsequently identified and Telstra is working to address these outstanding issues in cooperation with the ACCC and with input from an external consultant.

Telstra also submitted rectification proposals to address the equivalence issues identified in relation to the rectification of BTS faults and the ADSL/LSS service qualification process. Following consultation, the ACCC accepted revised rectification proposals for these two matters on 15 October 2014 and 26 September 2014, respectively. The ACCC is satisfied that the rectification proposals provided an effective means of remedying the relevant equivalence issues.

8.2.3 Possible breaches of the overarching equivalence commitment

The SSU contains an overarching commitment requiring Telstra to deal with its wholesale customers and its own retail businesses in an equivalent manner. Where Telstra reports a possible breach of this commitment to the ACCC, it must also submit a proposal outlining the steps it proposes to take to remedy the possible breach (a rectification proposal).

¹¹⁷ ACCC, *Telstra's Structural Separation Undertaking—Annual Compliance Report 2013–14*, https://www.accc.gov.au/system/files/960_Telstra%20compliance%20with%20SSU%20Report_201314_web.pdf.

After consulting with stakeholders, the ACCC accepted rectification proposals from Telstra on the following issues:

Date of acceptance	Description of possible equivalence breach
July 2014	Different processes for advising Telstra retail customers and wholesale customers of 'no fault found' following remote testing of telephone line faults by Telstra.
September 2014	A small number of instances where Telstra retail was able to supply an ADSL service in circumstances where Telstra wholesale service qualification requests indicated that ADSL or LSS was unavailable due to 'excess transmission loss'.
October 2014	Telstra's comparative performance in repairing wholesale and retail faults in relation to basic telephone services.

8.3 Access to facilities

Under the Telecommunications Act, access providers must give other communications providers access to certain telecommunications facilities in order for them to install their own equipment.

The ACCC arbitrates disputes over access to facilities where the parties fail to agree on the terms of access and fail to agree on the appointment of an arbitrator (see section 8.4). The ACCC has also made a code relating to access to certain telecommunications facilities, under the Telecommunications Act, which it varied in 2013.

Facilities access service issues (including pricing issues) were considered as part of the MTAS and Fixed Line Services final access determination public inquiries. These issues are also being considered as part of the DTCS final access determination public inquiry (see chapter 6).

8.4 Access disputes

While the ACCC no longer has an arbitration role under the CCA, the ACCC continues to arbitrate disputes under the Telecommunications Act where the parties fail to agree on the appointment of an arbitrator. The ACCC can arbitrate disputes about access to certain facilities, the provision of pre-selection and number portability.

In July 2014, the ACCC ceased arbitrating disputes between Telstra and Vocus Fibre Pty Ltd, Adam Internet Pty Ltd and Chime Communications Pty Ltd regarding the price of access to Telstra's ducts and Telstra's exchange buildings. These disputes had been notified to the ACCC in 2012. The ACCC ceased arbitrating the disputes after the Federal Court ruled that there had been no failure to agree on the terms and conditions for access under the Telecommunications Act.

The ACCC did not arbitrate any new access disputes in 2014–15.

8.5 Numbering

The ACCC is a member of the ACMA's Numbering Advisory Committee and is actively engaged and consulted by the ACMA about numbering issues that arise. The ACMA is responsible for developing and administering a numbering plan, which may include rules about number portability. The numbering plan sets out the framework for the numbering of carriage services in Australia and the use of numbers in connection with the supply of these services.¹¹⁸

In 2014–15 the ACCC participated in the ACMA's consideration of the outsourcing of certain number allocation and administrative services. The ACCC has also actively engaged with the ACMA in relation to the ACMA's development of its Numbering Plan 2015, which replaced the previous numbering plan which was due to sunset in 2015.

8.6 Number portability

Number portability allows consumers to change their service provider and retain the same telephone number. The ACMA can only include rules about number portability into the numbering plan if directed to do so by the ACCC. Further, any rules the ACMA includes about number portability must be consistent with any directions by the ACCC. The ACCC has previously directed the ACMA to include rules in the numbering plan regarding local number portability, freephone and local rate number portability, and mobile number portability. The ACMA's Numbering Plan 2015 includes rules consistent with the ACCC's number portability directions.

During 2014–15 the ACCC did not give the ACMA any directions on number portability. However, the ACCC continued to participate in a review of future number portability requirements by the Communications Alliance. The review is seeking to identify options for a future common platform for number portability as underlying network technologies change from the public switched telephone network (PSTN) to internet protocol (IP).

8.7 Report on international rules of conduct

Division 3 of Part 20 of the Telecommunications Act sets out a mechanism for the government to deal with unacceptable conduct by international operators. Each year, the ACCC must review and report to the Minister on the operation of this Division.

An international telecommunications operator is considered to be engaging in unacceptable conduct if it:

- uses its market power in a manner that is, or is likely to be, contrary to the national interest
- uses any legal rights or legal status that it has as a result of foreign laws in a manner that is, or is likely to be, contrary to the national interest, and
- engages in any other conduct in a manner that is, or is likely to be, contrary to the national interest.

The Minister is empowered by the Telecommunications Act to make rules of conduct to prevent, mitigate or remedy any unacceptable conduct by an international telecommunications operator. The Minister introduced such rules in 1997. The rules of conduct:

- authorise the ACCC to make determinations of a legislative nature imposing requirements, prohibitions or restrictions on carriers or CSPs

¹¹⁸ Part 22, Division 2 of the Telecommunications Act.

- authorise the ACCC to give directions to carriers or CSPs of an administrative nature that impose requirements, prohibitions or restrictions
- require carriers and CSPs to comply with ACCC determinations and administrative directions, and
- authorise the ACCC to make information available to the public, a specified class of persons or a specified person.

The ACCC did not receive any complaints or conduct any investigations into unacceptable conduct by an international carrier pursuant to Division 3 of Part 20 of the Telecommunications Act during 2014–15, 2013–14, or 2012–13.

Price changes for telecommunications services in Australia

Report to the Minister for Communications

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Glossary

ACCC	Australian Competition and Consumer Commission
ADSL	asymmetric digital subscriber line
CCA	<i>Competition and Consumer Act 2010</i>
DSL	digital subscriber line
DSLAM	digital subscriber line access multiplexer
DTCS	domestic transmission capacity service
FAD	final access determination
NBN	National Broadband Network
PSTN	public switched telephone network
SIOs	services in operation
VoIP	voice over internet protocol

1 Summary of price movements

Key findings

- Overall prices for telecommunications services were relatively stable in 2014–15, falling in real terms by 0.5 per cent. This was a relatively small decrease in real prices compared to decreases recorded in the past eight years, which averaged 3.3 per cent.
- Fixed line voice service prices fell overall by 1.6 per cent. Lower prices for public switched telephone network (PSTN) fixed-to-mobile calls for business customers and basic access for residential customers drove this decline.
 - Fixed line voice service prices continue to be driven largely by PSTN prices, as voice over internet protocol (VoIP) services represent only 3.6 per cent of fixed line voice service revenue.
 - Small business customers experienced a 2.7 per cent decrease in PSTN prices—the largest fall within PSTN services.
- Mobile prices increased overall by 0.2 per cent, while mobile data inclusions increased substantially.
 - Prices increased in real terms for post-paid mobile services (0.4 per cent) and decreased for prepaid mobile services (0.4 per cent).
 - The increased prices for post-paid services may reflect increases in data quotas during the reporting period (which more than doubled for the sample under comparison), or increases in payments for handsets. Given the magnitude of the increases to data quotas, it is likely that many consumers benefited, despite paying higher prices on average.
- Internet service prices decreased in real terms by 1.3 per cent, while internet data quotas increased considerably. Digital subscriber line (DSL) services and wireless services—which accounted respectively for 50.7 per cent and 33.6 per cent of internet revenue—were the main drivers of movement in the internet price index.
 - Prices for DSL fell by around 1.8 per cent on average. Wireless internet prices increased by 0.4 per cent. Cable and national broadband network (NBN) internet services fell by 3.4 and 3.5 per cent respectively.
 - Internet data quotas increased significantly for DSL (73 per cent), cable (46 per cent) and NBN (39 per cent) services, but less so for wireless services (8 per cent).

The ACCC is required to report each year to the Minister for Communications on prices paid by Australian consumers for telecommunications services.¹

The ACCC fulfils this requirement by reporting on how real prices have changed for Australian consumers of fixed line voice, mobile, and internet services. The ACCC's approach involves calculating a *telecommunications service index*, which is comprised of sub-indices relating to fixed line voice, mobile and internet services.

Given the inflation rate of 1.5 per cent for the 2014–15 period, the relationship between annual changes in the indices and nominal prices is as follows:

- If nominal prices fell or increased by less than 1.5 per cent, this would equate to a real decrease in prices.

1 Section 151CM (1)(a) of the *Competition and Consumer Act 2010*.

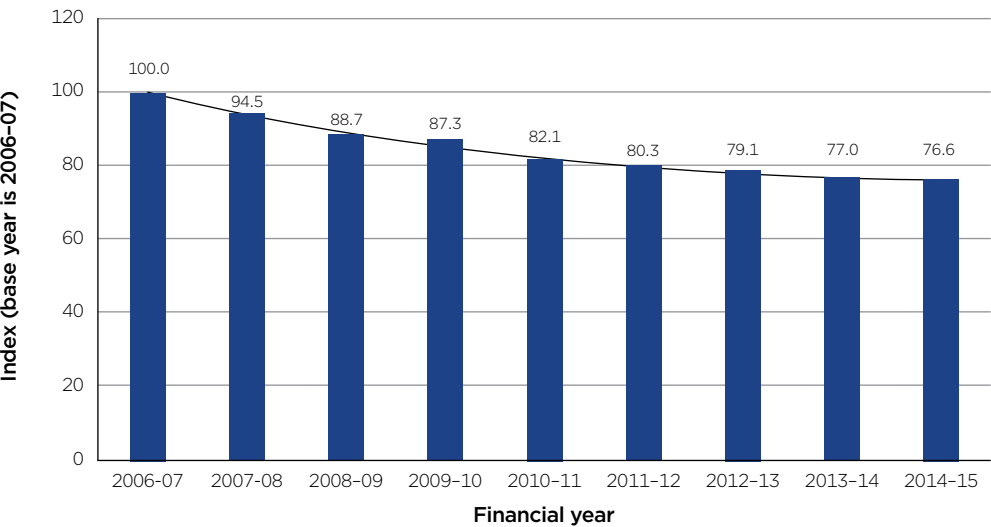
- If nominal prices increased by more than 1.5 per cent, this would equate to a real increase in prices.²

The indices used in this report offer an approximation of price movements. Whether consumers are better or worse off also depends on non-price information, such as the inclusions or conditions of product bundles and plans.

1.1 Overall real prices fell slightly in 2014-15

Prices for telecommunications services fell overall in real terms by 0.5 per cent in 2014-15, meaning that telecommunications services have become cheaper over the past year compared to other goods and services. The 0.5 per cent fall in real prices was relatively small compared to decreases recorded in recent years (figure 1.1).

Figure 1.1 The telecommunications services index, 2006-07 to 2014-15³



Lower prices overall are a positive outcome for consumers of telecommunications services. However, movements in price have not been uniform across services and customer groups. Price movements have differed between fixed line voice, mobile and internet services and the effect on individual consumers will depend on their particular basket of services.

1.2 Price movements differed markedly between services

In 2014-15, prices fell for both internet and fixed line voice services but increased marginally for mobile services (table 1.1). Of the three main service categories, fixed line voice services recorded the largest real price decrease (1.6 per cent).

Price movements varied across individual service components within the three main service categories. For instance, a small real increase in price occurred for both post-paid mobile services and for wireless internet services. This suggests that, depending on which services they purchase, individual consumers could have very different experiences of the price changes in 2014-15, even though service prices fell overall.

² Further details on inflation and real prices are discussed in appendix B.

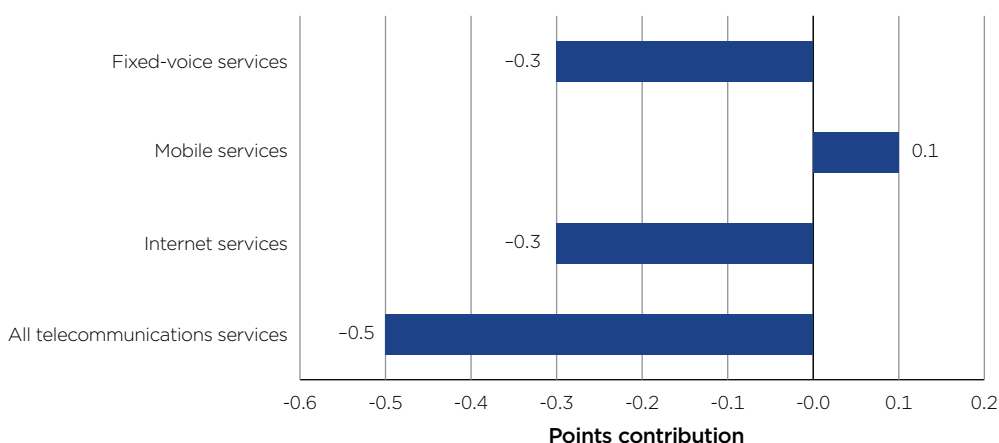
³ The telecommunications services index was re-based in 2006-07 following the addition of internet services. Since that time, the index has declined by 23.4 per cent.

Table 1.1 Real price changes for components of the telecommunications services index

	YoY % change (2014–15)	Sub-index weight (2014–15)	Av. annual % change since base year	% change since base year	Base year
Overall telecommunications services	-0.5	100.0	-3.3	-23.4	2006–07
Fixed line voice services	-1.6	100.0	-4.1	-50.7	1997–98
PSTN	-1.6	96.4	-4.1	-50.6	1997–98
VoIP	-4.2	3.6	-5.4	-10.5	2012–13
Mobile services	0.2	100.0	-4.3	-52.6	1997–98
Post-paid services	0.4	81.6	-2.2	-16.5	2006–07
Prepaid mobile services	-0.4	18.4	-4.2	-29.3	2006–07
Internet services	-1.3	100.0	-3.3	-23.6	2006–07
Wireless services	0.4	33.6	-5.4	-32.1	2007–08
DSL services	-1.8	50.7	-2.8	-20.6	2006–07
Cable services	-3.4	11.5	-2.1	-15.4	2006–07
NBN internet services	-3.5	4.3	0.5	1.0	2012–13

Note: The sub-index weight is based on each service's share of the revenue for the relevant sub-index—fixed line voice services, mobile services and internet services.

The contribution that each type of service makes to the movement in the overall telecommunications services index is shown in figure 1.2. Once price movements were weighted for their share of revenue, fixed line voice and internet services were the dominant influences on the telecommunications index, more than offsetting the small increase in prices for mobile services.

Figure 1.2 Points contribution of the fixed line voice, mobile and internet services indices to the movement in the telecommunications services index, 2014–15⁴

Note: Changes in price for each service are weighted for their share of revenue

⁴ The sum of the components' points contribution may not add up to the net index change due to rounding.

1.3 Fixed-voice service prices remain driven by PSTN prices

Real prices for fixed line voice services decreased for both residential and business consumer groups, and for both PSTN and VoIP services. In 2014–15, PSTN services accounted for the vast majority (96.4 per cent) of fixed line voice services. While this is a smaller proportion than in 2013–14 (98.1 per cent), and will decline further over time, it remains the case that prices for fixed line voice services are mainly driven by PSTN services.

More specifically, in 2014–15, the decline in fixed line voice services was driven by declining prices for PSTN fixed-to-mobile calls for business customers and basic access for residential customers.

Price movements for fixed line service components differed markedly. Real prices for local and long distance calls increased overall during the reporting period for the first time in the past decade.

These movements are partly explained by methodological issues. The *yield method* of measuring price changes, which is used to analyse fixed line service prices in this report, is particularly sensitive to movements in consumer demand.⁵ Moreover, the call revenue data collected by the ACCC are generally not derived directly from call usage data—this may also serve to exaggerate changes in yield caused by changes in consumer demand.⁶

Significantly, the quantity of calls or call minutes decreased substantially in 2014–15, while the respective revenue decreased by a lesser degree. This explains much of the real price increase observed in local and long distance call services in 2014–15. However, at the same time, *nominal* prices for several fixed line voice call services continued to increase gradually as they had over the past several years.

1.4 Prices increased for post-paid mobile services, decreased for prepaid

In 2014–15, prices for mobile services increased in real terms by 0.2 per cent, due to the real increase in prices for post-paid services. Post-paid services comprise a much larger share (81.6 per cent) of mobile services than prepaid services (table 1.1). Consequently, when weighted by revenue share, the real price decline of 0.4 per cent in prepaid mobile services was more than offset by the increase in post-paid mobile services.

The price increases were concentrated in the top 40 per cent of consumers by expenditure (those with 'high' and 'very high' expenditure). According to industry reports, the observed price increases are likely to relate, in part, to an increase in handset costs and larger payments to handset manufacturers.⁷

In addition, the price increases for post-paid plans may reflect increases in service inclusions—particularly regarding data inclusions, which more than doubled on average over the reporting period.⁸ Therefore, many consumers are likely to be better off, despite facing higher prices on average.

5 As discussed in appendix B, in the yield method, price is estimated as the ratio between revenue and quantity, where quantity is comprised of either the number of SIOs, number of calls made or the number of call minutes.

6 Fixed line service providers use revenue data from various plans or bundles and attribute them to specific service or call types. The attribution is based on set prices and values and does not consider call usage data. As such, when consumer usage of specific call types falls, this may not be reflected in the associated revenues, and hence an increase in yield is observed.

7 CBA Global Markets Research—Equities: Telstra Corporation Limited, 26 May 2015.

8 Based on a weighted sample of published plans (see appendix B).

1.5 Most internet services decreased in price while data quotas increased

Prices of internet services fell by 1.3 per cent in real terms over 2014–15, although movements differed markedly across technology types and between carriers. Real prices for internet services decreased across all technology types during the reporting period, except for wireless services which increased by 0.4 per cent. Real prices for cable services and NBN broadband services decreased by 3.4 per cent and 3.5 per cent respectively.

Prices were relatively stable for lower spending consumer groups. Higher spending consumers were more likely to experience price changes for the plans on offer, depending on the carrier.

Several plans remained at the same nominal price but had improved data quotas. Data quotas across all internet services increased by 56 per cent on average, driven largely by quotas for DSL services, which grew by around 73 per cent.⁹ Wireless plans had the smallest gains in quota size, at around 8 per cent. Many end-users benefited from either reduced real prices or larger data quotas.

9 Based on a weighted sample of published plans (see appendix B).

2 Fixed line voice services index

Telecommunications services categorised in this report as fixed line voice services include calls made over the PSTN¹⁰ network or through VoIP¹¹ technology. These services, in turn, comprise basic access (line rental), local and long distance calls, as well as fixed line to mobile calls. The ACCC calculates a *fixed line voice services index* to estimate the overall real price changes in these services.

The fixed line voice services index consists of sub-indices for PSTN and VoIP services, aggregated on the basis of revenue share. Price movements for PSTN services predominantly drive the index, as they account for the vast majority (96.4 per cent) of fixed line voice services by revenue. However, the share of voice services will change as Australia transitions to the NBN, which only provides voice services using VoIP.

The ACCC first collected data on VoIP services in 2013, and included the VoIP services sub-index for the first time in the 2013–14 edition of this report. In light of this, VoIP indices should be interpreted with caution until more years of data are available.

The fixed line voice services data collected by the ACCC is also disaggregated by broad categories of consumer, including residential, small business, and 'other' business.

2.1 Overall changes in fixed line voice service prices

The average real prices of fixed line voice services fell by 1.6 per cent in 2014–15, a smaller drop than for the previous year when a 5.2 per cent decline occurred. This was influenced by the lower general inflation rate in 2014–15 than in previous years.

Overall prices have fallen in real terms each year for the past decade. Since the sector was opened to competition in 1997–98, prices for fixed line voice services have fallen by 50.7 per cent, or an average annual rate of 4.1 per cent (figure 2.1).¹²

Real prices fell for both residential customers (1.2 per cent) and business customers (2.2 per cent) in 2014–15 (figure 2.2). Since the 1997–98 reforms, prices paid for fixed line services have fallen more for business customers (57.4 per cent) than for residential customers (46.1 per cent).

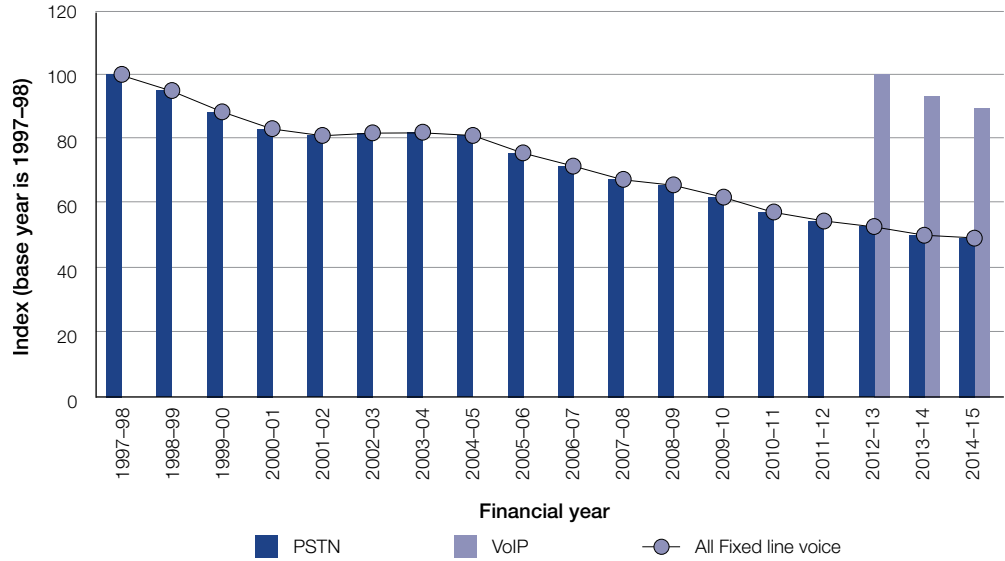
However, real price movements have varied substantially between different fixed line service components (section 2.2) and across different customer groups (section 2.3). Also, the available data suggests some differences between price movements of VoIP and PSTN services (section 2.4).

¹⁰ Public switched telephone network.

¹¹ Voice over internet protocol.

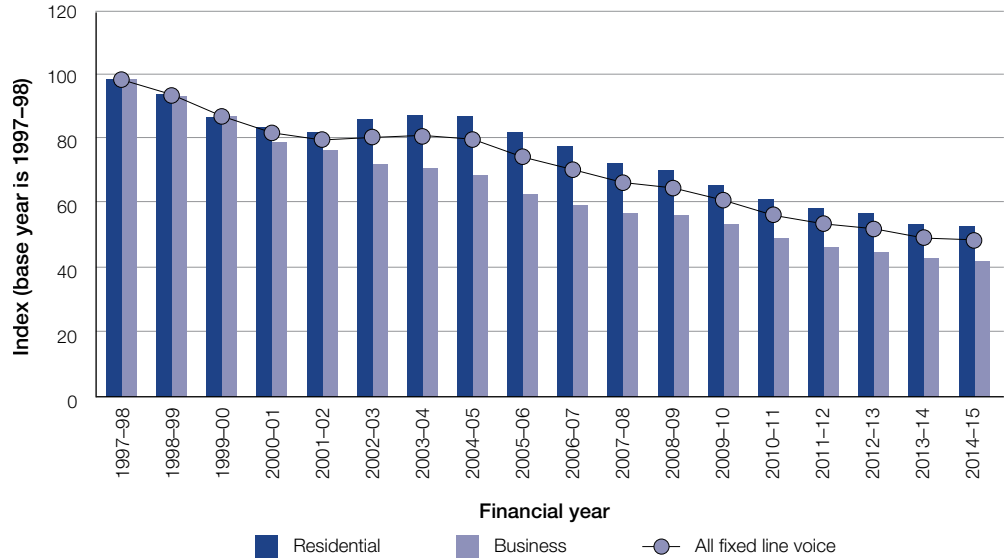
¹² For years prior to 2012–13, the fixed line voice service index only included PSTN services. While technically, this represents a break in the series, the index has not been rebased as VoIP services accounted for less than 1 per cent of the index in 2012–13 and therefore did not cause a significant movement in the index.

Figure 2.1 The fixed line voice service indices by service groups, 1997-98 to 2014-15



Note: The base year for PSTN and All Fixed line voice indices are 1997-98 while the base year for VoIP index is 2012-13.

Figure 2.2 The fixed line voice services index for residential and business customers, 1997-98 to 2014-15



2.2 Price movements for fixed line service components

The fixed line service index is comprised of five service components: basic access; local calls; national long-distance calls; international calls; and fixed-to-mobile calls. Real prices fell for both the basic access and fixed-to-mobile components of fixed line voice services in 2014–15 (table 2.1).

However, real prices for national and international calls increased in real terms for the first time in the past decade (table 2.1). The marked departure from previous results is due in part to the quantity of calls or call minutes decreasing proportionally more than respective revenues in 2014–15.¹³ The change also reflects increases in the per unit charges associated with call services for some providers.¹⁴

Table 2.1 Year-on-year percentage changes in the fixed line voice service index by service type over the past decade

	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15
Basic access	-2.4	-1.4	-1.6	1.1	-2.0	-4.2	-1.4	0.7	-3.4	-2.4
Local calls	-9.5	-6.7	-10.1	-2.5	-7.5	-8.6	-8.2	-2.2	-3.1	3.4
National long-distance	-6.9	-10.9	-10.9	-6.7	-9.0	-7.9	-5.2	-2.7	-1.0	6.7
International	-8.8	-4.8	-7.7	-3.9	-13.8	-14.5	-15.5	-21.2	-24.7	0.5
Fixed-to-mobile	-10.5	-7.6	-6.4	-6.8	-9.7	-12.4	-10.5	-11.7	-10.5	-5.0
Fixed line voice services index	-6.6	-5.4	-5.5	-2.6	-5.8	-7.3	-4.9	-3.2	-5.2	-1.6

The price movements of individual service components are weighted by revenue share to determine the contribution to the overall change in fixed line voice services index (figure 2.3). Basic access and fixed-to-mobile services accounted for 81 per cent of total consumer expenditure on fixed line voice services (table 2.2). As a result, these service components were the main drivers of change in the overall fixed line service index in 2014–15, more than offsetting the small, positive contributions to the index made by long distance and local calls.

The decline in usage of local and long distance calls in 2014–15 is in line with long-term trends (table 2.2). If the trend continues, or if current expenditure patterns persist, local and international calls will continue to have a smaller influence on overall fixed line voice service prices than the basic access and fixed-to-mobile components.

¹³ As discussed in appendix B, in the yield method, price is estimated as the ratio between revenue and quantity, where quantity is comprised of either the number of SIOs, number of calls made or the number of call minutes. Fixed line service providers use revenue data from various plans or bundles and attribute them to specific service or call types. The attribution is based on set prices and values and does not consider call usage data. Consequently, when consumer usage of specific call types falls, this may not be reflected in the associated revenues, and hence an increase in yield is observed.

¹⁴ For example, Telstra increased local call prices to 22c in January 2014, which represented a 10 per cent nominal increase for some consumers and a 29 per cent increase for others. While these changes occurred prior to the 2014–15 financial year, their effect was not felt fully until the 2014–15 period. Given that price movements for fixed line voice services are calculated based on revenue and usage accrued across the year, the price increases implemented in January 2014 still comprise an effective price increase for 2014–15 over the previous period.

Figure 2.3 Points contribution of fixed line voice services to the changes in the fixed line voice index, 2014–15

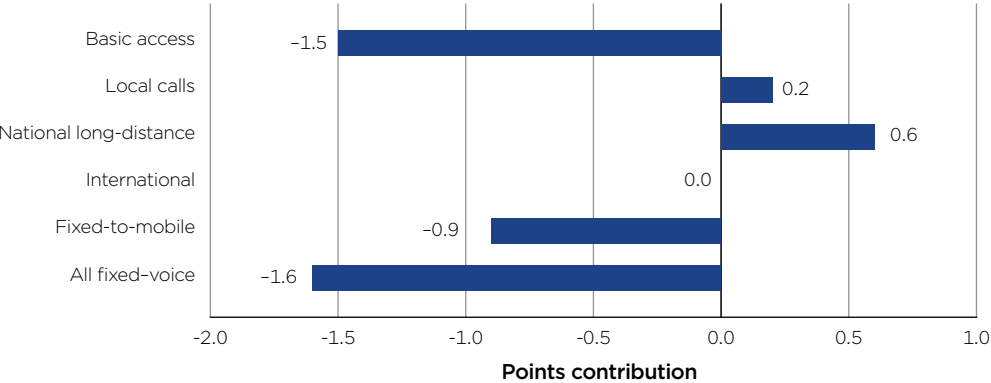


Table 2.2 Comparison of share of total consumer expenditure for fixed line voice service by service component, 1997–98 and 2014–15

Service Component	1997–98	2014–15
Basic access	19.5%	62.7%
Local calls	30.4%	6.3%
National long distance	25.3%	9.8%
International	11.2%	3.4%
Fixed to mobile	13.7%	17.9%

2.3 Fixed line voice services by customer group

The ACCC collects pricing information from carriers for both residential and business customers. Residential customers accounted for 65 per cent of total fixed line voice service revenue in 2014–15, with the remainder attributed to small business (22 per cent) and other business (13 per cent).¹⁵

Each of the customer groups experienced real price decreases for overall fixed line voice services in 2014–15, though there were significant differences between price movements of service components for residential and business customers. Prices of basic access and international long distance calls fell for residential customers but rose for business customers (tables 2.3, 2.4). For business customers, the prices of the local, national long distance and fixed-to-mobile calls fell (table 2.4).

¹⁵ While the delineation between residential and business customers is relatively reliable, there are some differences in carriers' reporting of 'small business' and 'other business' customers. The definition of a 'small business' differs between carriers and may change over time. Given this, the ACCC considers that the most relevant indicator of price changes for business consumers is the aggregate of all business customers. For completeness, some further disaggregated data is reported in appendix A.

Table 2.3 Year-on-year percentage changes in the fixed line voice residential service index by service type over the last decade

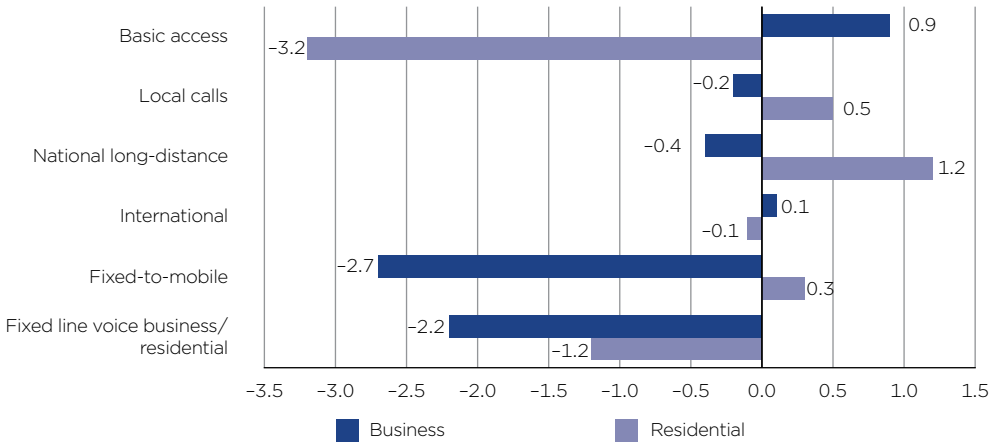
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Basic access	-1.5	-0.1	-1.0	-0.3	-1.8	-4.1	-1.8	1.1	-4.3	-4.8
Local calls	-9.0	-7.6	-10.1	-1.3	-8.1	-11.5	-6.1	-1.3	-2.0	8.8
National long-distance	-5.6	-13.0	-13.2	-6.7	-11.1	-2.5	-1.2	0.0	0.5	13.2
International	-8.4	-5.3	-9.2	-3.7	-16.4	-13.8	-17.4	-26.7	-33.7	-1.5
Fixed-to-mobile	-9.3	-8.3	-10.9	-7.9	-11.4	-13.4	-10.4	-14.3	-10.2	1.7
Fixed line voice residential	-5.5	-5.4	-6.4	-3.1	-6.4	-6.9	-4.4	-3.0	-5.5	-1.2

Table 2.4 Year-on-year percentage changes in the fixed line voice business index by service type over the last decade

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Basic access	-4.2	-3.8	-2.8	3.8	-2.3	-4.4	-0.7	0.2	-2.0	1.6
Local calls	-10.4	-5.2	-10.2	-4.6	-7.5	-4.7	-10.9	-3.4	-3.8	-3.8
National long-distance	-9.6	-6.9	-6.6	-6.6	-5.6	-15.5	-11.1	-6.8	-3.6	-4.2
International	-10.4	-2.9	-2.0	-4.7	-3.4	-16.6	-10.8	-9.5	-1.6	4.8
Fixed-to-mobile	-12.0	-6.9	-2.3	-5.5	-7.5	-11.3	-10.7	-9.2	-10.8	-11.3
Fixed line voice business	-8.6	-5.5	-4.0	-1.7	-4.8	-7.9	-5.7	-3.5	-4.4	-2.2

Figure 2.4 shows the contributions to the overall changes in the residential and business services indices. This also makes clear that the overall decline in basic access prices reflects the decrease in basic access prices for residential customers. Similarly, the overall decrease in prices for fixed-to-mobile calls reflects the price decrease for business customers. As noted above, these two results drive the overall decrease in prices for fixed line voice services.

Figure 2.4 Points contribution of fixed line voice services to the changes in the residential and business fixed line voice indices, 2014–15



2.4 Price movements for PSTN and VoIP technologies

Prices for VoIP services decreased by more than for PSTN services in 2014–15 (table 2.5). Despite this, VoIP services had relatively little effect on the fixed line voice service price index in 2014–15, as these services accounted for only 3.6 per cent of the fixed line voice services market (figure 2.5). The market share for VoIP increased markedly in 2014–15 from under 1 per cent in 2013–14 and will continue to rise rapidly as the NBN rollout progresses.

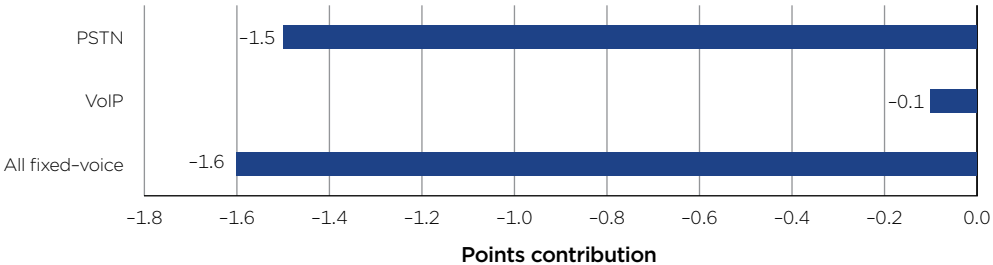
It is important to note that the VoIP sub-index calculations should be treated with caution, given that service providers only commenced reporting separately on these services in 2012–13 and service volumes are low.¹⁶ This sub-index is best treated as indicative and strong conclusions should not be drawn yet about trends in prices for VoIP.

¹⁶ The VOIP sub-index was first calculated in the 2013–14 Division 12 report.

Table 2.5 Year-on-year percentage changes in the fixed line voice service index by technology type over the last decade

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
PSTN	-6.6	-5.4	-5.7	-2.6	-5.8	-7.3	-4.9	-3.2	-5.1	-1.6
VoIP									-6.6	-4.2
Fixed line voice	-6.6	-5.4	-5.7	-2.6	-5.8	-7.3	-4.9	-3.2	-5.2	-1.6

Figure 2.5 Points contribution of PSTN and VoIP services to the changes in the fixed line voice index, 2014-15



PSTN and VoIP between customer categories

Residential customers account for the majority of services provided by both PSTN (65 per cent of revenue) and VoIP (70 per cent revenue) technologies. This means that regardless of the fixed line technology, changes in prices faced by residential customers have a greater influence on the overall price movement than changes in prices faced by businesses.

The mix of business customers differs significantly between fixed line technologies. Small businesses account for the majority of PSTN business revenue (63 per cent) but a minority share of VoIP business revenue (28 per cent).

All PSTN customer categories experienced a fall in the overall prices for fixed line voice services (table 2.6). Small business customers experienced the largest year-on-year fall in real prices (2.7 per cent).

Table 2.6 Year-on-year percentage changes in the PSTN service index by consumer group over the last decade

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Residential	-5.5	-5.4	-6.4	-3.1	-6.4	-6.9	-4.4	-3.0	-5.5	-1.2
Small business	-9.6	-3.6	-3.3	-1.5	-4.7	-7.7	-5.7	-1.1	-4.0	-2.7
Other business	-7.7	-8.8	-5.4	-1.9	-4.7	-8.2	-5.7	-8.1	-6.1	-0.9
PSTN business index	-8.6	-5.5	-4.0	-1.7	-4.7	-7.9	-5.7	-3.5	-4.7	-2.1
PSTN services index	-6.6	-5.4	-5.5	-2.6	-5.8	-7.3	-4.9	-3.2	-5.1	-1.6

Similarly, all customer groups experienced real decreases in the price of VoIP services (table 2.7). The limited evidence so far available suggests that prices for VoIP business customers have fluctuated more than for other VoIP customers, with prices falling 6 per cent in 2014–15 following a price increase of over 12 per cent in 2013–14 (table 2.7). However, as noted, these results are indicative only, given the early stages of VoIP data collection.

Table 2.7 Year-on-year percentage changes in the VoIP service index by consumer group

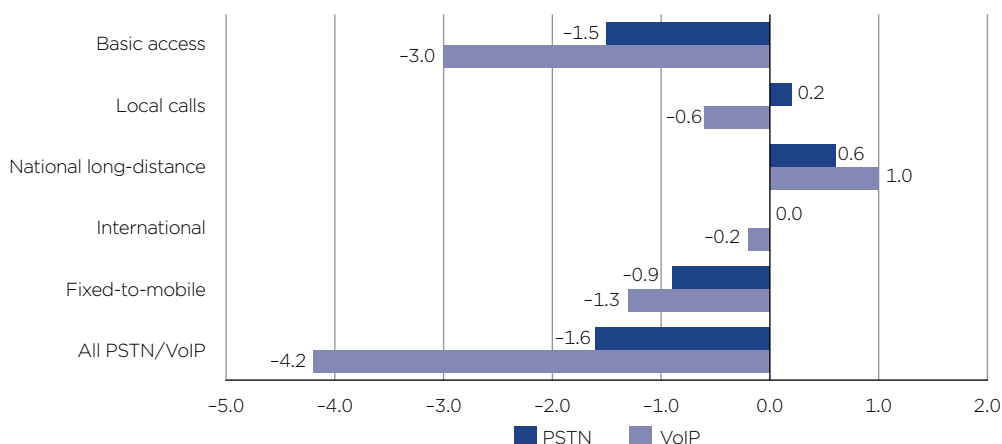
	2013–14	2014–15
Residential	-9.4	-2.9
<i>Small business</i>	12.7	-14.2
<i>Other business</i>	0.0	-3.2
VoIP business index	12.7	-6.2
VoIP services index	-6.6	-4.2

PSTN and VoIP service components

The majority of the VoIP consumer expenditure was on the basic access service component (56 per cent), followed by expenditure on fixed-to mobile services (25 per cent). Similarly, PSTN revenue is comprised largely of basic access (66 per cent) and fixed-to-mobile calls (16 per cent). The similar expenditure profiles and lower prices for basic access across technologies means customers experienced price declines over the majority of their fixed line services bill, irrespective of the technology type.

In 2014–15, price movements for specific service components were similar across both PSTN and VoIP technologies, with the exception of local calls, where prices for PSTN services increased marginally and prices for VoIP services decreased (figure 2.6). Price movements for VoIP service components tended to be more marked than those for PSTN service components.

Figure 2.6 Points contribution of VoIP and PSTN service components to the changes in the VoIP and PSTN indices, 2014–15



3 Mobile services

In this report, mobile services include both voice and data services that are delivered over GSM, 3G or 4G technologies to mobile devices. The data collected by the ACCC from service providers do not distinguish between these mobile technologies.¹⁷

The ACCC measures changes in average real prices for mobile services in Australia by calculating a mobile services index. Price changes for these services are estimated based on a selection of published mobile service plans from major providers in combination with information on consumer expenditure patterns.

This chapter considers prices for mobile services overall, and for the pre-paid and post-paid service sub-indices separately. Price movements are estimated based on the published prices for a selection of mobile service plans. These plans are chosen for comparison in accordance with the expenditure patterns of different consumer groups, representing consumers with notionally 'very low', 'low', 'average', 'high' and 'very high' expenditure on mobile services.¹⁸

The price movements for pre and post-paid services are then weighted using revenue weights to derive the overall mobile services index.

The mobile services index should be viewed as *indicative* of the price changes experienced by mobile customers, particularly given that it does not account for changes in plan inclusions, such as data quotas (discussed further in chapter 4). For context, the ACCC has included information on data quotas for the first time in this report.¹⁹

3.1 Overall changes in mobile service prices

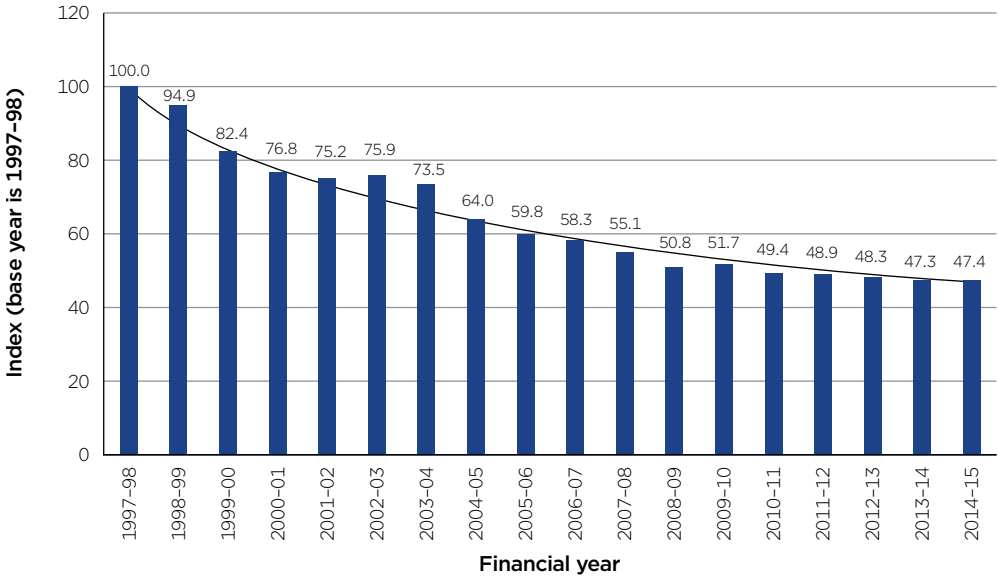
In 2014–15, average prices of mobile services increased slightly, by 0.2 per cent in real terms. This is only the third year in which prices have increased since the commencement of the mobile price index in 1997–98. Otherwise, mobile prices have exhibited a strong decreasing trend over the past 17 years (figure 3.1).

17 Prior to the 2010–11 reporting period the report distinguished between the different of mobile technologies. The ACCC no longer requires this disaggregation by technology type because of reporting difficulties experienced by carriers and because technological developments have meant that most handsets are now capable of roaming between different networks or technology types, and only a small proportion of the services are tied to a particular technology.

18 The indices are estimated based upon published plan prices and representative usage/spend profiles for each consumer profile. Bill samples (385 bills for each reporting company) are used to construct average spend bundles consumed by five user profiles based on their average spending—'very low', 'low', 'average', 'high' and 'very high' spend customers. Published plan prices are then matched to each user profile. Details of the methodology are provided in appendix B.

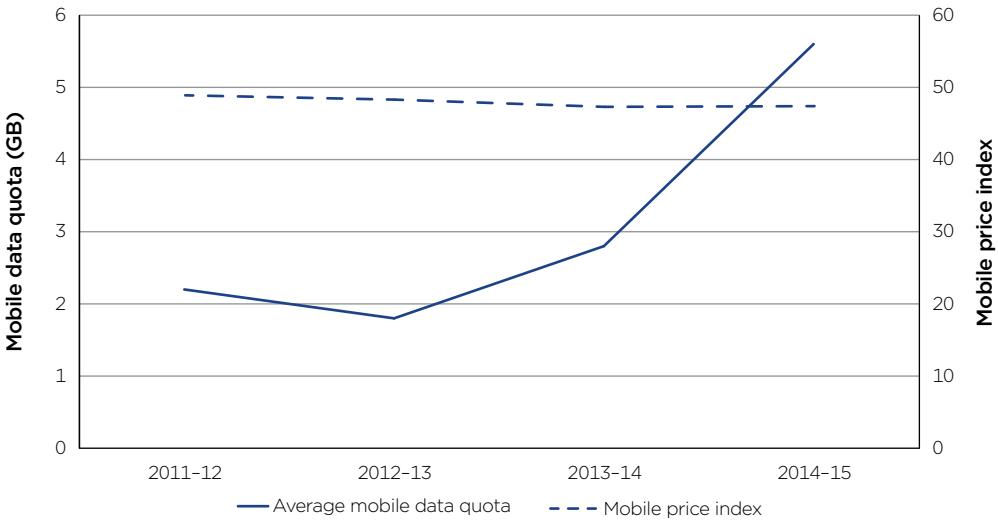
19 Based on a weighted sample of published plans (see appendix B).

Figure 3.1 Overall mobile services index, 1997-98 to 2014-15



The observed increase in price in 2014-15, however, has been accompanied by an increase in data allowance offered by the major mobile service providers.²⁰ Based on a selection of published plans collected by the ACCC, the average data allowance for post-paid and prepaid mobile grew by around 98 per cent in 2014-15 (figure 3.2). During this time, other plan inclusions (such as calls, talk minutes, messaging and data sharing), have also changed.

Figure 3.2 Average monthly mobile data allowance (GB) and mobile price index, 2011-12 to 2014-15²¹



Source: ACCC's collection of publicly available information.

20 Jennifer Dudley-Nicholson, *Adelaide Advertiser: The Great giveaway*, 5 June 2015.

21 This is the average monthly data allowance for post-paid and prepaid mobile is based on data for five different consumer groups by expenditure. The average is weighted both by service provider and by pre- and post-paid services, based on their respective revenue shares in 2014-15.

3.2 Prepaid and post-paid services

Real prices increased for post-paid mobile services by 0.4 per cent in 2014-15, which was the first increase in five years (figure 3.3). At the same time, real prices for prepaid services decreased by 0.4 per cent—a relatively small decrease, given that mobile service prices have fallen by an average of 4.3 per cent per year since 1997-98.

Post-paid services account for the largest proportion of the market for mobile services and therefore have a dominant effect on the mobile price index (figure 3.4).

Figure 3.3 Year-on-year percentage changes in the overall mobile services index and the post-paid and prepaid sub-indices, 2010-11 to 2014-15

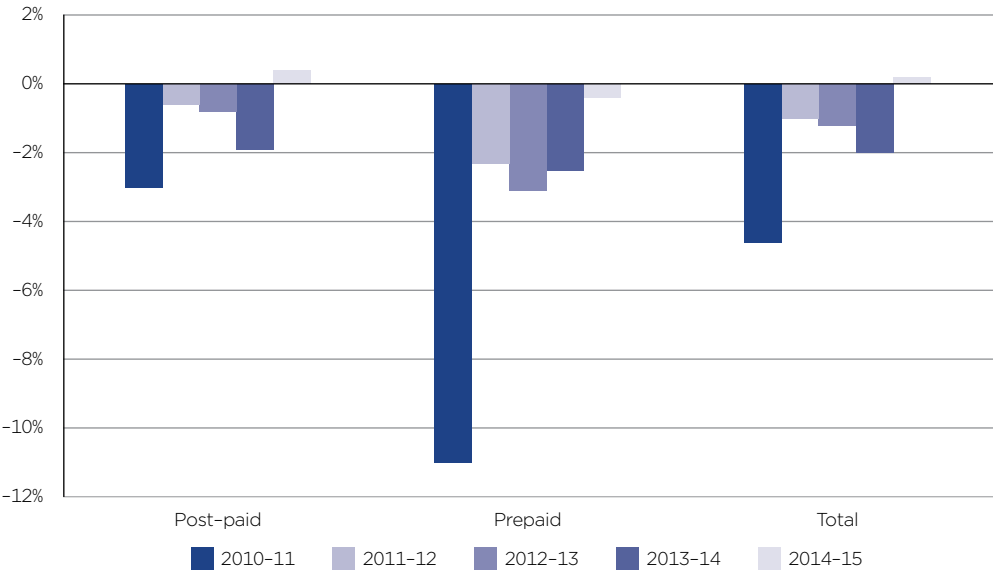
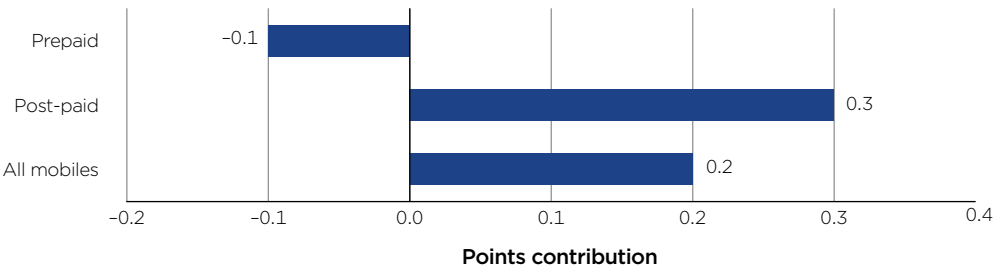


Figure 3.4 Points contribution by prepaid and post-paid indices to the change in the mobile services index, 2014-15²²



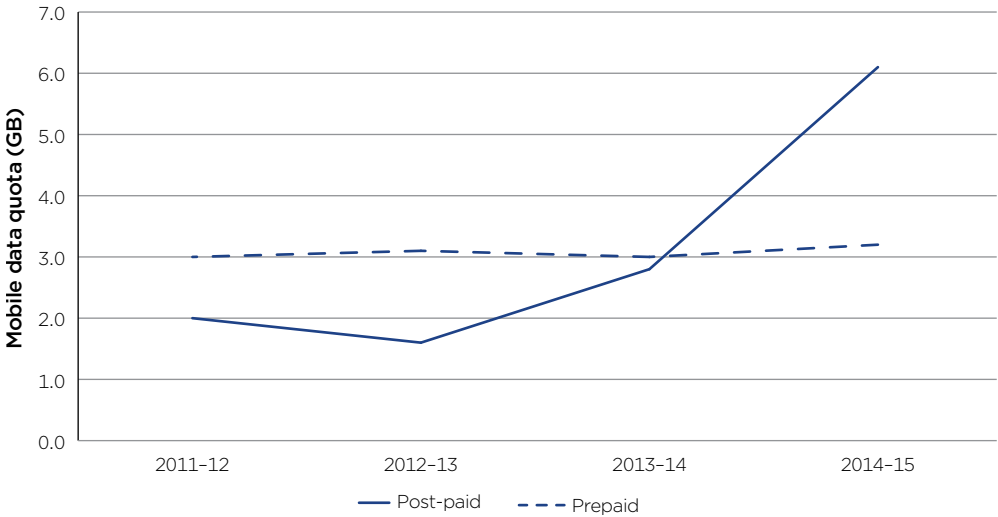
Although the price of post-paid mobile services increased slightly in 2014-15, data inclusions more than doubled (figure 3.5). This follows similar increases in 2013-14, when data inclusions in post-paid mobile services increased by around 78 per cent. As a result, consumers are likely to have been better off on balance.²³

²² The sum of the components' point contributions may not add up to the net Index change due to rounding.

²³ This may not apply to all consumers, as some consumers may have preferred to avoid any price increase regardless of changes to the data quota.

Data quotas for prepaid mobile plans have not risen to the same extent as that for post-paid mobile plans (figure 3.5). In 2014–15, prepaid mobile data quota increased by 9 per cent on average. This increase was concentrated in the bottom 40 per cent of consumers by expenditure. Generally, quotas are less apparent in prepaid mobile services, as many plans offer a small initial quota and rely on a ‘pay as you go’ approach to further data use.

Figure 3.5 Average monthly data allowance for prepaid and post-paid mobile services (GB), 2011–12 to 2014–15



Source: : ACCC’s collection of publicly available information.

3.3 Price changes by user groups

Price changes in mobile services were not uniform across consumer groups. While real prices decreased for the ‘very low’, ‘low’ and ‘average’ users of post-paid mobile services in 2014–15, they increased for the ‘high’ and ‘very high’ user groups (figure 3.6). This was the first time in the past five years that price levels for post-paid services increased for ‘high’ and ‘very high’ user groups.

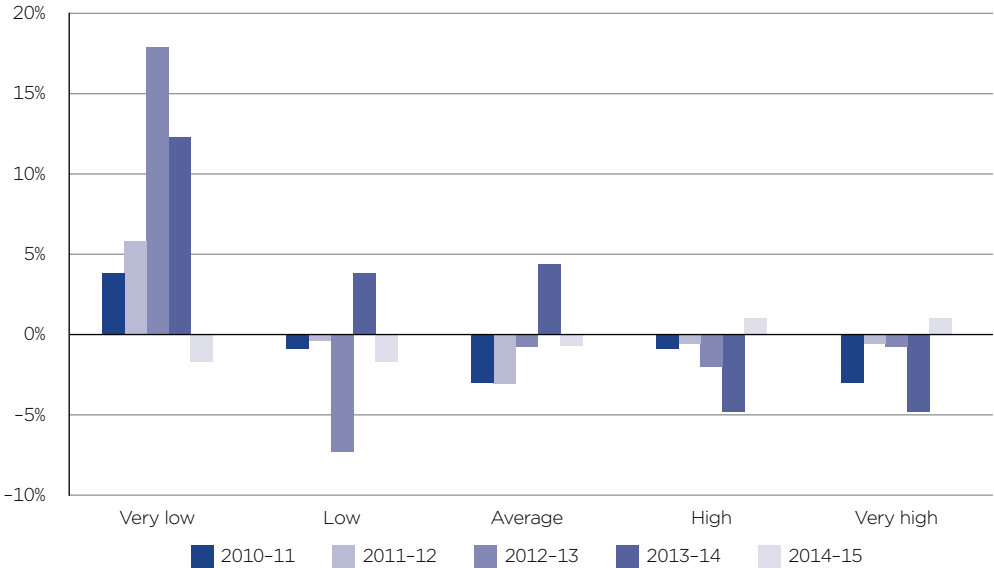
The observed price increases may be partly attributed to an increase in handset prices. Several of the plans analysed by the ACCC had payments for handsets incorporated into the monthly access fee (rather than it being an optional addition). Industry analysis suggests that the observed price increases on post-paid mobile plans are due largely to higher device costs, covering larger payments to handset manufacturers.²⁴

In addition, the price increases for post-paid plans may reflect increases in service inclusions—particularly regarding data inclusions.²⁵ Therefore, while consumers within the ‘high’ and ‘very high’ user groups are on average paying higher prices, they may not be worse off when the combined value of handsets and inclusions is taken into account.

²⁴ CBA Global Markets Research—Equities: Telstra Corporation Limited, 26 May 2015.

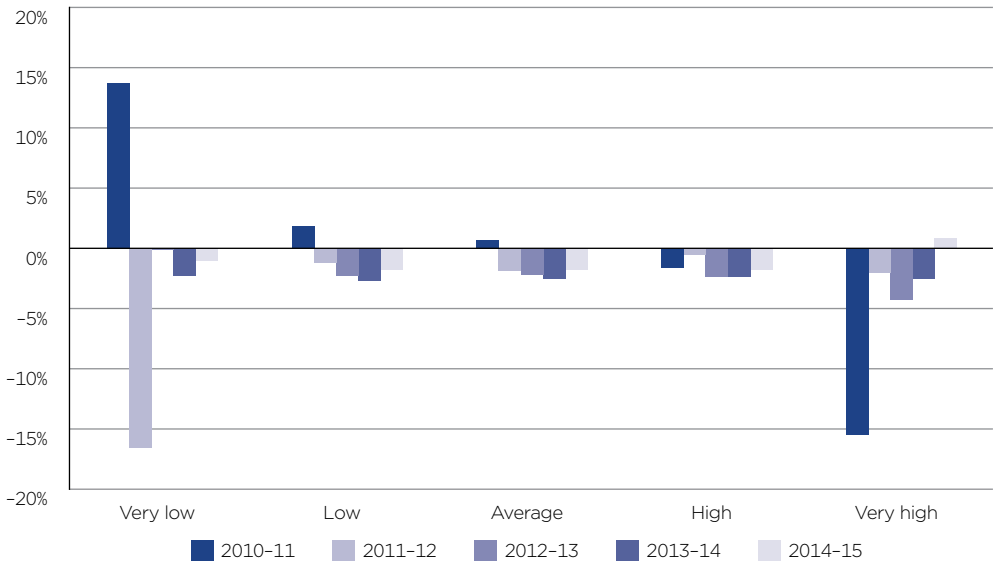
²⁵ Jennifer Dudley-Nicholson, *Adelaide Advertiser: The Great giveaway*, 5 June 2015.

Figure 3.6 Year-on-year percentage change in the price index for post-paid services by user group, 2010-11 to 2014-15



For prepaid services, real prices fell in 2014-15 for all user groups (between one and 1.8 per cent), except for the 'very high' user group, who experienced a slight increase in price levels (0.8 per cent) (figure 3.7). Despite the price increase, consumers in the 'very high' user group may not necessarily be worse off, as some carriers had also increased the data inclusions for their prepaid plans.²⁶

Figure 3.7 Year-on-year percentage change in the price index for prepaid services by user group, 2010-11 to 2014-15



²⁶ Goldman Sachs, *GS Telco Pricing Survey, #20: Mobile competition eases as prices rise further, TLS/Foxtel drives fixed competition*, 2 February 2015.

4 Internet services

The internet services index is a measure of real price movements across wireless, DSL, cable and NBN internet services. The definitions of the various internet services are consistent with previous reports:

- Wireless internet services include services that provide internet connectivity via a USB modem key or wireless card. They therefore exclude data services available through a mobile handset (which are discussed as part of mobile services in chapter 3).
- NBN services are supplied using a range of access technology (fixed line multi-technology mix, wireless and satellite), but are reported as an aggregate index. This report only considers retail price movements for NBN internet services—it does not indicate movements in wholesale price levels paid to NBN Co by retail service providers.

Separate indices are calculated for wireless, DSL, cable, and NBN internet services by comparing prices at the beginning and end of the reporting period. The price movements for those services are estimated based on a selection of published plans which represent the expenditure patterns of five groups of consumers, as for mobile services.

These indices are sensitive to the selection of plans used for comparison. To the extent possible, like-for-like comparisons have been made (between similar plans). However, this is made more complicated by the fact that over the reporting period, plans may not only change in terms of price, but also in the quota of included data, upload and download speeds, and other terms and conditions. While this has generally been an issue across the various telecommunications services, the product offerings for internet services have been especially dynamic.

Therefore, the internet services index should be seen as *indicative* of the average price changes faced by consumers, particularly given that it does not account for changes in plan inclusions and quotas. For context, the ACCC has separately considered how plan inclusions, namely data quotas, have changed in recent years.

4.1 Overall changes in internet service prices

The average price for all internet services has decreased each year since 2007–08 (table 4.1). At the same time, consumers have generally experienced improvements, particularly in data quotas offered.

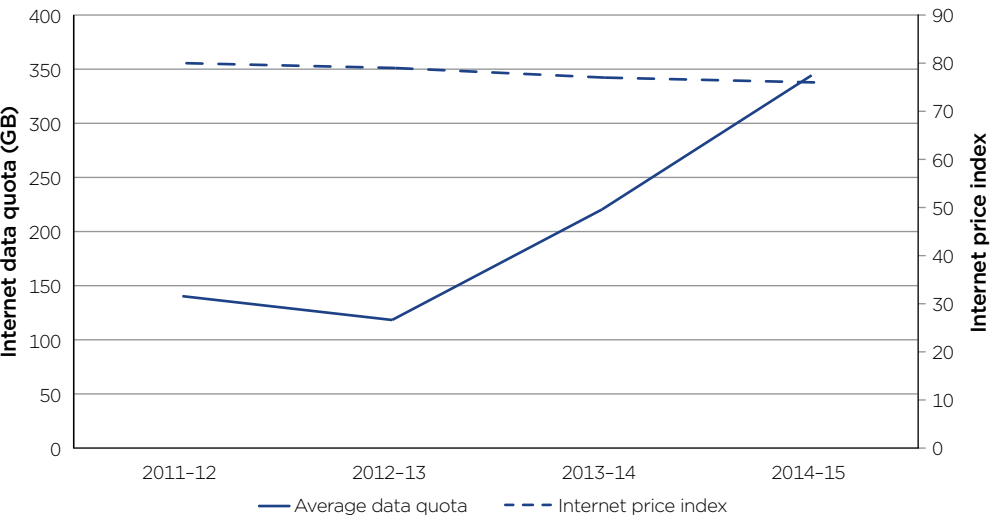
Increasingly, data quotas have become a point of competition alongside price. For instance, based on a sample of internet plans, the average data quota across all technologies grew by 56 per cent in 2014–15, following an increase of 86 per cent the previous year (figure 4.1).²⁷ For high expenditure consumers, providers have increasingly offered plans with ‘unlimited’ data quotas over the past five years, for DSL, Cable, and most recently, NBN services. At other price points, consumers have generally had improvements in data quotas.

²⁷ Based on selected plans submitted to the ACCC via the Division 12 RKR. For the purposes of calculating average quotas, plans with ‘unlimited’ data quotas were treated as having 1000 Gb quotas.

Table 4.1 Year-on-year percentage changes in the internet services index by service type

	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Wireless	n/a	-18.5	-14.7	-3.5	1.7	1.8	-2.7	0.4
DSL	-5.2	-0.4	-2.0	-3.4	-5.7	-2.2	-2.0	-1.8
Cable	-5.9	0.5	-1.1	-3.5	1.0	-1.8	-2.2	-3.4
NBN internet	n/a	n/a	n/a	n/a	n/a	n/a	4.6	-3.5
Overall	-6.2	-4.6	-4.9	-3.6	-2.7	-0.9	-2.2	-1.3

Figure 4.1 Average monthly internet data quotas (Gb) and internet services index 2011-12 to 2014-15²⁸

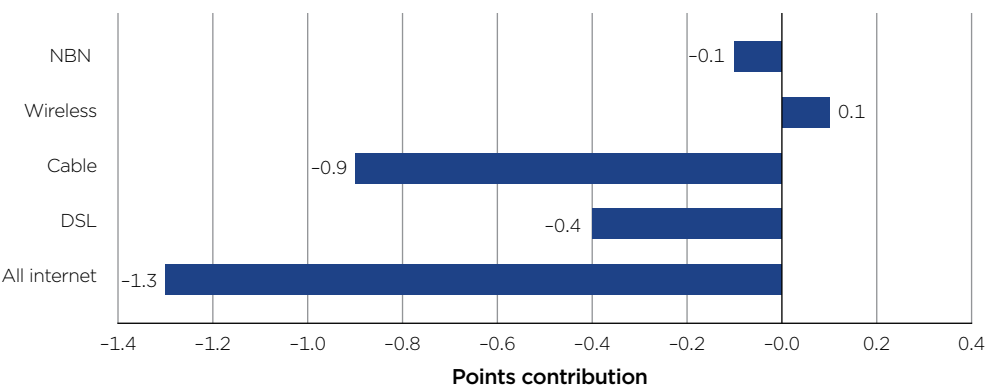


In 2014-15, the average real prices for internet services decreased by 1.3 per cent—a similar decrease as the previous year (table 4.1). Prices for wireless internet services grew marginally more than the general inflation rate, while prices for DSL, Cable, and NBN services fell in real (and nominal) terms.

The prices for each of the internet services were weighted by revenue share to calculate the overall internet services index. In 2014-15, prices for DSL services made the largest contribution to the decrease in the overall internet services index, as was the case in 2013-14 (figure 4.2). This reflects the fact that DSL continues to account for a relatively large share (51 per cent) of internet service revenue. Prices for NBN and cable services also contributed to the overall decrease in the internet services index, while wireless services contributed a small positive effect.

28 The sum of the components' points contribution may not add up to the net index change due to rounding.

Figure 4.2 Points contribution by NBN, wireless, DSL, cable and indices to the change in internet services index 2014–15²⁹



4.2 DSL internet services

In the 2014–15 reporting period, real prices for DSL services fell by 1.8 per cent—a relatively small decline compared to the past eight years, when DSL prices have fallen by an average of 3 per cent each year.

Price movements have tended to differ across different DSL service plans, and across different providers. However, the majority of providers included similar plans at the beginning of the 2014–15 reporting period as at the end, with little or no change in nominal price (hence, showing a real price decrease).

At the same time, several plans that remained at the same nominal price during the reporting period contained improved data quotas. Consequently, many end-users would have been better off on balance. Overall DSL data quotas grew by around 73 per cent during 2014–15, following a 47 per cent increase in the previous year. However, providers were more likely to reduce prices for larger, more expensive plans—particularly where quotas were already large or ‘unlimited’. For smaller, cheaper plans, providers were more likely to compete by improving the offering.

4.3 Wireless internet services

In 2014–15, wireless internet prices grew by 0.4 per cent in real terms. While there had been significant price falls in 2008–09 and 2009–10, price movements for wireless internet have generally been smaller since then, and have fluctuated between real price increases and decreases.

During the 2014–15 reporting period, most carriers maintained the plan offerings that were available at the beginning of the period (in terms of nominal prices and inclusions). Where price movements did occur, they were more frequently observed for higher spending consumer groups—these movements varied between price increases and decreases, depending on the carrier.

Data quotas for wireless internet plans generally did not change in line with quota increases offered on other internet platforms. Quotas included in wireless internet plans increased by an average of around 8 per cent in 2014–15.

²⁹ The sum of the components’ points contribution may not add up to the net index change due to rounding.

4.4 Cable internet services

In 2014–15, real prices for cable internet services decreased by 3.4 per cent. The prices of cable internet services have been relatively stable with prices decreasing every year since 2006–07 except in 2008–09 and 2011–12 when they increased by 0.5 per cent and 1 per cent respectively.

Providers offered several plans in 2014–15 that were also offered in 2013–14, with no nominal price change. However, there were also instances of both price increases and decreases for cable internet service plans.

Several consumer groups benefited from larger data quotas. On average, data quotas included in internet cable plans increased by around 46 per cent in 2014–15.

4.5 NBN internet services

In 2014–15, real prices for internet services supplied over the NBN decreased by 3.5 per cent. Similar to the case in DSL, the majority of NBN providers maintained the same plans from the beginning of the reporting period, with the same or similar nominal price. While this represents a real decline in prices for NBN services overall, NBN plans also improved their data quotas by an average of 39 per cent in 2014–15.

Some providers increased the nominal price of their cheapest NBN service offering in 2014–15 while others implemented new plans that were cheaper and smaller (in terms of inclusions) than had been previously available. Therefore, consumers looking for the cheapest option for NBN services may find real increases or decreases in the price of the available offerings, depending on which providers service their area.

At the same time, several providers reduced the prices of their larger, more expensive plans in both nominal and real terms.

NBN services continued to make up a relatively small share of internet services in 2014–15. This is reflected in its small share of the overall internet services revenue, which is indicated by its small contribution to the change in the internet services index in 2014–15.

Appendix A: Tables

Table A1 Telecommunications services index, 1997-98 to 2014-15

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Fixed line voice services	100.0	95.0	88.4	83.2	81.0	81.9	82.1	81.1	75.8	71.6	67.7	65.9	62.0	57.4	54.6	52.9	50.2	49.3
Mobile services	100.0	94.9	82.4	76.8	75.2	75.9	73.5	64.0	59.7	58.3	55.1	50.8	51.8	49.4	48.9	48.3	47.3	47.4
Internet services										100.0	93.8	89.5	85.1	82.1	79.8	79.1	77.4	76.4
All services (old series)	100.0	95.0	86.4	81.1	79.1	79.9	79.0	73.8	69.0	67.1								
All services (new series)*										100.0	94.5	88.7	87.3	82.1	80.3	79.1	77.0	76.6

Note: Base year for old series is 1997-98.

*Includes internet services.

Table A2 Points contribution to telecommunications services index, 2000-01 to 2014-15

	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Fixed line voice services	-3.6	-1.6	0.6	0.2	-0.7	-3.6	-2.9	-2.2	-1.1	-2.0	-2.1	-1.0	-0.6	-1.1	-0.3
Mobile services	-2.5	-0.8	0.4	-1.3	-5.8	-2.9	-1.2	-2.7	-4.5	1.2	-3.3	-0.5	-0.7	-1.1	0.1
Internet services	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-0.6	-0.5	-0.8	-0.6	-0.6	-0.2	-0.5	-0.3
All telecommunications services	-6.1	-2.5	1.0	-1.1	-6.6	-6.5	-4.0	-5.5	-6.1	-1.5	-6.0	-2.2	-1.5	-2.7	-0.5

Notes: The sum of the components' points contribution may not add up to the net index change due to rounding.

Table A3 Fixed line voice services index by technology; PSTN and VoIP, 1997-98 to 2014-15

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
All PSTN	100.0	95.0	88.4	83.2	81.0	81.9	82.1	81.1	75.8	71.6	67.7	65.9	62.0	57.4	54.6	52.9	50.2	49.4
VoIP	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100.0	93.4	89.5
All fixed line voice	100.0	95.0	88.4	83.2	81.0	81.9	82.1	81.1	75.8	71.6	67.7	65.9	62.0	57.4	54.6	52.9	50.2	49.3

Table A4 Fixed line voice services index by service; 1997-98 to 2014-15

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Basic access	100.0	99.2	108.9	125.4	142.0	159.6	170.5	179.4	175.2	172.8	170.0	171.8	167.9	160.8	158.6	159.7	154.3	150.6
Local calls	100.0	99.5	90.3	74.1	65.4	62.9	60.8	56.1	50.7	47.3	42.5	41.7	38.6	35.1	32.3	31.6	30.6	31.6
National long-distance	100.0	93.6	84.7	79.4	72.5	69.1	67.8	65.7	61.2	54.5	48.6	45.3	41.2	38.0	36.0	35.0	34.7	37.0
International	100.0	79.3	57.9	48.0	40.7	38.3	36.1	34.5	31.5	29.9	27.6	26.4	22.8	19.5	16.5	13.0	9.8	9.8
Fixed-to-mobile	100.0	94.7	87.3	81.9	79.2	77.3	75.6	72.7	65.0	60.1	56.2	52.2	47.1	41.3	37.0	32.6	29.2	27.7
All fixed line voice	100.0	95.0	88.4	83.2	81.0	81.9	82.1	81.1	75.8	71.6	67.7	65.9	62.0	57.4	54.6	52.9	50.2	49.3

Table A5 PSTN services index by service; residential and business, 1997-98 to 2014-15

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
All PSTN																		
Basic access	100.0	99.2	108.9	125.4	142.0	159.6	170.5	179.4	175.2	172.8	170.0	171.8	167.9	160.8	158.6	159.7	154.3	150.7
Local calls	100.0	99.5	90.3	74.1	65.4	62.9	60.8	56.1	50.7	47.3	42.5	41.7	38.6	35.1	32.3	31.6	30.5	31.7
National long-distance	100.0	93.6	84.7	79.4	72.5	69.1	67.8	65.7	61.2	54.5	48.6	45.3	41.2	38.0	36.0	35.0	34.7	36.9
International	100.0	79.3	57.9	48.0	40.7	38.3	36.1	34.5	31.5	29.9	27.6	26.4	22.8	19.5	16.5	13.0	9.7	9.8
Fixed-to-mobile	100.0	94.7	87.3	81.9	79.2	77.3	75.6	72.7	65.0	60.1	56.2	52.2	47.1	41.3	37.0	32.6	29.2	27.7
All PSTN	100.0	95.0	88.4	83.2	81.0	81.9	82.1	81.1	75.8	71.6	67.7	65.9	62.0	57.4	54.6	52.9	50.2	49.4
PSTN residential																		
Basic access	100.0	99.4	110.4	128.1	147.4	171.9	184.4	198.3	195.4	195.1	193.1	192.5	188.2	180.4	177.2	179.1	171.5	163.3
Local calls	100.0	99.0	88.7	74.1	66.0	65.2	62.7	55.7	50.7	46.8	42.1	42.0	38.6	34.1	32.1	31.6	31.1	34.1
National long-distance	100.0	94.8	85.0	82.4	75.4	73.6	74.2	72.9	68.8	59.9	52.0	48.5	43.1	42.1	41.5	41.5	41.8	47.1
International	100.0	80.2	59.1	50.5	42.6	41.1	38.7	37.3	34.1	32.3	29.4	28.2	23.5	20.3	16.8	12.3	8.1	8.0
Fixed-to-mobile	100.0	95.6	87.7	86.7	82.6	86.7	86.8	85.2	77.3	70.9	63.1	57.9	51.3	44.4	39.8	34.2	30.7	31.3
All residential	100.0	95.3	88.2	85.1	83.3	87.5	88.7	88.4	83.5	79.0	73.9	71.5	66.8	62.2	59.5	57.7	54.6	53.9

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
PSTN business																		
Basic access	100.0	98.9	106.4	120.9	133.0	138.5	146.6	148.0	141.9	136.5	132.6	137.6	134.5	128.7	127.8	128.0	125.5	127.7
Local calls	100.0	100.5	92.9	74.1	64.4	58.5	57.2	56.8	50.9	48.2	43.3	41.4	38.6	36.4	32.5	31.4	29.7	28.6
National long-distance	100.0	91.7	84.3	74.5	67.8	62.0	57.8	54.5	49.3	45.9	42.9	40.0	37.8	31.9	28.4	26.4	25.5	24.4
International	100.0	77.4	55.4	41.4	35.9	30.8	29.0	26.8	24.0	23.3	22.9	21.8	21.0	17.6	15.7	14.2	13.3	14.0
Fixed-to-mobile	100.0	94.1	86.9	78.3	76.9	69.5	66.2	61.9	54.5	50.7	49.6	46.9	43.4	38.5	34.4	31.2	27.8	24.6
All business	100.0	94.7	88.5	80.3	77.7	73.2	72.0	69.9	64.0	60.5	58.0	57.1	54.4	50.1	47.2	45.6	43.5	42.5

Note: Base year is 1997-98.

Table A6 PSTN business services index, small and other business, 1997-98 to 2014-15

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Small business																		
Basic access	100.0	94.7	105.6	114.6	133.2	143.2	154.2	176.6	160.1	153.2	147.0	149.7	144.6	138.5	138.0	138.3	137.5	137.7
Local calls	100.0	107.2	98.4	75.5	73.2	70.5	68.4	80.6	73.4	71.4	66.6	65.0	59.4	56.4	48.4	48.2	45.6	44.3
National long-distance	100.0	98.2	89.5	86.4	80.7	75.2	79.2	87.4	80.0	78.2	73.6	68.8	67.8	55.0	49.6	49.4	46.2	45.0
International	100.0	90.7	59.7	39.7	34.4	31.9	30.5	34.8	32.0	27.8	28.0	25.8	27.8	20.2	19.1	16.7	14.9	13.3
Fixed-to-mobile	100.0	92.4	87.4	79.9	79.3	75.9	77.0	92.3	82.2	79.5	79.1	76.0	70.8	63.4	56.2	53.9	47.9	42.9
All small business	100.0	97.9	90.8	82.9	84.9	85.9	88.6	102.6	92.8	89.4	86.5	85.2	81.2	74.8	70.5	69.7	67.0	65.2
Other business																		
Basic access	100.0	100.5	106.7	123.1	132.8	133.7	138.7	118.2	120.0	116.9	117.3	127.8	128.0	122.0	120.3	120.4	113.8	120.6
Local calls	100.0	98.6	91.4	73.7	62.3	55.6	54.7	44.4	39.1	34.8	28.2	25.6	24.8	23.0	22.5	20.2	19.2	17.9
National long-distance	100.0	89.4	82.5	70.4	63.8	58.0	49.4	41.4	37.2	32.5	29.9	28.0	25.0	22.4	19.5	16.5	16.6	15.5
International	100.0	69.0	51.8	40.2	34.9	29.4	27.4	21.4	18.8	20.7	19.7	19.2	17.3	15.5	13.5	12.4	11.8	12.8
Fixed-to-mobile	100.0	94.5	86.8	77.9	76.4	68.0	62.2	49.0	42.8	37.7	35.7	32.8	30.0	26.0	23.6	19.3	17.2	14.9
All other business	100.0	93.7	87.8	79.5	75.8	69.3	65.4	53.5	49.4	45.1	42.6	41.8	39.9	36.6	34.5	31.7	29.8	29.5
PSTN business	100.0	94.7	88.5	80.3	77.7	73.2	72.0	69.9	64.0	60.5	58.0	57.1	54.4	50.1	47.2	45.6	43.5	42.5

Note: Base year is 1997-98.

Table A7 Points contribution to PSTN services indices by service, residential and business, 1998-99 to 2014-15

	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
PSTN:																	
Basic access	-0.2	1.9	3.3	3.7	3.7	2.2	1.8	-0.9	-0.5	-0.7	0.5	-1.0	-2.2	-0.7	0.4	-2.1	-1.5
Local calls	-0.1	-2.8	-5.0	-2.6	-0.8	-0.7	-1.4	-1.5	-0.9	-1.2	-0.3	-0.8	-0.8	-0.7	-0.2	-0.2	0.2
National long-distance	-1.6	-2.3	-1.5	-1.9	-0.9	-0.4	-0.5	-1.1	-1.7	-1.6	-1.0	-1.2	-1.0	-0.6	-0.3	-0.1	0.6
International	-2.3	-2.6	-1.5	-1.1	-0.4	-0.3	-0.2	-0.4	-0.2	-0.3	-0.1	-0.5	-0.5	-0.5	-0.6	-0.7	0.0
Fixed-to-mobile	-0.7	-1.3	-1.1	-0.7	-0.5	-0.5	-0.9	-2.7	-2.0	-1.8	-1.7	-2.3	-2.9	-2.4	-2.5	-2.0	-0.9
All PSTN	-5.0	-6.9	-5.9	-2.6	1.1	0.2	-1.2	-6.6	-5.4	-5.5	-2.6	-5.8	-7.3	-4.9	-3.2	-5.1	-1.6
PSTN residential:																	
Basic access	-0.1	2.3	3.7	4.4	5.1	2.5	2.6	-0.6	-0.1	-0.5	-0.1	-0.9	-2.2	-1.0	0.6	-2.7	-3.2
Local calls	-0.3	-3.3	-4.7	-2.4	-0.3	-0.8	-2.1	-1.5	-1.1	-1.3	-0.2	-0.8	-1.1	-0.5	-0.1	-0.1	0.5
National long-distance	-1.3	-2.6	-0.7	-1.9	-0.5	0.1	-0.3	-1.0	-2.2	-2.0	-0.9	-1.4	-0.3	-0.1	0.0	0.1	1.2
International	-2.5	-2.9	-1.6	-1.5	-0.3	-0.4	-0.2	-0.4	-0.3	-0.4	-0.2	-0.8	-0.6	-0.7	-0.9	-1.1	-0.1
Fixed-to-mobile	-0.4	-0.9	-0.2	-0.8	0.9	0.0	-0.3	-0.2	-1.8	-2.3	-1.7	-2.4	-2.7	-2.0	-2.6	-1.6	0.3
All residential	-4.7	-7.5	-3.5	-2.1	5.0	1.4	-0.3	-5.5	-5.4	-6.4	-3.1	-6.4	-6.9	-4.4	-3.0	-5.5	-1.2

PSTN business:																	
Basic access	-0.2	1.3	2.7	2.5	1.1	1.7	0.3	-1.5	-1.4	-1.0	1.6	-1.0	-2.1	-0.3	0.1	-1.1	1.1
Local calls	0.1	-2.2	-5.5	-2.9	-1.7	-0.4	-0.1	-1.5	-0.7	-1.2	-0.5	-0.7	-0.4	-1.0	-0.3	-0.4	-0.2
National long-distance	-2.1	-1.8	-2.5	-2.0	-1.7	-1.2	-0.9	-1.5	-1.0	-0.9	-1.0	-0.7	-1.9	-1.3	-0.7	-0.3	-0.3
International	-2.0	-2.1	-1.3	-0.4	-0.5	-0.2	-0.2	-0.2	-0.1	0.0	-0.1	-0.1	-0.3	-0.2	-0.2	-0.1	0.1
Fixed-to-mobile	-1.2	-1.8	-2.6	-0.5	-3.0	-1.5	-2.1	-3.9	-2.4	-0.8	-1.6	-2.1	-3.1	-2.9	-2.4	-2.7	-2.7
All business	-5.3	-6.5	-9.3	-3.2	-5.8	-1.6	-2.9	-8.6	-5.5	-4.0	-1.7	-4.7	-7.9	-5.7	-3.5	-4.7	-2.1

Notes: The sum of the components' points contribution may not add up to the net index change due to rounding.

Table A8 VoIP services index by service; 2012-13 to 2014-15

	2012-13	2013-14	2014-15
Basic access	100.0	91.8	86.8
Local calls	100.0	100.0	91.1
National long-distance	100.0	97.1	110.3
International	100.0	83.6	79.9
Fixed-to-mobile	100.0	95.2	90.3
All VoIP	100.0	93.4	89.5

Table A9 VoIP Points Contribution to VoIP index; 2014-15

	2013-14	2014-15
Basic access	-3.5	-3.0
Local calls	0.0	-0.6
National long-distance	-0.1	1.0
International	-1.4	-0.2
Fixed-to-mobile	-1.6	-1.3
All VoIP	-6.6	-4.2

Notes: The sum of the components' points contribution may not add up to the net index change due to rounding

Table A10 Mobile services index, 1997-98 to 2014-15

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Mobile services index	100.0	94.9	82.4	76.8	75.2	75.9	73.5	64.0	59.8	58.3	55.1	50.8	51.7	49.4	48.9	48.3	47.3	47.4

Table A11 Internet services index by network type and user group, 2006-07 to 2014-15

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
DSL:									
very low	100.0	98.6	99.0	97.7	97.0	97.9	97.2	96.6	96.4
low	100.0	99.1	98.8	98.2	97.6	96.7	96.1	95.5	95.2
average	100.0	99.5	99.3	98.7	98.1	98.5	97.9	97.4	97.2
high	100.0	98.7	98.5	98.4	97.7	97.0	96.6	96.5	96.0
very high	100.0	98.9	98.8	99.5	98.8	93.5	93.6	93.4	93.0
Cable:									
very low	100.0	97.6	99.2	100.2	99.5	99.3	98.1	97.5	99.2
low	100.0	99.1	98.9	98.0	97.3	97.1	96.0	95.0	92.2
average	100.0	99.1	98.9	98.0	97.3	97.1	96.0	95.4	95.2
high	100.0	99.1	98.8	98.0	97.3	97.1	97.2	97.2	96.3
very high	100.0	99.1	98.8	98.0	97.3	99.2	100.7	100.7	99.8
Wireless:									
very low		100.0	97.4	95.9	96.3	96.4	99.4	98.9	98.6
low		100.0	95.7	90.2	88.4	88.7	90.4	89.9	89.7
average		100.0	95.7	90.2	90.5	89.9	88.6	88.4	88.1
high		100.0	96.4	95.6	94.9	94.4	93.8	93.0	93.9
very high		100.0	96.4	95.5	94.0	96.3	95.2	94.6	95.0
NBN:									
very low							100.0	101.6	101.2
low							100.0	102.1	102.1
average							100.0	98.4	97.6
high							100.0	101.0	100.8
very high							100.0	101.5	99.4

Table A12 Points contribution to internet services index, 2007-08 to 2014-15

	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
DSL	-3.4	-0.2	-1.1	-2.0	-3.2	-1.2	-1.1	-0.9
Cable	-1.2	0.1	-0.2	-0.5	0.1	-0.2	-0.3	-0.4
Wireless	n/a	-3.2	-4.0	-0.9	0.5	0.6	-0.8	0.1
NBN Broadband							0.1	-0.1
All internet services	-6.2	-4.6	-4.9	-3.6	-2.7	-0.9	-2.2	-1.3

Notes: The sum of the components' points contribution may not add up to the net index change due to rounding and also due to the removal of dial-up component of the internet service index in 2013-14.

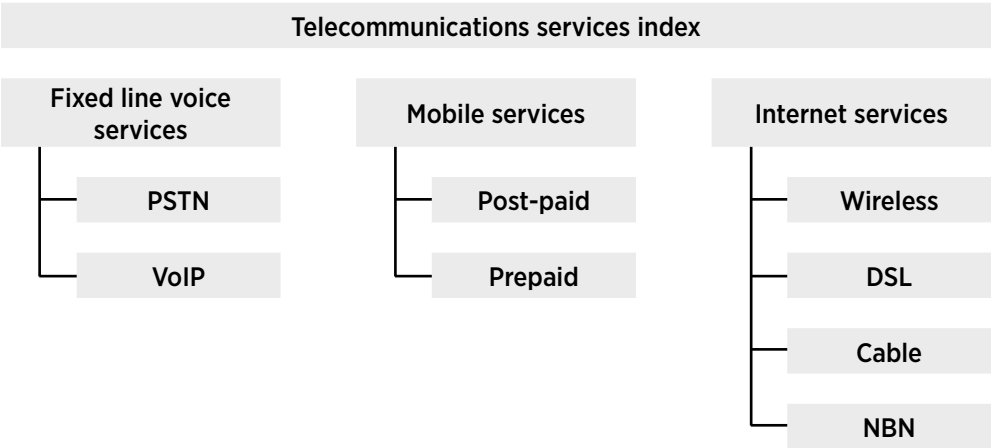
Appendix B: Methodologies for determining price change

B1 Index model

The ACCC uses a basket approach to measure the prices consumers pay for telecommunications services. This approach was originally developed by the Communications Research Unit (CRU) of the former Department of Communications, Information Technology and the Arts and has been applied for the purpose of this report since 1999–2000.

Under the basket approach, index numbers are used to indicate movements in the prices for a basket of telecommunications services. An index number measures the price of the services in one period relative to another. It reflects price changes over time, but not price levels. The price indices are constructed using revenue, quantity and pricing plan data collected by the ACCC from a number of telecommunications service providers. They are then aggregated to derive an overall index (figure B.1).

Figure B.1 The telecommunications services index and its sub-indices



The ACCC uses a different methodology to derive the price indices for fixed line voice access (comprising PSTN and VoIP services), to that used for the price indices for mobile services and broadband internet services. These methodologies are explained later in this chapter.

Changes to the composition of the indices and sub-indices are made from time to time, which should be taken into account when comparing the indices constructed in different time periods. The main indices in this report are:

- The fixed line voice services index has been part of the overall telecommunications index since the ACCC first commenced the Division 12 report in April 2001.³⁰ In 2014–15, this index consists of sub-indices for PSTN (from 1997–98 onwards) and VoIP services (from 2012–13 onwards).

³⁰ <https://www.accc.gov.au/publications/accc-telecommunications-report/accc-telecommunications-report-1996-97-to-1999-2000>

- The mobile services index has also been part of the overall telecommunications services index since April 2001. In 2014–15, the mobile services index consists of sub-indices for prepaid and post-paid services and reports real price changes for all mobile services (i.e. 3G, GSM, 4G and other mobile technologies).
- The internet services index was included as a component of the overall telecommunications service index in 2007–08. In 2014–15, the internet services index consists of sub-indices for DSL, cable, wireless and NBN internet services.

B1.1 The fixed line voice services index

The fixed line voice index comprises sub-indices for PSTN (from 1997–98 onwards) and VoIP services (from 2012–13 onwards). The change in PSTN and VoIP indices are weighted by their respective revenue shares and then aggregated to form the fixed line voice index.

The PSTN and VoIP indices are constructed separately using a yield approach to estimate prices consumers pay for particular PSTN/VoIP voice services. Company revenue and usage data are used to derive a yield, which is used as a proxy for the average price paid for a unit of that telecommunications service.

For PSTN/VoIP services, revenue and usage data for five PSTN/VoIP voice service components are reported by companies for each reporting period: basic access, local calls, national long-distance calls, international long-distance calls and fixed-to-mobile calls. Data on each of these services is also disaggregated into three consumer groups: residential, 'small' business and 'other' business consumers.³¹

Using these data, a yield is derived for every PSTN/VoIP voice service component by consumer group for each year. These yields are then converted into real terms³² and used to construct a series of price indices that show real price movements of individual PSTN/VoIP voice services for different consumer groups over time. These individual indices for each fixed line voice service by consumer group category are then weighted by revenue shares of those services and aggregated to derive indices for all PSTN/VoIP voice services used by these three consumer groups.

The three indices are then aggregated to form an overall index for PSTN/VoIP voice services for all consumers. As with all aggregated indices, the expenditure share of a service determines its relative importance in the overall index. For a given change in price, the index is influenced most by those services on which consumers as a group spend the most money.

The yield approach has some limitations. Prices calculated under the yield approach are influenced by how revenue is allocated across services and some issues may arise with respect to subscription plans and bundled products. This is because access charges for subscription plans also include a certain value of call services and service providers may follow different methods when attributing these charges. Similarly, for bundles, when providers attribute revenue to each component of the bundle (e.g. PSTN home phone and DSL broadband bundle), they may also use different methods to do so, which may cause inconsistency in revenue allocation.

B1.2 The mobile services index

The mobile services index measures prices paid by consumers for mobile services, which include both prepaid and post-paid services. Unlike the fixed line voice index, construction of the mobile services index does not rely on yield data. This reflects the differences in the

³¹ The categorisation of customer groups is determined by the reporting companies, and may differ across companies. While the delineation between residential and business customers is likely to be consistent across companies, there may be inconsistencies in how companies define 'small' and 'other' businesses. The ACCC considers that the sub-indices for residential and business customers are reliable and consistent, whereas information on small and other businesses should be treated as indicative only.

³² The nominal values are adjusted by using the Australian Bureau of Statistics (ABS) Consumer Price Index (CPI).

product and pricing structures of fixed line voice and mobile services. For example, it is less common to include handsets in a fixed line voice plan than it is with respect to mobile plans. However, the distinction is becoming less clear due to the increasing penetration of fixed line voice subscription plans.

The ACCC applies a plan approach for mobile services. This approach estimates price changes by determining the average spend of five types of customers and monitoring the change in price of the most appropriate plan for each group. Bill samples (385 bills for each reporting company) are used to construct average spend bundles consumed by 'very low', 'low', 'average', 'high' and 'very high' spend customers. The most appropriate plans are selected for those customer groups for each reporting period. Price changes are then estimated by comparing the prices of the chosen plans across time periods.

Separate post-paid and prepaid indices are constructed to compare the cost of each product type over time. These sub-indices are then aggregated using a revenue-weighting process to form an overall mobile services index.

As noted previously, a number of changes to the structure of the mobile service index were made in the past. This is to reflect changing market conditions. The mobile service index for 2007-08 included 3G services for the first time, while in 2008-09 CDMA services ceased to form part of the index due to service withdrawal. From the 2011-12 reporting period, mobile services are reported on an aggregated level instead of by mobile technology (GSM, 3G and 4G).

The plan approach has some limitations. Because a plan has a number of variables such as included call minutes, texts and data, the real value of the plan can vary from month to month independently of the nominal monthly price. Indeed, it has become common for carriers to maintain the nominal prices of their plans at certain price points (e.g. \$29, \$49, \$69) and instead change the inclusions of those plans.

Such changes to inclusions are not directly reflected in indices calculated using the plan approach. The only way that these changes can be reflected in the price indices would be if the changed inclusions meant that the methodology had to choose a higher or lower tiered plan for analysis of how the price changed from the previous period. For example, a reduction in included call minutes of a particular entry-level mobile plan may mean that it would no longer be the cheapest plan for the ACCC's 'very low' spend consumer profile. As a result, the price index would reflect the increase in price from the entry-level plan in Year 1 to a higher tiered plan in Year 2.

B1.3 Internet services index

The internet services index was introduced in 2007-08 and comprises sub-indices for wireless, DSL, cable and NBN internet services. Plans for residential consumer-grade services are monitored because they represent the vast majority of internet services.

The wireless, DSL, cable and NBN internet indices are calculated by comparing plan prices for those services observed at the beginning and end of the period for those service providers included in the study. Representative consumer profiles are developed for each service provider by expenditure quintile derived from bill samples. Average price changes for each consumer profile and service provider are then calculated, with price changes for each service provider weighted by its revenue share to give the net price movement for that service type. This approach has similar limitations to the one used for the mobile services index.

B1.4 Data inclusions for mobile and internet services

Data inclusions for mobile and internet services are included for the first time in this report (see chapters 3 and 4). These estimates were based on data collected for the Division 12 report as well as from a separate mobile retail pricing survey conducted by the ACCC.

The estimates were designed to give context to the observed price changes in mobile and internet services—as such, the method for calculating average data quotas was similar to that used for price indices in this report. Average data quotas were calculated for each provider, and for five representative consumer expenditure profiles that were derived from bill samples. The average data quotas for the various service providers were then aggregated, weighted by the revenue shares for each provider. The results are only indicative of changes in data quotas and would be sensitive to changes to methodology.

B2 Other methodology issues

B2.1 Real prices

Price changes in this report are derived using real prices, which are obtained by adjusting nominal prices for the effects of inflation using the CPI. The CPI is a measure of price increase (inflation)³³ for a fixed basket of goods and services comprising items bought by Australian consumers over a period of time. The Australian Bureau of Statistics (ABS) publishes the CPI each quarter.³⁴

For this report, the percentage change in the CPI (weighted average of eight capital cities) from June 2013 to June 2014 is used as a measure of general inflation (CPI) for 2014–15.³⁵ The ABS reported a 1.5 per cent increase in the CPI for this period.

This means that if the nominal price of a commodity did not change over 2014–15, there would be a decrease in the real price. For example, if the cost of internet plan A is \$100 in 2013–14 and \$100 in 2014–15 the nominal or unadjusted price change over time would be zero. However, given the CPI increase of 1.5 per cent, the real price of plan A is 1.5 per cent lower in June 2015 (\$98.50) than in June 2014.

Given the inflation rate of 1.5 per cent in 2014–15, the price indices of real price changes can be used to obtain a measure of the movement in nominal price levels as follows:

- If the real price index increased, or declined by less than 1.5 per cent, the nominal price level has increased
- If the real price index declined by 1.5 per cent, there is no change in the nominal price level
- If the real price index declined by more than 1.5 per cent, the nominal price level has decreased.

B2.2 The goods and services tax

The goods and services tax (GST) affects the prices paid by consumers for telecommunications services. This affects business and residential consumers differently. While business consumers can claim a GST input credit on telecommunications services, residential consumers cannot.

For this report, the estimated prices paid by business consumers for fixed line voice (PSTN and VoIP) services are GST-exclusive while those paid by residential consumers include GST. The prices for mobile services and internet services are GST-inclusive, as information is not available to estimate the proportion of these services used exclusively or partly for business.

³³ The inflation rate is the rate at which the general level of prices for goods and services is rising, and, subsequently, purchasing power is falling.

³⁴ The ABS notes in its catalogue that the CPI is a price index which is designed to provide a general measure of price inflation for all Australian households. However, ABS also notes that in practice, the index is constrained to only measure the changes in prices faced by private households living in the six State and two Territory capital cities.

³⁵ ABS, Catalogue 6401.0—Consumer Price Index, Australia, Sep 2014.

B2.3 Quality of service

Quality relates to those non-price attributes of a product or service, including performance, reliability and other non-price features. The estimates in this report do not take into account the effect of quality changes on price and consumer usage of the services because it is difficult to quantify such changes. This is particularly true for those sectors that undergo rapid technological changes (e.g. mobile and internet). In the telecommunications industry, innovation and competition continue to drive improvement in the quality of services (e.g. data rates, data download quotas). As a result, consumers may benefit from higher quality services rather than lower prices.

B2.4 Percentage changes and points contribution

The percentage changes used in this report are based on changes in the price indices constructed for each of the services analysed. A complete set of index numbers for the telecommunications services covered is included in the tables in appendix A. percentage changes are useful when summarising and analysing price movements over time.

The points contribution of an index component is the number of points that a component contributes to the net change in an index in a particular year. For example, analysis might show that, of a 10 per cent increase in the price index for a certain basket of services, 4 percentage points are due to an increase in the price of a given individual service. The points contribution for a component of a given index is calculated by multiplying the revenue share of the component in the basket comprising the index by the value of the index in a particular year. Analysis of points contribution shows the effects of different price changes within the basket on the index.

B2.5 Record keeping and reporting rule for the Division 12 report

Under s. 151BU of the *Competition and Consumer Act 2010*, the ACCC has the power to make an RKR by written instrument and require that carriers and carriage service providers comply with it. In December 2004 the ACCC implemented a record keeping and reporting rule (RKR) for the Division 12 report.

The ACCC has revised the Division 12 RKR from time to time to enable it to account for technological and market developments. The ACCC last revised the RKR in July 2013 to implement changes including a requirement for carriers to report on VoIP and broadband services provided over the NBN.

Table 8.1 shows which companies are currently required to report on fixed line voice, mobile and internet services under the Division 12 RKR.

Table B1 List of companies required to report under the Division 12 RKR³⁶

Category name	Reporting carriers and carriage service providers
Fixed line voice services information	Telstra, Singtel Optus, iiNet, TPG
Mobile services information	Telstra, Singtel Optus, VHA
Internet services information (including wireless, DSL, cable and NBN)	Telstra, Singtel Optus, iiNet, VHA, TPG

Further information about the Division 12 RKR is available on the ACCC website at www.accc.gov.au.

³⁶ The complete table is at Schedule A of the July 2013 Division 12 RKR.

ACCC contacts

ACCC Infocentre: business and consumer inquiries: 1300 302 502.

Website: www.accc.gov.au.

Translating and Interpreting Service: call 13 1450 and ask for 1300 302 502.

TTY users phone: 1300 303 609.

Speak and Listen users phone 1300 555 727 and ask for 1300 302 502.

Internet relay users connect to the NRS (see www.relayservice.com.au and ask for 1300 302 502).

ACCC addresses

National office

23 Marcus Clarke Street
Canberra ACT 2601

GPO Box 3131
Canberra ACT 2601

Tel: 02 6243 1111

New South Wales

Level 20
175 Pitt Street
Sydney NSW 2000

GPO Box 3648
Sydney NSW 2001

Tel: 02 9230 9133

Victoria

Level 35
The Tower
360 Elizabeth Street

Melbourne Central
Melbourne Vic 3000

GPO Box 520
Melbourne Vic 3001

Tel: 03 9290 1800

Queensland

Brisbane

Level 24
400 George Street
Brisbane Qld 4000
PO Box 12241
George Street Post Shop
Brisbane Qld 4003

Tel: 07 3835 4666

Townsville

Suite 2, Level 9
Suncorp Plaza
61-73 Sturt Street
Townsville Qld 4810

PO Box 2016
Townsville Qld 4810

Tel: 07 4729 2666

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Level 2
19 Grenfell Street
Adelaide SA 5000

GPO Box 922
Adelaide SA 5001

Tel: 08 8213 3444

Western Australia

3rd floor, East Point Plaza
233 Adelaide Terrace

Perth WA 6000
PO Box 6381
East Perth WA 6892

Tel: 08 9325 0600

Northern Territory

Level 8
National Mutual Centre
9-11 Cavenagh St
Darwin NT 0800

GPO Box 3056
Darwin NT 0801

Tel: 08 8946 9666

Tasmania

Level 2
Telstra Building
70 Collins Street
Hobart Tas 7000

GPO Box 1210
Hobart Tas 7001

Tel: 03 6215 9333